On the Origin of the Slavic Aspects: Aorist and Imperfect*

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Abstract. This article presents a sketch of the prehistorical development of the Common Slavic preterital imperfect/aorist category. The methods of internal analysis and linguistic geography are applied to mostly well-established data in order to reconstruct major elements of this development, in particular the relative chronology of the main morphological changes, correlations with well-known Common Slavic phonological changes, as well as correlations of regional morphological differences with major phonological isoglosses. The results contribute to our understanding of the development of Common Slavic and its dialectal differentiation in the period of the "Slavic migrations".

1.1. Introduction: The Old Slavic Aspects

The tense-aspect system reflected in Old Church Slavonic and other Old Slavic texts comprises a single tense distinction, preterite/present, and five aspectual distinctions (Andersen 2009a).[1] First of all, (i) there is the overarching category of perfective/imperfective and (ii) the determinate/indeterminate category, which is only relevant to imperfective motion verbs. Both of these categories interact in significant ways with actionality ("lexical aspect"). (iii) The imperfect/aorist category is relevant in the preterite. (iv) The retrospective/absolute category sub-

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[1] I adopt the definitions of tense and aspect of Jakobson (1957/1971) as well as Jakobson's distinction between generic grammatical categories (tense, aspect) and specific categories such as the aspect categories mentioned in the following paragraph; see also Comrie 1976, Plungjan 2011: 377–422.

sumes the traditional "pluperfect" and "perfect" as against "imperfect", "aorist", and "present". Finally, (v) the prospective/actual category ("future") in some Slavic regions is limited to the present tense, while in others it includes a preterite ("future in the past"); in some regions the prospective present combines with the retrospective in the traditional "future perfect" (Vaillant 1966: 106–10; Andersen 2006).

The prehistorical development of this articulate aspect system poses interesting questions, many of which have a bearing on the dialect differentiation of Common Slavic around the time of the Slavic territorial expansion.

These questions have not been posed in traditional comparative Slavic linguistics. The main reason for this is surely the longstanding, erroneous identification of Old Church Slavonic (OCS) as a kind of Proto-Slavic ("Urslavisch"), which has entailed the view that this supposed protolanguage is best explicated with direct reference to Proto-Balto-Slavic or Proto-Indo-European (PIE), and which has tended to define the study of prehistorical Slavic morphology as a search for etymologies of individual morphemes.[2]

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[2] *Notational conventions*. Attested word forms are in italics. Reconstructed wordforms are written without asterisk and in normal font; their labeling (PIE, ECS, CS, LCS; see below) makes it clear they are reconstructed. The names of reconstructed verbal categories will be asterisked; thus *imperfect refers to a prehistorical category, whereas imperfect refers to an attested category. Here, too, labeling will be used (e.g., ECS, LCS vs. OCS).

Abbreviations. The following abbreviations will be used: ChS (Church Slavic), Cloz (Clozianus), CS (Common Slavic), dial. (dialect, dialectal), ECS (Early Common Slavic), E (east, eastern), ES (East Slavic), Gk. (Greek), LCS (Late Common Slavic), Lat. (Latin), Li. (Lithuanian), Mar (Marianus), OCS (Old Church Slavonic), OCz. (Old Czech), OPr (Old Prussian), OR (Old Russian), OS (Old Slavic), PIE (Proto-Indo-European), Ps (Psalterium sinaiticum), R (Russian), S (south, southern), SS (South Slavic), W (west, western), WS (West Slavic).

Definitions. Forms labeled ECS and CS represent different reconstructed stages in deeper and more recent prehistory. Forms labeled LCS correspond *grosso modo* to the traditional "Proto-Slavic" notation showing the qualitative differentiation of CS long and short vowels. Where necessary, LCS forms will be specified as to dialect. *Old Slavic* refers to attested stages of medieval Slavic, including OCS, that reflect the medieval tense-aspect system. For the West and East Slavic varieties, the criterion here is maintenance of the Imperfect/Aorist distinction, which is lost at different times. Apart from OCS, the varieties of Old Slavic are attested mainly in ChS texts from Bulgaria, Serbia, and Croatia (1200s–1400s), in OCz. texts through the 1300s, and in ES ChS and

In the study of Common Slavic phonology the interest in mere correspondences has long since given way to a study of the prehistory of the phonological system as a gradually changing structure. A similar approach should be possible in morphology. The Slavic aspect system is perhaps a particularly fruitful topic for such a study in view of its relatively well-defined, alternating drifts of reduction and elaboration; see section 1.2.

In the following pages I will apply the methods of internal reconstruction and linguistic geography to largely well-established facts of early Slavic conjugation with the aim of sketching a chronological account of the origin of the imperfect/aorist aspect. This is a small part of the prehistorical development from PIE to LCS, but the imperfect/aorist aspect holds a central place in this development and may be a good place to begin.

1.2. Overview

Viewed in a larger chronological perspective, the prehistorical development of Slavic aspect categories can be divided into three overlapping phases.

In the first phase the aspect system inherited from PIE goes through a step-wise reduction. (i) The *stative aspect (the reconstructed PIE "perfect") is degrammatized, leaving substantial lexicalized vestiges (Vaillant 1966: 75–80). (ii) The *prospective aspect (the inherited "future") is lost, almost without a trace (Vaillant 1966: 103–6). (iii) The *aorist indicative (the inherited "aorist") merges with the inherited *imperfect into a CS *preterite; but while the *aorist is lost as an aspect, its morphological expressions are (in part) retained as *preterite forms.

During this first phase, (iv) analytic expressions of *telic aspect (traditionally, terminativity, R *predel'nost'*) are innovated; after their grammation, adverbial telicity markers develop from words to clitics to prefixes (see Ivanov 1965: 202–27 and Pinault 1995).

In the second phase, *progressive ("durative", "iterative") verbs are formed from simplex and prefixed *telic verbs to express *atelicity. Eventually *telic action verbs and their *atelic counterparts are reana-

vernacular texts till the 1200s; see Schenker 1995: 193–239 and Schenker and Stankiewicz 1980.

lyzed as perfective/imperfective verbs. Other *telic verbs become perfective procedurals, and *atelic verbs, mainly imperfectiva tantum (Maslov 1959/2004).

In the third phase, the other aspects known from Old Slavic texts are grammatized: imperfect/aorist, determinate/indeterminate, retrospective/absolute, prospective/actual (Andersen 2006a, 2009).

1.3. Time and Space

In a chronological account of the development of language categories, changes can be interpreted in two chronological perspectives. There is an internal one—relative chronology—in which a grammatical change may be dated relative to another grammatical change or relative to a phonological change. And there is an external perspective in which it may be possible to relate a given change to an actual date, precise or approximate. There is a third perspective that can provide information regarding chronology, viz., the dimension of space: the areal extent of an innovation may justify inferences about its approximate relative or absolute date.

Needless to say, questions of dating are of some interest in historiography, and particularly so when it comes to events in prehistory, where firm dates are hard to come by. The CS aspect system developed in part during the territorial expansion of Slavic. This makes it especially interesting to try to connect the linguistic innovations with external reality, such as it is known.

2. The Imperfect/Aorist Aspect

The creation of the LCS imperfect/aorist aspect is in several ways a difficult topic. The morphological composition of the new imperfect has long been recognized as debatable (see Arumaa 1985: 283–95 and Hock 2005: 23). But the diachronic background of the aorist is problematic as well, or at least it calls for a somewhat subtle treatment (see Arumaa 1985: 295–308). For while some morphological elements are maintained from the ECS *aorist and *imperfect to the attested Old Slavic aorist, others are lost or reanalyzed.

2.1. The CS *Preterite

Briefly put, the ECS *imperfect and *aorist, with their several inflectional subtypes, merge into a single CS *preterite. At a later point, innovated CS *imperfect forms take over some of the *preterite's functions. As a new LCS *imperfect is grammatized, the *preterite is reanalyzed as its LCS *aorist counterpart; see Figure 1. The categorial development ECS *aorist (aspect) > CS *preterite (tense) > LCS *aorist (aspect) > OS aorist is accompanied by a series of morphological changes. The earliest of these manifest the formation of the amalgamated CS *preterite; the later ones, the change from the CS general *preterite to LCS aorist.

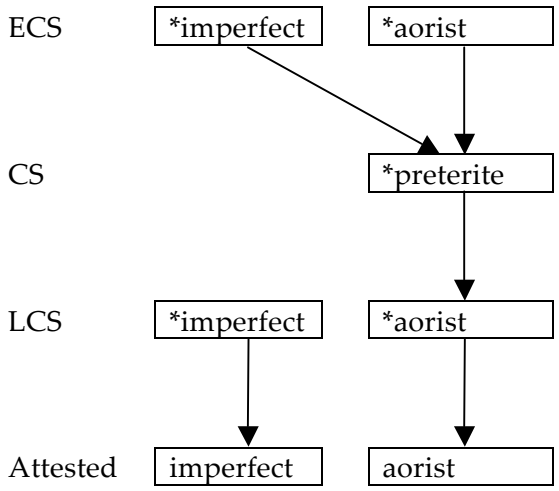

Figure 1. Aspect Categories in the Preterite, from CS to Attested Old Slavic

We will begin by reviewing some background information on the inflection of the inherited ECS *aorist and the formation of the CS *preterite (section 2.2). Next comes an account of the merger with the ECS *imperfect (section 2.3) and its morphological manifestations, which are partly different in South and East Slavic and in West Slavic (section 2.4). Some relevant accentological particulars will be mentioned in section 2.5.

2.2. Background

Early Common Slavic had inherited from PIE two tense-aspect categories that had past-time reference: the progressive-aspect *imperfect and the indefinite-aspect *aorist. In the absence of ancient CS texts, the functions of these prehistorical categories can only be guessed at. It is possible that ECS *aorist and *imperfect were at one time somewhat like the corresponding categories of Ancient Greek (Rijksbaron 1994: 11–21), whose narrative functions were rather similar to those of the Old Slavic aorist and imperfect (see Dostál 1954: 598–602, Galton 1962: 47–58, Kuznecov 1959: 190–202, van Schooneveld 1959: 17–58, Dostál 1967: 192–94). Or perhaps they had developed a usage like that in Vedic Sanskrit, where the aorist tends to refer to individual situations and the immediate past, and the imperfect tends to emphasize continuance and refer to the mythical past, but generally with considerable overlap in functions between the two (see Gonda 1962: 260). Whatever the eventual differences in Slavic, we can infer that at some point in time *aorist and *imperfect became referentially synonymous, and the paradigms of wordforms that had expressed them became stylistic variants.

The *aorist had several variant paradigms. First, there were two types of aorist stems ending in a vowel or sonorant: Type A suffixed in CS -ā-, -ē-, -ī-, and -nū(n)-, e.g., CS sul-ā– 'send', pis-ā– 'paint-, sēd-ē– 'sit', dail-ī– 'divide', mī-nū(n)– 'pass'; and Type B unsuffixed, e.g., CS bī- 'strike', mū- 'wash', sē- 'sow', znā- 'know', lēi- 'pour', slau- 'be known', pen- 'stretch'. These had acquired the "sigmatic" *aorist endings of Type C, which were composed of an *aorist-aspect marker -x- (alternating with -s- and -Ø-) and secondary desinences; see Table 1. The extension of the -x- suffix to these *aorist types is perhaps symptomatic of its saliency, but it suggests as well that the inherited *aorist suffixes (CS -ā-, -ē-, -ī-, and -nū(n)-) had become the meaningless conjugation-class markers we know from the attested Slavic languages.

Table 1. Primary and Secondary Desinences,
Athematic (a) and Thematic (t)

ECS	1sg	2sg	3sg	1pl	2pl	3pl	1du	2du	3du
Primary	-mi	-xei/-sei	-ti	-mas	-te	-nti	-wē	-tā	-te
thematic	-ā-m	-e-xei	-e-ti	-a-mas	-e-te	-a-nti	-a-wē	-e-tā	-e-te
Secondary	-m/-im	-s	-t	-mas	-te	-nt/-int	-wē	-tā	-te
thematic	-a-m	-e-s	-e-t	-a-mas	-e-te	-a-nt	-a-wē	-e-tā	-e-te

Secondly, there were two classes of obstruent-final stems. Type C, the inherited sigmatic (athematic) *aorist, had a lengthened root vowel and endings composed of -x- (alternating with -s- and -Ø-; see Table 2; also section 2.4.2) and secondary desinences; it is typified by ECS wed-ām$_{PRS.1SG}$ 'lead' vs. wēd-s-im$_{*AOR}$, rek-ām$_{PRS.1SG}$ 'say' vs. rēk-x-im$_{AOR}$. Type D, the (asigmatic) thematic *aorist had endings consisting of the "thematic" interfix -a- (before sonorant, otherwise -e-) followed by secondary desinences. It is reflected in two groups of verbs in OCS, typified by *pad-õ*$_{PRS.1SG}$ 'fall' vs. *pad-ŭ*$_{AOR}$ (Class I) and *dvig-n-õ*$_{PRS.1SG}$ 'move' vs. *dvig-ŭ*$_{AOR}$ (Class II).

Table 2. ECS *Aorist/*Preterite Types

Type	A	B		C		D
1sg	sul-ā-x-im	bī-x-im	sē-x-im	wēd-s-im	rēk-x-im	pād-a-m
2sg	sul-ā-s-s	bī-s-s	sē-s-s	wēd-s-s	rēk-s-s	pād-e-s
3sg	sul-ā-s-t	bī-s-t	sē-s-t	wēd-s-t	rēk-s-t	pād-e-t
1pl	sul-ā-s-mas	bī-Ø-mas	sē-s-mas	wēd-s-mas	rē-Ø-mas	pād-a-mas
2pl	sul-ā-s-te	bī-s-te	sē-s-te	wēd-s-te	rēk-s-te	pād-e-te
3pl	sul-ā-x-int	bī-x-int	sē-x-int	wēd-s-int	rēk-x-int	pād-a-nt
1du	sul-ā-s-wē	bī-s-wē	sē-s-wē	wēd-s-wē	rēk-s-wē	pād-a-wē
2du	sul-ā-s-tā	bī-s-tā	sē-s-tā	wēd-s-tā	rēk-s-tā	pād-e-tā
3du	sul-ā-s-te	bī-s-te	sē-s-te	wēd-s-te	rēk-s-te	pād-e-te

2.3. The Merger

There were several variant ECS *imperfect paradigms.

One of these had endings identical to the Type D *aorist endings, a thematic CS -a- ~ -e- followed by secondary desinences. Originally such *imperfect forms had the same stem as the present tense and dif-

fered only by their desinences. By contrast, the corresponding *aorist would differ in root vowel or stem affix or both. Consider the patterns in Greek: *léip-ō*$_{PRS}$ 'leave behind', *é-leip-on*$_{IPF}$ vs. *é-lip-on*$_{AOR}$ (apophony) or *la-n-th-án-ō*$_{PRS}$ 'avoid notice', *e-lá-n-th-an-on*$_{IPF}$ vs. *é-lath-on*$_{AOR}$ (present infix and suffix). These are the patterns one finds in Slavic Class I verbs, e.g., ECS beud-ām$_{PRS}$ vs. bēud-s-im$_{*AOR}$ 'observe' (apophony, aorist suffix), mir-ām$_{PRS}$ vs. mer-x-im$_{*AOR}$ 'die' (apophony, aorist suffix), le-N-g-ām$_{PRS}$ vs. leg-a-m$_{*AOR}$ 'lie down' (present *n*-infix); in Class II verbs, e.g., ECS dwīg-n-ām$_{PRS}$ vs. dwīg-a-m$_{*AOR}$ 'move' (present *n*-suffix); in Class III verbs, e,g. peis-j-ām$_{PRS}$ vs. pis-ā-x-im$_{*AOR}$, 'paint' (apophony, different suffixes) (see Krasuxin 2009).

In attested Slavic it is not easy to distinguish between ECS *aorist and *imperfect stems. The clearest indications of ECS *imperfects are in verbs that have the same suffixed stem in the attested aorist and the present. Thus we can surmise that the *d*-suffixed aorist stems which recur in the present tense but not in the infinitive are earlier *imperfects, e.g., LCS jĭ-d-õ$_{PRS}$, jĭ-d-ŭ$_{AOR}$ vs. i-ti 'go'; jě-d-õ$_{PRS}$, jě-d-ŭ$_{AOR}$ vs. jě-ti 'ride'. Possibly, in the group of Class II verbs that retained the nasal suffix in the LCS aorist, this was originally an ECS *imperfect suffix (Stang 1957: 131), e.g., CS tap-n-ām$_{PRS}$ vs. tap-nū(n)-x–$_{*AOR}$ 'drown', LCS to-n-õ$_{PRS}$ vs. to-nõ-x–$_{*AOR}$. As another example of a LCS aorist reflecting an earlier *imperfect one can mention LCS mog-õ$_{PRS}$, mog-ŭ$_{AOR}$ 'be able', erstwhile present and *imperfect formed from a PIE *stative-aspect stem (Vaillant 1966: 77).

In addition, there were several groups of verbs that formed the *imperfect with the suffixes -ā- and -ē-, which were accentually distinct from the (acute) -ā- of the ECS pis-ˈā-tei type (Class III) and -ē- of the sēd-ˈē-tei type (Class IV.B). The ECS -ā- and -ē- suffixes have counterparts in Baltic, in part in related lexemes. A small group of likely -ā- *imperfects are reflected in the Class I and III verbs that have a mobile accent in the *l*-participle, e.g., R *ždú* vs. *ždalá*, *ždáli* 'wait', *rvú*, *rvalá*, *rváli* 'tear', *berú*, *bralá*, *bráli* 'take', *derú*, *dralá*, *dráli* 'skin', contrast *šljú*, *slála* 'send', *ržú*, *ržála* 'neigh', *sosú*, *sosála* 'suck' (Stang 1957: 136, 144). No Slavic aorists are attested with the ECS *imperfect -ē- suffix, but its existence in prehistory is strongly implied by the formation of the LCS *imperfect (see section 3.2), which includes an interfixed -ē-, e.g., CS nes-tei$_{INF}$, nes-ē-jā–$_{IPF}$ 'carry', pras-ī-tei$_{INF}$, pras-ē-jā–$_{IPF}$ 'ask' (S dial. pras-j-ē-jā–$_{IPF}$; see section 3.3). These -ē- *imperfects would correspond to Baltic preterites, e.g., Li. *neš-ti*$_{INF}$, *neš-ė*$_{PRT}$ 'carry', *praš-y-ti*$_{INF}$,

praš-ė$_{PRT}$ 'ask'. They would have been eliminated (as *preterites) (i) when *aorist Types C and D were generalized in the *preterite of consonant stems; e.g., ECS nes-ē– > CS nēs-s–$_{*PRT}$; see section 2.4; and (ii) the *preterite formation of Type A ī-verbs like dail-ī-tei$_{INF}$, dail-ī-x–$_{*PRT}$ was generalized for all ī-verbs, e.g., ECS pras-ī-tei$_{INF}$, pras-ē–$_{*PRT}$ > CS pras-ī-x–$_{*PRT}$.

It has been suggested that there was no merger of the ECS *aorist and *imperfect, but that the *imperfect was simply lost (Ackermann 2009). Leaving aside the accentual evidence against this idea (section 2.4.5), this is an inaccurate way of stating the diachronic outcome, for the result of the development was the degrammation of an aspect distinction and the retention of a tense distinction. Besides, to understand any change it is not enough to state its outcome. To understand it in detail one needs to conceptualize each change as an actual historical event, or a cluster of historical events. In this instance, one can hypothesize that *aorist and *imperfect wordforms became referentially synonymous, that is, they lost their aspect difference and merely referred to the past. Such a change could for some time have been limited to certain functional styles, while in more conservative styles their forms were stylistic covariants. For parallels, consider the modern development of the French *passé simple* vs. *passé composé* distinction (Grevisse 1961: 637, §720; Galton 1962: 57; Maslov 1964/1984), or the similar development of aorist vs. perfect in medieval Russian (Maslov 1964/1984; Klenin 1993). It is during such a posited development that some original *imperfect desinences could have been extended to replace *aorist desinences, and some whole *imperfect wordforms could have been integrated with *aorist wordforms to form the heteroclitic *preterite paradigms we know from the aorists in Old Slavic texts, as will be detailed in section 2.4.

2.4. Changes in the CS *Preterite

We can define a series of changes in the morphology of the CS *preterite. Their effect is to gradually reduce the differences among the variant inflectional paradigms of the former *aorist and *imperfect and amalgamate them into a single paradigm, thereby reflecting their functional unity.

2.4.1. The First Persons

The first-person desinences of the Type A–C paradigms (CS -im$_{1SG}$, -mu$_{1PL}$, -wē$_{1DU}$) were replaced with Type D endings, thematic vowel + desinence, viz. CS -a-m$_{1SG}$, -a-mu$_{1PL}$, -a-wē$_{1DU}$ (LCS -ŭ, -omŭ, -owě); see Table 3, column b on the next page. In the 1sg desinence, this change reduced the allomorphy ({-a-m ~ -im} > -a-m) and perhaps also avoided homonymy with CS -int$_{3PL}$. In the 1pl desinence, the change facilitated a reduction of the allomorphy in the *preterite marker ({-Ø- ~ -s- ~ -x-} > {-s- ~ -x-}), e.g., bī-Ø-mu > bī-x-a-mu, rē-Ø-mu > rē-x-a-mu. Note that it is assumed in Table 2 above that /x/ was regularly lost before sonorant, cf. CS gī-xl-ā (Li. *gýsla*), LCS žila, CS lauk-xn-ā (OPr. *lauxnos*), LCS luna, similarly CS bī-x-mu > bī-Ø-mu (Reinhardt 1992: 377). In the 1du desinence, the change reduced allomorphy between 1du and the other first persons. The outcomes of the changes are seen in, e.g., LCS wěs-ŭ$_{1SG}$, wěs-omŭ$_{1PL}$, wěs-owě$_{1DU}$, rěx-ŭ$_{1SG}$, rěx-omŭ $_{1PL}$, rěx-owě$_{1DU}$; see Table 3, column b.

2.4.2. Second and Third Person Singular

The 2–3sg forms of the sigmatic Type C *preterite were replaced with Type D *preterite wordforms; see Table 3, column c. It is thought that this development occurred close to the CS loss of syllable codas and was motivated by their gradual elimination. It is reasonable to suppose that at this stage word final obstruents were omitted unless they could be linked to a following initial vowel. CS was then similar to modern (or, better, classical) French in having an extensive system of word sandhi (*liaison*) in which a single word-final obstruent would be elided before a word-initial consonant but would serve as onset for a word-initial vowel (Stang 1942: 64; Vaillant 1966: 56). At this stage, original *imperfect, Type D forms that had simple alternations such as CS 3sg wed-e ~ wed-e-t, reč-e ~ reč-e-t would have been preferred to stylistic covariants that had alternations between shorter stems and complex final obstruent clusters, e.g., CS 3sg wē ~ wēd-s-t, rē ~ rēk-s-t. A few athematic 2–3sg *preterite wordforms are attested, e.g., OCS *izě* 'ate' for CS iz-ēs-t$_{PRT.3SG}$ (Diels 1963: 280), OCz. *zzie* (i.e., *zě*), *ſnye* (i.e., *sně*) for CS iz-ēs-t$_{PRT.3SG}$, sun-ēs-t$_{PRT.3SG}$ (Gebauer 1958: 121). They show how 2–3sg Type C *preterite forms looked before this morphostylistic renewal of forms. In a few instances the elidable final segments were

preserved by a paragogic vowel, thus CS ēs-t+u$_{PRT.2–3SG}$, OCS *ěstŭ*$_{AOR.2–3SG}$ 'ate' (Arumaa 1985: 273).

Table 3. ECS *Aorist > *Preterite. Changes in Type C vs. Type D

CS	Type C *s*-aorist		Final *s*-aorist	Type D
	a.	b.	c.	d.
1sg	wēd-s-im	wēd-s-a-m	wēd-s-a-m	id-a-m
2sg	wēd-s-s	wēd-s-s	wed-e-s	id-e-s
3sg	wēd-s-t	wēd-s-t	wed-e-t	id-e-t
1pl	wēd-s-m-u	wēd-s-a-m-u	wēd-s-a-m-u	id-a-m-u
2pl	wēd-s-te	wēd-s-te	wēd-s-te	id-e-te
3pl	wēd-s-int	wēd-s-int	wēd-s-int	id-a-nt
1du	wēd-s-wē	wēd-s-a-wē	wēd-s-a-wē	id-a-wē
2du	wēd-s-tā	wēd-s-tā	wēd-s-tā	id-e-tā
3du	wēd-s-te	wēd-s-te	wēd-s-te	id-e-te

2.4.3. The Extended Aorist

After this replacement of 2–3sg stems, the -o- stem of the Type D *preterite was extended to the remaining persons of both Type C and Type D paradigms (see Table 4) to host endings beginning with the preterite marker -x/s- parallel to the vocalic stem Types A and B, e.g., LCS wed-o-x-ŭ$_{1SG}$, wed-o-x-o-mŭ$_{1PL}$, wed-o-s-te$_{2PL}$, wed-o-š-ẽ$_{3PL}$, etc., jĭd-o-x-ŭ$_{1SG}$, jĭd-o-x-o-mŭ$_{1PL}$, jĭd-o-s-te$_{2PL}$, jĭd-o-š-ẽ$_{3PL}$, etc. The forms with extended endings superseded the Type C *preterite forms with vowel lengthening (Table 2, column C; Table 3, column c; Table 4, column b) as well as the traditional forms of the Type D *preterites (Table 2, column D; Table 3 column d; Table 4 column d). This development effectively leveled all differences between Types C and D. The use of the interfix variant LCS -o- in the new, extended endings seems to imply a reanalysis of the interfix allomorphy in Type D: -e- before nonsyllabic desinence, otherwise -o-; contrast Type D in section 2.2. It is likely that this last change was motivated by the emergence of the LCS *imperfect vs. *aorist distinction.

Table 4. CS and LCS Received and Extended Aorist Paradigms

	a. Sigmatic aorist		b. Extended	c.Thematic aorist		d. Extended
	CS	LCS		CS	LCS	
1sg	wēd-s-a-m	wěsŭ	wedoxŭ	id-a-m	jĭdŭ	jĭdoxŭ
2sg	wed-e-s	wede	wede	id-e-s	jĭde	jĭde
3sg	wed-e-t	wede	wede	id-e-t	jĭde	jĭde
1pl	wēd-s-a-m-u	wěsomŭ	wedoxomŭ	id-a-m-u	jĭdomŭ	jĭdoxomŭ
2pl	wēd-s-te	wěste	wedoste	id-e-te	jĭdete	jĭdoste
3pl	wēd-s-int	wěsẽ	wedošẽ	id-a-nt	jĭdõ	jĭdošẽ
1du	wēd-s-wē	wěsowě	wedoxowě	id-a-wē	jĭdowě	jĭdoxowě
2du	wēd-s-tā	wěsta	wedosta	id-e-tā	jĭdeta	jĭdosta
3du	wēd-s-te	wěste	wedoste	id-e-te	jĭdete	jĭdoste

2.4.4. West Slavic

The three changes described in section 2.4 are pan-Slavic, but the last of them produced distinct outcomes in West Slavic dialects. There, in almost all known dialects, the thematic interfix with which the stems were extended was not LCS -o-, but the LCS -e- of 2–3sg. Thus for OCS sg. *ved-o-x-ŭ*, *ved-e*; pl. *ved-o-x-o-mŭ*, *ved-o-s-te*, *ved-o-š-ẽ*, etc., the West has LCS dial. sg. wed-e-x-ŭ, wed-e; pl. wed-e-x-o-mŭ, wed-e-s-te, wed-e-x-õ (with the generalized 3pl desinence -õ) (see Gebauer 1958: 51; Klemensiewicz, Lehr-Spławiński, and Urbańczyk 1964: 368).

It should be recalled in this connection that at some time in prehistory Common Slavic had generalized the thematic interfix -e- in the present tense of Classes I–III, outside of 1sg and 3pl; thus OCS *ved-e-mŭ*$_{PRS.1PL}$, *ved-e-vě*$_{PRS.1DU}$ for presumably inherited ECS wed-a-mas, wed-a-wē, just as in the Type D *aorist (Table 3, column d). Hence in East and South Slavic the extended *preterite endings established a contrast between present and *preterite theme vowels (present -e- vs. aorist -e- ~ -o-), whereas West Slavic created a parallelism (present -e-, aorist -e-).

2.4.5. Accent in the CS *Preterite

The merger of *aorist and *imperfect wordforms in the *preterite inflection had a significant accentual perspective, which will be illustrated here with a small selection of examples. For the full corpus of

relevant verbs and the textual data on which their reconstructions are based, I refer to Dybo 2000 (366–76, 480–650; see also Belić 1962: 105–10, Stang 1957: 128–37). In the interpretation of the accent paradigms I follow the theory of Olander (2009); in the CS notation, accent is marked ˈ, and the automatic initial ictus of accentless wordforms (also known as *enclinomena*) is marked ˌ.

Type D *preterites had a columnar accent on the root vowel if it was long, otherwise on the syllable after it (CS lˈēz-a-m$_{*PRT.1SG}$, lˈēz-e-t$_{3SG}$ ‘climb’; mog-ˈa-m$_{*PRT.1SG}$, mog-ˈe-t$_{3SG}$ ‘can’; LCS lězŭ – lěze, mogŭ – može).

By contrast, the merged Type C *preterites (section 2.4.2, Table 3, column c) had a “mobile” accent, alternating either between accent on a long root vowel in the sigmatic forms and no accent in the thematic forms (CS klˈād-s-a-m – ˌklād-e-t ‘lay’; grˈūz-s-a-m – ˌgrūz-e-t ‘gnaw’; LCS klasŭ – klade, grysŭ – gryze) or between accent on the vowel following a short root vowel and no accent in the thematic forms (CS wenz-s-ˈa-m – ˌwenz-e-t ‘bind’; rēk-x-ˈa-m – ˌrek-e-t ‘speak’; LCS wẽsŭ – wẽze, rěxŭ – reče).

Similar alternations are found in Type B *preterites; e.g., columnar accent (CS gˈēn-s-a-m$_{1SG}$ – gˈēn-t$_{3SG}$ ‘harvest’; tˈīr-x-a-m – tˈīr-t ‘rub’; LCS žẽsŭ – žẽ, tĭrxŭ – tĭr) vs. “mobile” (CS pen-s-ˈa-m – ˌpen-t+u ‘stretch’; mer-x-ˈa-m – ˌmer-t+u ‘die’; LCS merxŭ – mertŭ, pẽsŭ – pẽtŭ). Although Type B *preterites are basically sigmatic (section 2.2), their accentless 2–3sg forms are asigmatic; this can be seen thanks to the paragogic vowel (here written +u) added to the 3sg secondary desinence; contrast the -s-t+u of CS ēs-t+u$_{PRT.2–3SG}$ ‘ate’, OCS *ěstŭ*$_{AOR.2–3SG}$ in section 2.4.2.

The same accent paradigms are found in Type A *preterites, but for the sake of brevity we will stay with the unsuffixed Types B and C.

The alternation between root accent and no accent, as in CS klˈād-s-a-m – ˌklād-e-t, grˈūz-s-a-m – ˌgrūz-e-t, is not found anywhere in Slavic inflection except in the innovated Type C and B *preterites. Normally accentless wordforms are found in alternation with word-final accent, as is familiar from the nominal system, e.g., CS galwˈā, ˌgalwām, ˌnā=galvām, R *golová*, *gólovu*, *ná golovu*. Indeed CS accentless wordforms develop regularly from ECS end-accented wordforms (see Olander 2009: 155–98, Andersen 2009b). The presence of accentless wordforms alternating with root-accented wordforms in the innovated *preterite inflection fits perfectly with the understanding that the

prt.2–3sg wordforms are former *imperfects, thematic in Type C, and athematic in Type B *preterites.

These new "mobile" accentual paradigms were quite compatible with the morphophonological type of Common Slavic, where accent alternations played a prominent role. Accent properties correlated with inflectional patterns, as with Types C and D *preterites above. In some verb types accent properties conditioned participial morphology (Stang 1957: 149–51; Dybo 2000: 517–35), in others it was the presence or absence of a paragogic vowel in 2–3sg, as we saw above. Some verb types had one accent paradigm in one part of a verbal macroparadigm and another elsewhere (Dybo 2000: 541–45). Seen against this background, it appears that the heteroclitic *preterite inflection that arose through the merger of *aorist and *imperfect paradigms was mirrored (iconically represented) by the unusual accentual alternations that accompanied it.

3. The CS Imperfect

The earliest identifiable CS elaboration of verbal inflection is the creation of the LCS *imperfect. By its grammatical content 'progressive', this new category entailed a narrowing of the extension of the CS *preterite and resulted in an opposition 'progressive' vs. 'unspecified' (with the chief implicatures 'durative', 'iterative', 'synchronous' vs. 'punctual', 'sequential'; cf. Dostál 1954: 598–602, Jakobson 1955/1971, Galton 1962). In other words, it led to the establishment of an aspect distinction *imperfect vs. *aorist in the preterite.

The basic morphological make-up of the LCS imperfect will be examined in section 3.1. An excursus on vowel contraction (section 3.2) will provide the background for a description of geographical differences in the development of the imperfect (section 3.3).

3.1. Morphological Make-Up

The morphological expression of the LCS *imperfect is agglutinative. It is attested with copious, but insignificant variation across the oldest texts. Leaving this variation aside for the moment, we can characterize the *imperfect ending as a string of affixes: in CS terms, (i) an interfix -ē- alternating with zero, followed by the suffixes (ii) -jā- 'progressive'

and (iii) -x- (~ -š-) 'preterite'; (iv) an interfix -a- (~ -e-, the thematic vowel) followed by (v) a person and number desinence; see (1).

(1) Ø + 'progressive' + 'preterite' + Ø + 'person/number'
-ē -jā -x/š -a/e -m.1sg

The interfix -ē- is in origin most likely the preterite suffix with Baltic congeners mentioned in section 2.3 (Arumaa 1985: 249, 261; Rasmussen 1993; Hock 2005: 23), but its original lexical distribution in Slavic cannot be determined. Like the class markers CS -ā-, -ē-, -ī- (section 2.2), it has become meaningless, but it differs from them by occurring only in the LCS *imperfect and by being phonologically conditioned: It is absent after the CS root-final or suffixal -ā- (2a), -ē- (2b), but it is added directly to any unsuffixed consonantal root (where it conditions palatal alternants of root-final velars) and to the Class II suffix -n-; in W and E regions it replaces the Class IV.A marker -ī-, but in South Slavic it is added to the Class IV.A present-stem alternant in -j- (see further section 3.2.1); after palatals it appears as LCS -a- (2c); Old Slavic texts document a tendency to form the imperfect from present-tense stems of several types (2d).

(2) a. LCS bĭr-a-x-ŭ$_{AOR}$: bĭr-a-ja-x-ŭ$_{IPV}$ 'gather'; zna-x-ŭ : zna-ja-x-ŭ 'know'; or-a-x-ŭ : or-a-ja-x-ŭ 'plow'; dĕl-a-x-ŭ : del-a-ja-x-ŭ 'make'; kup-ov-a-x-ŭ : kup-ov-a-ja-x-ŭ 'buy';

b. grĕ-x-ŭ$_{AOR}$: grĕ-ja-x-ŭ$_{IPV}$ 'heat', sta-x-ŭ : sta-ja-x-ŭ 'stand'; vid-ĕ-x-ŭ : vid-ĕ-ja-x-ŭ 'see';

c. ved-õ$_{PRS}$: ved-ĕ-ja-x-ŭ$_{IPV}$ 'lead'; tek-õ : teč-a-ja-x-ŭ 'run'; slov-õ : slov-ĕ-ja-x-ŭ 'be known'; dwig-n-õ : dwig-n-ĕ-ja-x-ŭ 'move'; noš-õ, nos-i-x-ŭ : WS, ES nos-ĕ-ja-x-ŭ || SS noš-a-ja-x-ŭ 'carry' (see section 3.3);

(2) d. dial. mrĕ-ja-x-ŭ$_{IPV}$ - ~ mĭr-ĕ-ja-x-ŭ$_{IPV}$ 'die'; zŭv-a-ja-x-ŭ ~ zov-ĕ-ja-x-ŭ 'call', kup-ov-a-ja-x-ŭ$_{IPV}$ ~ kup-u-j-ĕ-ja-x-ŭ$_{IPV}$ 'buy'.

The 'progressive' suffix CS -jā- appears to be the same derivational suffix -(j)ā- used to derive *atelic (imperfective) verbs, e.g., LCS da-ti$_{PV}$, da-ja-ti$_{IPV}$. The preterite suffix -x- has an alternant -š- before front vowels. The interfixed thematic vowel (CS -a- before sonorant, other-

wise -e-) and the person and number desinences are the same as in Type D of the CS *preterite. This last detail is perhaps significant; see section 3.4.

The earliest, OCS attestation of the imperfect coincides with the time of the LCS Vowel Contraction. Thus, in OCS the most frequent spellings of the imperfect's ending-initial LCS -VjV- sequence are *-VV-* and contracted *-V-* (van Wijk 1931: 54, 225–28; Diels 1963: 113, 234–38), whereas the attestations in East and West Slavic all show complete contraction to LCS -V-; see section 3.2.2.

3.2. Excursus on Vowel Contraction

Vowel Contraction is a major change in the LCS period which reduced the number of inherited VjV sequences. It is morphologically and lexically more far-reaching in the Central Slavic region than in peripheral regions, some parts of the East Slavic region being the least affected by the development. It has significant prosodic consequences in the dialects that preserve vowel quantity, since the outcomes of contraction are mostly long vowels. Furthermore, Vowel Contraction has important consequences for inflectional morphology. This is especially obvious in the case of definite adjectives, in which vowel-final adjective endings were followed by enclitic forms of the determiner =j- (e.g., LCS -a=j-ego > -a-ego > -a-ago > -ā$go_{GEN.SG}$), and in the verb categories in which endings follow or include /j/ (see Shevelov 1965: 527–29, Marvan 1979).

The earliest instances of vowel contraction occur in verbs, significantly in environments that can be characterized as nonalternating. These are the kinds of environment in which phonetic change is typically first actualized (see Timberlake 1978, 1981, Andersen 2006b). One of these is in the present tense of Class IV.A verbs; the other is in the *imperfect.

3.2.1. Contraction in Class IV Verbs

Class IV verbs have present-tense suffixes of different origins. That of the OCS *mĭnĕti – mĭnitŭ* type (Class IV.B) is identified as PIE -ei- ~ -i- (Beekes 1995: 229). It was inherited by both Baltic and Slavic; Lithuanian generalized the zero grade -i- alternant (cf. Li. *minėti – mini*), and Slavic, the full grade, CS -ei- > -ī-, LCS -i-. The present-tense suffix of

Class IV.A verbs is identified with Skt. *-aya*, posited as PIE -ej-e/o-, CS -eje/a-, potentially accented on the first or second syllable depending on the prosodic properties of the root and the function of the suffix: atelic, causative, or denominative (see Stang 1957: 112–113, Dybo 2000: 421–23).

In CS the sequence -eje- changes to -ije-; e.g., CS tr-ej-es gast-ej-es > LCS trĭje gostĭje 'three guests'. In the nonalternating present-tense suffix (-eje- >) -ije-, (i) the glide is lost, and (ii) -ie- is contracted to CS -ī-. If the suffix is accented, say, -ˈeje- (> -ˈije- > ˈie- > -î-), its accent is retracted (from -ˈie- or -î-), producing a neoacute accent on the preceding vowel (Stang 1957: 108). Thus the type CS nas-ˈeje-ti, LCS nos-i-tĭ yields R dial. *nôs'it*. The development of the 1sg is different. After the glide loss, the ending-initial /i/ becomes a non-syllabic /j/, losing its sonority to the following more sonorous vowel ("intensity shift"; Andersen 1973: 24): -ejõ > -ijõ > -iõ > -jõ. Thus CS nas-ˈejām yields nas-j-ˈõ, LCS nošõ (cf. Rasmussen 1993: 477, Hock 1995).

Observe that after these changes the present-tense marker of Class IV.A verbs (the LCS nositi type) has two allomorphs, CS -ī- before consonant and -j- before vowel. This is important for the development of the *imperfect in these verbs; see section 3.3.

3.2.2. Contraction in the *Imperfect

The other early instance of Vowel Contraction in a nonalternating environment, that of the LCS *imperfect, calls for comment along different lines.

Some scholars have found the *-ěa-* and *-aa-* sequences of the OCS imperfect difficult to understand because they seem to violate the standard phonotactic rule calling for CV syllables. But this rule requires some qualification at this stage of the language. In his comprehensive monograph on Slavic vowel contraction Marvan (1979: 22–24) declines to accept the contractions of these forms, which are so richly represented in our oldest texts, as actual contractions. Instead he calls them "coalescences", because they supposedly do not contain an intervocalic *-j-*. But surely coalescence is part of the contraction process. In all instances of Vowel Contraction there are two steps, (i) the elision of an intervocalic glide (VjV > VV) and (ii) what one can call a "coalescence" (VV > V). With regard to the LCS Vowel Contraction, there are two interesting points about the imperfect. One is that it is attested (in

OCS) after the completion of step (i). The other is that since contraction occurs at different stages in the developing phonological systems of South, East, and West Slavic, it yields different outcomes in different regions.

Thus, in East Slavic, the *contractum* of nonalternating -ěja- merges with the reflex of denasalized LCS /ẽ/, OR /ä/. It is written with the same cyrillic letter in the texts; e.g., OR (vernacular) *nesäxŭ*, *možäxŭ*, *nosäxŭ*, also (Class IV.B verbs) *xotäxŭ*, *sědäxŭ* (transliterated *nesjaxŭ*, etc.) (see Kuznecov 1959: 195–202, Arumaa 1985: 284). In Old Czech nonalternating -ěja- yields /ě/, e.g., *nesiech*, *možiech*, *nosiech*, also *chotiech, sediech*. (Spellings of Class IV verbs of the type *nošiech*, *choziech* occur, but they are late analogical formations; Gebauer 1958: 124.) The Old Polish attestation contains only a few unequivocal Class IV.A imperfect forms, viz. *błogoslowiachą, mołwiach*, *mołwiasze*, *wychodzasze* (Klemensiewicz, Lehr-Spławiński, and Urbańczyk 1964: 369). They show contraction to /a/, but the spellings *-wia-*, *-dza-* are ambiguous. It is uncertain whether, e.g., the *dz* of *wychodzasze* represents /dź/ or /dz/, that is, LCS xod-ěja-š-e or xod-j-ěja-š-e; if the latter, it implies the same derivation from the prs.1sg stem alternant as in South Slavic. See further section 3.3.

3.3. Dialect Diversity in the Imperfect

The existence of the CS -ē- interfix in the *imperfect suggests that some verbs formed the *preterite with -ē- when the LCS *imperfect came into being. It is likely that one category of such verbs were Class IV.A verbs; cf. section 2.3. The corresponding verbs in Baltic form their preterite in -ē-, e.g., Li. *praš-ý-ti*, *prãš-ė*$_{PRT.3}$ 'ask'. There were probably other verb categories as well; cf. section 2.2. But at present it is difficult to peer beyond the phonological conditioning of this CS -ē- to understand the basis for its reanalysis as an interfix.

In any case, it is clear from the East and West Slavic imperfect formations (section 3.2.2) that the -ē- suffix originally replaced the class marker -ī- (as in Lithuanian). After Vowel Contraction in the present tense of Class IV.A verbs (e.g., CS nas-^{l}eje-) gave rise to the alternation CS -ī- before consonant and -j- before vowel (section 3.2.1), some Balkan dialects began to form the *imperfect from the present tense stem. They replaced CS nas-ējā-x-a-m, xad-ējā-x-a-m (ORuss *nosäxŭ*, *xodäxŭ*, OCz. *nosiech*, *chodiech*) with CS nas-j-ējā-x-u, xad-j-ējā-x-a-m, yielding

OCS *nošaaxŭ*, *xoždaaxŭ*, etc. This South Slavic innovation precedes our earliest attestation.

A similar, but pan-Slavic change affected *iteratives (imperfectives) derived from Class IV.A verbs, e.g., CS prast-ī-tei : prāst-j-ˈā-tei 'forgive', sād-ī-tei : sād-j-ˈā-tei 'plant' (OCS *prostiti*$_{PV}$: *praštati*$_{IPV}$, *saditi*$_{PV}$: *sažd**a**ti*$_{IPV}$). A few archaisms, such as CS lam-ˈī-tei : lām-ˈā-tei 'break', stamp-ˈī-tei : stāmp-ˈā-tei 'tread' (LCS lom-i-ti$_{PV}$: lam-a-ti$_{IPV}$, stõp-i-ti$_{PV}$: stõp-a-ti$_{IPV}$) reveal the earlier pattern of derivation. In West and East Slavic, imperfects were subject to Vowel Contraction, and only the derived iteratives (imperfectives) changed the pattern of imperfective derivation from deletion of the class marker -ī- to replacement with -j-; e.g., OR *prostiti*$_{PV.INF}$, *prostäxŭ*$_{PV.IPF.1SG}$, but *proščati*$_{IPV.INF}$.

Separate mention should be made of the CS *preterite in -ē- of CS bū-tei 'be', b-ē-, reconcilable with an ECS bw-ē- (PIE bˈuh$_2$-), LCS bě-x-ŭ$_{1SG}$, bě$_{2–3SG}$, bě-š-ẽ$_{3PL}$. When the CS *preterite was differentiated into the LCS *imperfect vs. *aorist opposition, the received CS bē-x– forms were reinterpreted as LCS *imperfect in spite of their endings, which were identical to aorist endings. In time their stem was modified (to LCS bě-ja-x–), and the endings replaced with thematic endings: LCS běja-š-e$_{3SG}$, běja-x-õ$_{3PL}$, běja-še-ta$_{3DU}$. Within the OCS corpus only these 3rd-person forms are remodeled and covary with the older forms. But later attestations show the eventual remodeling of the entire paradigm; e.g., OR *bäše*$_{3SG}$, *bäxomŭ*$_{1PL}$, *bäxu*$_{3PL}$, Serb. *běh* ~ *bějah*$_{1SG}$, *bějaše*$_{3SG}$, *bějahu*$_{3PL}$. The older, shorter forms remain in use the longest as auxiliaries in the "pluperfect" (see Kuznecov 1959: 210, Belić 1962: 60, Vaillant 1966: 69–73).

4. Summary and Conclusion

With the exposition in the preceding pages we have defined a number of innovations in the prehistory of the OS imperfect/aorist aspect and have been able to identify the chronological relations among a number of them.

The point of departure was the merger of the inherited *aorist and *imperfect into the CS *preterite tense (section 2). If there had not been such a general *preterite, there would have been no motivation for the creation of the LCS *imperfect forms (section 3) and the resulting differentiation of the *preterite into LCS *imperfect vs. *aorist.

Here follows a summary of the chronological findings (section 4.1–4.2) and some concluding remarks on their possible reflections in geography.

4.1. From *Preterite to Aorist

Section 2.4 outlined three inflectional changes in the CS *preterite that have a clear relative chronology.

The introduction of Type D 1st-person desinences into Type C paradigms was prehistorical. We left unconsidered the chronological relationship between the first of these changes (1sg -im > -a-m) and the phonetic changes that led to the First Velar Palatalization and the Monophthongization of Nasal Diphthongs, which bear on the question whether the change served to disambiguate 1sg and 3pl wordforms. The standard dating of these sound changes (400s–600s; Shevelov 1964: 633) is too imprecise to be of use.

Secondly, the generalization of 2–3sg *imperfect wordforms in the *preterite. This too was prehistorical, but there is some evidence, from OCS and Old Czech, of the kinds of wordforms that were eliminated in this change, e.g., OCS *izě ~ izěstŭ* 'ate'. This may suggest that it occurred close to the period of attestation in the respective languages, an inference which incidentally draws attention to the very different absolute chronologies in different Slavic regions.

Thirdly, the creation of the extended aorist paradigm is reflected in morphological variation in the several dozen Type C and D aorists (and their prefixal derivatives) in the OCS corpus. But the extended forms are not used in the copies that are closest to the first translations (Mar, Ps, Cloz) (see van Wijk 1931: 222, Diels 1963: 240). We can infer that the extended aorist forms developed after A.D. 863 in the southern Balkan Peninsula, or at least that they were not considered stylistically appropriate at that time. But they were established in the Bulgaro-Macedonian dialects when other texts were translated and/or copied in the 900s–1000s.

The last of these three changes results in a WS -e-x- || ES, SS -o-x- dichotomy (section 2.4.4) which parallels the first major phonological isogloss to cut clean across the Slavic territories, the *Tl* || *l* isogloss, which forms a fan in Slovenia (Andersen 2006b). Their congruence does not imply that these two isoglosses arose at the same time. However, whatever the precise date of the creation of the extended aorist,

its independent development in West Slavic is symptomatic of the same loosening of communicative bonds that is reflected in the *Tl* || *l* isogloss.

4.2. The Imperfect

The agglutinative structure of the LCS *imperfect tells us that it is a relatively recent creation. But its individual elements tell us very little about its age. Only the thematic endings give us a chronological hint. The imperfect was innovated at a time in the prehistorical development of the *preterite when the thematic Type D was still productive and the sigmatic and thematic Types C and D were distinct (section 3.1), that is, before the series of changes that produced the amalgamated, "extended aorist" (section 2.4). The CS -ē- interfix in the LCS *imperfect shows it was built on CS -ē- *preterites. These were superseded in part by a lexical extension of the Type C *preterite paradigm, in part by the generalization of *preterite -ī- stems in the formation of Class IV.A.

The Vowel Contractions offer some clear chronological indications. The earliest (high-vowel) Contraction produced the present-tense -j- allomorph in Class IV.A verbs (section 3.2.1). This was a pan-Slavic development. So was the introduction of this stem alternant in the derivation of Class IV.A *iteratives (imperfectives) (section 3.3). Only in South Slavic dialects did this prevocalic stem alternant come to serve the formation of the CS imperfect. This must have occurred while the Dental Palatalization and the Dejotation were productive synchronic constraints. The low-vowel Contraction occurred somewhat later. It appears that only the initial step of glide loss had occurred when the originals of the oldest OCS texts were written, ca. A.D. 863; cf. section 3.1.

In West and East Slavic, the Class IV.A -j- allomorph was extended only to the derivation of iteratives (imperfectives) and the imperfect endings simply underwent (low-vowel) Contraction. There are examples of an extension of derived imperfective-stem alternants to the (obsolescent) imperfect in sixteenth-century Old Czech (section 3.3). They have no bearing on the LCS developments.

4.3. Conclusion: Time and Space

The internal analysis of the morphological expressions of the imperfect/aorist aspect yields some worthwhile elements of a relative chronology. To some extent this chronology can be correlated with phonological changes. But it receives its best corroboration from external facts such as the details in the attestation of the aorist and imperfect mentioned above.

The most tangible correlations, perhaps, are with some of the phonological isoglosses that arose on the eve of the historical period.

The WS -e-x || ES, SS -o-x- isogloss in the extended aorist (OCz. *nesiech* || OR, OCS *nesoxŭ*) parallels the *Tl* || *l* isogloss, e.g., LCS W dial. modliti 'pray', mydlo 'soap', wedla 'led' || E, S dial. moliti, mylo, wela.

The OCz. *chodiech*, OR *xodäxŭ* || OCS *xoždaaxŭ* division parallels the (CS arT- >) LCS roT- || raT- isogloss, e.g., LCS W, E dial. robŭ || S dial. rabŭ 'slave', as well as several morphological isoglosses, e.g., LCS rob-ŭmĭ || rab-omĭ$_{INS.SG}$, LCS nes-a || nes-y$_{PRS.PCP.NOM.SG.M}$.

None of these isoglosses can be dated precisely. But note, regarding the WS vs. ES, SS *Tl* || *l* isogloss, that when the East Slavic northwest was colonized, the settlers still had unchanged *Tl* clusters, whence the many examples of (*Tl* >) *-kl-*, *-gl-* in Pskov area dialects (cf. Andersen 2006b). As for the WS *xoděxŭ*, ES *xodäxŭ* || SS *xoždaaxŭ* isogloss, it appears to correlate with the Slavic colonization of the southern Balkan Peninsula in the late 500s. Recall that the Slavs are first mentioned by name in Byzantine sources in 527 and that by the early 600s they had settled in great numbers in Thessaly, Thrace, Epirus, and the Peloponnesos (see Schenker 1995: 15–17).

Both these isoglosses evidently reflect the formation of regional Slavic speech patterns. They are tangible evidence of the beginning disintegration of the Slavic linguistic unity.

As for the merger of *aorist and *imperfect, which formed the background for the morphological changes we have examined and the creation of the LCS *imperfect, since it was pan-Slavic, it left no isoglosses. If we wish to view it in a spatial perspective we have to place Slavic in a wider context. One can indeed imagine that the simplification of the preterite categories in Slavic was enacted in contact with

neighboring language groups, particularly Baltic and/or Germanic, in which similar mergers occurred. But this is a topic for another day.

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