GRAMMATICALIZATION OF AKTIONSART IN
ANCIENT SLAVIC: A COMPARISON WITH
ASPECT IN ANCIENT GREEK AND LATIN

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GRAMMATICALIZATION OF AKTIONSART IN ANCIENT SLAVIC:
A Comparison with Aspect in Ancient Greek and Latin

by

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ABSTRACT

This thesis represents a historical-comparative analysis of two major types of grammatical aspect. The morphological means of expressing aspect in Ancient Greek and Latin, inherited from late PIE, is compared with the grammaticalized Aktionsart, i.e. lexical aspect, of Ancient Slavic. The verb systems of Ancient Greek and Latin are analyzed with reference to the origin and development of verb category functions from late PIE. Grammatical aspectual functions, which are morphologically expressed in Ancient Greek and Latin, are contrasted with Aktionsart or lexical aspectual functions. Interrelations between tense and aspect within the verb system established by the Cognitive-Functional analysis represent a diagnostic criterion in distinguishing grammatical from lexical aspectual functions.

The verb system of Ancient Slavic undergoes a major change of grammaticalizing Aktionsart. One of the major goals of this thesis is to determine the causal factors for this recategorization of grammatical aspectual function. Grammaticalization of Aktionsart also carries a number of consequences for certain grammatical formations of modern Slavic languages to be examined.

The choice of these three languages is related to a major theme of this thesis, i.e. to represent two types of grammatical aspectual functions and to explain grammaticalization change from morphological to lexical aspect. Ancient Greek and

ii

Latin are chosen as examples of the old Indo-European languages that preserve late PIE morphological means of expressing aspect. Specifically, the verb system of Ancient Greek resembles that of late PIE, while Latin underwent major restructuring of the verb system from a three-way to a two-way aspectual contrast among verb categories. Ancient Slavic is chosen to exemplify and explain grammaticalization of Aktionsart which represents a change from the inherited to a new type of grammatical aspect. The choice of Ancient Slavic is also related to typological similarity of a three-way aspectual contrast with that in Ancient Greek.

ACKNOWLEDGEMENTS

This thesis is dedicated exclusively to peace:

CONCORDIA - ARA PACIS

TABLE OF CONTENTS

Page

Part I

Morphological Expression of Aspect

Part II

Grammaticalized Aktionsart

LIST OF TABLES

ix

Chapter 6

LIST OF ABBREVIATIONS

ABL ABS	ablative absolute
ACC	accusative
ADV	adverb
A.Gr.	Ancient Greek
AOR	aorist
AOR PART	aorist participle
AOR INF	aorist infinitive
A.Sl.	Ancient Slavic
Att.	Attic
AUG	augment
Cl.Gr.	Classical Greek
COMP	complementizer
CONJ	conjunction
DAT	dative
DAT ABS	dative absolute
DET	determinate
F	feminine
FUT	future
FUT PART	future participle
FUT PERF	future perfect
GEN	genitive
GEN ABS	genitive absolute
Hom.	Homeric
I-E	Indo-European
IMPERF	imperfect
IMPFV	imperfective
IMPFV PART	imperfective participles
INDET	indeterminate
INF	infinitive
Ion.-Att.	Ionic-Attic
Lat.	Latin
Latv.	Latvian
Lith.	Lithuanian
LOC	Locative
M	masculine

NEG	negative
NOM	nominative
OCS	Old Church Slavic
Osc.-Umbr.	Oscan-Umbrian
PART	participle
PASS AOR	passive aorist
PASS FUT	passive future
PERF	perfect
PERF INF	perfect infinitive
PERF PART	perfect participle
PERF SUBJ	perfect subjunctive
PFV	perfective
PFV PART	perfective participle
PIE	Proto-Indo-European
PL	plural
PLPF	pluperfect
PLPF SUBJ	pluperfect subjunctive
PP	past participle
PREP	preposition
PRES	present
PRES PART	present participle
PRET	preterite
PRO REFL	reflexive pronoun
RES	resultative
Russ.	Russian
S.-Cr.	Serbo-Croatian
SEC IMPFV	secondary imperfective
SG	singular
Skt.	Sanskrit
SUBJ	subjunctive

INTRODUCTION

This thesis represents a comprehensive study of aspect in three Indo-European languages, Ancient Greek, Latin and Ancient Slavic. The verb categories are analyzed with respect to formation patterns, grammatical function and origin. Historical development of the verb forms and systems from the earlier unattested stages is considered, i.e. late PIE for Ancient Greek (since the Ancient Greek verb system partially resembles that of late PIE), Common Italic for Latin, and Common Slavic for Ancient Slavic. Latin and Ancient Slavic verb systems changed to a greater extent. Changes related to the formal and functional development of the verb categories from late PIE to Latin and Ancient Slavic are also considered. A detailed analysis of the verbal system relates grammatical functions of aspect to tense in all three languages. Crucial to this thesis is the relation that obtains between the grammatical function of aspect and Aktionsart, i.e. lexical aspectual function. Verbal Aktionsart is examined as well as possible repercussions of the lexical aspectual functions on grammatical aspect in all three languages. The major goal of this thesis is to examine the effect of Aktionsart, expressed by preverbs and different semantic/morphological classes, on the morphosyntactic verbal functions of the aspect category. Among the examined languages only in Ancient Slavic does Aktionsart become grammaticalized whereby a direct relationship between the Aktionsart and the morphosyntactic function of the verb may be observed. The adverbial and prepositional preverbs as well as different semantic/morphological classes have a

profound grammatical impact on the verb. They result in perfective aspectual counterparts.

Aktionsart was already grammaticalized in Ancient Slavic where it co-existed with the aorist category. Ancient Slavic inherited from late PIE the aorist which generally expressed past complete events (cf. Ancient Greek and Vedic). The aorist could also explicitly denote perfectivity (see § 2.4.1 and § 4.5.1) depending on the context or the Aktionsart. Grammaticalized Aktionsart in Ancient Slavic always denotes perfectivity, *regardless of different minute distinctions between various Aktionsart functions, as shown* in § 4.4. It will be shown that in comparison to Ancient Greek, where sigmatic stems denote perfective aspect both in the past and non-past, *in both indicative and non-*indicative moods, Ancient Slavic retains sigmatic stems only in the past indicative. A new type of aspect expressed by the Aktionsart denoted perfective aspect in the past and non-past, as in the quasi-nominal forms, i.e. participles and infinitives (to be shown in Chapter 4). That is to say, in the earliest Old Church Slavic documents systematic expression of perfective aspect by the aorist stems within the verb system was abandoned. The subsequent effect of the Aktionsart grammaticalization on the development of morphosyntactic categories from Ancient Slavic to Modern Slavic is also examined.

Although the emphasis of this thesis is on aspect, it is crucial to note that systemic aspectual functions may not be effectively analyzed without referring to tense. As a *matter of fact, each verb form in the languages that are here examined is marked both*

for aspect and tense. This raises a terminological problem in many works on tense and aspect. Most authors refer to the categories, such as aorist and imperfect in Ancient Greek, as "tenses" (see Chapter 2, § 2.3). Aorist and imperfect, as will be shown, are marked both for aspect and tense. Both categories are marked for past tense, the former represents perfective aspect and the latter imperfective aspect. In order to avoid terminological confusion, aorist and imperfect are here referred to not as tenses but as "verb categories" or "verb forms".

Several methods are combined in analyzing verb categories with respect to grammatical aspectual functions.

(i) Linguistic analysis of the systemic grammatical functions relies on both the Functional and Cognitive theoretical frameworks. *That is to say, grammatical functions of the verb categories are always considered within the verb system as a whole, where each aspectual category is related to another also taking into account the tense distinctions.* This thesis, however, *does not adhere to any particular theoretical framework that has been proposed in the past.* It simply examines the verb systems in the three mentioned languages and their change since late PIE. Systemic functions of *aspect and tense may be referred to distinct cognitive points of view of the event time within the universe time* (according to the psycho-mechanical tradition followed by Guillaume (1929, 1945/65) and Valin (1975), for example). *This approach will prove to be particularly valuable in explaining the relation between perfective aspect and future time reference in Ancient Greek and Ancient Slavic (see § 2.3 and 4.3.4).* Aside from

the functional systemic analysis of the verb categories, the main focus is placed on the grammaticalization of Aktionsart in Ancient Slavic. This type of change is examined in the light of functional and systemic relations of the verb categories. A considerable amount of space is devoted to the issue of causes and effects of this major grammaticalizing process. Effects of the Aktionsart grammaticalization are evidenced in contemporary Slavic languages, as discussed in § 5.4. Discussion of the verb systems of Ancient Greek, Latin and Ancient Slavic (including Aktionsart grammaticalization), takes into account reflexes of late PIE aspect functions. Reflexes of late PIE aspectual functions in Modern Slavic are considered in § 6.1. It is important to emphasize that this thesis is a historical study of aspect and the grammaticalization of aspect.

(ii) Systemic aspectual functions are based on the analysis of the original texts, i.e. Classical authors for Ancient Greek and Latin and translations of the Greek ecclesiastic documents into Ancient Slavic (Old Church Slavic).[1] Text analysis of the aspectual functions is crucial in identifying the functional range of each category and in relating systemic aspectual functions to the contextual functions. Grammatical and contextual aspectual functions are exemplified by a number of passages or sentences for each language. Both grammatical, i.e. inherent, and contextual functions are discussed and the relevant verb forms are identified.[2] Ancient Greek and Latin texts are quoted

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[1]See Chapter 3 for terminological clarification.

[2]Due to the number and length of passages from Classical texts, indispensable for the precise identification of grammatical and contextual functions, identification of each word will not be provided.

with their translations from the Loeb editions; Ancient Slavic texts (referred to as Old

Church Slavic in various editions) are translated by me.

Ancient Greek texts

8 BC
Homer. *The Odyssey*, The Loeb Classical Library. Edited by T. E. Page, with an *English translation* by A. T. Murray. *1945. Cambridge: Harvard University Press.*

8 BC
Homer. *The Iliad*, The Loeb Classical Library. Edited by T. E. Page, with an English translation by A. T. Murray. *1946. Cambridge: Harvard University Press.*

5/4 BC
Plato. *Symposium, Gorgias*. The Loeb Classical Library. Edited by T. E. Page, with an English translation by W. R. M. Lamb. *1953. London: William Heinemann LTD.*

5/4 BC
Xenophon. *Scripta Minora*. The Loeb Classical Library. Edited by T. E. Page, with an English translation by E. C. Marchant. 1956. London: William Heinemann LTD.

4 BC
Aristotle. *Eudemian Ethics*. The Loeb Classical Library. Edited by T. E. Page, with an English translation by H. Rackham. 1961. London: William Heinemann LTD.

Latin texts

1 BC
Caesar, Julius. 100 B.C. - 44 B.C. *The Civil War, Books I & II*. Edited with an Introduction, Translation & Commentary by J.M. Carter. 1991. Warminster, England: Aris & Phillips Ltd., Teddington House.

1 BC
Cicero. *De Natura Deorum, Academica*. The Loeb Classical Library. Edited by T. E. Page, *with an English translation* by H. Rackham. 1956. London: William Heinemann Ltd.

Cicero. *De Oratore, I, II*. The Loeb Classical Library. Edited by T. E. Page, with an *English translation* by E. W. Sutton, completed, with an introduction, by H. Rackham. 1942. Cambridge, Massachusetts: Harvard University Press.

4 AD[3]

The Scriptores Historiae Augustae I. The Loeb Classical Library. Edited by T. E. Page, with an English translation by David Magie. 1953. London: William Heinemann Ltd.

The Scriptores Historiae Augustae III. The Loeb Classical Library. Edited by T. E. Page, with an English translation by David Magie. 1954. London: William Heinemann Ltd.

1 AD

Seneca. *Ad Lucilium Epistulae Morales II.* The Loeb Classical Library. Edited by T. E. Page, E. Capps and W.H.D. Rouse, with an English translation by Richard M. Gummere. 1930. London: William Heinemann Ltd.

Seneca. *Moral Essays II.* The Loeb Classical Library. Edited by E. H. Warmington, with an English translation by John W. Basore. 1970. London: William Heinemann Ltd.

3/2 BC

Plautus. *Bacchides.* Edited with translation and commentary by John Barsby, 1986. Warminster, England: Aris & Phillips Ltd., Teddington House.

Ancient Slavic texts

10/11 AD

Jagić, V. 1879. *Codex Zographensis.* Quattuor evangeliorum codex glagoliticus olim Zographensis nunc Petropolitanus. Photomechanic reprint by the Akademische Druck -U. Verlagsanstalt, Graz, 1954.

11 AD

Jagić, V. 1883. *Codex Marianus.* Pamjatniki glagoličeskoj pis'mennosti. Mariinskoe četveroevangelie. = Quattuor Evangeliorum versionis palaeoslovenicae Codex Marianus. Photomechanic reprint by the Akademische Druck - U. Verlagsanstalt, Graz, 1960.

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[3]According to Grant (1980:403-4) *Historiae Augustae* contains biographies of Roman emperors and princes and is allegedly authored by Aelius Spartianus, Julius Capitolinus, Vulcacius Gallicanus, Aelius Lampridius, Trebelius Pollio, and Flavius Vopiscus. It is generally believed, however, that the uniformly written collection was composed by a single anonymous author. Although some biographies are dedicated to Diocletian (284-305) and Constantine I the Great (306-37), biographical evidence suggests that the work was written at the end of 4th century AD.

11 AD

Sever'janov, S. 1922. *Psalterium Sinaiticum*. Sinajskaja psaltyry. Petrograd. Photographic reprint: Graz, 1954.

11 AD

Ščepkin, Vjačeslav. 1903. *Sava Evangelium*. Savvina Kniga. Pamjatniki staroslavjanskago jazyka. Vol. 1, fasc. 2. Izdanie otdelenija russkago jazyka i slovesnosti imperatorskoj akademii nauk. *Reprint* - Graz: Akademische Druck- U. Verlagsanstalt, 1959 .

11 AD

Sever'janov, S. 1904. *Codex Suprasliensis*. Suprasal'skaja rukopis'. Saint Petersburg, Izdanie otdelenija russkago jazyka i slovesnosti imperatorskoj akademii nauk. Vol I. Reprinted - Akademische Druck- U. Verlagsanstalt, Graz, 1956.

Medieval Serbo-Croatian texts

12-19 century

Butler, Thomas. 1980. *Monumenta Serbocroatica*: A Bilingual Anthology of Serbian and Croatian Texts from the 12th to the 19th Century. Ann Arbor, Michigan: Michigan Slavic Publications.

Dictionaries

Lewis, Charlton T. and Short, Charles. 1955 (first edition 1879). *A Latin Dictionary*. Founded on Andrews' edition of Freund's Latin Dictionary, revised, enlarged, and in great part rewritten. Oxford: Oxford University Press.

Oxford Latin Dictionary. 1969. Oxford: Oxford University Press.

Liddell, Henry and Scott, Robert. 1990 (first published in 1843). *A Greek - English Lexicon*. Revised and augmented throughout by Sir Henry Stuart Jones with assistance of Roderick McKenzie. Oxford: Oxford University Press.

Sadnik L. and Aitzetmüller R. 1955. *Handwörterbuch zu den Altkirchenslavischen Texten*. Carl Winter, Universitätsverlag: Heidelberg.

Lysaght T. A. 1978. *Material towards the Compilation of a Concise Old Church Slavonic - English Dictionary*. Price Milburn: Victoria University Press.

(iii) Linguistic analyses of Ancient Greek, Latin and Ancient Slavic are complemented by the reconstruction of systemic functions at earlier unattested stages and in late PIE. Reconstruction of the basic verbal system to show aspect and tense distinctions is carried out using the comparative and internal methods. In reconstructing Common Slavic stages, these two methods are supplemented by the assumption of typological functional parallels in Ancient Greek.

(iv) Both synchronic analyses and reconstructions of the systemic aspect/tense features are complemented by the literature review. Various views by a number of linguists and philologists on the formation and function of the verb categories and their diachronic changes are synthesized and incorporated into the synchronic analysis and reconstructions adopted in this thesis. It is important to note, however, that I have not taken into account all works on aspect written in various theoretical frameworks. Only works relevant to the subject of this thesis, i.e. historical study of aspect in the three mentioned languages and the grammaticalization of Aktionsart in Ancient Slavic including discussion of causes and effects, are cited. The historical nature of this study requires a thorough examination of the works by classical linguists and philologists, Meillet, Ernout, Vaillant, Chantraine, Kurylowicz, Szemerényi. A number of modern linguists that have written on aspect and tense are discussed in Chapter 1 and throughout the thesis, though by no means all. A reader who is interested in a discussion of various traditions of studies of aspect and tense ranging from Aristotle, Stoics and Dionysius to the modern works of formal logic should refer to Binnick's (1991) *Time and the Verb*.

Material represented in this thesis is organized into 6 Chapters. The emphasis of this thesis is on the grammaticalization of Aktionsart. The consequences of this change on the verb categories in Modern Slavic, and the reflexes of late PIE functions in Modern Slavic are examined in separate chapters. The thesis is divided into two parts, given the different nature of grammatical aspect as examined in the three languages. The first part, *Morphological Expression of Aspect*, includes the Chapters on Ancient Greek and Latin; the reconstructed late PIE verb system is discussed in Chapter 1 (*Review of the Previous Work on Tense and Aspect*). The second part, *Grammaticalized Aktionsart*, includes the Chapters on the Ancient Slavic verb system, causes and effects of the Aktionsart grammaticalization, and Aktionsart implications in Modern Slavic. Ancient Slavic is chosen just as an example of a language in which a systematic change, i.e. grammaticalization of Aktionsart, occurs.[4] This way of expressing grammatical aspect is contrasted with the morphological expression of grammatical aspect in Ancient Greek and Latin where Aktionsart does not pervade the verb system itself. Ancient Greek is also a very useful language to examine, since it retains the basic aspectual contrasts of Late PIE.[5] Latin, on the other hand, shows a consistent two-way aspectual contrast, following the merger of the late PIE aorist and perfect, as opposed to Ancient Greek, Vedic and Ancient Slavic which retain the inherited three-way aspectual contrast.

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[4] Aktionsart is also grammaticalized in Iranian and Old Germanic languages.

[5] Except for the aspectual future formation, see § 2.1.2

Part 1

Morphological Expression of Aspect

CHAPTER 1

Review of the Previous Work on Aspect and Tense

1.1 Reconstruction of Aspect/Tense in late PIE

The subject of tense and aspect has been addressed both diachronically and synchronically by many authors. This chapter provides a review of a number of works dedicated to aspect, tense and related issues. The first part of this chapter exposes fundamental ideas related to the reconstruction of tense and aspect in PIE and the diachronic changes between PIE and the languages examined in this thesis. The most basic views pertaining to the diachronic issues are followed by a review of a number of synchronic approaches to aspect and tense.

Reconstruction of the PIE verb system has been carried out by Meillet (1903/67), Kuryłowicz (1964) and Szemerényi (1970/78). Meillet (1903/67) proposes that the essential features of the Indo-European verbal system are reflected in Homeric, Vedic and Avestan. Meillet uses the Ancient Greek model to represent the Indo-European verb system. The oppositions within the reconstructed verb system are represented by the three types of stems. These so-called "temporal" stems do not express tense. In PIE tense is expressed by the inflectional endings and dialectally by the augment, as reflected

in several families of the Indo-European phylum, such as Hellenic, Indo-Iranian, Phrygian and Armenian. The three types of stems, i.e. present, aorist and perfect, express aspectual distinctions. Imperfective (so-called present) stems express a process in development, aorist stems simply express an integral process, and perfect stems an accomplished process. The traditional term "present", used for the present tense form proper *leípo:* 'I leave' should not be confused with the term "present stem" which represents a denominator of the "system of present" including all the forms based on the present stem, e.g. the past form *éleipon* or the subjunctive *leípo:* which normally refers to the future.

According to Meillet (1903/67:196-7), three types of stems have aspectual function: present stems express a process in development which could be represented by a line, aorist stems express a simple process which could be represented by a point, while the perfect stems express an accomplished process. He points out that the three types of stems found in Ancient Greek reflect these I-E aspectual functions. Meillet does not show how the aspectual functions are related to tense. In Chapter 2 (§ 2.3), it will be shown that three types of stems in Ancient Greek express these aspectual functions both in the past and non-past. Present stems in the non-past are used to form the present, in the past they form the imperfect. Perfect stems in the non-past form the present perfect, and the pluperfect in the past. Sigmatic aorist stems form the future in

the non-past and aorist in the past.[1] The sigmatic future, however, is not reconstructed for late PIE, indicating that the future and aorist were not aspectually related as in Ancient Greek.[2] Symmetrical aspectual relations between the stems in the non-past and past were firmly established only in Ancient Greek.[3]

Representing "a pure and simple process" (*le procès pur et simple*, Meillet 1903/67:249) the aorist often expresses an act as a whole. It may also express a general fact which may be infinitely repeated, the so-called gnomic aorist. Meillet, however, does not assume a strong position on the exact function of the reconstructed aorist based on the non-unitary evidence from other I-E languages.

> En arménien, le présent indique un procès qui se développe sans terme
> défini (donc considéré dans son développement); l'aoriste, le procès en
> tant qu'il aboutit à un terme défini; la valeur de l'aoriste arménien est
> sensiblement différent de celle de l'aoriste grec et reproduit peut-être
> mieux l'état indo-européen. Malheureusement, la nuance de sens qui
> sépare le présent de l'aoriste n'est pas claire en indo-iranien, et la
> structure du slave ne se prête pas non plus à une définition nette de cette
> nuance (Meillet 1903/67:250). 'In Armenian, the present denotes a
> developing process without a definite term (therefore considered in its
> development); the aorist denotes a process with a defined end; the
> semantic value of the Armenian aorist is appreciably different from that
> of the Greek aorist and may better reflect the Indo-European state.
> Unfortunately, the difference of meaning which separates the present from
> the aorist is not clear in Indo-Iranian, and Slavic structure does not offer
> a clearer definition of that nuance' (translated by S.M.).

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[1] Functional and formal relations of the aspectual stems in two distinct tenses will be examined in Chapter 2.

[2] Sigmatic future is not generally reconstructed, although there is sufficient evidence represented by three language families, i.e. Hellenic, Indo-Iranian and Baltic.

[3] To be shown in Chapter 2

He concludes that while the present stems undoubtedly express a process in development, the aorist function may not be precisely defined based on the evidence from Indo-European languages. It is either a process that is definitely accomplished or a "pure and simple process". He claims that comparative evidence indicates that the aspectual opposition between the present and aorist stems was not as well defined as in Ancient Greek. That is to say, in Indo-Iranian and Slavic the distinction between the present and the aorist is not very clear. He also indicates that Hittite does not have the aorist category.

In reconstructing the PIE verb system, it is very important to distinguish between the earlier and the later stages of PIE. It is also crucial to compare the stages of evolving languages of approximately identical chronological periods. I would like to emphasize that the evidence found in all I-E languages should not be taken as representing the same chronological level. Chronological and geographical distinctions should be taken into account. For example, we have to keep in mind that Hittite had separated from the central phylum very early and was geographically more distant than the other daughter languages.* Also, the earliest Slavic documents date only to the 10/11th century A.D. We may not equally compare all I-E languages in attempting a reconstruction. In this thesis it will be shown that the internal reconstruction of Ancient Slavic and the comparative reconstruction based on Ancient Greek and Vedic Sanskrit show that the Ancient Slavic verbal system resembled the Hellenic-Aryan system.

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*This has been challenged by Renfrew (1987).

Therefore, the PIE aorist function probably resembled that of Ancient Greek (see § 2.4) and Vedic, expressing inherently a complete past event. It will be shown that the aorist may also emphasize the end of the event depending on the Aktionsart and context. Relics of the PIE aorist function are also preserved in Ancient Slavic, although the new type of aspectual marking by Aktionsart is introduced.

Kuryłowicz (1964:92) distinguishes the types of verbal systems found in Ancient Greek and Ancient Slavic, on the one hand, and in Latin, on the other hand. The Ancient Greek and Ancient Slavic verbal systems, as shown below, represent the base for the reconstruction of PIE. Kuryłowicz provides a model which explains a change from one type of system to another, namely the system found in Latin.

Before proposing the PIE model which explains the functional mergers that took place in some daughter languages, Kuryłowicz presents the basic conceptual issues related to tense and aspect. According to Kuryłowicz the interrelation between tense and aspect categories is determined by relating the moment of speech to the infinite extension of universe time. A moment of speech is represented by a point which joins the past and future represented by "the infinite linear extensions" (Kuryłowicz 1964:92). The verbal action which overlaps this point, i.e. the moment of speech, is the present action represented as a linear extension of the moment of speech. Relative to the extension of the past and future into infinity, the same action is perceived as a point, i.e. a punctual action. Consequently, the present tense has an imperfective aspectual function, while the past and future have a primary punctual or perfective aspectual function. To represent

the imperfective aspectual functions in the past and future, additional imperfectivizing morphemes are used.

According to Kurylowicz (1964:98) the PIE verb system was dominated by fundamental aspectual contrasts. The reconstructed I-E verb system resembles that of Ancient Greek and Ancient Slavic. In the verbal systems of Ancient Greek and Ancient Slavic, the basic aspectual opposition is between imperfective and perfective. As shown in the following diagram, state and indeterminate, i.e. neutral aspect, occupy the intermediate position between the two.

Table 1

Aspect diagram for PIE[5]

indetermined (Γ)[6]

imperfective (B)   perfective (β)

state (γ)

State is represented by the perfect category which is not used as often as the past perfective. Kurylowicz assigns an intermediate position to the state. It represents a linear state (*téthne:ka* 'I am dead') relative to the perfective or punctual aorist (*éthanon* 'I died'). At the same time it represents the state ensuing the perfective or punctual

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[5]This type of system, proposed by Kurylowicz, refers to the late PIE stages.

[6]Kurylowicz's term "indetermined" refers to "indeterminate" aspect. It will be shown in Chapter 4 (§ 4.6) that indeterminate aspect represents a lexical aspectual function and should not be equated with the systemic, or grammatical aspectual functions.

action relative to the linear present (*éthanon* 'I died' as opposed to *apothnέ:sko:* 'I am dying').

Kurylowicz's model predicts that unification of the indeterminate forms represented by Γ and imperfective forms represented by B would result in an ambiguous form with the primary indeterminate and secondary imperfective function. In Ancient Slavic *pišetu* has the primary meaning 'he is in the habit of writing, he can write' and the secondary imperfective function. In Indo-Iranian, Ancient Greek and Latin, these two functions were not distinct in form in the historical period. That is, imperfective had merged with the indeterminate function. The neutral or indeterminate aspect could be exemplified by Ancient Slavic *xoditi*, *lětati*, *nositi* as opposed to imperfective *iti*, *letěti*, *nesti*. Also unification of the aorist (perfective) represented by β and the perfect (state) represented by γ would result in a form with the primary perfective function and the secondary state function, e.g. Polish *przyszedl* meaning 'he came, he has come' has the secondary state function 'he is come, he is here'.

According to Kurylowicz (1964:95-6) both types of merger occurred in Latin, where the binary opposition obtains between B and β representing an innovatory aspectual distinction between simultaneity or non-anteriority and anteriority. Anteriority is the relative aspect which shows reference of an action to a moment, either a moment of speaking, or a past or future moment. The PIE perfect and aorist merged producing a new "perfectum" category which has a primary function of anteriority and secondary function of perfectivity. The Latin perfectum *scri:psi:t* functions primarily as anterior

when opposed to the present *scri:bit* and secondarily as perfective when opposed to the imperfect *scri:bebat*.

Kurylowicz (1964:97) represents the three types of aspect, i.e. imperfective, perfective, resultative (stative) in the following diagram.

Table 2

Fundamental aspectual contrasts for I-E languages

```
        M              O              N
        |--------------|--------------|
      Imperfective            result (state)
                    perfective
```
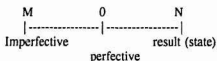
In Ancient Greek and Ancient Slavic the aorist is represented by the fulfilment point O and contrasted against the imperfective segment MO. The Latin "perfectum" is represented by ON, i.e. result or state, which when opposed to the "infectum" MO may be interpreted as anterior action (presupposed by state).

Kurylowicz's model for the postulated PIE (see Table 1) verb system predicts the two types of merger that occurred in the examined daughter languages. This model also shows that the PIE verb system was dominated by the fundamental aspectual contrasts and that the merger of the old aorist and perfect categories did not transform the aspect category into tense in Latin. The Latin verbal system is also dominated by aspect, although a different type of aspect. This is the aspect of "anteriority" which is based on the two types of stems, i.e. "perfectum" and "infectum". Therefore aspect "dominates"

tense in Ancient Greek, Ancient Slavic and Latin as well as in the verb system postulated for PIE (Kuryłowicz 1964:93).

Szemerényi (1970/78:390) argues that the PIE verb system was not dominated by aspectual contrasts, but the present - non present opposition. There were three types of "temporal stems" in PIE, i.e. present, aorist or future, and perfect. The PIE verb system was characterized by the binary temporal opposition between the present and aorist within the active - medio-passive opposition.

Szemerényi (1970/78:390) claims that the present - aorist opposition was based on the stems and only secondarily on the personal endings and the augment. The perfect was classified as a type of a present. At the earlier PIE stages the perfect strictly indicated the state and was possible only in the medio-passive voice. Consistent correspondences between active and medio-passive voice emerged only at a later stage of PIE. In the earlier PIE stages there was a simple binary temporal opposition between the present and non-present (or past) represented by the present and aorist stems, respectively. This basic binary opposition changed into the ternary opposition with the rise of the second past form which was based on the present stems. Therefore the "ancient preterite" was continued as the aorist, while the "new preterite" which was based on the present stem came to indicate the past durative action. This split in the past triggered the complementary rise of the future.

Szemerényi (1970/78:394) recognizes that the present/aorist opposition in Ancient Greek was labelled as aspectual. He claims that the binary aspectual correspondences

peculiar to Slavic existed neither in Ancient Greek nor any other ancient I-E languages. In Slavic languages a pair of verbs indicates an opposition between the perfective and imperfective "manner of action". Szemerényi (1970/78:393) claims that the "manners of action", the equivalent of Russian *vid* is erroneously translated as "aspect". The perfective vid *soveršénnyj* indicates a complete action, while the imperfective *vid nesoveršénnyj* indicates the incomplete action. The perfective present in Russian is the future. Since perfective indicates completion, the perfective present is not a real present, e.g. *ja na-pišá* 'I will write'. The imperfective in the future is represented by a compound, e.g. *ja búdu pisát'* 'I will be writing'.

According to Szemerényi (1970/78:394) the dualism of the Slavic verb system is not inherited and was fully established only later. Therefore the I-E verb system was not aspectual. The aspectual opposition found in Slavic could not have existed in I-E; it was an innovation in this particular group. The I-E verb system was primarily characterized by tense and mood. The dominant opposition in the indicative was between the present and the past, with the future arising only later. However, the earliest distinction was based neither on tense, nor on aspect, but on the mode of action, i.e. the primordial distinction was between the active and stative verbs.

Szemerényi distinguishes between the earlier and later stages of PIE and his chronological ordering of developments related to tense and aspect is generally correct. However the nature of the three types of stems in I-E, i.e. present, aorist and perfect, was not temporal but aspectual. It will be shown in this thesis that the verb systems of

Ancient Greek and Ancient Slavic are characterized by the three types of aspects found both in the past and non-past representing perfectly symmetrical systems. The three mentioned stems could not be temporal, since they are represented both in the past and non-past, indicating three "manners of action" (consult the verb system of Ancient Greek represented in Table 11, § 2.3).

Szemerényi (1970/78:394) claims that the perfective present forms in Ancient Slavic result in the future forms. The same aspectual means of representing future is observed in Ancient Greek where the aorist stems combine with the primary, i.e. non-past, inflection to form the future, e.g. *láso*: 'I will loosen'. It will be shown in Chapter 2 (§ 2.3) that the Ancient Greek aorist stems correspond to the perfective aspect that is expressed by Aktionsart in Ancient Slavic, as well as in Modern Slavic. *If the aorist stems were strictly temporal, consistent usage of the aorist stems in forming future could not be explained.* Also the imperatives in Ancient Greek are based on both types of stems, i.e. the present and aorist stems. Since the imperative mood does not normally have a temporal distinction, the aorist imperatives are obviously perfective. Szemerényi (1970/78:391) states that certain languages possess an aorist subjunctive, which does not have past tense reference. According to Szemerényi this is not to be explained by the *aspectual function of the aorist. He explains the association of the s-aorist subjunctive* with the non-past or present as an inheritance from the earlier period. That is to say, the present forms with -*s* were possible before the present - aorist differentiation. Therefore,

the non-past meaning of the aorist subjunctive is not a semantic characteristic of the aorist itself.

It will be argued in this thesis that the aspectual contrasts were fundamental at the later stages of PIE. The three daughter languages examined in this thesis, i.e. Ancient Greek, Latin and Ancient Slavic, retain the fundamental aspectual contrasts, although the merger of the aorist and perfect in Latin results in a different type of category. In these three languages aspectual contrasts are more prevalent than tense contrasts.

Distinction in the mode of action was dominant in the earlier PIE stages.[7] Besides Szemerényi, this view is also propagated by Kurzová (1993). Kurzová, however, like many other linguists and philologists does not distinguish explicitly between earlier and later stages of the PIE verb system.[8] Like Szemerényi, she considers the mode of action to represent the most original or primordial contrast of the verb system. Unlike Szemerényi, she regards this type of contrast as fundamental, preceding disintegration into various daughter languages, in other words at the later PIE stages. According to Kurzová, a major contrast obtained between "active and inactive verb classes" which represents a "radical" proposal according to which the evolution of the inflectional verb system is seen as "decomposition" of the earlier derivational type.

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[7]The verb system of the earlier PIE is beyond the scope of this thesis.

[8]We should keep in mind that Szemerényi makes a careful distinction between various chronological states of the PIE verb evolution.

A characteristic feature of the IE verb is its large variety of derivative-flectional formations. There is a close structural affinity and historical connection between derivational and inflectional verb categories, semantically motivated by the relevance of the lexical subcategorization of verbs. As a consequence, the suffixal derivations become the source of the inflectional categories, the latter developing via grammaticalization from the derivational categories. The derivational suffixes are then adapted to express aspecto-temporal and modal distinctions (Kurzová 1993:108).

This derivational type of verb system differentiates between the "active" and "inactive" verb classes. These two classes are characterized by "the diathetic meaning" (Kurzová 1993:112). The active class developed into the aorist/present represented by the inflectional endings -*m*, -*s*, -*t* (SG) and the inactive class into perfect/medium endings -*a*, -*tha*, -*e*/-*o* (SG). This type of division did not originally have an inflectional, but a lexical character where both active and inactive verbs had only one series of endings (Kurzová 1993:115). These two classes are essentially lexical, but morphosyntactically relevant.* The lexical active and inactive classes yielded aspectual sub-distinctions:

Table 3

Active and inactive classes in PIE

active		inactive	
imperfective	perfective	process	state
medium	perfect	medium	perfect

(Kurzová 1993:118)

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*For the detailed semantic and grammatical characterization of these classes, see Kurzová (1993:116-41).

As Kurzová proposes, the original lexical distinction developed into a grammatical aspectual/temporal contrast in Ancient Greek and Aryan, for example.[10] She claims (1993:143), however, that the restructuring of the Latin verb system does not follow the perfect/aorist merger, as traditionally assumed. Rather, the Greek/Aryan and the Latin verb systems represent parallel developments from the original lexical distinction. While in languages such as Greek and Aryan the aorist originates with the active, and the perfect with the inactive class, the Latin perfect partly originates with the active, and partly with the inactive class.[11] The development of the Latin perfect, which relies partly on the original inactive class (perfect meaning) and active class (aorist meaning) is justified by the central position of the present in relation to the perfect/aorist.[12] The same present form is opposed either to the perfect with the aorist meaning, or the perfect with the stative meaning.

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[10]Kurzová (1993:144) states that the three types of stems are "aspecto-temporal", thus confusing aspect and tense. Different types of stems both in Greek and Aryan are clearly aspectual yielding distinct forms in the past and non-past. Tense in these languages is expressed by the augment and inflectional ending (see Chapter 2 for the representation of the Ancient Greek verb system).

[11]Inflectional endings, however, originate with the inactive class, see Kurzová (1993:147-8) for the derivation of the Latin perfect inflection.

[12]For a detailed explanation, see Kurzová (1993:145-56).

Table 4

Opposition between the present, aorist and perfect in Latin

perfective	thematic present	state
di:xi:	di:co:	
	video:	vi:di:

(Kurzová 1993:146)

We shall see, however, in Chapter 3 that particular perfect forms in Latin, e.g. *vi:di:* from *video:* 'I see' may have different functions, depending on the context. Thus, the perfect form such as *vi:di:* does not always represent a state, but may also denote a past perfective event, i.e. aorist function (see § 3.4.1). Kurzová does not provide sufficient evidence in denying a separate existence of the aorist and perfect categories in late PIE and their merger in Latin. Review of different types of perfect or "perfectum" in Latin (in § 3.1.1) reveals formal correspondences of aorist and perfect forms. Moreover, examination of the perfect function in different contexts reveals both types of function :.e. aorist (past perfective) and perfect (present resultative).

The proposal for the original active/inactive opposition is not incompatible with the traditional reconstruction according to which the Latin verb system represents a secondary development from late PIE, which resembled the Greek/Aryan verb system. It is only necessary to distinguish between the early PIE stages, characterized by the

active/inactive diathetic contrast, and late PIE stages characterized by a three way aspectual contrast continued in the Greek/Aryan verb system type.

1.2 Synchronic Approaches to Aspect/Tense

A number of linguists have examined the subject of aspect and tense from a synchronic point of view. Among them Comrie (1976) exposes a general linguistic theory of aspect. He relies on the traditional grammar with the special emphasis on the semantics of aspect. He also discusses some structuralist and philosophical concepts related to aspect (as stated in the Preface of "Aspect", 1976). Comrie (1976 and 1985/86) provides definitions of tense and aspect complemented by a review of aspect and tense systems within a wide range of languages.[13]

Comrie (1985/86:vii) defines tense as "a grammaticalized expression of location in time." Time is represented by a straight line with the present moment represented by a point.

Table 5

Representation of time

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------------ | --------------
past        0    present
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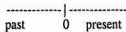
The present moment is referred to as the deictic centre. A major distinction between tense and aspect is that tense is deictic, i.e. it relates a situation to a point in time.

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[13]Comrie has written two separate books related to this issue, "Aspect" (1976) and "Tense" (1985/86).

Comrie (1985/86:6) makes a distinction between absolute and relative tense, following Reichenbach (1947:288). An absolute tense relates past, present or future situations to a present moment. A relative tense, on the other hand, may relate a past, present or future situation to the present or another point in time. In other words, the deictic centre is not restricted to a present moment. Aspect is non-deictic, it emphasizes the internal structure of a situation without referring to a point in time. A distinction between absolute tense referring to the "point of the event" and relative tense referring to the "point of reference" was originally proposed by Reichenbach (1947:288).

According to Comrie (1976:16-9) perfective aspect refers to the view of the situation as a whole without the emphasis on the internal phases. The imperfective aspect, on the other hand, refers to the "internal structure of the situation".[14] Comrie argues against defining perfectivity as a short or punctual, i.e. momentary situation. A perfective verb may refer to a situation that lasts over a longer period of time, e.g. *ebasfleuse déka éte:* 'he reigned for ten years'. Perfective verbs refer to situations with internal complexity and the momentary or point-like definition precludes their internal structure. Comrie (1976:18) compares a perfective situation to a blob which is a three-dimensional object with an internal complexity represented as a circumscribed whole. Comrie also states that perfective indicates a "complete" rather than "completed" situation. The term "completed" emphasizes the terminating point of a situation. A perfective verb does not necessarily represent a terminated situation, while it does

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[14]Comrie's term "situation" includes events, states and processes.

represent a complete situation seen as a whole. It will be shown that the aorist in Ancient Greek (§ 2.4.1) and Ancient Slavic (§ 4.5.1) represents inherently a complete event as a whole, while the aorist marked for the Aktionsart always represents a completed perfective event.

Comrie (1976:52) classifies the perfect as an aspect. He states, however, that the perfect is different from the perfective and imperfective in that it relates two points in time, i.e. the present and the past. The perfect represents the present state that relates to a past situation.

Inherent, i.e. semantic, aspectual characteristics may affect grammatical aspect classifications. Comrie (1976:41) provides a verb classification with regard to inherent aspectual features. Some verbs, such as Russian perfectives are inherently durative implying that the situation lasts a certain period of time, e.g. *ja postojal* (PFV) *tam čas* 'I stood there for an hour'. They are different from the imperfective verbs, which refer to an internal view of a situation. Inherently durative verbs are opposed to punctual verbs. A class of verbs with the suffix *-nu* in Russian, *kašljanut'* 'cough' could be classified as punctual. These verbs refer to situations which may not have duration, they could represent only a punctual situation or a series of punctual acts. Certain verbs are semelfactive referring to a single situation, such as one cough or iterative referring to a repeated situation, such as series of coughs. Comrie (1976:44) also makes a distinction

between telic[15] and atelic situations. These two types refer to the internal structure of a situation. A telic situation is a situation with a terminal point that must be accomplished such as *John is making* a chair. An atelic situation may last indefinitely or be interrupted, such as *John is singing*. However, the semantics of a telic verb is altered when combined with the perfective aspect, e.g. *on sdelal stul* (PFV, Russian) 'he made/has made a chair' where the perfective aspect indicates completion of the situation. Telic situations which lead to a termination such as *John is reaching the summit* are to be distinguished from the achievements (Vendler 1967:102-3) such as *John reached the summit*.

A distinction between "state" and "action" has been addressed by Lyons (1963), Lakoff (1966) and Vendler (1967). Comrie (1976:48-51) proposes a term "dynamic situation" rather than "action", given that it does not necessarily imply participation of the agent. Stative verbs such as *know* refer to situations with the constant internal structure, consisting of identical phases. Dynamic situations such as *run*, on the other hand consist of varying phases. According to Comrie "events" and "processes" are classified under "dynamic situations". The term "process" emphasizes the internal constituency of a dynamic situation referring to an imperfective aspect. "Event" on the other hand indicates a dynamic situation viewed as a whole referring to the perfective aspect.

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[15]The term "telic" was first used by Garey; it is referred to as "accomplishment" by Vendler (1967:102).

Comrie (1976 and 1985) attempts to establish tense and aspect universals based on the wide-ranging cross-linguistic evidence. Semantic implications of the tense and aspect categories are discussed in connection with numerous examples from a number of languages. However, grammatical functions of the verb categories cannot be precisely determined without taking into consideration functions of the other categories within a particular system. Comrie does not consider semantic and grammatical implications of these categories within the systems of particular languages. Verb categories may not be randomly compared across languages; a verb category labelled as perfect in Latin does not have the same grammatical function as the perfect in English or Modern Romance languages, for example.

Similar to Comrie, Dahl takes a typological perspective to the study of tense and aspect. Dahl's work (1985) founded on a typological survey of tense and aspect systems in more than sixty languages provides a common set of category features found across languages. The set of cross-linguistic tense and aspect category types is related to particular languages that are examined. Dahl's postulated set of universal features is based on the data in a wide range of languages, which as he states, is a response to the earlier traditionally oriented works on tense and aspect based on restricted data. That is to say, there is no attempt to make a connection between the conceptual basis of the linguistic description and the cross-linguistic tense and aspect categories.

Dahl (1985) makes a distinction between absolute "language universals", that is, properties postulated for all human languages and the categories actually manifested in

world's languages. He proposes that a limited set of tense and aspect category types represents a foundation of the tense and aspect systems actually manifested in world's languages. Hence the term "cross-linguistic variation" as opposed to "language universals" which implies the absolute presence of certain categories in all languages.

Dahl's theory (1985) of tense and aspect is based on categories rather than binary semantic features. Therefore, specific categories of particular languages, such as perfect in English, are manifestations of "a cross-linguistic category type". Dahl proposes the term "foci" for the prototypical uses of categories (following Berlin and Kay's study of colour terms, 1969) for the identification of tense and aspect categories cross-linguistically. Actually manifested categories are selected from a set of cross-linguistic categories while the impreciseness of a category type is reduced with the eventual assignment of non-focal or secondary functions. A distinction between category types and the language specific categories is related to the semantic notions of "impreciseness" and "focusing".[6] The notion of impreciseness refers to the prototype category or focus. A prototype category represents a concept which is essentially imprecise. Dahl introduces the notion of "conceptual space" as a background for the foci of the cross-linguistic category types represented as "points" and category extensions as "regions" given that foci or prototype categories are essentially imprecise. Dimensions of the "conceptual space" may not however be clearly defined. Since the features of the proto-

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[6]The notion of impreciseness is often referred to as "vagueness" and "fuzziness" by philosophers, related to the "fuzzy set theory".

type category may not be well determined, the conceptual system of tense and aspect categories should not be described in terms of a set of binary features.[1]

Dahl (1985) points to a crucial distinction between the levels of category types and conceptual space in his general theory. For example, the traditional term "past" may be identified either as a "cross-linguistic" category or the "value of an underlying dimension". The feature of an "underlying dimension" has a broader sense, it encompasses past, but also perfective. Dahl proposes three levels of linguistic description, i.e. "universal semantic categories", "universal grammatical categories" and "language-specific grammatical categories". Dahl's proposal is an extension of Comrie's description with two levels, "universal semantic categories" and "language-specific grammatical categories". Dahl justifies this distinction at the "cross-linguistic" level by a correlation between the category types and the categories manifested in particular languages. Specifically, the cross-linguistic level is characterized by the markedness consistency, i.e. a given member of an opposition is always marked. Also, the fact that the categories are expressed either morphologically or periphrastically at the cross-linguistic level calls for the distinction of grammatical category types.

Dahl argues that Comrie's definition of aspect is strictly semantic and that aspect is crucially related to the grammatical function of tense within the context. In other words, perfective aspect could be identified only in relation to the tense. Dahl also

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[1]Phonological theory with a set of binary features representing linguistic universals was proposed by Jakobson and Halle (1956/71).

points out that Comrie's distinction between tense and aspect identified as a distinction between deictic and non-deictic categories may not coincide with the tense subdivision between "absolute" and "relative" tenses. Dahl argues that the "relative" tense functions are indeed aspectual aside from their deictic status. This position (also propagated earlier by Kurylowicz 1964) is adopted in this thesis. The analysis of the Latin verbal system (see § 3.3) will show that "anteriority" coincides with the perfective aspect, i.e. perfectum, while "simultaneity" coincides with the imperfective aspect, i.e. infectum. In light of Dahl's conceptual framework, tense and aspect may not be so clearly delineated as language particular or even cross-linguistic categories, although they are clearly defined as proto-typical conceptual categories.

The moment of speech and the position of the subject relative to the event and universe time are crucial in distinguishing tense and aspect. Comrie's classification of tense as deictic and aspect as non-deictic is very similar to Jakobson's classification (1971) of categories according to the reference of the narrated event to the speech event. Classification of tense and aspect are based on distinctions between speech and the narrated topic as well as between the event and the participants. While tense relates the narrated event to the speech event, aspect represents the narrated event without referring to its participants or the speech event. According to Jakobson "relative tense" is covered by a more general term "order" (Bloomfield 1946) or even more appropriate "taxis". "Taxis" relates the narrated event to another narrated event without referring to the speech event. The "simultaneity" and "anteriority" taxis is classified as dependent since

it relates to the independent verb. Taxis categories, or categories which relate a narrated event to another narrated event, are also classified as "connectors". Categories such as tense and aspect which represent a single narrated event are classified as "designators". The "shifter" - "non-shifter" distinction is based on the speech event reference. Thus tense is a "shifter" since it relates the narrated event to the speech event. Aspect is a "non-shifter" and "quantifier" since it express the quantity of the narrated event.

The significance of the position of the subject in relation to event time in determining aspect and the position of the subject in relation to event time and universe time is captured by the cognitive framework. As shown below, the position of a subject is cardinal in representing the verbal categories as the parts of a system. Gustave Guillaume (1929) proposed a cognitive model according to which certain verbal categories are represented at distinct, successive cognitive stages in the construction of a time-image. The model incorporates the fundamental concept that the verb system is represented by "chronogenesis", i.e. evolvement of the linguistic time constructed in distinct stages. Verbal categories introduced at each cognitive stage represent the constructive blocks of such a verb system. The idea of linguistic categories belonging to a system and being identified according to their position within a system originated with Saussure (Hewson 1993:1). Employing Hjelmslev's terminology, delineation of the underlying system as "content" is perceived through the "elements of expression" (Hewson 1993:4). Gustave Guillaume adheres to the structuralist tradition of delineating the underlying systems of grammatical categories. According to him, the content system

of a language, which is not directly observed, is discerned through the morphological and syntactic structures which represent the expression aspect of the surface representation. Guillaume expounds even more fully the notion of grammatical content showing that the content system is constructed of distinct cognitive stages, i.e. subsystems, represented by the distinct verbal forms and perceived as a progressive development of the representation of linguistic time.

"Chronogenesis" in Guillaume's models of French (1929/65), Latin, and Greek (1945/65) consists of three stages. "Chronogenesis is the mental formation of linguistic time perceived in genesis according to the longitudinal sense of operative progression" (Guillaume 1945/65:23).[14] Guillaume relates the term "chronogenesis" to "the spatialization" of time (Guillaume 1945/65:25) and "chronothesis" to the intervals obtained in successive transversal cuts of the "chronogenesis" (Guillaume 1945/65:23). The intervals resulting from transversal cuts of the chronogenesis refer to three distinct stages of the verbal content system which parallel progressive development of the linguistic time perceived through observable verbal categories.

Guillaume's developmental scheme, i.e. "chronogenesis", integrates the notion of cognitive processing. Cognitive processing refers to the operation of picking a lexeme and allocating it to a certain position within the "chronogenesis", that is within the verbal representational system. The idea that linguistic content systems are based upon the speaker's experiential existence was proposed by Johnson (1987). Referring to the

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[14]Translated by S.M.

ontological issue of classifying and ordering the formal structures and categories, he claims that there is a gap between the conceptual, formal or rational aspect of the human mind and the bodily, perceptual and emotional aspects of experience. Consequently traditional philosophers do not consider non-propositional experiential structures relevant in deducing meaning and logical operations (Johnson 1987:xxv). Johnson does not entirely refute the significance of formal systems and structures. However, he claims that formal systems are not atemporal and aspatial entities, but represent conceptual systems and formalizations based on our experience. In other words, bodily experience allows the subject to formulate consciously experiential patterns into abstract schematic structures and organize the categories into formal conceptual systems (Johnson 1987:38).

Johnson states that the subject's conceptual system converges with experience at two levels, (1) the basic level of understanding at which the subject consciously makes a distinction among objects and living beings and (2) the image-schematic level at which the subject frames the understanding into certain forms of structure and defines it in order to properly identify these forms as experiential patterns (Johnson 1987:208). The verbal content system represented by chronogenesis converges with the subject's experience at these two levels: (1) the basic level involves picking a lexeme, e.g. a verb, and distinguishing it from other lexemes and categories and (2) the image schematic level which allows us to provide this lexeme with a form, define it as a certain verbal category based on experiencing it in time, and ultimately allocating it to a particular time sphere. These two experiential levels, that is, the "basic" and "image-schematic level" (Johnson

1987:208) are referred to as "ideogenesis" and "chronogenesis" (Guillaume 1929/65:8-9), respectively. "Ideogenesis" refers to the stage prior to the linguistic time evolvement, it involves abstraction of a lexeme, e.g. *ama-* 'love' (Latin), and identification of the lexical category as a verb.   "Morphogenesis" refers to the subsequent shaping of the lexical category into a grammatical form.

As mentioned above, the role of the subject is cardinal in perception of the verbal categories in the mental formation of linguistic time or "chronogenesis".   Verbal categories are defined and shaped into their grammatical forms ("morphogenesis") based on their allocation to particular stages of "chronogenesis".   Allocation of a verbal category to a particular stage is mediated through the subject's consciousness and based on the experiential patterns.   A brief representation of Guillaume's proposal (1929/65:8-9) of "chronogenesis" is here illustrated by the Latin verbal system.   Guillaume's model of the Latin verbal system presents the development of the "chronogenesis" as a construction of three distinct cognitive levels.   Each level exposes an increasing complexity of the verbal categories represented.

The first stage of the "chronogenesis", in Guillaume's view (1945/65:37), represents the quasi-nominal forms, i.e. infinitives.   The Latin infinitives *ama:re* (infectum) and *ama:uisse* (perfectum) represent descending time, that is the downward flow of experiential time.   Guillaume (1964:195) makes a distinction between the movement of time in the mind and the operation of the mind in the time.   Time is perceived in the mind as descending; it descends from the future into the past.   On the

other hand, thought ascends or operates in time. It progresses from the present into the future.

The second stage represents the forms of the subjunctive mood, seen as events in Universe Time. At this stage consciousness does not relate its three aspects, i.e. memory, sensory experience and imagination to Universe Time. Rather, Universe Time is perceived as a whole. Within the Latin subjunctive system, Universe Time is seen both as descending, e.g. *ama:rem* and *ama:uissem*, and ascending, e.g. *amem* and *ama:uerim*. Both pairs of subjunctive forms are based on the infectum - perfectum aspectual opposition. These forms represent events which are not located within time spheres, but simply in either descending or ascending Universe Time.

At the third stage of "chronogenesis" Universe Time is divided into three time spheres, based upon the three aspects of consciousness, i.e. memory, sensory experience and imagination. At this stage consciousness relates the verbal categories to one of the three delimited domains. In other words, the subject's consciousness represents a centre for the delimitation of Universe Time and the classification of a verb form as a tense category. Three time domains, i.e. present, past, and future, ruled by the three aspects of consciousness constitute the background for the representation of the indicative verb forms. Infectum - perfectum aspectual pairs are represented in each domain, *ama:bam* and *ama:ueram* in the past, *amo:* and *ama:ui:* in the present, *ama:bo:* and *ama:uero:* in the future.

Guillaume, however, omits the representation of participles from this scheme. Participles are also quasi-nominal forms, and should be represented at the first stage of chronogenesis. The participles have gender, number and case, and therefore are closer to the nominal categories than infinitives, which suggest a development between the two stages. At this stage the system makes a subtle distinction between forms which are "more nominal", i.e. participles, and "less nominal" or "more verbal", i.e. infinitives. Chronogenesis therefore moves away from the three distinct participles, all marked for number, gender and case to establish a more concrete verbal category, i.e. the infinitive.

Consciousness relates the verb categories to Universe Time. The delimitation of Universe Time into time spheres by consciousness represents a background for the identification of the tense category. At each stage of "chronogenesis" the verb forms are represented either as incomplete or complete characterizing the infectum - perfectum aspectual opposition, respectively. Aspect refers to the position of the subject in relation to the event, i.e. event view, regardless of the stage. Distinct views of event time within the cognitive framework have been proposed by Valin (1975:135). Valin makes a distinction between the external or exotropic and internal or endotropic view of the event. The exotropic or external view of the event represents a complete verbal action viewed from a point outside of a defined, circumscribed span of time, i.e. Event Time. Event time viewed internally could focus on any point within a certain span of time, that is, within Event Time. According to Valin (1975:135) the verb action which is viewed internally could occupy either a portion or a whole of a given span of time; these two

successive states are known as "merotropy" or "plerotropy", respectively. "Merotropy" represents a state achieved at any point n+1 within a given span of time, including the initial point, but excluding the final. This final point of the event time, which represents a state of a complete action, within a limited span of time is referred to as "plerotropy".

Table 6

Cognitive views of event time represented as aspect functions

```
                    endotropy - internal view
                    event time

universe time I n+1   |----x---------x |  x
                                            exotropy - external view
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The present perfectum form *ama:ui:* represents the external exotropic view of the verb action in descending time viewed retrospectively after the final moment of Event Time. The present infectum form *amo:* represents a "merotropic state" of an event viewed internally, also perceived in descending time. There is no category in Latin which refers to the final moment of the verb action in descending time viewed internally, that is, "plerotropy". It is generally assumed that the aorist, which represents the plerotropic state of an internally viewed action, had existed in the earlier stages of Latin. This assumption is based on a number of perfect verb stems which end in *-s*, e.g. *du:xi:* 'I lead', *vi:xi:* 'I lived', which represent relics of the old sigmatic aorists.

Representation of the tense and aspect categories within the cognitive framework shows that the subject's consciousness plays a cardinal role in defining the two

categories. The cognitive approach incorporates the indispensable notion of Universe Time and shows how consciousness relates to Universe Time in representing the tense categories (as well as the different mood categories). At the same time the subject's consciousness is active in representing the verbal aspectual distinction. The advantage of the "structured cognitive" approach over the traditional structuralist "taxonomic" approach (Bloomfield, Jakobson) which only provides an ordered classification for the verb categories, is a consistent recognition of the subject's role in defining both tense and aspect categories. It has been shown that Jakobson (1971) provides a classification for the tense aspect and relative tense, based on the role of the participants and the reference to the speech events. Specifically, the role of the subject is not recognized in defining the aspect and "relative tense" ("relative aspect") category. However, the position of the subject is crucial in defining the aspect category, as complete or incomplete, for example. Moreover, the tense and aspect cannot be separated in identifying a particular verb category, e.g. *ama:ui:* 'I loved' is both present and perfectum. The fact that tense and aspect are closely related and that aspect may not be defined without reference to tense was recognized by Dahl (1985). The subject's consciousness is active in identifying both the event view, i.e. aspect, and allocating a particular verb to any of the Universe Time spheres in identifying the tense category.

One of the most comprehensive reviews of various theories on tense and aspect is provided by Binnick (1991). The most ancient views on tense and aspect by Aristotle, the Stoics, Dionysius, Varro up to the modern works of formal semantics are reviewed

and thoroughly discussed. Like Comrie (1976) and Dahl (1985), Binnick relies on the wide-range of data from various languages, supplementing points of discussion by "tenses" from various languages. As will be shown, the type of approach that concentrates on pieces of evidence from various languages inevitably fails to correctly identify the aspect and tense functions in each particular language. Function of any verb forms may be determined only in relation to other verb forms within the verb system of a particular language.

Binnick (1991) treats the issues of tense and aspect in separate chapters which are for the most part based on a review of previous work. He, however, recognizes the fact that aspect may not be properly examined without referring to tense at the same time. Although he correctly distinguishes between aspect and tense, i.e. time reference, he identifies the verb forms as "tenses", like many other scholars (as discussed in § 2.3). What most scholars refer to as "tenses" are indeed the verb forms that are marked both for tense, i.e. time reference, and aspect, i.e. subject's view of the event time. Thus aorist, for example, denotes both the past tense and perfective aspect and should not be labelled simply as "tense".

Binnick (1991:9) criticizes early philosophers, e.g. Protagoras and Plato, for failing to clearly distinguish between the logical category of time and grammatical category of tense. He argues for a distinction between real world and grammatical categories, pointing out that there are only three experiential "times" while languages may posses more tenses. Thus for example, Ancient Greek possesses more than one past

"tense". We shall see, however, that the "past tenses" such as aorist, imperfect and pluperfect, all represent different aspectual contrasts within the past tense. That is to say, they all equally have the past time reference, while representing at the same time different views of the event time. In the three languages examined in the present work, verb forms are marked both for aspect and tense, which denotes the time reference. Tense therefore should refer to the grammaticalized notion of Universe Time. We shall see that in languages which employ perfective aspect for future time reference, e.g. Ancient Greek and Ancient Slavic, there is only a two way temporal distinction, i.e. past and non-past where the non-past encompasses verb forms with present and future time reference. It is, therefore, possible to distinguish between the grammaticalized tense category and the logical category of time without confusing tense and aspect.

Binnick (1991:148) correctly defines aspect and Aktionsart and distinguishes between the two categories. Aspect is a grammatical category pervading the verb system. Aktionsart is, on the other hand, a lexical aspectual representation. Binnick uses a "structuralist" argument to explain a crucial distinction between grammatical aspect on the one hand and lexical aspect on the other. The grammatical aspectual function of a particular verb form is defined within the verbal system as a whole in relation to all other verb forms. Binnick (1991:169), however, argues that the structuralist approach does not provide a sufficient means for the aspect analysis:

> We intuit that there are substantive universals of aspect, even if weak, implicational ones, and that the systems of various languages are not merely contingent, historical accidents, but rather reflect deep principles

of meaning and use of language. The theory does not address such issues, nor does it provide adequate tools for their investigation. A search for a deeper understanding requires substantially more sophisticated tools than structuralism can provide.

Binnick (1991:213) argues that only "an objective semantic theory" may account for the universal properties of the aspect systems found in languages. Categories found in various languages may be selected from a universal set of categories. Or it may be possible that there is a limited set of categories, so that aspect and tense systems may vary only to a certain extent while they are essentially identical.

Binnick provides a review of a number of formal semantic theories and points out that aspect and tense categories have been thoroughly examined only in the referential framework. It is very difficult to see, however, how the formal symbolism of tense operators PRES, PAST, FUT and the aspect operator PERF (Binnick 1991:253) account for similarities and differences in aspect/tense expression across languages. In a similar way notation used for the present perfect of English PRES(PERF(p)) (Binnick 1991:244) does not necessarily account for the Latin perfect which may have either a past perfective or present resultative function (as shown in § 3.4.1), nor does it account for the perfect in Modern Romance languages; French, for example, which may denote a narrative past, although marked for the present tense.

I agree that structuralism alone may not provide a sound method for the analysis of aspect in a particular language, as in an attempt to draw universals pertaining to grammatical aspectual functions. However, systemic functions of the verb categories,

defined in relation to other verb categories within the system, represent an indispensable basis for determining their aspectual functions within a single language. Defining aspectual functions does not necessitate a postulation of privative aspectual oppositions à la Prague school (see Binnick 1991:160) or as done by Ruipérez (see § 2.3 for his analysis of the Ancient Greek verb system). These types of analyses represent tense and aspect features separately, thus failing to provide a precise identification of the verb categories. As will be shown, perfective aspect in Ancient Greek and Ancient Slavic in the non-past is used for future time reference which shows that tense and aspect may not be treated independently (Chapters 2 and 4, particularly § 2.3 and § 4.3).

A systemic approach that takes into consideration all grammatical features, both temporal and aspectual, considering at the same time patterns of formation of verb categories represents a solid basis for the aspect/tense analysis of a particular language. This type of approach must be complemented by the analysis of contextual functions of the same verb categories, as the position of the verb category within a system is often not a sufficient criterion for determining a possible range of aspectual functions. For example, the position of the aorist and future within the verb system of Ancient Greek only indicates that these two categories are aspectually related; their possible aspectual functions may be determined only by the context (see § 2.4.1 and 2.4.3). In a similar way, the position of the Latin perfect within its system does not reveal all of its possible functions; contextual usage shows that the Latin perfect (§ 3.4.1) corresponds both to the aorist (§ 2.4.1) and perfect (§ 2.4.4) of Ancient Greek. A dual function of the Latin

perfect is entailed by the merger of the aorist and perfect of late PIE. In this thesis, aspect/tense functions are defined according to the systemic oppositions of the verb categories, their contextual usage and historical development. It is possible to determine certain universal properties of aspect/tense, although the systemic representations of the verb systems of various languages vary and therefore are not universal.[19] Certain aspectual and temporal features common to most languages could, however, be postulated, such as the concepts of perfective, imperfective and resultative aspect. Separate categories are not always employed (as in Ancient Greek and Ancient Slavic); in Latin the perfect category encompasses both perfective and resultative aspect. Following Dahl (1985) universal properties of aspect/tense do not necessarily have to be represented by the verb categories or forms which actually occur in languages but by the abstract concepts that they may represent at the level of conceptual space.

This thesis will represent the evolution of the grammatical aspect and tense categories from late PIE stages to Ancient Greek, Latin, and Ancient Slavic. The verb categories denoting both aspect and tense will also be represented systemically in all three languages. The tense and aspect categories will be examined within the system *per se* where each verbal category occupies a particular position and has a clearly defined function in relation to the other verbal categories. Systemic functions will be compared with contextual functions of the same categories. Interaction of lexical features, i.e.

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[19]Different languages, however, such as Ancient Greek and Ancient Slavic, for example, may have very similar systemic representations of the verb categories.

Aktionsart, with the grammatical categories will also be examined. The emphasis of the present work concerns grammaticalization of lexical aspect, i.e. Aktionsart, in Ancient Slavic in relation to the grammatical expression of aspect in Ancient Greek and Latin.

CHAPTER 2

Aspect and Tense in Ancient Greek

It will be argued in this Chapter that the verb system of Ancient Greek shows a close formal and functional relation between the verb categories that share aspectual functions. Verb categories are discussed with respect to various types of formation and their origin. Aspectual and temporal functions of the verb categories serve as a basis for a formal and systemic analysis of the Ancient Greek verb system. Representation of the Ancient Greek verb system is followed by a discussion of the verb category functions in Homeric and Classical Greek.

2.1 Verb categories in Classical and Homeric Greek with reference to their origin

2.1.1 Aorist

Several types of aorist formation in Ancient Greek had arisen at different periods of the PIE history. Ancient Greek grammarians traditionally make a distinction between the first and second aorist referring to the synchronic state of the language. The first aorist refers to the sigmatic aorist which is predominant in Classical Greek, while the second aorist is represented by the relics of the earlier productive category.

The second aorist is referred to as "the apophonic type represented by different forms of the verbal root" (Kurylowicz 1964:109). This group is characterized by a general distinction between the thematic and athematic aorist.

2.1.1.1 Thematic Aorist

According to Buck (1933:283), the thematic aorist by and large has a weak grade of the root, e.g. *élipon* 'I left', *éphugon* 'I fled', *édrakon* 'I saw', *élabon* 'I took', a minority is characterized by e-grade, e.g. *étekon* 'I brought forth', *egenóme:n* 'I became'. Aorist forms of these two types are characterized by an oxytone stem.[1] This type originally had a zero grade in the root and an accent on the thematic vowel, e.g. AOR INF *lipeîn* 'to leave', AOR PART *lipó:n* 'having left'.[2] The ancient type with the zero grade is well attested only in Homeric Greek, e.g. AOR *háde*, *euáde* 3SG (*handáno:* 'please'), AOR *édrake* 3SG (*dérkomai* 'see'), AOR *é:rike* 3SG (*ereíko:* 'break'); only one form is attested in Pindar, *drapó:n* 'having gathered' (Chantraine 1967:171).

Ancient Greek also preserves a thematic reduplicated aorist attested mostly in Homeric Greek. Reduplication of the aorist stems with the initial vowel is represented by the repetition of the initial vowel and consonant, *ó:rore* 'he set in motion' cf. *órnu:mi* 'set in motion, stir'; aorist stems with the initial consonant reduplicate the vowel *e* and the initial consonant keeping the zero grade of the root, *dédae* 'he taught' cf. *didásko:* 'teach' (Chantraine 1967:173-5). Chantraine (1967:175) and Meillet (1964:204) point out that this archaic aorist type has a factitive function.

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[1] Oxytone stems have an accent on the last syllable.

[2] See also Chantraine (1963:171)

2.1.1.2 Athematic Aorist

This least productive aorist type in Ancient Greek was, according to Meillet (1964:202), one of the main verb categories of PIE. Throughout the history of Greek the productivity of this aorist type progressively diminished (Chantraine 1967:161). Very few relics retain the vowel alternation between the *e*-grade of the singular active paradigms as opposed to the zero grade in the plural, dual and all numbers of the middle voice paradigms. In the following examples singular forms are zero grade: AOR *anépta:n* 1SG (Sophocles, Ant. 1307), Ion.-Att. *épte:n* 1SG; middle voice also has a zero grade, *éptato* 3SG from *pétomai* 'to fly' (Chantraine 1967:162). A few aorist forms which have an element *-k-* in the singular, always show the vowel alternation, e.g. *éthe:ka* 1SG (*títhe:mi* 'place, put'), middle voice *ethéme:n* 1SG (Chantraine 1967:162-3).

2.1.1.3 Sigmatic Aorist

On the basis of evidence in I-E languages it was probably a productive category in late PIE. The sigmatic aorist represents the most productive aorist type in Ancient Greek.

Table 1

Sigmatic aorist

present	aorist
agoreúo: 'I speak'	e:góreusa
akoúo: 'I hear'	é:kousa
bouleúo: 'I plan'	eboúleusa
geláo: 'I laugh'	egélasa
kaléo: 'I call'	ekálesa
keleúo: 'I order'	ekéleusa
pisteúo: 'I trust'	epísteusa

The aorist stems in -*l*, -*m*-, -*r*, and -*n* do not preserve the sigmatic marker, as in the following examples.

Table 2

Aorist in -l, -m, -r, and -n

present	aorist
aggéllo: 'announce'	e:ggeila
ageíro: 'gather'	é:geira
oiktíro: 'pity'	ó:ikti:ra
amú:no: 'ward off'	é:mu:na
se:maíno: 'signal'	esé:me:na
krí:no: 'judge'	ékri:na

It may be pointed out that these are the only stems where -*s*- is phonetically elided; -*s*- disappears following -*n*-,-*m*-,-*r*- and -*l*- in Attic-Ionic and following -*n*- and -*m*- in most dialects of Ancient Greek, e.g. Att. *éphe:na* 1SG from *phaíno:* 'make clear' (*ephansa*), *éneima* 1SG from *némo:* 'distribute, assign' (*enemsa*). In spite of the loss of -*s*- intervocalically, the sigmatic marker is preserved in all other stems by analogy with the

stems in which the sigmatic marker follows an occlusive e.g. *édeiksa* 1SG (*defknumi* 'point out, display'), *étripsa* 1SG (*tríbo:* 'rub'), *éskhissa* 1SG, simplified into *éskhisa* (*skhízdo:* 'split') (Chantraine 1967:177).

Meillet (1964:213) states that the denominative sigmatic aorist subsequently emerged in Greek, Slavic and Celtic independently. This aorist type is predominantly based on the stems with the long vowel.

Table 3

Denominative sigmatic aorist

ti:máo: 'honour'	étí:me:sa
philéo: 'love'	ephíle:sa
de:lóo: 'show'	edé:lo:sa

Although the sigmatic aorist shares the aspectual function with the sigmatic future in Ancient Greek, this type of association is not postulated for PIE.[3] As shown below, the sigmatic future has a different origin.

2.1.2 Sigmatic Future

It is assumed that the sigmatic future developed from ancient desiderative formations although general consensus concerning its exact origin has not been achieved.

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[3]Functions of the verb categories are discussed in § 1.3. It will be shown that both aorist and future share an aspectual function, representing complete events, the former in the past and the latter in the non-past.

Kurylowicz (1964:115) proposes that the sigmatic future originated with the short vowel subjunctive, i.e. ancient injunctive, of the -s-aorist.[4]

Buck (1933:278) and Chantraine (1967:246) argue against the analysis of the Ancient Greek sigmatic future as a short vowel subjunctive of the sigmatic aorist. Both point out that in many cases the sigmatic future corresponds to the root aorist.

Table 4

Sigmatic future/root aorist

future	aorist	present
ákso:	é:gagon	ágo: 'lead, take'
eleúsomai	é:lthon	érkhomai 'come, go'
peísomai	épathon	páskho: 'suffer'
théso:	éthe:ka	títhe:mi 'place'

Chantraine (1967:246) shows that the future and aorist may be based on different stems.

Table 5

Future and aorist forms based on different stems

future	aorist	present
ópsomai	eídon	eído: 'see'
epéo:	eípon	légo: 'speak'[5]

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[4]See Kurylowicz (1964:111-5) for argumentation concerning development of the sigmatic future.

[5]This verb also has a regular sigmatic aorist form, i.e. éleksa, corresponding to the sigmatic future form lékso:.

Even if both future and aorist are based on the sigmatic stem, it may be difficult to derive the future from the aorist, e.g. FUT *tenô:* 1SG (**tenéso:*), AOR *éteina* 1SG (**étensa*) from *teíno:* 'stretch, extend' (Chantraine 1967:246, Buck 1933:279).

According to Buck (1933:279), the Ancient Greek sigmatic future is related to the future forms in *-syo-* in Indo-Iranian and Lithuanian, Skt. *da:sya:mi* 'I will give' (cf. Lith. *duosiu*), and *-so-* in Italic, Osc.-Umbr. *fust* 'he will be' and early Latin *faxo:* 'I will do'. These future forms are related to the Sanskrit reduplicated desideratives, e.g. *pi:pa:-s-a:mi* 'I wish to drink'. Chantraine (1967:246-7) claims that the sigmatic futures in I-E languages originated with the PIE desiderative forms. He points out that the future in Ancient Greek often shows a nuance of the original desiderative function, e.g. *e:lthe lusómenos thúgatra* 'he came with an intention to ransom his daughter' (Iliad I 12). However, these examples represent only remainders of the PIE desiderative function. Ancient Greek possesses a class of desideratives in *-seío:*, distinct from the sigmatic future, e.g. *opseíontes* 'wishing to see', *draseío:n* 'wishing to act' (Sophocles).

Therefore the sigmatic future is not etymologically related to the aorist either formally or functionally. The future and aorist were subsequently associated with the firm establishment of aspectual functions in Ancient Greek (see § 2.3), particularly in Classical Greek. This association was allowed by the common properties, i.e. formal and functional, of the aorist and future. Both forms were marked by the *-s*-suffix and represented complete events. Evidence from Homeric Greek shows that the sigmatic future is by and large linked to the desiderative and that the association with the sigmatic

aorist arose only later. According to Chantraine (1958:440), the majority of future forms in Homeric Greek are based on desideratives e.g. FUT *ní:somai* 1SG with a variant *níssomai* from *néomai* 'come back'. The most archaic futures are characterized by the *e*-grade and medio-passive inflection, e.g. FUT *peísomai* 1SG from *páskho:* 'suffer', FUT *khetsetai* 3SG from *khandáno:* 'hold, comprise'. Chantraine (1967:247) points out that the desiderative function of these forms accounts for generalization of the medio-passive inflection. Later on, the future establishes the links with the aorist based on the common function.

> Le futur actif apparaît parfois en liaison avec un aoriste sigmatique, ces deux thèmes étant de sens factitif. Le futur de *phthíno:* est *phth(e)ísomai* (L 821, etc...), mais, au sens factitif, *phth(e)íso:* (Z 407, II 461, X 61, ˙ 341) doit être rapproché de l'aoriste *éphth(e)isa*; au futur de *híste:mi* c'est *sté:somai* qui est le plus souvent attesté (B 694, etc...), au sens intransitif, et *sté:so:*, factitif qui se trouve associé à *éste:sa*, doit être de date plus récente et se trouve dans des développements surtout "récents" (Chantraine 1958:442).

> 'The future active sometimes seems to be related to the sigmatic aorist, since both stems have the factitive meaning. The future of *phthíno:* 'decline' is *phth(e)ísomai* (L 821, etc...), but with the factitive meaning, *phth(e)íso:* (Z 407, II 461, X 61, ˙ 341) ought to be close to the aorist *éphth(e)isa*; the future of *híste:mi* 'make to stand, set up, place' is *sté:somai* which is more often attested (B 694, etc...), with the intransitive meaning, and *sté:so:*, factitive which is associated with *éste:sa*, ought to be more recent and is particularly attested in the recent developments' (translated by S.M.)

It is assumed that the sigmatic future arose independently in daughter languages; it is not reconstructed for PIE (Buck 1933, Meillet 1964, Szemerényi 1989). It was firmly established as a distinct category in Ancient Greek (cf. Indo-Iranian and Balto-

Slavic) with the rise of well defined aspectual distinctions within the verb system. Although the future originated with a type of a modal form, i.e. desiderative, it developed into a distinct category identified as the perfective/complete aspect in the non-past. Formal and functional autonomy of the sigmatic future is evidenced not only by its functional range (see § 2.3 and 2.4), but also by the independence of the desiderative and other modal forms with related functions. The origin of the aspectual future as a modal formation, i.e. desiderative, is justified taking into consideration the functional and cognitive points of contact of the two categories. The sigmatic future denoting a complete event in the non-past and the desiderative denoting a desired event are both cognitively perceived as unrealized events, i.e. events in imagination.

2.1.3 Perfect and Pluperfect

Perfect and pluperfect generally express resultative/stative aspectual function in the non-past and past, respectively. Formal properties of the perfect indicate its archaic origin, as it is always based on the root (Chantraine 1967:183, see also Meillet 1964:205).

As other I-E languages, Ancient Greek preserves the relics of the old non-reduplicated perfects which have the perfect form and the present stative meaning, *olda* 'I know', cf. A.Sl., *vědě*, Skt. *véda*. These formations are characterized by the archaic inflection of the stative verbs. The stative function of these verbs was not confined to

the active voice; it converged with medio-passive prior to the rise of distinct active and medio-passive forms (Szemerényi 1978:424).

Table 6

Archaic non-reduplicated perfect

	Ancient Greek	Vedic	PIE
SG	(w)oíd-a	véd-a	*woíd-Ha
	(w)oís-tha	vét-tha	*woíd-tHa
	(w)oíde(n)	véd-a	*woíd-e
PL	(w)ísmen	wid-má	*wid-mé'
	(w)íste	wid-á	*wid-á
	(w)ísa:si(n)	wid-úr	*wid-úr

The most productive pattern of perfect formation in Ancient Greek is represented by reduplication, as in the following examples.'

Table 7

Reduplicated perfect in Ancient Greek

lú:o: 'loosen'	léluka
baíno: 'walk, step'	bébe:ka
ge:théo: 'rejoice'	gége:tha
dérkomai 'see, perceive'	dédorka
keleúo: 'order'	kekéleuka
mákhomai 'fight'	memákhe:mai
se:maíno: 'show'	sesé:magka

'There is not enough evidence for reconstructing the 1st and 2nd person in the plural paradigm; *wid-mé* and *wid-á* are Vedic forms.

'For various formation patterns in Ancient Greek, including changes between Homeric and Classical Greek, see Chantraine (1967:183-201) and (1958:420-431).

The inflections of the Ancient Greek perfect resemble the inflections of the sigmatic aorist. As shown in the following paradigms, the perfect and the sigmatic aorist share inflectional endings except for the 3rd person plural.

Table 8

Perfect and sigmatic aorist in Ancient Greek

lu:o: 'I loosen'

Perfect		Aorist	
léluka	lelúkamen	élu:sa	elú:samen
lélukas	lelúkate	élu:sas	elú:sate
léluke	lelúka:si	élu:se	élu:san

The function of the perfect category had been considerably changed between Homeric and Classical Greek. In Homeric Greek the perfect has a predominantly stative function which subsequently changed into resultative. Buck (1933:239) points out that in Homer, as in the Rigveda, perfect forms of the intransitive verbs regularly have the stative function, e.g. *pépitha* 'am persuaded', *téthne:ke* 'is dead'. Stative function may also be represented by the transitive verbs, e.g. *murí' Odusseùs esthlà éorgen (PERF)* 'Odysseus has done many illustrious deeds', indicating that Odysseus is of proved prowess relating to the countless brave deeds; from the transitive verbs, resultative function that pertains to completed events had been generalized at the expense of the stative function (Buck 1933:239). The stative function of the Homeric perfect most probably reflects the late PIE function. Early convergence with the medio-passive voice is evidenced by the high correlation of the perfect with medio-passive inflectional endings in Homer.

In line with its original value of indicating the state of the subject is the fact that it may stand in contrast with a transitive present active and in agreement with a present middle, as G. *pépoitha* 'am persuaded', in contrast to *peítho:* 'persuade', but like *peíthomai*; or again the fact that in many verbs only the perfect middle occurs, or is earlier than perfect active (Buck 1933:239).

Chantraine (1967:200) also argues that the I-E perfect loses its original meaning in Ancient Greek; while a distinction between the perfect and medio-passive is not quite clear in I-E and Homeric Greek, the evolution of the perfect in New Attic leads to a consistent opposition between the active resultative *léluka* 1SG from *lúo:* 'loosen' and the medio-passive *lélumai*. The stative function of the Homeric perfect is indicated by the preponderance of the medio-passive inflection. Monro (1974:32) points out that the Homeric perfect mainly expresses the intransitive meaning and it is difficult to distinguish the active from the middle forms. Middle and active perfects based on the same root almost never co-occur; a few exceptional co-occurrences denote a contrast between active and passive voice, e.g. active *léloipa* 'leave' corresponds to the passive *léleiptai* 3SG 'is deserted' (Chantraine 1958:432).

The pluperfect represents the same type of function, i.e. resultative/stative, in the past within the verb system of Ancient Greek. Chantraine (1967:201) points to a regular formation of the middle pluperfect; it is marked by the secondary medio-passive inflection, e.g. Hom. *eímarto* 3SG (*meíromai* 'receive as one's portion'), *béble:to* 3SG (*bállo:* 'throw'), Att. *eléluto* 3SG (*lúo:* 'loosen').[8] The active pluperfect, on the other

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hand, shows inconsistencies in formation. In Homeric Greek pluperfect forms in plural and dual are marked by the secondary inflection, e.g. PLPF *epépithmen* 1PL from PERF *pépoitha* 1SG (*peítho:* 'trust, rely on') (Iliad II 341), PLPF *gegáte:n* 1 DUAL (Odyssey X 138) from PERF *gégona* 1SG (*gígnomai* 'become, happen'); the 3rd person plural shows the *-sa-* secondary inflection, PLPF *éstasan* (Iliad II 177) from PERF *héste:ka* 1SG (*híste:mi* 'stand, place') (Chantraine 1967:201). The third person singular forms have the inflection *-ei* which is identical to the present, e.g. PLPF *e:nó:gei* (Iliad VI 170), *anó:gei* (Iliad II 280), cf. PRES *anó:gei* 3SG 'command, order' etc. The inflection in *-ei* could be related to the *-e:* of the ancient pluperfect of the verbs such as *oída* 'I know', i.e. PLPF *é:de:* 3SG (Iliad I 70) with a variant *é:dei* (Chantraine 1958:437-8).

This type of inflection is most probably related to the stative function of the perfect in Homeric Greek. In Classical Greek there was a tendency to replace the old perfect inflection by the new secondary inflection whereby the formal properties of the perfect generally correlated with the new function, i.e. result of the past event.

2.1.4 Present and Imperfect

Both present and imperfect in Ancient Greek are based on the so called present stem. Ancient Greek continues the late PIE present and imperfect formation; primary and secondary inflectional endings are added to the present stems to yield the present and imperfect, respectively, e.g. *bhér-o:* 'I carry', *é-bher-on* 'I was carrying', cf. Skt. The past tense is marked both by the secondary inflection and the augment. The augment is

however firmly established only in Classical Greek; in Homeric Greek it is optional (see § 1.3). Present and imperfect share the imperfective aspectual function expressed by the present stems. Within the verb system of Ancient Greek, imperfective represents a main aspectual function which stands in contrast to the perfective and resultative aspect. These major grammatical functions should be distinguished from the Aktionsart, i.e. lexical aspect, which may be expressed either by a preverb or a morphological/semantic class (see the examples below).[9]

In Ancient Greek, Aktionsart may be expressed by a number of different present stem types. Within the system of present, Aktionsart, i.e. lexical aspect, may express several types of aspectual functions, such as: punctual, completion, realization, telic, inceptive and iterative.[10] The verb forms based on the present stems, present and imperfect forms, which are not marked for the Aktionsart represent a process or event in continuation. Lexical aspectual functions, i.e. Aktionsart, do not represent major systemic contrasts within the verb system and thus differ from the grammatical aspectual

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[9]In Chapter 3 it will be shown that in Ancient Slavic Aktionsart becomes grammaticalized at the expense of the major aspectual contrasts inherited from late PIE.

[10]Meillet (1903/67:204) labels the lexical aspect as "determinate"; "determinate aspect" refers to the representation of the process with an envisioned end. This particular definition refers to a number of Aktionsart functions, such as punctual, completive, realized, telic, and inceptive (following Friedrich 1987:135). Although these functions denote different nuances in meaning, they all express the end of the event or action (see § 2.2 for definitions and examples). Even iterative forms, such as *dídomi* 'I give' (A.Gr.), express a series of completed/terminative events. In order to include various lexical aspectual functions it is necessary to introduce a more general term, such as *Aktionsart* or simply *lexical aspect* instead of a vague term "determinate".

functions.   Different stem types, representing a number of morphological/semantic classes, could express various Aktionsart functions within the system of present.

2.1.4.1 Stems with nasal suffix

Present stems with the nasal suffix may express completive/terminative Aktionsart function in Ancient Greek, as in other I-E languages.   Within the nasal class Chantraine (1967:216-23) makes a distinction between the three types according to the form and origin.

The type *dámne:mi* (< Common Hellenic *dámna:mi* 'tame, subdue') is the most archaic.   It originates with the nasal infix *-n-* which in combination with the *e* grade roots yields *-na:-* in the singular active paradigms of the present and imperfect; combination with the zero grade in the plural and dual and medio-passive paradigms yields *-na-*.   The nasal which was originally an infix in PIE appears to be a part of the root in Ancient Greek.

Table 9

Stems in a nasal

| present | 1 sg. dámne:mi | 1 pl. dámnamen |
| imperfect | 1 sg. edámne:n | 1 pl. edámnamen. |

The present type in *-nu:mi-* is related to the PIE suffix *-neu-*, e.g. PRES *stórnu:mi 1SG* 'spread', imperfect estórnu:n.   In Chapter 4 (§ 4.6) it will be shown that

the nasal class of Ancient Slavic is also related to the PIE nasal infix *-n- and the suffix *-neu-.

The third class is represented by the thematic stems in -n-, e.g. PRES *dákno:* 1SG 'bite', *elaúno:* 1SG 'drive', and -án-, e.g. *handáno:* 1SG [11] 'please, delight', *lantháno:* 1SG[12] 'escape or elude notice', *mantháno:* 1SG 'learn, understand', *lambáno:* 1SG 'take, seize', *tugkháno:* 1SG 'hit, get'. This class is indirectly related to the PIE root presents with the nasal infix. In Ancient Greek, both suffixes are related to the thematic stems. The present forms in -án- originate with the present stems in *-n- which alternate with the asigmatic/root aorists e.g. PRES *lantháno:* 1SG 'escape or elude notice'/AOR *élathon* 1SG (Chantraine 1967:218-23). According to Meillet (1964:222), these present stems are based on the root aorist.

Ancient Greek has forms marked both with the nasal infix and a suffix, e.g. *punthánomai* 1SG 'ask, inquire', corresponding to the Lithuanian presents with the nasal infix, e.g. *bundu* 1SG 'ask, inquire' (Meillet 1964:222, Buck 1933:263). Apart from the perfective and inchoative Aktionsart functions, Hittite provides evidence of the verb forms with the nasal infix which have the causative function, e.g. *har-ni-k-zi* 'he destroys', based on the root *hark-* 'perish, be destroyed' (examples in Meillet 1964:216).

Ancient Greek preserves lexical aspectual functions of the PIE nasal class, i.e. perfective and inchoative (attested in most I-E languages). These functions should be

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[11] Contains both infix and suffix

[12] Contains both infix and suffix

classified as the lexical aspect, as they do not play a crucial role in the verb system as a whole. Chapter 3 analyzes a change of the PIE lexical aspectual function into grammaticalized aspectual function in Ancient Slavic.

2.1.4.2 Stems with the -*sk*- suffix

The suffix -*sk*- in I-E languages shows different Aktionsart meanings. According to Chantraine (1967:223) usage of the forms in -*sk*- may vary even within the same language, as in Ancient Greek, which makes it very difficult to define the original function of the suffix. Generally speaking, the most commonly attested function in Ancient Greek is iterative. Both Homeric Greek and the Ionic dialect of Herodotus show a well developed system of iteratives represented mainly by the imperfect and aorist forms without the augment, e.g. IMPERF *aristeúeske* 'he was best' (Iliad VI 460), AOR *phúgeske* 'he fled' (Odyssey XVII 316). Imperfect and aorist forms with the augment are also attested e.g. IMPERF *ethéleske* 'he was wishing/used to wish' (Iliad IX 353), AOR *eîpeske* 'he said' (Iliad II 271). Inchoative function is represented by a more recent layer of derived forms, e.g. PRES *ge:rásko:* 1SG 'age' derived from the aorist, *ége:ra* 'he aged', attested in Homeric Greek along with the forms that express perfective Aktionsart function, e.g. PRES *básko:* 'go, step' 1SG. Buck (1933:264) points out that the inchoative function was not as nearly productive in Ancient Greek as in Latin. The suffix -*sk*- may also co-occur with other types of derivational process that express determinate function. In combination with reduplication, it expresses repetition of an

action/event, that is to say iterative function, e.g. PRES *bíbásko:* besides *básko:* 1SG 'go, step', *mimnḗsko:* 1SG 'remind' (Chantraine 1976:224).

Although various values of the *-sk-* morpheme are attested, a fundamental original function may be reconstructed on the basis of evidence in other I-E languages. According to Meillet (1964:221), the original function represents termination of an action, which may also denote repetition as attested in Hittite. It is worth noting, however, that a single Aktionsart suffix may acquire a different meaning in the past and present tense forms. Thus a suffix *-sk-* that is inchoative in the present tense represents both inchoative and iterative functions in the past. This minute distinction in the lexical aspect is related to the combination of the inherent aspectual property with the representation of events in the past tense. An event that is represented as inceptive[13] in the present tense, necessarily acquires an additional repetitive meaning in combining with the essential imperfective function of the imperfect category.

Beside the *-sk-* suffix and the class of nasal morphemes, lexical aspectual function in Ancient Greek was expressed by a number of other morphological means.

According to Chantraine (1967:209-15) athematic reduplicated present stems represent an archaic type which is not very productive in I-E languages, e.g. *dído:mi* 1SG 'give' (Skt. *dáda:mi*, cf. Lat. *do:*); *títhe:mi* 1SG 'place, put' (Skt. *dádha:mi*, cf. Lat. *facio:*). These forms express terminative function, which represents an action/event

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[13]The terms "inchoative" and "inceptive" are synonymous; both indicate beginning of an event or action.

with an envisaged end (Meillet 1964:204, Chantraine 1967:215).[14] Exact Aktionsart function, however, depends on the grammatical category of the verb. In the present reduplication denotes iterative or habitual events, as in *dí-do:-mi* 1SG 'I give'. Terminative Aktionsart is, on the other hand, expressed by the aorist form *é-do:-ka* 1SG 'I gave'. As will be shown in § 2.4.1, the aorist inherently denotes complete events. Aorist forms marked for the Aktionsart are, however, always explicitly perfective regardless of the various minute distinctions determined by the lexical meaning of the verb.

As opposed to the classes, represented by derivational morphemes, which express perfective lexical function, present stems of Ancient Greek dispose of classes which were unmarked. The class in *-ye/o-* is represented by a derivative suffix which does not have a specific semantic function *per se*[15]; it is generally unmarked (Meillet 1964:219). Some verbs of this class, however, express lexical aspectual functions, such as inchoative, e.g. PRES *daío:* 1SG 'light up, kindle', *kaío:* 1SG 'kindle, set on fire'. As shown in the following section lexical aspectual functions, which are essentially semantic, may also be expressed by the Aktionsart preverbs.

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[14]Meillet and Chantraine define this type of function as "determinate".

[15]This class has a causative function in Indo-Iranian.

2.2 Aktionsart preverbs

Aktionsart or lexical aspect in Ancient Greek was expressed by preverbs. Aktionsart preverbs which have an adverbial or prepositional meaning most often modify the fundamental meaning of the verb stem. Prefixation of the same preverb to different verb stems most often results in a consistent meaning of the newly derived verbs. That is, the preverb and stem combine their separate semantic features in forming the derivative verb where each component has a clearly delineated meaning. As shown in the following examples, different preverbs may add an adverbial or prepositional nuance in meaning to the fundamental meaning of the verb stem. At the same time preverbs contribute to the intensified meaning of the fundamental verb stems. In other words, addition of the adverbial meaning contributes to a more precise meaning of the verb. Aktionsart preverbs were always prefixed to the verb stems in Classical Greek, which is not always the case in Homeric Greek.[16]

In this thesis, Friedrich's (1987) classification of the Aktionsart functions has been adopted. Friedrich (1987:135) recognizes the following aspectual functions of the Ancient Greek "adpreps", i.e. adverbial prepositions that in Classical stages become univerbated, or rather, firmly attached to the verb.[17]

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[16]To be shown in this section

[17]As shown below, in Homeric Greek, Aktionsart preverbs are not always attached to the verb.

Table 10

Aktionsart functions expressed by preverbs

durative
(intensifies durative value)
amphí amphipénomai 'I am busy at'

punctual	aná	anarpázdo: 'I snatch up'
completion	apó	apotámno: 'I cut off'
realization	diá	diapérto: 'I destroy utterly, sack'
telic	eis	eisaphikáno: 'I arrive at a destination'
inceptive	ek	ekgeláo: 'I laugh out'

All features proposed by Friedrich, except for the durative, have one common property: they denote the final moment of event time. The final moment of event time is expressed by preverbs characterized by punctual, completion, realization, telic and even inceptive features. The inceptive feature denotes both beginning and the end of the event time, as shown in the examples below. Although all features, except durative, denote the end of the event time, they all have distinct nuances of meaning. Following Friedrich (1987:134) the punctual feature emphasizes instantaneity of the action or event. The completive feature denotes the final moment of a complete event, while the realization feature implies achievement or result of an action/event. The telic feature expresses a goal or direction of a complete event.

Different types of Aktionsart functions, such as punctual, completive, realized, telic and inceptive are opposed to the imperfective value of the unprefixed verb. I argue that this type of opposition is simply lexical and not grammatical, since it does not play a crucial role in the verb system itself. The following examples show that the verbs with

Aktionsart preverbs have lexical aspectual functions compared to their unprefixed or simple counterparts. Most often, Aktionsart preverbs result in adverbial or prepositional meaning of the derivative, especially with the verbs of motion.

Aktionsart forms in Classical Greek[18]

Punctual

aná 'up, up to, towards, back, backwards'

baíno: 'to go, walk, step'[19]
anabaíno: 'to go up, get up, climb'

bióo: 'live, pass one's life'
anabióo: 'live again, come back to life'

blépo: 'to look on, look at'
anablépo: 'to look up, look back upon, see again'

érkhomai 'to come, go'
anérkhomai 'to go up, come back, return'

Completion

apó 'from, away from, down from'

baíno: 'to go, walk, step'
apobaíno: 'to step off, dismount, go away, depart'

blépo: 'to look on, look at'
apoblépo: 'to look away from, gaze at or upon'

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[18]The following verb forms are taken from *A Greek-English Lexicon*, 1990 (first published in 1843), compiled by Henry George Liddell and Robert Scott, Oxford: Oxford University Press.

[19]In Classical Greek and Latin dictionaries, verb entries are listed as the first person singular present tense forms, while the provided translations appear as the infinitive forms.

lambáno: 'to take, take hold of, grasp, seize'
apolambáno: 'to take back, regain, recover, cut off'

pléo: 'to sail, go by sea'
apopléo: 'to sail away, sail off'

katá 'down from, down towards, down upon,
against, in opposition to, among, at, about, over'

baíno: 'to go, walk, step'
katabaíno: 'to go or come down, go down from'

pléo: 'to sail, go by sea'
katapléo: 'to sail down, sail downstream'

pnéo: 'to breathe, blow, exhale'
katapnéo: 'to breathe upon or over, to inspire, instil'

pará 'beside, from beside, by the side, along to, towards'

érkhomai 'to come, go'
parérkhomai 'to go by, beside or past, pass by'

horídzo 'to divide as a boundary, limit, define'
parorídzo 'to pass one's own boundaries, encroach on a neighbour'

pléo: 'to sail, go by sea'
parapléo: 'to sail by, sail past, sail alongside'

Realization

diá 'through, out at, throughout, during'

baíno: 'to go, walk, step'
diabaíno: 'to cross'

érkhomai 'to come, go'
diérkhomai 'to go through or across, pass through'

légomai 'to say, speak, tell, reckon'
dialégomai 'to converse, reason, talk with'

Telic

eis 'in, into, at, onto'

baíno: 'to go, walk, step'
eisbaíno: 'to go into, come in, embark'

érkhomai 'to come, go'
eisérkhomai 'to go or come into, to enter'

oikéo: 'to dwell, live, inhabit'
eisoikéo: 'to dwell in, settle in'

en 'in, at, on, upon, among'

méno: 'to stay, wait, linger, await, expect'
emméno: 'to remain in, abide by, stand by, cleave to'

pípto: 'to fall, fall down'
empípto: 'to fall into, fall upon, attack'

dído:mi 'to give, present, devote, grant, allow'
endído:mi 'to give in, give up, surrender, yield'

sún 'with, along with, together'

auksáno: 'to increase, promote to honour, exalt, extol'
sunauksáno: 'to increase with, augment with or together'

érkhomai 'to come, go'
sunérkhomai 'to go along with or together, meet'

theáomai 'to view, gaze at, behold'
suntheáomai 'to view together, see a spectacle, examine together,
examine carefully'

Although generally telic, the Aktionsart preverb *sún* 'with' may denote completion,
depending on the meaning of the simplex verb.

phéro: 'to bear, suffer, bring'
sumphéro: 'to bring together, gather, collect, happen, take place, turn out'

Inceptive

ek (eks before a vowel) 'from out of, away from'

ágo: 'to lead, lead on, lead towards, guide'
ekságo: 'to lead or carry out of or away from, drive out'

baíno: 'to go, walk, step'
ekbaíno: 'to step out of, go or come out of, depart from'

elaúno: 'to drive, drive on, set in motion, ride'
ekselaúno: 'to drive out, chase out, beat out, lead out'

pípto: 'to fall, fall down'
ekpípto: 'to fall out of, to be deprived of, lose'

érkhomai 'to come, go'
eksérkhomai 'to go out, come out of, march off'

epí 'on, upon, at, near, by, toward, against'

baíno: 'to go, walk, step'
epibaíno: 'to set foot on, walk upon, get upon'

bouleúo: 'to take counsel, consider'
epibouleúo: 'to plan or contrive against one, aim at'

pléo: 'to sail, go by sea'
epípleo: 'to sail upon or over, to sail against'

A number of Aktionsart preverbs do not change the aspectual function of the simple unprefixed verb. Aside from the spatial specification, they intensify durative function of the simple verb. The following examples show that certain preverbs have imperfective or, as Friedrich (1987:135) states, durative function.

perí 'around, about, near, concerning'

ágo: 'to lead, lead on, lead towards, guide'
periágo: 'to drive round, turn round, go round'

pléo: 'to sail, go by sea'
peripléo: 'to sail or swim around, circumnavigate'

skopéo: 'to look, look at, behold, contemplate, survey'
periskopéo: 'to look round, consider on all sides or well,
              look at from all points, circumspect'

prós 'from, from the side of, to, on the part of
before, by near, in the presence of, at, near, besides'

auksáno: 'to increase, promote to honour, exalt, extol'
prosauksáno: 'to increase besides'

érkhomai 'to come, go'
prosérkhomai 'to come or go to, come forward, approach, visit'

ékho: 'to have, hold, possess, keep'
prosékho: 'to have besides or in addition, to hold to'

Aktionsart preverbs do not always add a prepositional or adverbial meaning to the
simplex verb. Sometimes, Aktionsart preverbs only intensify the meaning of the simplex
verb, that is to say, they contribute to a more precise meaning of the unprefixed verb
form. Examples of verb pairs where the preverb simply intensifies the basic meaning
of the verb are given below.

boáo: 'to utter a cry, shout, all to one, call on'
anaboáo: 'to cry or shout aloud, to utter a loud cry'

ameléo: 'to be careless, heedless, negligent, to neglect'
apameléo: 'to neglect utterly'

hamartáno: 'to miss, to fail, do wrong'
diamartáno: 'to miss entirely, fail utterly'
(eksamartáno: 'to mistake utterly, err greatly')

lantháno: 'to escape or elude notice, to be unseen, unnoticed, to make to forget,
        forget, lose the memory of'
eklantháno: 'to make quite forgetful of a thing, to forget utterly'

There are cases of semantic incorporation where the preverb does not add the adverbial or prepositional meaning to the simplex unprefixed verb, but simply produces a lexical aspectual function. In the following examples, Aktionsart preverbs denote completion.

akéomai 'to heal, cure, to amend, repair'
eksakéomai 'to heal completely, apply a cure, cure thoroughly'

aleípho: 'to anoint with oil, to anoint, besmear'
eksaleípho: 'to anoint thoroughly, plaster over'

bióo: 'to live'
katabióo: 'to bring life to an end, pass life'

There is a number of Aktionsart verb forms with two preverbs in Classical Greek, as in the following examples.

eisanabaíno: (eis 'into' + ana 'up' + baíno: 'to go') 'to go up into'

epekbaíno: (epi 'upon, against' + ek 'out' + baíno: 'to go')
        'to go out upon, disembark'

epeksérkhomai (epi 'against' + ek 'out' + érkhomai 'to go')
        'to go out against an enemy, to proceed against'

prosdialégomai (pros 'besides' + dia 'through' + légomai 'to say, speak')
        'to converse besides with'

proskatabaíno: (pros 'besides' + kata 'down' + baíno 'to go')
    'to go down to besides'

prosperibállo: (pros 'besides' + péri 'around' + bállo: 'to throw or put')
    'to throw or put around'

sundiabaíno: (sun 'with, together' + dia 'through' + baíno: 'to go')
    'to go through or cross over together'

sundiapoleméo: (sun 'with, together' + dia 'through' + poleméo 'to carry on a
    war') 'to join in carrying on a war to the end or throughout'

The preverbs in Ancient Greek precede the augment in the past tense forms which

also indicates a relatively loose relationship between the preverb and the stem.

é-pleus-a
AUG-sail-AOR-1SG
'I sailed'

ep-é-pleus-a
preverb 'against'-AUG-sail-AOR-1SG
'I sailed against'

In Homeric Greek, the past tense verb forms were not always augmented; the

augment was firmly established as the past tense marker only in Classical Greek.

éntha mèn eptáetes **ménon**[20] émpedon, heímata d' aieì dákrusi **deúeskon**[21], tá moi
ámbrota **dô:ke**[22] Kalupsó:. 'There for seven years' space I **remained** continually, and
ever with my tears **would** I wet the immortal raiment which Calypso **gave** me' (Homer,
The Odyssey VII 255).

The past tense forms could be however augmented in Homeric Greek.

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[20]Imperfect of **méno**: 'stay, remain, wait'

[21]Imperfect of **deúo**: 'wet, soak' with the -sk- suffix denotes a past habitual event.

[22]Aorist of **dído:mi** 'give'

All' hóte dè: ár' émelle[23] pálin oîkónde néesthai zdeúksas' he:miónous ptúksasá te heímata kalá, énth' aût' áll' enóe:se[24] theá, glaukô:pis Athé:ne:...'But when she was about to yoke the mules, and fold the fair raiment, in order to return homeward, then the goddess, flashing-eyed Athene, took other counsel,...' (Homer, The Odyssey VI 110).

Aktionsart preverbs were not always attached to the verbs that they modified.

Autonomy of the preverb and the referring verb form is known as tmesis.

...nûn d'aû kaì polù meîzdon, hò dè: tákha oîkon hápanta págkhu diarraísei, bíoton d' apò pámpan oléssei[25]. '...and now there is come an evil yet greater far, which will presently altogether destroy my house and ruin all my livelihood' (Homer, The Odyssey II 45).

Autonomy of the preverb and the verb is not regularly attested in Homeric Greek; it represents a relic of the function of PIE Aktionsart. Univerbation, i.e. unifying of the preverb and verb, had operated to a large extent in Homeric Greek.

Hò:s éphath'. he:mîn d' aût' epepeítheto[26] thumôs agé:no:r. 'So she spoke, and our proud hearts consented' (Homer, The Odyssey II 100)

Generally speaking Aktionsart preverbs have a lexical aspectual function regardless of whether they modify the meaning of the verb stem. The lexical aspectual functions or Aktionsart do not constitute essential grammatical contrasts within the verb

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[23]Imperfect of méllo: 'intend, be about to do'

[24]Aorist of noéo: 'think, intend, devise'

[25]Aorist infinitive of óllu:mi 'destroy, make an end of', cf. ap-óllu:mi 'destroy utterly, demolish'

[26]Compound aorist, epepeítheto (epí 'on, upon, at' + e -augment + peltheto - aorist, medio-passive, 3PL 'obey, comply with'), of epi-peíthomai 'be persuaded, yield to persuasion'

system of Ancient Greek. They do not affect the grammatical category of the verb to which they are attached; cf. Ancient Slavic where the Aktionsart preverb changes the imperfective grammatical aspect into perfective. That is to say, in Ancient Slavic imperfective verbs in the past become perfective and the non-past imperfective verbs come to denote the future time if prefixed. In Ancient Greek, Aktionsart preverbs do not affect the grammatical aspectual function of the verb. The grammatical aspectual functions in Ancient Greek are expressed by three types of stems, both in the past and the non-past (as argued in § 2.3).

2.3 The Verb System of Classical Greek

In the verbal system of Classical Greek aspect plays a dominating role. A three way aspectual distinction, i.e. perfective, resultative/stative and imperfective obtains in the past and non-past, as seen in the Table 1. The crucial role of the aspect category is shown by the consistent presence of three aspectual functions combined with binary tense categories.

Table 11

Classical Greek verb system

	Non-Past	Past
Imperfective	lú:o: 'I loosen'	élu:on 'I was loosening'
Perfective	lú:so 'I will loosen' leípso 'I will leave'	élu:sa 'I loosened' élipon 'I left'
Resultative	léluka 'I have loosened'	elelúke:n 'I had loosened'

1. augment marks past
2. -s marks perfective[27]
3. reduplication marks resultative

The verb system of Classical Greek is centred around fundamental aspectual contrasts.
Aspectual functions are expressed by three types of stems, that mark distinct categories.
The tense function, on the other hand, is expressed by inflection. Two sets of
inflectional endings, i.e. secondary and primary, reflect a two-way temporal contrast
between the past and non-past, respectively.

The asigmatic aorist forms have the old secondary inflections. These asigmatic
aorist forms, root (égno:n 1SG from gignó:sko: 'I learn') and ablaut aorist forms (élipon
1SG from leípo: 'I leave'), represented a productive way of forming the perfective in the
past prior to the rise of the sigmatic aorist. Sigmatic aorist forms are more recent. The

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[27]Perfective in the past may also be expressed by the diachronically earlier root
and ablaut aorist forms. A traditional terminological distinction between the first and
second aorist pertains to the synchronic state of Classical Greek. The first, i.e.
sigmatic aorist, represented the most productive means of expressing perfective
aspect in the past in Classical Greek, while usage of the second, i.e. root and ablaut
aorist, productive in late PIE and Homeric Greek, became restricted at the Classical
stages.

élu:sa 'I loosened'. Aorist stems, which have a perfective function, combine with the new secondary inflection to represent the perfective aspect in the past, i.e. the aorist forms. They combine with the primary inflection to form the perfective in the non-past, to represent the future. The verb system, which has a two-way tense distinction between the past and non-past, employs perfective aspect marker (*-s-*) and the non-past or primary inflection for the future representation.[3] As will be shown below, the rise of the sigmatic aorist contributes to a tighter aspectual contrast in the verb system of Classical Greek as a whole. Classical Greek acquires a perfective/imperfective contrast in the non-past. While the sigmatic future has an etymologically distinct origin, in Classical Greek it became associated with the aorist.

Resultative or stative aspect is expressed by perfect stems. Perfect stems combine with the new secondary inflection to form the perfect category. The perfect forms in Classical Greek share the inflection with the sigmatic aorist forms. The perfect forms are either augmented, e.g. *ethélo:* 'I wish' - *e:théle:ka*, or partially reduplicated, e.g. *lú:o:* 'I loosen' -*léluka*. By a general consensus, the perfect represents a present result of a past event. The evolution of the perfect function from the Homeric to Classical stages shows a change from a predominately stative to resultative function (as shown in

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[3] A similar way of representing the future obtains in Ancient Slavic and continues in modern Northern Slavic languages.

§ 2.4.4). The pluperfect category also came to represent result in Classical Greek, but in the past (see § 2.4.5). It is marked by an augment and secondary inflection.

Table 12

Perfect and pluperfect in Classical Greek

Perfect		Pluperfect	
1. léluka	lelúkamen	1. elelúke:	elelúkemen
2. lélukas	lelukate	2. elelúke:s	elelúkete
3. léluke(n)	lelúka:si(n)	3. elelúkei(n)	elelúkesan

As seen in the paradigms, pluperfect forms differ in that a thematic vowel *e* combines with the first vowel of the inflectional ending. Vocalic variations are the outcome of this phonological process which is controlled by the syllable structure. In the pluperfect singular forms the thematic vowel *e* contracts with the first vowel of the inflection, while in the plural forms, the first vowel of the inflection is replaced by the thematic vowel.

The so-called "present" stems mark the imperfective aspect. They combine with the secondary inflection to represent the imperfective aspect in the past, i.e. the imperfect forms (analyzed in § 2.4.8). When combined with the primary inflection, they represent the imperfective aspect in the non-past, i.e. the present forms (§ 2.4.9).

The verb system of Classical Greek is characterized by a clear and consistent aspectual contrast expressed by three types of stems in the past and non-past. Aspectual functions of the verb categories are generally recognized in I-E linguistics and philology. There is a tendency however to confuse the tense and aspect categories, labelling thus the aorist and imperfect as "tenses" and the stems as "temporal" (Chantraine 1958,

1967). A closer investigation of some earlier work shows (Goodwin 1889, Meillet 1903/67, Chantraine 1958, 1967) that the confusion is strictly terminological, while the grammatical functions of the Ancient Greek verb categories are correctly defined. The position adopted in this thesis is that verb categories such as present, imperfect, aorist, future, perfect and pluperfect are simultaneously aspectual and temporal as each category expresses an aspectual function and a tense at the same time. The verb categories are, however, primarily aspectual given that three types of aspect are distinguished in the past and non-past.

Verb categories are often defined as tenses. According to Goodwin (1889:7), Ancient Greek has seven tenses, i.e. the present, imperfect, pluperfect, aorist, future and future perfect. A dual function of "tenses" is recognized.

> These tenses may express two relations. They may designate the time of
> an action as *present*, *past* or *future*; and also its character as *going on*,
> *finished*, or simply *taking place*. The latter relation is expressed by the
> tenses in all the moods and in the infinitive and the participle; the former
> is always expressed in the indicative, and to a certain extent in the
> dependent moods and the participle (Goodwin 1889:7).

Goodwin acknowledges the importance of aspectual distinctions in all moods, i.e. indicative, subjunctive and optative, and quasi-nominal moods, i.e. infinitive and participle. Quasi-nominal mood forms in dependent clauses express only aspectual functions. Goodwin (1889:8) points out that the quasi-nominal mood forms as well as the indicative and optative forms in indirect speech express a notion of relative time.

In this thesis, it is assumed that the function of relative time refers to the relative aspect represented by two types of functions, i.e. anteriority and simultaneity. As will be shown in the examples in § 2.4 anteriority and simultaneity are the functions determined by the context. This type of function is aspectual, rather than temporal, as it is expressed by quasi-nominal mood forms in indirect speech along with an absolute aspectual function. The two types of aspectual functions are also expressed by the participles and infinitives in main clauses. Aorist participles denote anteriority and at the same time perfectivity in relation to another past event (as shown in § 2.4.2). The quasi-nominal mood forms are not distinguished according to the tense. It will be shown that the function of anteriority may also be contextually expressed by the aorist (§ 2.4.1) and pluperfect (§ 2.4.5) indicative forms.

Buck (1933:238) also classifies the verbal categories of Ancient Greek as "tenses". His definition of tenses shows that the confusion is essentially terminological. He claims that the tense stems express aspect, while the tenses express the past or present time. The stem functions are correctly identified as aspectual and he distinguishes this type of function from the time denoted by the verb form. Identification of stem functions in Ancient Greek is essentially identical to those postulated for PIE.

> *Present stem*, action going on, situation
> Present indicative, such action or situation in present
> (or sometimes future, or indefinite) time
> Imperfect indicative, such action or situation in past time
> *Aorist stem*, momentary action, the point of beginning (ingressive aorist) or end
> (resultative aorist), or more generally action viewed in summary without reference
> to duration

Aorist indicative, such action in past time
Perfect stem, action completed
Perfect indicative, action completed with present result. Present state of the subject, resulting from previous action or experience (Buck 1933:238-9)

Buck does not propose a meaningful relation between aorist and future, both of which are based on aorist stems in Classical Greek. As the agreement between the two categories is not absolute, i.e. the root and ablaut aorists have corresponding sigmatic futures, it should be considered as partial and accidental. Relation of the sigmatic future to the other verb forms is to be discussed.

Chantraine (1967:154-6) recognizes aspect as the dominant category in the verbal system of Classical Greek. The three stems, present, aorist and perfect, express different aspectual functions. Present stems denote a developing process, aorist "pure and simple"[25] process while perfect denotes a process in regard to state or result. Aspectual contrast is especially prominent in the past between the imperfect and aorist. Chantraine correctly defines the essential aspectual function of the three types of stems, but he confuses the tense and aspect categories. Aside from defining the three stems as aspectual, he recognizes the existence of "temporal" stems. Chantraine (1967:158) states that there are four temporal stems: present stems comprising present and imperfect, future stem which originally stemmed from the present, aorist stem and perfect stem

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[25] A "pure and simple" process, i.e. *un procès pur et simple*, also used by Meillet (1903/67:249) is not the most adequate defining term for the aorist category. Discussion of the aspectual contrast between the aorist and imperfect shows that he is correct in considering the aorist as the past complete or perfective event as opposed to the imperfect which expresses a developing action, see also Meillet's definition below.

(pluperfect, future perfect and anterior future). Yet Chantraine (1967:154) claims that the past tense in Classical Greek is expressed by the augment and secondary inflection. Internal contradiction of his analysis apparently lies in classifying the future strictly as the temporal category. He does recognize an aspectual relation between the aorist and future for Ancient Greek (to be discussed).

According to Meillet (1903:196-7) the Ancient Greek stem distinction is aspectual and assumed to represent basic aspectual distinctions of I-E. Present stems represent a process in development, aorist stems simply a process and perfect stems an accomplished process. While he recognizes the augment and inflection as tense markers, he claims that "temporal stems" express aspect.

> Les thèmes indo-européens dits "temporels" n'expriment pas le temps...(Meillet 1903/67:196). 'The Indo-European stems which are labelled "temporal" do not express tense...' (translated by S.M.).

His definition of "temporal" stems (see above) shows that the confusion is strictly of terminological nature. Meillet (1903/67:248) does not associate the sigmatic aorist with the sigmatic future, either. He states that the aorist stem is morphologically defined as the stem which combines with the secondary inflectional endings only in the indicative mood. The aorist is functionally defined as a "simple and pure process" with the envisioned completion; the aorist also often expresses an event or action that lasted (also shown in § 2.4.1), which is however envisioned as a whole without the emphasis on its duration, cf. Ancient and Modern Slavic where the grammaticalized Aktionsart always

denotes perfectivity regardless of the nuance distinctions of the Aktionsart. Ancient Greek most probably reflects the late PIE aorist function.

> Si l'on est sûr que le présent indique le procès qui se développe, on ne saurait déterminer avec précision la valeur de l'aoriste: procès aboutissant à un terme défini ou procès pur et simple (Meillet 1903/67:250). 'If one is sure that the present indicates a process in progress, one would not be able to determine with certainty the function of the aorist: a process with a defined end or a pure and simple process' (translated by S.M.).

As opposed to Ancient Slavic Aktionsart (see Chapter 3), the Ancient Greek (and presumably late PIE) aorist is not inherently defined in terms of completion/termination of the event (see p. 46 for a definition). Explicit perfectivity is expressed by the aorist forms marked for the Aktionsart, aside from a number of nuance distinctions which depend on the lexical meaning of the verb (to be shown in § 2.4.1.

According to Kurylowicz (1964:90-5) aspect is a dominant category in the verb system of Ancient Greek. Kurylowicz (1964:94) defines the perfective/imperfective aspectual contrast as the fundamental axis of the verb system. These two aspectual functions are identified as the positive and the negative members of the opposition, respectively. He considers the perfect a complex member, which is restricted in usage compared to the other two categories. The perfect occupies an intermediate opposition relative to the perfective and imperfective members based on its functional complexity, i.e. it represents a linear state preceded by a perfective event/action. Perfective and imperfective aspect obtain only in the past and future, while the perfective member is absent from the present tense.

Table 13

Ancient Greek aspect system[30]

imperfective	perfective
present	----
past	past
future	future

This type of division among the verb categories does not allow for the association of the aorist and future. Although aorist and future are not in his analysis of the synchronic system related as the exponents of the same aspectual function, he recognizes an etymological connection between the two categories (see § 2.1.2).

Ruipérez (1979) provides a structuralist systemic approach for the aspectual and tense categories of Ancient Greek. Ruipérez (1979:51-2) proposes the main privative opposition between the perfect and the present/aorist block. The perfect represents the marked member of a major contrast as opposed to the unmarked or neutral present/aorist block. The most fundamental opposition within the Ancient Greek verb system obtains between stative value of the perfect and the non-stative or rather neutral value of the present/aorist block. The perfect represents the state resulting from the past action and is thus opposed to the action/event itself. This main opposition does not emphasize the continuity and the momentary aspect of the present and aorist stems, respectively. The present/aorist block is neutral in relation to the stative function of the perfect; it simply

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[30]Proposed by Kurylowicz

emphasizes a process without consideration of perfective/imperfective function as opposed to the state of the process.

There are problems with Ruipérez's analysis. Although the contrast between stative (represented by the perfect) and non-stative functions (represented by the aorist and the imperfect) should be noted, it is by no means a major aspectual contrast of the Ancient Greek verb system. Examination of Ancient Greek texts shows that the perfect category is considerably less used than the aorist and imperfect; see also Kurylowicz (1964:90) who claims that the usage of the perfect is restricted as opposed to the present/imperfect and aorist. This is not to say that the perfect should be excluded from the systemic representation of the Ancient Greek verb system. Within the cognitive/functional framework adopted in this thesis, three types of aspect are represented, i.e. perfective, imperfective, and resultative/stative without giving a priority to any of the functions. The systemic representation of functions is based both on the forms and the grammatical meaning/function of the verb categories. Description of the system itself takes consideration of the pragmatic usage of verb categories without specifically accounting for occurrence of the categories. A systemic representation which should ideally account both for the formation patterns and grammatical functions of the verb categories should not emphasize importance of one type of grammatical function as opposed to the other. Even if the functions are to be distinguished, the major aspectual distinctions should not be taken *a priori* without considering usage and functions of the verb forms (also noted by Kurylowicz 1964:90).

Another problem with postulating a major opposition between stative aspect and the neutral present/aorist block is a change of the perfect function between Homeric and Classical Greek (as may be observed in § 2.4.4). It has been widely recognized that the perfect function had changed from the present stative in Homeric Greek to the present resultative in Classical Greek. At the Classical stage the perfect was already associated in function with the aorist, a process which definitely continued in Byzantine Greek and led to the disappearance of the synthetic perfect category and replacement by the periphrastic perfect. To conclude, the stative vs. dynamic functional contrast was crucial in the earlier stages of PIE (Szemérenyi 1989) but marginal in Ancient Greek. Similarly, Ruipérez's (1979:108) proposal for the privative opposition between the marked member, i.e. future and the neutral unmarked present/past block does not account for the association between the aorist and future which although not etymologically related, definitely have a common aspectual value. The parallel functions of the aorist and sigmatic future are demonstrated in § 2.4.1 and 2.4.3. An opposition between the future and present/past tense is proposed by Ruipérez on the basis of the modal character of the future. However we shall see that the future is not strictly a modal, nor strictly a temporal or aspectual category. Rather, it comprises all these functions, especially aspectuality (also recognized by Porter 1989).

Porter (1989) provides a componential semantic analysis of the verbal system of Ancient Greek which takes account of the varying pragmatic usage of verb categories.[3] A number of postulated semantic features account for aspectual as well as the modal and tense functions of the Ancient Greek verb forms. Within a network of related semantic features, Porter (1989:93-5) proposes more general and more delicate distinctions. Within the scope of this thesis, which concentrates on aspectual functions, only semantic features relating to the aspectual contrast in Ancient Greek will be discussed (see Porter 1989, Chapter 4 for a complete systemic representation of the Ancient Greek verb system). A general aspectual distinction is represented by an equipollent opposition between [+perfective] and [-perfective]. As he indicates the aorist is less semantically marked, as compared with other forms. A more general aspectual distinction, represented by [+perfective] and [-perfective] semantic features, contains a subsystem; the [-perfective] semantic feature represents a subsystem forming a more delicate aspectual contrast between [+imperfective] and [+stative] forms. Furthermore, the semantic feature [+remoteness] is used to account for a distinction between the past imperfective and stative forms as opposed to the present imperfective and stative verb forms. Thus a choice of [+imperfective; +remoteness] accounts for the imperfect in the indicative mood, while [+stative: +remoteness] accounts for the pluperfect in the indicative mood.

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[3]Although his book deals with the aspectual system in the Greek of the New Testament, he discusses aspect in relation to mood and tense in various periods of Ancient Greek.

Postulation of the sub-contrast between the imperfective and stative as more delicate does not account for the formation and function of the verb categories in Ancient Greek any more than a distinction between stative and the present/aorist block proposed by Ruipérez (1979).

> There are both formal (e.g. Voice, primary endings, etc.) and semantic (e.g. foregrounding) reasons for positing this aspect as more delicate, the most important being realization of [±remoteness] in the assertive attitude
> (Porter 1989:95).

Although foregrounding reasons (see Porter 1989:93) whereby perfect and present are well defined as opposed to the aorist are tenable based on the usage of these forms, this type of distinction does not account clearly for the formal and functional distinctions of the verb categories. That is to say, the perfect shares the new secondary inflection with the aorist and also begins to approximate the aorist in its function at the Classical stage. Although the active perfect is etymologically related to the medio-passive voice of the present tense, it had been reinterpreted as the stative/resultative aspectual form of the indicative in Ancient Greek (§ 2.4.4). The perfect denotes a result or state of the past event and thus comprises functions both of the imperfective and perfective aspect.

Porter (1989:93-5) argues for the aspectual nature of the future in Ancient Greek. He does not however recognize it as a fully aspectual category, since the paradigmatic contrast between the perfective and imperfective forms does not exist. He claims that fully aspectual categories display a distinction between two subsystems ASPECT 1 and ASPECT 2 (see the model proposed by Porter above).

It is proposed here that on the basis of its distinctive yet tense-related morphological features, the Future constitutes part of the Greek verbal system that results in full aspectual choices, but as seen above, it is not fully aspectual (no paradigmatic choice is offered). This system is labelled ASPECTUALITY. Therefore the Future is compatible with environments where the full aspectual choice is made, but it does not grammaticalize such choice itself (it is aspectually vague)

(Porter 1989:413).

There is a traditional tendency to classify the Ancient Greek future strictly as either tense, mood or aspect. Although the future has the points of contact with all these categories in terms of its function and usage, it is a formally and functionally distinct category that grammaticalizes only two semantic features, i.e. [+aspectual] and [+expectation]. The feature [+expectation] accounts for the functional closeness between the future and subjunctive, and yet it defines it as a distinctly indicative category.

Not only the tension of classification but the tension of labelling can be relieved if the conceptual similarity is reduced to the single label of [+expectation] (Arist. Rhet. 1393A; Humbert [151] notes the role of the Future in Greek in forming a relation between virtuality and reality). The Future is thus a unique form in Greek, similar both to aspects and to the attitudes, but fully neither, and realizing not a temporal conception but a marked and emphatic expectation toward a process (Porter 1989:414).

According to Porter (1989:95), the future in Ancient Greek is not a fully aspectual category, as it does not offer a paradigmatic choice between the perfective and imperfective aspect. A lack of contrast between perfective and imperfective future forms should not, however, constitute an argument for the aspectual nature of the future, since

if distinct perfective and imperfective paradigms are observed in the future, the system has a distinct future tense.

It is argued in this thesis (Chapter 2) that the verbal system of Classical Latin shows a consistent contrast between the perfectum and infectum future and yet the future is not aspectual. It is a distinct tense that offers a choice between the future perfective and imperfective verb forms. The componential semantic feature analysis of the Ancient Greek verb system, proposed by Porter, leaves the future unrelated to any other verb category. A partial functional contingency with the aspect and the subjunctive mood, proposed with the features [+aspectual] and [+expectational] indeed accounts for the function and usage of the Ancient Greek future. As shown in § 2.3 the future in Ancient Greek could be interpreted as either perfective, imperfective or neutral in relation with aspect, while it may also have a volitional meaning normally expressed by the subjunctive, depending on the context. However, the future forms should not be equated with the subjunctive mood, taking into consideration general distribution and usage of distinct future forms as opposed to the subjunctive forms and the existence of the distinct subjunctive mood paradigms. The functional closeness of the future and subjunctive is justified by the semantic feature [+expectational].

A proposal for the partial aspectual status of the Ancient Greek future, on the other hand, does not properly account for the aspectual distinctions within the verb system of Ancient Greek. Observation of the verb forms in the indicative mood paradigms reveals striking parallels between present and imperfect, future and aorist, and

perfect and pluperfect. Grouping of the categories is based on identical verb stems in the active voice.[12] The only distinguishing marker between the categories that are based on identical stems is the secondary inflection and the augment for the past tense forms as opposed to the primary inflection of the non-past forms. The perfect is classified as a non-past form, given its present resultative function in reference to the past event and lack of augment. Note that the perfect, although essentially a non-past category, shares the new secondary inflection with the sigmatic aorist. A converging present/past function of the perfect category justifies the choice of the secondary inflection. A non-past function of the perfect is evidenced by the lack of augment which is present in the pluperfect paradigms.

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[12]The sigmatic aorist and future share the same stem, but this is not true of the asigmatic aorist types that represent relics of the productive PIE formation. Also, in the passive voice the sigmatic future does not correspond to the aorist, e.g. PASS FUT *paideu-thé:-s-omai*, PASS AOR *e-paideú-the:n* from *paideúo*: 'I teach, educate', cf. AOR *e-paídeu-s-a*. The future perfect in the medio-passive voice also represents a peculiar combination of reduplication and the sigmatic marker, e.g. FUT PERF *pe-paideú-s-omai*. These future forms, however, appear only in later authors.

Table 14

Verb categories in Ancient Greek

Non-Past		Past	
Present		**Imperfect**	
lú:o:	lú:omen	élu:on	elú:omen
lú:eis	lú:ete	élu:es	elú:ete
lúe:i	lú:ousi	élu:e	élu:on
Future		**Aorist**	
lú:so:	lú:somen	élu:sa	elú:samen
lú:seis	lú:sete	élu:sas	elú:sate
lú:sei	lú:sousi	élu:se	élu:san
Perfect		**Pluperfect**	
léluka	lelúkamen	elelúke:	elelúkemen
lélukas	lelúkate	elelúke:s	elelúkete
léluke	lelúka:si	elelúkei	elelúkesan

A consistent three-way aspectual opposition is evidenced not only by the identical stems of the grouped categories in the non-past and past, but also by their identical function. The imperfective function of the present in the non-past (§ 2.4.7) and imperfect (§ 2.4.8) in the past is undisputable. There has been but little debate about the parallel functions of the perfect and pluperfect, however. Both categories represent results pertaining to anterior events. The perfect represents a present result of the past event (§ 2.4.4), while the pluperfect denotes a past result of a preceding event (§ 2.4.5). An association between the future and aorist is, however, controversial. Although the future and aorist were not necessarily etymologically related (as discussed in § 2.1.2), both formal and

functional relations obtained between these two categories in the active voice, in Ancient Greek (§ 2.4.1 and 2.4.3). In order to establish this relation it is necessary to track down the exact function of the aorist.

The aorist has often been defined as the past perfective form, e.g. Kurylowicz (1964:104). The aorist does denote perfective aspect, but not inherently. The aorist generally expresses a complete event without further limitation of its internal structure; it denotes a past event/action that lasted but was not necessarily completed or terminated (see also Meillet 1903/67:250). This type of function has been recognized as perfective, see for example Comrie (1976:18), who claims that the aorist represents a past event as a blob as opposed to a point in time. The aorist could, depending on the Aktionsart, explicitly represent a perfective function which must be represented as a final point of the event time. Although the aorist marked for Aktionsart may have a number of subtly distinct meanings, i.e. punctual, completive, realized, telic, inceptive,[33] it always denotes the end of the event or generally speaking perfective function. This type of function, also represented by the Slavic Aktionsart in the past (see Chapter 4), is not inherent to the aorist category of Ancient Greek. As shown in § 2.4.1, Aktionsart function is determined by the meaning of the verb and its contextual usage. The inherent function of the Ancient Greek (and presumably late PIE and Common-Slavic) aorist is the

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[33]Classification of Aktionsart functions is adopted from Friedrich (1987:135). Some of these functions expressed by the aorist marked for Aktionsart are exemplified in § 2.4.1.

representation of the event as a whole without further reference to its constituency; hence the term *aóristos* 'unbounded, undefined'. Past events, denoting complete situations without the emphasis on the end, will also be represented in § 2.4.1. It is not difficult to see how the representation of such an event in the non-past refers to future time. A complete event in the non-past may not normally have present time reference, since an event represented as a whole without the emphasis on the internal constituency, i.e. present, or the external resultative state, i.e. perfect, could be conceived of only in the imagination, i.e. future (see below). The association of three types of aspectual functions in the past and non-past is postulated in the light of the cognitive-structural approach to tense and aspect analysis (Guillaume 1945/65, Valin 1975).[33]

From the cognitive stance, the choice between perfective[34] and imperfective aspect is explained by the subjective view of event time represented by a particular verb form. The perfective aspect which denotes completion of the action/event is represented by the final point within event time.[35] This state of the event is referred to as plerotropy (Valin 1975:36). As the imperfective aspect denotes an action/event in progress, a completion

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[33]Porter (1989:411) also points out that Ancient Greek is "a bi-temporal language".

[34]Perfective here implies complete/perfective for Ancient Greek.

[35]We should keep in mind that the Ancient Greek aorist inherently represents a complete event; it does not always represent a final point of the event time. This type of function is represented in certain contexts, see § 1.3. A model proposed by Valin (1975) accounts for the perfective Aktionsart forms in Slavic languages and as argued here for certain uses of the Ancient Greek aorist.

in progress is represented by any point within the event except for the last which represents completion itself. The internal view of the event time progression is referred to as merotropy. In languages in which perfective aspect in the non-past serves for the future representation, e.g. Ancient Greek and Ancient/Modern Northern Slavic languages, these two subjective points of event time are contrasted against universe time. That is to say, an event with its own interior event time is itself contained within universe time.

Table 15

Merotropic and plerotropic states of event time

imperfective (merotropic forms)

```
universe time       imperfective       universe time
-------------| <------ | - - -> |--------------------
                    event time
```
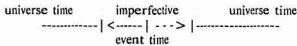
perfective (plerotropic) forms

```
universe time       perfective         universe time
-------------|-------------> |-------------------
                    event time
```
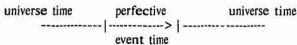
(Valin 1975:136)

Reference of the plerotropic state of the event time to the universe axis explains how the perfective aspect in the present or non-past could be used for future time representation.

> ...in order to think the perfective it is necessary to accompany mentally the "unrolling" of each instant involved in the duration of the event, from the first to last. The image of a progression takes its direction from the unfurling of the event itself in universe time, that is to say as a movement

ascending toward what is not yet, toward what is to come, and therefore
future (Valin 1975:136-7).

The plerotropic state of the event time in the past accounts for the complete action
represented by the aorist in Ancient Greek, cf. past perfective in Slavic. Transferring
of this view from the past to the present explains the future time reference, since the
completion of the action may not normally refer to the present proper. Since the
perfective present is rarely associated with sensory experience, the perfective non-past
normally refers to the future.

The model which accounts for the Slavic Aktionsart perfective must be slightly
modified in order to explain the association of the Ancient Greek aorist and future. The
aorist in Ancient Greek inherently represents a complete event viewed as a whole, while
in certain contexts and depending on the Aktionsart of the verb it may have a perfective
function (as shown in § 2.4.1). Therefore, the notion perfective which is represented by
the final point of the event time is to be extended to include representation of the event
as a whole. An event viewed as a whole in the present may be represented as complete
only in imagination, in other words the future. It will be shown in § 2.4.3 that the future
has the same aspectual function as the aorist; it may denote complete events, as well as
perfective events, depending on the lexical meaning of the verb. Hence a necessity to
distinguish between the past and non-past in order to account uniformly for the future,
present and perfect as the non-past categories that have parallel functional implications
with the past categories, i.e. aorist, imperfect and pluperfect, respectively. A division

between the past and non-past in Ancient Greek, cf. Ancient Slavic, accounts for the symmetrical opposition between three aspectual categories along the axis which delineates the two distinct tenses. As shown in Table 11 a consistent contrast obtains between the past and non-past forms both in form and function. Analysis of the verb forms in § 2.4 confirms that all temporally opposed categories have parallel aspectual functions.

The tense and aspect verb forms of Ancient Greek are represented within a perfectly symmetrical verb system in the active voice which accounts both for the functional and formal correspondences of the verb forms.[3] The present/imperfect and perfect/pluperfect association has been generally recognized. Although more controversial, the aorist/future association has been proposed by representatives of various traditions, e.g. Dionysius Thrax, the Stoics, see also, Chantraine 1967 in § 2.2. Both Dionysius and the Stoics (in Porter 1989:18-21) point to the oppositions between different types of actions represented by present/imperfect, perfect/pluperfect and aorist/future. According to Dionysius Thrax, the perfect is a past category, along with the imperfect, aorist and pluperfect. The future is represented as a separate tense form both by Dionysius and the Stoics. The Stoic representation of the Ancient Greek verb system comes close to the cognitive/functional system proposed here, although the functions of the verbal categories are not precisely defined.

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[3]As shown earlier, future forms in the passive voice do not correspond to the aorist forms. Also, the future perfect forms in the medio-passive voice, which denote a result of the future event, marked both by reduplication and sigmatic marker, are omitted. They are marginal in usage and appear only in later authors.

Table 16

Stoic representation of the Ancient Greek verb system

Time	Past	Present	Future
Action			
Incomplete	imperfect	present	
Complete	pluperfect	perfect	
Undefined	aorist		future

(in Porter 1989:21)

The Stoics (Porter 1989:21) affirm that "the Aorist according to its indefiniteness is related to the Future". We have seen that an event, undefined in terms of its internal constituency or external view, is an event represented as a whole and therefore complete. It follows that the term "undefined" as well as the aorist relation to the future is not as mysterious as it sounds (see the arguments above). A separate treatment of the aorist and future as opposed to the other verb categories in Ancient Greek may be justified. First, the aorist simply represents a complete event in the past without necessarily representing a perfective, i.e. completed, event. Explicit perfectivity of the aorist depends on the Aktionsart or the contextual usage (as shown in § 2.4.1). At the same time there is an unusual correlation between this past category and the future. Treatment of the future as the perfective category in the non-past solves a systemic puzzle of arranging the verb forms according to their form and function. Identification of the pluperfect and perfect as denoting simply complete events is erroneous. These two categories emphasize the

state/result of a past event and therefore do *not* represent complete events *per se*. Aside from the flaws in defining the verb categories, the Stoics do not account for their functional interrelations within the system. The aorist is thus defined in relation to the perfect and pluperfect. A correct and succinct systemic analysis should relate the function expressed by the aorist/future to the functions expressed by the present/imperfect and perfect/pluperfect.

A system without sub-aspectual distinctions (as proposed by Ruipérez 1979, Porter 1989) represents the most adequate account taking into consideration both formal and functional properties of the verb categories in Ancient Greek. A systemic representation that accounts both for the functional and formal properties of all verb categories should emphasize a relation between the three types of aspect in the past and non-past. The future is not postulated as a distinct tense form, based on the functional and formal points of contact with the aorist, which is also confirmed by the contextual functions represented in § 2.4.1 and 2.4.3. A distinct future tense may not be proposed for Ancient Greek, as there is no perfective/imperfective contrast in the future tense, which however exists in the past tense. The aspectual, i.e. complete/perfective, verb form in the non-past is used for the future representation. The aorist stem used to represent the future is not in itself perfective. The aspectual type of future in the non-past is rather neutral, as is the aorist. It represents an event as a whole which could be interpreted as perfective due to the Aktionsart and the contextual usage (see § 2.4.3). Thus neither the future nor aorist is inherently defined with precision, apart form denoting complete events.

The system proposed in this thesis has a cognitive-functional basis as it accounts not only for the forms and functions of the verbal categories, but also for the consistent cognitive perception of the verbal aspect both in the past and non-past. The usage of the verbal categories shows a general correspondence with the functional contrasts represented by the verb system. The systemic functional contrasts define an inherent functional property of a verb category. The contextual usage, on the other hand, may point to additional types of functions. For example an aorist participle which is inherently perfective also denotes a function of anteriority in relation to another past event (§ 2.4.2). Discussion of the usage of the verbal categories takes consideration of both inherent and contextual grammatical functions.

2.4 Function and usage of verb categories in Ancient Greek

2.4.1 Aorist

The aorist may express a perfective event emphasizing a final point within the event time or completion of the event/action. Depending on the lexical meaning of the verb (Aktionsart), the aorist may express a number of subtly distinct functions. Homeric Greek is represented by the works of Homer, the Iliad and the Odyssey, which date from 8th BC. Classical Greek is represented by the works of Plato (5/4 BC), Xenophon (5/4 BC), and Aristotle (4 BC).

Homeric Greek

Hoi d' **híkson (AOR)**[38] koîle:n Lakedaímona ke:tó:essan, pròs d'ára dó:mat' élo:n
Meneláou kudalímoio. tòn d' **heûron (AOR)**[39] dainúvta gámon polloîsin éte:ysin huiéos
e:dè thugatròs amúmonos hô:y enì oîko:y. 'And they **came** to the hollow land of
Lacedaemon with its many ravines, and drove to the palace of glorious Menelaus. Him
they **found** giving a marriage feast to his many kinsfolk for his noble son and daughter
within his house' (Homer, The Odyssey IV 1-5).

hò:s ár' **ephó:ne:sen (AOR)**[40], **lû:sen (AOR)**[41] d'agorè:n aipse:ré:n. 'So he **spoke**, and
hastily **broke** up the assembly. (Homer, The Odyssey II 257).

Classical Greek

kaì peltastaìs dè kaì toksótais áthla **proúthe:ken (AOR)**[42], hoítines krátistoi tà prosé:konta
érga phaínointo. 'He also offered prizes to the targeteers and the archers who showed
the greatest efficiency in their particular duties' (Xenophon, Scripta Minora, Agesilaus
I 25).

The aorist may also have an inchoative/inceptive function denoting the beginning

of a state. These forms also emphasize the final point of the event, while indicating at

the same time the beginning of a new state.

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[38] A punctual perfective function of 2nd aorist *híkson* (*híko:* 'come, arrive'), is in
contrast with duration expressed by the imperfect *élo:n* (*eláo:* 'drive').

[39] Second aorist of *heurísko:* 'find'; it is explicitly perfective since the lexical
meaning of the verb denotes realization function.

[40] Aorist of *pho:néo:* 'speak, address', denotes completive/terminative function due
to the Aktionsart

[41] Aorist of *lú:o:* 'loosen, release, break up' expresses a punctual function in this
particular context.

[42] Aorist *proúthe:ken* (*protíthe:mi* 'offer, present to') denotes a past perfective
event, specifically it denotes realization Aktionsart in this particular context.

Homeric Greek

...égreto (AOR)[45] dè Zeùs íde:s en koruphè:ysi parà khrusothrónou Hé:re:s.. '... and Zeus awoke on the peaks of Ida beside Hera of the golden throne' (Homer, The Iliad XV 5).

tè:n dè kat' ophthalmò:n erebennè: nùks ekálupsen (AOR)[46], é:ripe (AOR) d' eksopíso:, apò dè psukhè:n ekápusse. 'Then down over her eyes came the darkness of night, and enfolded her, and she fell backward and gasped forth her spirit' (Homer, The Iliad XXII 466-7).

Classical Greek

he: oûn Penía epibouleúousa dià tè:n autê:s aporían paidíon poié:sasthai ek toû Pórou, kataklínetaí te par' autò:y kaì ekúe:se (AOR)[47] tòn Éro:ta 'Then Poverty, being of herself so resourceless devised a scheme of having a child by Resource, and lying down by his side she conceived Love' (Plato, Symposium 203 B).

The aorist does not always explicitly express perfectivity; it may also denote a complete event that lasted without the emphasis on the internal content.

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[45] Second aorist, medio-passive, of egeíro: 'wake up'

[46] The aorist forms ekálupsen (kalúpto: 'cover, conceal') and é:ripe (ereípo: 'fall down') denote the inception of a state, according to the Aktionsart.

[47] The aorist ekúe:se (kuéo: 'conceive') denotes a perfective event and at the same time the inception of a new state.

Homeric Greek

Hò:s phaméne: kaì kerdosúne:y he:gé:sat' (AOR)⁴⁶ Athé:ne:. hoi d' hóte dè: skhedòn è:san ep' allé:loisin ióntes, tòn próteros proséeipe mégas koruthaíolos Hékto:r...'By such words and by guile Athene led him on. And when they were come near as they advanced one against the other, then first unto Achilles spake great Hector of the glancing helm...' (Homer, The Iliad XXII 247-9).

Glaûkos d' égno: (AOR)⁴⁷ hê:ysin enì phresì gé:the:sén (AOR) te, hótti hoi ò:k' é:kouse mégas theòs euksaménoio. 'Glaucus knew in his mind, and was glad that the great god had quickly heard his prayer' (Homer, The Iliad XVI 530).

Ándra moi énnepe, moûsa, polútropon, hòs mála pollà plágkhthe: (AOR)⁴⁸, epeì Troíe:s hieròn ptolíethron épersen 'Tell me, O Muse, of the man of many devices, who wandered full many ways after he had sacked the sacred citadel of Troy' (Homer, The Odyssey I 1-2).

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⁴⁶The sigmatic aorist he:gé:sato 'lead on' (he:géomai 'lead') represents a complete past event, neutral with regard to its constituency. A span of time represented as a whole may be compared to a completed/terminated event expressed by the aorist proséeipe 'spoke to'. The completive/terminative function of proséeipe is determined by the Aktionsart, i.e. inherent aspect, of the verb and its contextual function. The perfective (completive/terminative) function of this verb form is contextually contrasted with the imperfective aspect of the two mutually simultaneous events, expressed by the imperfect e:san 'were' and the imperfective participle ióntes 'advancing'.

⁴⁷The aorist égno: (gignó:sko: 'learn') pertains to a state described as a circumscribed span of time, as opposed to an inchoative momentary action of perceiving; in the same way the aorist gé:the:sén (ge:théo: 'be glad, delighted') denotes a state represented as a complete event, as opposed to the inchoative perfective function of rejoicing. The functions of these two aorist forms are determined contextually in contrast with the perfective (specifically punctual) function denoted by the aorist é:kouse (akoúo: 'hear').

⁴⁸The aorist plágkhthe: (plázdo: 'wander, go astray') denotes Odysseus's wandering as a whole, without the emphasis on the final point of the event time. This type of representation may be compared with the perfective (specifically realized) function expressed by the aorist épersen 'sacked'.

Haì d' állai psukhaì nekúo:n katatethne:ó:to:n héstasan (AOR)[49] akhnúmenai, eíronto dè ké:de hekáste: 'And other spirits of those dead and gone **stood** sorrowing, and each asked of those dear to him' (Homer, The Odyssey XI 541-2).

Classical Greek

kaì hótan apotháno:sin hoùs ephobé:the: (AOR)[50], oudén ti mãllon toútou tharreî, allà phuláttetai éti mãllon è: tò prósthen, 'Even the death of those whom he feared does not restore him to confidence; he is yet more on his guard afterwards than before' (Xenophon, Scripta Minora, Hiero II 18).

The aorist may also have an iterative function denoting repetition or a series of

events in the past. While imperfect denotes habitual past events (see the examples

below), aorist is used to emphasize completion of each repeated past event.

tòn d' hóte pínoien melie:déa oînon eruthrón, hèn dépas emplé:sas (AOR PART)[51] húdatos anà eíkosi métra kheû'(AOR)[52]... 'And as often as they drank that honey-sweet red wine he would fill one cup and pour it into twenty measures of water' (Homer, The Odyssey IX 208-10).

The aorist could be used to denote anteriority in relation to another past event.

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[49]The aorist *héstasan*, a short form of *éste:san*, Liddell and Scott, (*híste:mi* 'stand') denotes simply a complete event, which may be contrasted with the perfective (specifically completive/terminative) function denoted by the aorist *eíronto* (*eréomai* 'ask').

[50]Aorist, passive, *ephobé:the:* (*phobéo:* 'fear, dread') represents a stative event as a whole, rather than emphasizing termination or completion. This function is determined by the Aktionsart and contextual usage of the verb.

[51]The aorist participle *emplé:sas* (*empíple:mi* 'fill') expresses a series of past complete events simultaneous with a series of complete events represented by the aorist *kheue* (*khéo:* 'pour').

[52]The aorist *kheûe* (*khéo:* 'pour') expresses a series of perfective past events.

Homeric Greek

Autàr epeì diá te skólopas kaì táphron ébe:san (AOR)[53] pheúgontes, polloì dè dámen (AOR)[54] Danaô:n hupò khersín, hoi mèn dè: par' ókhesphin ere:túonto ménontes,...'But when the Trojans in their flight **had passed** over the palisade and the trench, and many **had been vanquished** beneath the hands of the Danaans, then beside their chariots they stayed, and were halted,...'(Homer, The Iliad XV 1-3)

Classical Greek

Epeì dè taûta pánta **dié:kousen (AOR)**[55] ho Simo:níde:s,... éphe:...'When Simonides **had listened** to all this, he asked:...'(Xenophon, Scripta Minora, Hiero, VII 11)

2.4.2 Aorist/perfective participle

The aorist participle denotes perfectivity and at the same time anteriority in relation to another past event, both in Homeric and Classical Greek.

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[53]*ébe:san,* causal aorist of *balno:* 'go' represents a past perfective event anterior in relation to another past event denoted by the imperfect, medio-passive, *ere:túonto* of *ere:túo:* 'hold back, restrain'.

[54]Second aorist, medio-passive *dámen,* of *damáo* 'subdue, overpower, conquer' also represents a past perfective event anterior in relation to another past event expressed by the imperfect, medio-passive, *ere:túonto* of *ere:túo:* 'hold back, restrain, repress'.

[55]Aorist, *dié:kousen (diakoúo:* 'hear through, all') denotes a perfective past event along with anteriority in relation to another past perfective event expressed by the aorist *éphe:* (*phe:mí* 'say').

Homeric Greek

tê:s dè kratùs Argeïphónte:s e:rásat', ophthalmoîsin **idò:n (AOR PART)**[36] metà melpoméne:ysin... 'Of her the strong Argeïphontes became enamoured, when his eyes **had sight** of her amid the singing maidens...' (Homer, The Iliad XVI 181-2)

Hô:s ára **pho:né:sas'(AOR PART)**[37] he:gé:sato dîa theáo:n karpalímo:s, ho d' épeita met' íkhnia baîne theoîo. 'So **saying**", the beautiful goddess led the way quickly, and he followed in the footsteps of the goddess' (Homer, Odyssey V 192-3).

Classical Greek

Kaì egò: **akoúsas (AOR PART)**[38] tòn lógon ethaúmasá te kaì eîpon Eîen, ê:n d' egó:, ô: sopho:táte: Diotíma, taûta hô:s ale:thô:s hoúto:s ékhei. **'On hearing** this argument I wondered, and said: "Really, can this in truth be so, most wise Diotima?"'(Plato, Symposium 208 B-C)

Anteriority of a past event in relation to another past event, aside from perfectivity, may also be expressed by the participles in genitive absolute constructions. Genitive absolute constructions are dependent clauses comprised of substantives and their attributes inflected for the genitive case.

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[36]The aorist participle *idó:n* 'having seen' denotes anteriority in relation to the past perfective event expressed by the aorist, *e:rásato* 'became enamoured' (medio-passive sigmatic aorist, 3SG, of *eráomai* 'love, long for').

[37]The aorist participle *pho:né:sasa (pho:néo:* 'speak, address, speak loud') denotes perfectivity and anteriority in relation to another past event expressed by the aorist *he:gé:sato (he:géomai* 'lead').

[38]The aorist participle *akoúsas (akoúo:* 'listen, hear') denotes a past perfective event and anteriority in relation to another past event expressed by the aorist *ethaúmasá (thaumázdo:* 'wonder, be astonished').

Classsical Greek

Metà taûta, éphe:, **kataklinéntos [(AOR PART) - GEN ABS][59]** toû So:krátous kaì **deipné:santos (AOR PART)** kaì tô:n állo:n, spondás te sphâs poié:sasthai kaì áysantas tòn theòn...'After this, when Socrates **had taken** his place and **had dined** with the rest, they made libation and sang a chant to the god...' (Plato, Symposium 176 A).

2.4.3 Sigmatic Future

The sigmatic future in Ancient Greek, both Homeric and Classical, inherently represents complete events. The function of the sigmatic future was already associated with the aorist in Homeric Greek. The aspectual function of the sigmatic future is determined by the context or marked by the Aktionsart of the verb.

Homeric Greek

tô:n s' aûtis mné:so: **(FUT)[60]**,... 'Of these things will I **mind** thee yet again,...' (Homer, The Iliad XV 31).

oú toi éti de:rón ge phíle:s apò patrídos aíe:s **éssetai (FUT)[61]**, oud' eí pér te sidé:rea désmat' ékhye:sin. **Phrássetai (FUT)[62]** hó:s ke née:tai, epeì polumé:khanós estin. 'Not

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[59]The aorist participle, *kataklinéntos* GEN SG (*kataklíno:* 'sit at table, lie down)' as well as *deipné:santos* GEN SG (*deipnéo:* 'dine') denote anteriority relative to the past event expressed by the medio-passive aorist infinitive *poié:sasthai* (*poiéo:* 'make for oneself').

[60]Future, active *mné:so:* (*mimné:sko:*) 'recall to the memory of others', has a perfective (specifically realized) aspectual function according to its Aktionsart and the contextual usage.

[61]Future, mediopassive, of *énnu:mi* 'be clad in', expresses a complete and not perfective event within the context.

[62]Future, mediopassive, of *phrázdo:* 'contrive, devise', represents a perfective (specifically realized) event within the context.

much longer **shall** he **be absent** from his dear native land, no, not though bonds of iron hold him. He **will contrive** a way to return, for he is a man of many devices' (Homer, The Odyssey I 203-5).

pémpso: (FUT)⁶³ d' es Spárte:n te kaì es Púlon e:mathóenta nóston peusómenon patròs phílou, é:n pou akoúse:ys, e:d' hína min kléos esthlòn en anthró:poisin ékhe:ysin. 'And I **will guide** him to Sparta and to sandy Pylos, to seek tidings of the return of his dear father, if haply he may hear of it, that good report may be his among men' (Homer, The Odyssey I 93-5).

   Classical Greek

Gorg. Eisì mén, ò : Só:krates, éniai tô:n apokríseo:n anagkaîai dià makrô:n toùs lógous poieîsthai: ou mè:n allà **peirásomai** (FUT)⁶⁴ ge ho:s dià brakhutáto:n; kaì gàr aû kaì toûto hén estin hô:n phe:mí, me:déna àn en brakhutérois emoû tà autà eipeîn. 'There are some answers, Socrates, that necessitate a lengthy expression: however, I **will try** to be as brief as possible; for indeed it is one of my claims that no one could express the same thing in briefer terms than myself' (Plato, Gorgias 449 B-C).

...hó:ste, án ti phaíne:tai légo:n to amphisbe:tô:n emoî, egò: prô:tos **sugkho:ré:somai** (FUT)⁶⁵. ...'so that if anyone who disputes my statements is found to be on the right track, I **shall** be the first to **agree** with him' (Plato, Gorgias 506 A)

kaí me eàn ekselégkhe:ys, ouk **akhthesthé:somaí** (FUT)⁶⁶ soi hó:sper sù emoí, allà mégistos euergéte:s par' emoì anagerápse:y. 'And if you refute me, I shall not be **vexed**

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⁶³The future, active, form *pémpso: (pémpo:* 'convoy, attend, escort') according to its Aktionsart and the contextual function denotes a complete event without further restriction upon its internal constituency.

⁶⁴Sigmatic future *peirásomai (peiráo:* 'try, undertake') denotes a perfective (specifically completive) future event in this particular context.

⁶⁵Sigmatic future *sugkho:ré:somai (sugkho:réo:* 'agree to, assent') denotes an inchoative perfective function ensued by the state. Inchoative perfective function is determined by the combination of the Aktionsart and the contextual usage.

⁶⁶Sigmatic future, passive, *akhthesthé:somaí (ákhthomai* 'be discontented, vexed' denotes a complete event which is stative due to the Aktionsart as well as the passive voice.

with you as you were with me; you will only be recorded in my mind as my greatest benefactor' (Plato, Gorgias 506 C).

2.4.4 Perfect

The perfect denotes a result or state of a past event in Ancient Greek. As noted in § 2.1.3, in Homeric Greek the stative function is predominant as indicated by the medio-passive inflection.

Homeric Greek

mé:te:r d' emè: oú ti **pépustai (PERF)**[67], oud' állai dmo:aí, mía d' oíe: mûthon ákousen. 'My mother **knows** naught hereof, nor the handmaids either: one only heard my word' (Homer, The Oddyssey II 411-2)

....ou gár tis dúnatai sápha eipémen hoppóth' **ólo:len (PERF)**[68], eíth' hó g'ep' e:peírou dáme: andrási dusmenéessin, eíte kaì en pelágei metà kúmasin Amphitríte:s. '...for no man can tell surely where he **hath died**, - whether he was overcome by foes on the mainland, or on the deep among the waves of Amphitrite' (Homer, The Odyssey III, 89-91).

Perfect forms in Homeric Greek may also combine with the active inflection.

oíosin **deídoika (PERF)**[69] posìn mé: tís me parélthe:y Phaié:ko:n ... 'In the foot race alone I fear that someone of the Phaeacians may outstrip me...' (Homer, The Odyssey VIII 230).

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[67] Perfect, mediopassive, cf *punthánomai* 'ask, inquire, hence learn'

[68] Perfect, mediopassive, of *óllumi* 'perish, die' is characterized by the old stative inflection.

[69] Perfect, active, with the present meaning (*deído:* 'fear')

In Classical Greek, the perfect comes to denote the result of the past event, rather than the state. Medio-passive perfect forms denote the state as an idiosyncratic feature of the medio-passive voice.

Classical Greek

Tí dè: he semnè: haúte: kaì thaumasté:, he: tê:s trago:ydías poíe:sis eph' hô:y **espoúdake (PERF)**[30]? 'Than what of the purpose that has inspired our stately and wonderful tragic poetry?' (Plato, Gorgias 502 B)

2.4.5 Pluperfect

The pluperfect represents a past state or result in relation to another past event or a point in time. Just like the perfect category, the pluperfect by and large denotes a state rather than a result in Homeric Greek. The stative function of the pluperfect in Homeric Greek correlates with the medio-passive inflection. In Classical Greek, the pluperfect comes to express a result of the past event. Beside the stative/resultative function the pluperfect denotes anteriority in relation to another past event.

Homeric Greek

Tétraton ê:mar ée:n, kaì tô:y **tetélesto (PLPF)**[31] hápanta. 'Now the fourth day came and all his work was done' (Homer, The Odyssey V 262).

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[30]Perfect active form *espoúdake* (*spoudázdo:* 'pursue, follow up zealously, inspire') denotes a present result of the past event.

[31]The mediopassive pluperfect form *tetélesto* (*teléo:* 'complete, accomplish') denotes a past anterior state in relation to another past event denoted by the imperfect *ée:n*, an epic form of *e:n*, according to Liddell and Scott (*eimí* 'be').

he: d' eks húpnou anórouse koúre: Ikaríoio, phílon dé hoi è:tor iánthe:, hó:s hoi enargès óneiron **epéssuto (PLPF)**[72] nuktòs amolgò:y. 'And the daughter of Icarius started up from sleep, and her heart was warmed with comfort, that so clear a vision **had sped** to her in the darkness of night' (Homer, The Odyssey IV 839-41).

Classical Greek

...kaì autoû katémeine mála he:dómenos tò:y érgo:y hóti toùs mégiston phronoûntas eph' hippikè:y **enenikè:kei (PLPF)**[73] sùn hô:y autòs eme:khané:sato hippikò:y. 'and here for the moment he paused, mightily pleased with his exploit, since he had **defeated** an enemy inordinately proud of his horsemanship with the cavalry that he had himself created' (Xenophon, Scripta Minora, Agesilaus II 5)

2.4.6 Perfect/stative participle

The perfect participle denotes state in Homeric and Classical Greek.

Homeric Greek

Hai d'agéronto psukhaí hupèks Erébeus nekúo:n **katatethne:ó:to:n (PERF PART)**[74]. Númphai t' e:ítheoi te polútle:toí te gérontes parthenikaí t' atalaì neopenthéa thumòn ékhousai, polloì d' outámenoi khalké:resin egkhefe:ysin, ándres are:fphatoi **bebroto:ména (PERF PART)**[75] teúkhe' ékhontes. 'Then there gathered from out of Erebus the spirits of those who are dead, brides and unwedded youths, and toil-worn old men, and tender maidens with hearts yet new to sorrow, and many, too, that had been wounded with bronze-tipped spears, men slain in fight, wearing their **blood-stained** armour' (Homer, the Odyssey XI 36-41).

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[72]The pluperfect *epéssuto* (*episeúo*: 'hurry, hasten') denotes state and at the same time anteriority in relation to the past perfective events expressed by the aorist *anórouse* (*anoroúo*: 'start up') and *iánthe*: (*iaíno*: 'warm, heat').

[73]The pluperfect *enenikè:kei* expresses a past result and at the same time anteriority in relation to a past event expressed by the aorist *katémeine* (*kataméno*: 'stand, remain').

[74]Perfect participle of *katathné:sko*: 'be dead, deceased'

[75]Perfect participle, mediopassive, of *brotóo*: 'stain with gore'

Classical Greek

Taûta dè:, ô:y Phaídré te kaì hoi álloi, éphe: mèn Diotíma, pépeismai d' egó; **pepeisménos (PERF PART)**[36] dè peirô:mai kaì toùs állous, peíthein, hóti toútou toù kté:matos tê:y anthro:peśay phúsei sunergòn ameíno: Éro:tos ouk án tis raydío:s láboi. 'This Phaedrus and you others, is what Diotima told me, and I am persuaded of it; **in** which **persuasion** I pursue my neighbours, to persuade them in turn that towards this acquisition the best helper that our human nature can hope to find is Love' (Plato, Symposium 212 B).

2.4.7 Present

The present may express an event or action simultaneous with the moment of speech.

Lûson, egò: dé toi autòn hupískhomai **(PRES)**, ho:s sù keleúeis **(PRES)**, tísein aísima pánta met' athanátoisi theoîsin. 'Loose him, and I **promise**, as thou **biddest** me, that he shall himself pay thee all that is right in the presence of the immortal gods' (Homer, The Odyssey VIII 347-8).

It may also express a habitual event.

all' ho mèn en néso:y **keîtai (PRES)** kratér' álgea páskho:n númphe:s en megároisi Kalupsoûs, hé: min anágke:y **ískhei (PRES)**. 'He verily **abides** in an island suffering grievous pains, in the halls of the nymph Calypso, who **keeps** him perforce' (Homer, The Odyssey V 13-5).

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[36]Perfect participle, mediopassive, *pepeisménos (peítho:* 'persuade, prevail') denotes a result of the past event in this particular context, i.e. 'being persuaded, I pursue...'. Inherently medio-passive perfect participles, however, denote the state as the characteristic of the mediopassive voice.

2.4.8 Imperfect

The imperfect generally denotes an incomplete past event, emphasizing duration rather than completeness.

Homeric Greek

Hò:s d' ek lekhéo:n par' agauoû Titho:noîo ó:rnuth' (IMPERF)[77], hín' athanátoisi phóo:s phéroi e:dè brotoîsin. hoi dè theoì thô:kónde kathízdanon (IMPERF)[78], en d' ára toîsi Zeùs hupsibreméte:s, hoû te krátos estì mégiston. 'Now Dawn arose[79] from her couch from beside lordly Tithonus, to bear light to the immortals and to mortal men. And the gods were sitting down to council, and among them Zeus, who thunders on high, whose might is supreme' (Homer, The Odyssey V 1-5).

Hò:s hórmaine (IMPERF)[80] méno:n, ho dé hoi skhedòn ê:lthen Akhilleùs îsos Enualío:y, koruthaîki ptolemistê:y...'So he pondered as he abode, and nigh to him came Achilles, the peer of Enyalius, warrior of the waving helm,...' (Homer, The Iliad XXII 131-2).

Classical Greek

ephoboúme:n (IMPERF)[81] mé: moi teleutô:n ho Agátho:n Gorgíou kephalè:n deinoû légein en tô:y lógo:y epì tòn emòn lógon pémpsas autón me lífthon tè:y apho:nfay poié:seie. 'I feared that Agathon in his final phrases would confront me with the eloquent Gorgia's head, and by opposing his speech to mine would turn me thus dumbfounded into stone' (Plato, Symposium 198 C)

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[77] Imperfect of órnumi 'arise'

[78] Imperfect of kathizdáno: 'sit down'; imperfect forms in this passage represent a background for the following events, proceedings of the council.

[79] 'was arising' would be more appropriate

[80] The imperfect hórmaine of hormaíno: 'ponder, debate' denotes a past event in progress simultaneous with another past event expressed by the imperfective participle méno:n 'awaiting, abiding'. Two imperfective events may be contrasted against the perfective event expressed by the aorist e:lthen 'came'.

[81] Imperfect, mediopassive of phobéo: 'frighten, terrify' represents an incomplete past state.

The imperfect may also denote repetition expressing past habitual events.

Homeric Greek

kaì pollákis mèn **proe:góreue (IMPERF)**[c] toìs stratió:tais toùs aliskoménous mè: ho:s adíkous timo:reîsthai, all' ho:s anthró:pous óntas phuláttein,... 'He **would** often **warn** his men not to punish their prisoners as criminals, but to guard them as human beings,...' (Xenophon, Scripta Minora Agesilaus I 21).

Classical Greek

kaì tóte logízdontai tí antì tínos, kaì ho:s Pútho:n kaì Pamméne:s **diephéronto (IMPERF)**[c], kaì hólo:s didáskalos kaì mathe:té:s (episté:me: gàr kaì khré:mata oukh enì metreîtai)... 'and they calculate the *quid pro quo*, and quarrel as Pytho and Pammenes used, as teacher and pupil do in general (for knowledge and money have no common measure)...' (Aristotle, Eudemian Ethics 1243 b 20)

2.4.9 Present/imperfective participle

The imperfective, or present participle expresses simultaneity with another event,

aside from the imperfective aspect.

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[c]Imperfect *proe:góreue (proagoreúo:* 'warn, tell before hand') denotes a habitual function in the past.

[c]Imperfect, mediopassive, *diépheronto (diaphéro:* 'differ, quarrel') denotes a habitual function in the past.

Homeric Greek

Hòs phásan hieîsai (PRES PART)[64] ópa kállimon, autàr emòn kê:r é:thel' akouémenai, lûsaí t' ekéleuon hetaírous ophrúsi neustázdo:n (PRES PART)[65], hoi dè propesóntes éresson. 'So they spoke, **sending forth** their beautiful voice, and my heart was fain to listen, and I bade my comrades loose me, **nodding** to them with my brows; but they fell to their oars and rowed on' (Homer, The Odyssey XII 190).

Classical Greek

Kaì ou polù hústeron 'Alkibiádou tè:n pho:nè:n akoúein en tê:y aulê:y sphódra **methúontos (PRES PART)[66]** kaì méga boô:ntos (PRES PART)[67], ero:tô:ntos (PRES PART)[68] hópou Agátho:n kaì keleúontos (PRES PART)[69] ágein par' Agátho:na. 'A few moments after, they heard the voice of Alcibiades in the forecourt, very **drunken** and **bawling** loud, to know where Agathon was, and **bidding** them bring him to Agathon' (Plato, Symposium 212 D).

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[64]Imperfective participle *hieîsai* (*íe:mi* 'send, send forth') represents an imperfective simultaneous event in relation with the perfective event represented by the aorist *phásan* (*phe:mí* 'say, speak').

[65]Imperfective participle *neustázdo:n* (*neustázdo:* 'nod') denotes an imperfective simultaneous event in relation to another past imperfective event expressed by the imperfect *ekéleuon* (*keleúo:* 'bid, order').

[66]Present participle, active, GEN SG M, of *methúo:* 'be intoxicated, drunk; it denotes, as other present participles in this passage, simultaneity with the past event expressed by the infinitive *akoúei* (*akoúo:* 'listen, hear').

[67]Present participle, active, GEN SG M, of *boáo:* 'shout'

[68]Present participle, active, GEN SG M, of *ero:táo:* 'ask, solicit'

[69]Present participle, active, GEN SG M, of *keleúo:* 'bid, command, order'

2.4.10 Conclusions

The functions of the verb forms in Ancient Greek, both Homeric and Classical, as indicated by their usage, point to the dominance of the aspectual contrasts within the verb system. Parallel aspectual functions assumed to represent crucial systemic contrasts are supported by the text analysis. The usage of the verb forms shows a distinction between the inherent and contextual functions of the verbal categories. Thus both the aorist and future inherently represent complete events without further specification of the internal event structure. The perfective function[70] is supplied by the Aktionsart and the context. Aktionsart and contextual usage may also determine the habitual or iterative function. The perfect and pluperfect generally express the present and past state or result of past events, respectively. The present and imperfect most often denote imperfective or continuous events. These two categories may also express habitual events due to Aktionsart or contextual usage. Anteriority may be contextually expressed by the aorist and pluperfect. On the other hand simultaneity is represented by the present and imperfect categories in particular contexts. Participles inherently denote absolute aspectual functions. These functions coincide with the contextual functions of anteriority and simultaneity. Thus the aorist and perfect participles denote perfective and stative/resultative aspect inherently and anteriority within the context. Present participles

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[70]Represented by combination of the aorist and a number of slightly distinct Aktionsart functions, i.e. punctual, completive, realized, telic and inceptive

are inherently imperfective expressing the relative aspectual function of simultaneity contextually.

In Ancient Greek, three types of stems represent three aspectual functions in the past and non-past. In late PIE, however, aspectual stem relations between the past and non-past did not obtain for all verb categories. The imperfective function expressed by the present and imperfect may easily be traced to late PIE. The perfect and pluperfect, which in Ancient Greek express resultative function are related to the old stative categories which converged with the medio-passive voice (see the usage of the perfect and pluperfect in Homeric Greek). The two categories were however related both in form and function in PIE. The only radical change which was introduced in Ancient Greek was a formal and functional approximation between the aorist and future. It is generally assumed that the sigmatic future originated with desiderative forms. A close functional relation with the future is one of the factors allowing for the category recategorization. In Ancient Greek the future represents an aspectual category in the non-past which is parallel to the aorist in the past. Both categories represent complete events which could be contextually or according to the Aktionsart interpreted as perfective.

CHAPTER 3

Aspect and Tense in Classical Latin

A major change that had taken place between late PIE and Classical Latin is the restructuring of a system dominated by a three-way aspectual contrast into a system dominated by a two-way aspectual opposition. As shown in Table 1, the infectum/perfectum binary opposition permeates the Latin verb system.

Table 1

Classical Latin verb system

	Infectum	Perfectum
	monere 'warn'	
Present	moneo:	monui:
Past	mone:bam	monueram
Future	mone:bo:	monuero:
	dicere 'say'	
Present	di:co:	di:xi:
Past	di:ce:bam	di:xeram
Future	di:cam	di:xero:

The restructuring of the Latin verbal system is centred around the aorist/perfect merger. That is to say, the Indo-European past perfective and resultative/stative aspectual categories in the present merged in Latin forming the present perfectum, traditionally referred to as the perfect. Verbal categories in Latin are discussed first with respect to origin and formation patterns. Review of the verb categories is followed by

the discussion of the Latin verb system. It will be argued in § 3.3 and 3.4 that systemic functional contrasts which reflect inherent properties of the verb categories should be distinguished from their contextual functions and usage.

3.1 Verb categories in Latin with reference to their origin

3.1.1 Perfect

Defining of the perfect function in Latin in relation to aspect/tense categories in other I-E languages, has drawn considerable attention in I-E historical linguistics. Since the Latin perfect entails the merger of the aorist and perfect categories, it most probably preserves both functions, i.e. perfective and resultative, at least in the initial stages. Primary grammatical functions of the verbal categories may be determined by their position and relation to other categories within the verb system. Since the Latin perfect presents the aspectual category in the present tense and is opposed to the present infectum, i.e. present imperfective, it must have a primary resultative function. According to its systemic position, the primary function of the Latin perfect corresponds to the late PIE and Ancient Greek perfect, i.e. resultative aspect in the present, and not to the aorist, which represents the perfective aspect in the past. However, it is important to note that the function of the Latin perfect does not preclude the aorist, i.e. past perfective, function. That is to say, present perfectum or perfect may equally denote a past perfective event and the present result of a past event. The analysis of contextual

functions confirms that the Latin perfect may have either aorist, i.e. perfective, or perfect, i.e. resultative function (as shown in § 3.4.1).

There is no absolute agreement as to the exact function of the Latin perfect. Most researchers however agree that the Latin perfect combines functions of the late PIE aorist and perfect. According to Ernout (1953:186) the Latin perfect primarily expresses a non-past accomplished action, e.g. *vi:xit* 'he has lived' meaning 'he is no longer alive'. The perfectum which denotes an accomplished action is thus opposed to the infectum which expresses an action in progress, e.g. *vi:vo:* 'I am in the process of living'. The notion of accomplishment is not unrelated to the past. He indicates that the Latin perfectum has the secondary meaning equivalent to the Greek aorist, e.g. *vi:xit* 'he lived'. Meillet (1966:28) also considers the Latin perfect to be an aspectual and not tense category resulting from the two PIE aspectual categories, i.e. perfect which denotes a result accomplished by a process and aorist which indicates "a pure and simple process". Buck (1933:291) agrees that the Latin perfect continues the PIE perfect and aorist both formally and functionally.

Kurylowicz (1964:93) also classifies the Latin perfect as an aspectual category. Within Kurylowicz's proposal, the Latin perfect unites the late PIE aorist and perfect functions resulting in the new aspectual contrast and realignment of categories within the Latin verbal system (to be explained). He points out that the Latin perfect or present perfectum expresses the function of anteriority relative to the present moment of speech. The function of anteriority refers to "the prior action" which represents an antecedent

condition of the state. The Latin perfect expresses the result or state of an action thus continuing the late PIE perfect function. Kurylowicz (1964:90) points out that the function of anteriority, which entails the result or state of an action, also implies perfectivity. Thus the primary and secondary functions of the Latin perfect are distinguished, e.g. *scri:psit* 'he has written', is primarily anterior in relation to the present *scri:bit* 'he writes' and secondarily perfective in relation to the imperfect *scri:be:bat* 'he was writing'. In this chapter, it will be argued that the function of anteriority may be used to describe systemic aspectual contrasts. The analysis of perfectum verb forms will show that anteriority is a contextual variant of perfectum categories expressed along with the perfective or resultative function.

·The Latin perfect category entails merger of the late PIE aorist and perfect both formally and functionally. It embodies both functions, as it may denote either a past perfective event or a present result or state of the past event (see § 3.4.1). The Latin perfect also presents formal evidence of the late PIE sigmatic aorist and reduplicated perfect. It will be shown below that a small number of perfect forms in Latin represent formal reflexes of the PIE root aorist and perfect.

In a recent work, Kurzová (1993:143-7) proposes a novel view regarding the origin of the Latin perfect. She argues against the traditional Greek/Aryan model for the PIE verb system in which the aorist and perfect represented distinct aspectual/temporal categories. As represented in Chapter 1, Kurzová's reconstructed system is based on a lexical distinction between active and inactive verbs. This original alignment represents

a basis for a parallel development of the Greek/Aryan system on one side and Latin on the other. In Latin, both active and inactive verbs were integrated and grammaticalized into a preterite. Inactive verbs represented a state and thus could be identified with the perfect, while the active verbs could emphasize completion of an event allowing for a possible identification with the aorist. The original inactive/active distinction resulted in two separate categories, i.e. perfect and aorist in Greek/Aryan systems. In Latin, however, the two classes were integrated on the basis of a common "terminal point" expressed by the state of inactive verbs and completion that could be expressed by the active verbs. The Latin "preterite" evolved from the original active and inactive classes which allowed for the perfect/aorist functional distribution. According to Kurzová (1993:156) the Latin perfect is "an aspectually neutral", however "non-durative tense". It will be shown in § 3.4.1 and 3.4.2 the Latin perfect definitely preserves functions of the aorist and perfect of late PIE, which are comparable to Ancient Greek. Evidence that the Latin perfect is not aspectually neutral is in favour of the late PIE model that resembles the Greek/Aryan verb system. The usage of the Latin perfect unambiguously points to a separate existence of the perfect and aorist in late PIE.

3.1.1.1 Perfect with the sigmatic marker

A considerable number of perfect or present perfectum verb forms in Latin show the PIE sigmatic marker, representing thus relics of the sigmatic aorist in form. This class is the most numerous among the perfect types inherited from PIE.

Table 2

Perfect forms with the sigmatic marker

claudo: 'to shut, close, enclose'	clausi:
di:co: 'to say'	di:xi:
di:gero: 'to force apart, separate'	di:gessi:
du:co: 'to lead'	du:xi:
lu:do: 'to play'	lu:si:
remaneo: 'to remain, abide'	rema:nsi:
vi:vo: 'to live'	vi:xi:

Meillet (1966:150) claims that all perfect forms, regardless of whether they are reduplicated (*cecini:* from *cano:*), sigmatic (*di:xi:* from *di:co:* 'I say') or more recent formations in *-ui* (*ama:ui:* from *amo:* 'I love'), contain a sigmatic element in the 2nd person. Meillet claims that the element *-is-*, which occurs in the perfectum system, is "aoristic" in origin, while in Latin it functions as the inflectional ending without effect on the stem. This suffix occurs regularly in the 2nd persons singular and plural of the perfect paradigms, e.g. PERF *le:g-isti* 2SG, *le:g-istis* 2PL from *lego:*; it occurs as *-er-* preceding a vocalic segment, e.g. PLPF *le:g-eram* 1SG, FUT PERF *le:g-ero* 1SG, SUBJ *le:g-erim* 1SG (Meillet 1966:18).[1] Buck (1933:295) also claims that the sigmatic element of the perfect inflectional endings (e.g. *-is-ti:* 2SG, *-is-tis* 2PL) originates with the sigmatic aorist stem, while the second part derives from the PIE perfect inflection *-tH2e*

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[1] Meillet (1966:18) however points out that the association of the Latin *-is-* with the ancient aorist is "arbitrary", since the Hittite and Tocharian show an element *-s-* in the preterite inflection, and Vedic in the subjunctive inflection. He claims that these correspondences point to a functional approximation ("rapprochement") of Latin with Hittite, Tocharian, Vedic and Armenian.

(Sanskrit *-tha*, Gothic *-tha*).[2] As the Latin perfect results from the PIE aorist and perfect merger, it reveals the features of the two categories, both formal and functional. In other words, the Latin perfect retains reflexes of both PIE aorist stems (represented by root and sigmatic perfect stems) and perfect stems (represented by root and reduplicated aorist stems)[3], while it develops a new type of inflection based both on the sigmatic stems and perfect inflection. This view has recently been challenged by Kurzová (1993) who argues against distinct aorist and perfect categories in PIE (see Chapter 1). According to Kurzová (1993:147-8) the *-s-* element in the perfect inflection is related to the same element in the preterite inflection of Hittite and Tocharian, e.g. *-st(h)a* 2SG. The same element may be traced to the inactive endings of stative verbs.[4]

3.1.1.2 Reduplicated Perfect

A number of Latin perfects represent reflexes of the PIE reduplicated perfect in form. As Ernout (1953:189) points out, these forms are not nearly as productive in Latin as in Ancient Greek, Sanskrit and presumably PIE. Ernout (1953:189) and Buck

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[2]See Buck (1933:295-7) for the origin of the personal inflections in the perfect and other indicative and subjunctive forms within the perfect system.

[3]As shown by the examples in Tables 2 through 5

[4]In Chapter 1, Kurzová's reconstruction of the PIE verb system was represented. A major distinction obtained between active and inactive verbs.

(1933:291) agree that a few reduplicated perfect forms in Latin represent the relics of the PIE reduplicated aorist, cf. *tetigi:* 'I touched, have touched'[*].

Table 3

Reduplicated perfect forms

disco: 'to learn, study'	didici:
mordeo: 'to bite'	momordi:
parco: 'to spare'	peperci:
spondeo: 'to promise, bind'	spopondi:
tango: 'to touch'	tetigi:
tendo: 'to stretch'	tetendi:
tundo: 'to beat, strike'	tutudi:

The most common pattern of perfect reduplication in Latin, as in Ancient Greek, is represented by the repetition of an initial consonant followed by the vowel *e*. As shown in the examples above, the root vowel may also be reduplicated, e.g. *mordeo: - momordi:*, *tundo: - tutudi:*. According to Ernout (1953:190), reduplication of the root vowel may be archaic, as in *tutudi:*, cf. Sanskrit *tutudé* 'I hit, struck' (mediopassive). In most instances, the original vowel *e* is replaced by the reduplicated root vowel, e.g. *memordi: > momordi:*, *spespondi: > spopondi:*. Buck (1933:292) claims that the replacement of the original *e* is not the root vowel assimilation, but the result of analogical remodelling based on the forms like *tetendi:*. On the other hand, the fact that the ancient forms *memordi:*, *peposci:*, *spespondi:* change into *momordi:*, *poposci:*,

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spopondi: is due to the assimilation to the root vowel, while the change of *cecurri:* into *cucurri:* and *pepugi:* into *pupugi:* is the result of analogical extension.

Reduplication of the perfect stems was generally more common in the earlier stages of Latin. Subsequently, there was a tendency to eliminate the reduplicated syllable. According to Ernout (1953:190-5) and Buck (1933:292), the loss of the reduplicated syllable is common in the compound perfect forms, as in the following examples.[6]

Table 4

Prefixed forms of the reduplicated perfect

cado: 'to fall down, sink'	cecidi:
accido: 'to fall upon'	ac-cidi:
concido: 'to cut through, destroy'	con-cidi:
cano: 'to sing, sound, play'	cecini:
accino: 'to sing to, with'	accinui:
concino: 'to sing, play together'	concinui:
occino: 'to sing, cry'	occinui:
pendo: 'to weigh, weigh out'	pependi:
de:pendo: 'to weigh out, pay'	de:pendi:
suspendo: 'to hang up, suspend'	suspendi:
tendo: 'to stretch, extend'	tetendi:
attendo: 'to direct, turn toward'	attendi:
extendo: 'to stretch out, extend'	extendi:

By analogy with the simplified, i.e. *non-reduplicated, compound forms, reduplication* tends to disappear in the simple unprefixed perfect forms. In other words, reduplicated simple perfects such as *tetendi:* and *pependi:* are simplified into *tendi:, pendi:* based on compound non-reduplicated perfects *sus-pendi:, ex-tendi:.* Moreover, compound perfects

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[6]Loss of the reduplicated syllable in compound forms is, however, not a rule.

that lose the reduplicated syllable tend to be replaced by the more productive perfect types in Latin, i.e. the sigmatic perfect and perfect in *-ui*. Forms such as *occinui:* (< **oc-cini:* < **oc-cecini:*) and *compunxi:* (< **com-pugi:* < **com-pupugi:*) were subsequently remodelled on the more general types in *-s-* and *-ui-* (Ernout 1953: 190-2).

3.1.1.3 Root Perfect

A small number of perfect forms in Latin represent relics of the PIE root aorists and perfects.   According to Ernout (1953:195) these two types show the vowel alternation between the present and perfect forms.   The type of perfect that represents a reflex of the PIE root aorist in form differs from the corresponding present in quantity (length) and quality of the root vowel, e.g. PRES *ago:* 1SG 'drive', PERF *e:gi:*.   Perfect forms that represent a reflex of the PIE root perfect in form differ from the corresponding present forms only in length of the root vowel, e.g. PRES *lego:* 1SG 'bring together', PERF *le:gi:*.

Table 5

Root perfect forms

Perfect forms representing a reflex of PIE root aorist

ago: 'to lead, drive'	e:gi
capio: 'to take, seize'	ce:pi:
facio: 'to do, accomplish'	fe:ci:
iacio: 'to throw, hurl'	ie:ci:

Perfect forms representing a reflex of PIE root perfect

edo: 'to eat, consume, destroy'	e:di:
impingo: 'to push, strike'	impe:gi
lego: 'to bring together, collect'	le:gi:
sedeo: 'to sit'	se:di:
venio: 'to come'	ve:ni:
fodio: 'to dig, dig out'	fo:di:
video: 'to see'	vi:di:
vinco: 'to conquer, overcome'	vi:ci:
fugio: 'to flee, run away'	fu:gi:
rumpo: 'to break, tear'	ru:pi:

Ernout (1953:197) points out that a number of perfect forms in Latin do not show vocalic alternation in relation to the corresponding present forms; these forms are, however, limited. It is possible that this type of perfect represents a relic of the earliest synthetic PIE stages which were characterized by the invariant present and past/perfective verb roots.

Table 6

Perfect forms based on the present stems

bibo: 'to drink'	bibi:
co:ni:veo: 'to blink, be darkened'	co:ni:vi:
lambo: 'to lick, lap, touch'	lambi:
mando: 'to enjoin, order'	mandi:
verto: 'to turn, turn round'	verti:

3.1.1.4 Perfect in *-ui:/-vi:*

Aside from the perfect types inherited from PIE, Latin developed the productive perfect in *-ui:/-vi:* which does not have a counterpart in any other I-E language family. Although the exact origin of this perfect type may not be traced with certainty, Indo-europeanists agree that a significant role was played by the perfect or present perfectum form *fui:* 'I have been'. Meillet (1966:66) claims that the Latin perfect is derived from the root *fu-* (< *bhu-*) as in *fui:* 'I have been' without explaining the original formation mechanism. Buck (1933:294) claims that this type of perfect originated with the verbs in which the intervocalic /w/ was part of the root or the stem. It was subsequently generalized to the verb roots terminating in a long vowel, e.g. *fle:vi:* (from *fleo:* 'I cry'), *cre:vi:* (from *cresco:* 'I grow'), *sci:vi:* (from *scio:* 'I know, understand'), and other stems, including dissyllabic ones, that ended in a short vowel, e.g. *monui:* 'I have warned' (cf. the supine form *monitum*). Buck (1933:295) concludes that no solution to exact origin of this perfect type may be established with certainty, although in early stages the verb *fu:i:* (pronounced with the glide intervocalically, i.e. /*fu:wi:/*) could have

contributed as a major triggering factor. According to Ernout (1953:208) the perfect in
-*ui:* had originated as a replacement of the ancient sigmatic and thematic perfect forms,
e.g. *arsi:* > *ardui:* (from *urdeo:* 'I burn, blaze'), *le:gi:* > *legui:* (from *lego,* 'I collect'),
re:xi: > *regui:* (from *rego* 'I guide, lead'). Concerning the origin and development of
this class, he concludes that the extension was influenced by the verb forms such as *fui:*
and *habui:*.

Table 7

Perfect forms in -ui:

alterno: 'to interchange, alternate'	alterna:vi:
amo: 'to like, love'	ama:vi:
no:sco: 'to come to know'	no:vi:
audi:o: 'to hear, learn'	audi:vi:
colli:neo: 'to aim'	colli:na:vi:
domo: 'to subdue, vanquish, overcome'	domui:
fi:nio: 'to limit, bound, enclose'	fi:ni:vi:
gemino: 'to double'	gemina:vi:
le:nio: 'to make soft, mild, to soften'	le:ni:vi:
moneo: 'to remind, admonish, advise'	monui:
probo: 'to try, test, examine'	proba:vi:
regno: 'to be king, rule, reign'	regna:vi:
simulo: 'to imitate, copy'	simula:vi:
sono: 'to make a noise, sound'	sonui:
pa:reo: 'to come forth, appear, obey'	pa:rui:
volo: 'to fly, speed'	vola:vi:

A perfectum/infectum aspectual opposition represents essentially the aspectual
contrast inherited from PIE, while the temporal functions of these categories are
secondary. The aspectual function of the infectum continues the I-E present stem
function, that is the imperfective. The perfectum, on the other hand, combines the two

functions inherited from I-E, i.e. perfective and resultative. The perfectum is an aspectual category since it presupposes the functional unity of two I-E aspect categories, the aorist and perfect.

The merger of the Indo-European past category, i.e. the aorist, and the non-past resultative category, i.e. the perfect, triggers the realignment of a three-way contrast into a binary aspectual distinction.

Table 8

Change into the Latin verb system

	PIE		Latin
Non-past	resultative		
		>	Present Perfectum
Past	perfective		
Present	imperfective	>	Present Infectum
Past	resultative	>	Past Perfectum
Past	imperfective	>	Past Infectum

This type of cross between the I-E past and non-past results in a new type of aspect. According to Kurylowicz, Latin develops a new type of aspectual category, i.e. anteriority. Anteriority is relative aspect, denoting reference of the verb action (present, past or future) to a moment, i.e. past, future or present moment of speech (Kurylowicz 1964:90). Kurylowicz (1964:93) points out that the Latin perfectum/infectum contrast is a contrast between anteriority and simultaneity. Anteriority is a result of reinterpreting the primary function of the perfectum category, i.e. state or result of a past action, as opposed to the function of infectum category denoting action or simultaneity with a

certain moment (present, past or future). The Latin perfectum has the primary function of anteriority, presupposed by the state or result of the past action, and the secondary function of perfectivity.

The systemic contrasts indicated by positions of the verb categories within the system ought to be distinguished from the contextual function of the verb categories. The synchronic system of Classical Latin clearly shows that perfectum forms express anteriority in relation to infectum forms. For example the present perfectum *monui:* has a primary function of anteriority relative to *moneo:* 'I warn'. It has been shown that the anteriority implies the state or result of a past action, which indicates that the function of anteriority coincides with the function of the old perfect category. The fact that the present perfectum is directly opposed to the present infectum indicates that the present perfectum does not have a primary past perfective function as expressed by the old aorist category. The primary resultative function of the present perfectum is reinterpreted as the function of anteriority. The old aorist function becomes secondary. As a consequence the present perfectum, e.g. *monui:* primarily functions as anterior relative to the present infectum, e.g. *moneo:* 'I warn'. At the same time *monui:* is perfective relative to the past infectum *mone:bam.* Systemic contrasts reveal a distinction between primary and secondary aspectual function. Systemic contrasts, however, should be distinguished from the contextual function of the verb categories, as discussed in § 3.4.

The contextual usage of the perfectum forms shows a functional correlation both with the Ancient Greek (and presumably late PIE) aorist and perfect. The function of

134

anteriority is evident when the perfectum forms are contrasted with the infectum forms. In such cases perfectum forms indicate reference of the action to a moment of speech (see the Latin text examples in § 3.4.1 and 3.4.2).

3.1.2 Imperfect

Merger of the late PIE perfect and aorist results in a new category, i.e. perfectum, which combines the two earlier functions. The function of the late PIE imperfect is continued by the Classical Latin imperfect, as in Ancient Greek. In Latin, the imperfect forms inherently express incomplete past events and contextually may denote simultaneity with other past events. As shown in § 3.4.5, imperfect forms may also contextually denote past habitual events. The Latin imperfect shares the inherent aspectual function with the Ancient Greek imperfect and shows the same range of contextual aspectual functions, expressing simultaneity with other past non-habitual and habitual events (as demonstrated in § 2.4.8).

The Latin imperfect, however, had undergone considerable formal changes. The late PIE imperfect was formed by combining the present stem and the secondary inflections. The augment may not be reconstructed with certainty as it was optional in the most ancient daughter languages, i.e. Homeric Greek and Vedic. It was firmly established only in Classical Greek and Classical Sanskrit, e.g. Clas.Gr *épheron* = Skt. *ábharam* 'I was carrying'. In Classical Latin the augment had been eliminated as the past tense marker; it is absent in the past tense categories, i.e. imperfect and pluperfect.

The imperfect in Classical Latin is based on the present stems, suffix -ba- and the inflectional endings.

While it is clear that both later PIE and Classical Latin verb forms are synthetic, there is some indication that the Common Italic formation of the verbal categories might have been analytic. Imperfect forms in all conjugations contain a suffix -ba: which, as will be shown below represents a relic of the imperfect of the verb be.

The imperfect suffix -ba:- probably goes back to the PIE root *bhu: 'be'.[7] While there is no doubt that the verb be functioned as the auxiliary of the imperfect periphrastic construction, the type of the preceding non-finite verb may not be determined with certainty. Different views have been provided regarding the precise nature of the non-finite verb that formed the imperfect periphrastic forms. As Buck (1933:278) points out, the periphrastic Common Italic imperfect could not have been based on the present stems, as the third conjugation present stems are distinct from the corresponding imperfect forms in the vowel length, cf. imperfect lege:bam 'I was reading', present stem leg-. In other words, the periphrastic formations consist of the auxiliary and the non-finite verb.

Taking into consideration general principles of the imperfect formation and the grammatical meaning of the composing elements, the present participle is the most appropriate solution. This solution also accounts for the imperfect formation in all

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[7]For phonological details see Buck (1933:278), Meillet (1966:54-65), Ernout (1953:157), Baldi (1976:840).

conjugations of Classical Latin, as evidenced by the agreement of the imperfect stem with the corresponding participle. The following paradigms represent the formation of the present and imperfect forms revealing that the pre-Classical imperfect periphrastic form was not based on the present stems. In the third conjugation the present stem equals the root, e.g. *leg*-, while the imperfect stem shows a long stem vowel -*e:*-. Also the third conjugation in -*io:* and the fourth conjugation show absence of the -*e:*- in the present stems which regularly occurs in the imperfect paradigms. On the other hand all conjugations show the stem agreement between the imperfect forms and the corresponding present participles.

Table 9

Present and imperfect forms in Classical Latin

1st Conjugation

thematic vowel -a:-

laudo:, lauda:re 'to praise'

Present		Imperfect	
1. laudo:	lauda:mus	lauda:bam	lauda:ba:mus
2. lauda:s	lauda:tis	lauda:ba:s	lauda:ba:tis
3. laudat	laudant	lauda:bat	lauda:bant

present participle - lauda:ns

2nd Conjugation

thematic vowel -e:-

moneo:, mone:re 'to warn'

Present		Imperfect	
1. moneo:	mone:mus	mone:bam	mone:ba:mus
2. mone:s	mone:tis	mone:ba:s	mone:ba:tis
3. monet	monent	mone:bat	mone:bant

present participle - mone:ns

3rd Conjugation

zero thematic vowel

lego:, legere 'to gather, collect'

Present		Imperfect	
1. lego:	legimus	lege:bam	lege:ba:mus
2. legis	legitis	lege:ba:s	lege:ba:tis
3. legit	legunt	lege:bat	lege:bant

present participle - lege:ns

3rd -io: Conjugation

thematic vowel -i-

capio:, capere 'to take'

Present		Imperfect	
1. capio:	capimus	capie:bam	capie:ba:mus
2. capis	capitis	capie:ba:s	capie:ba:tis
3. capit	capiunt	capie:bat	capie:bant

present participle - capie:ns

4th Conjugation

thematic vowel -i:-

audio:, audi:re 'to hear'

Present		Imperfect	
1. audio:	audi:mus	audie:bam	audie:ba:mus
2. audi:s	audi:tis	audie:ba:s	audie:ba:tis
3. audit	audiunt	audie:bat	audie:bant

present participle - audie:ns

Reconstruction of the Common Italic imperfect with the present participle is however phonologically problematic. Buck (1933:278) and Ernout (1953:157) claim that there is a difficulty in explaining a reduction of the original participle *lege:ns-ba:m. Phonological difficulty of this type of formation is also recognized by Brugmann and Delbrük (1916). Ernout (1953:157) in addition points out that in the case of *eo:* 'I go' the Common-Italic imperfect with the present participle would have rendered Latin *ie:bam* (from *ie:nsbam*) instead of attested *i:bam*.

Although the imperfect formation agrees with the corresponding present participles in all conjugations in Classical Latin, a different state of affairs obtains in Old Latin. As pointed out by Buck (1933:278, 1903/74:100), imperfect forms in -a:bam, -i:bam were more frequent than the forms in -ie:bam. Thus in the fourth conjugation imperfect *audi:bam* is attested more frequently than *audie:bam* in early Latin; the latter was generalized subsequently representing a productive pattern of imperfect formation for this particular conjugation in Classical Latin. The 3rd conjugation imperfect in -e:-

represents a subsequent analogical remodelling based on the earlier forms in *-a:bam, -i:bam*. Explanation of the analogical extension of the vowel length to the 3rd conjugation as well as the more recent imperfects in *-ie:bam* in the 3rd *-io:* conjugation and the 4th conjugation imposes a problem of defining the non-finite verb of the earlier periphrastic construction. According to Buck, the imperfect may have been originally based on the auxiliary verb *be* and the substantive inflected for the ablative case which is not an entirely satisfactory solution from the point of view of language universals.

> This formation originated in the combination of a past tense of the verb *to be* (cf. *fu:i*) with certain case forms (probably old Instrumentals), which, in this combination, became associated with the verb system. The case forms in *-e:* belonged to a noun stem in *-o* (cf. Adverbs in *-e:*, originally Ablatives of *o*-stems); and, since in verbs the corresponding stem-vowel is the thematic vowel of the Third Conjugation, the form in *-e:-bam* came to be used in the Third Conjugation as well as in the Second, in which the present stem ends in *-e:-*. In the Fourth Conjugation, *-i:-bam* represents an earlier type than *-ie:bam* (Buck 1903:100).

Origin of the Latin imperfect with a verbal substantive inflected for the locative case has been proposed by Streitberg (1893:170), while Brugmann (1896:101) assumes that the original source is the substantive inflected for the instrumental case. This solution, however, is not probable from the typological point of view, since imperfect formations with substantives inflected for the case are not attested in I-E languages with the developed case systems. As Baldi (1976:841) states these solutions are not semantically motivated, as the construction of the type 'I was in seeing' or 'I became by seeing' do not represent a natural construction in Latin.

Ernout (1953:157) and Meillet (1934:272) provide more plausible reconstructions for the Common Italic periphrastic imperfect. Ernout (1953:157) claims that the Latin imperfect derives from the compound that was based on a type of a verbal substantive; the original meaning of the imperfect, e.g. *lege:bam*, would have been 'I was in the action of reading'. This verbal substantive is thought of as analogous to the infinitive. Meillet (1934:272) postulates parallel imperfect formation for Common Italic and Common Slavic.[*] He argues that the change of the late PIE imperfect in these two languages is not accidental; the imperfect of late PIE was retained only in Indo-Iranian and Greek which preserved the augment. In Slavic and Italic the augment was lost which necessitated a new type of imperfect which literally expressed the notion of a progressive action or event, i.e. 'I was in the process of doing something.'[*]

The solutions provided by Ernout (1957:157) and Meillet (1934:272) may not seem ideal from the typological point of view, since the imperfect with the present participle is more commonly documented in languages of the world. However, evidence from earlier and Classical Latin (as well as Ancient Slavic - to be shown in Chapter 4) shows that reconstruction of the periphrastic forms with the infinitives accounts for the later synthetic formations in a less problematic way. As shown above, the imperfect forms *-i:bam* were more frequently attested than the ones in *-ie:bam*, i.e. earlier

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[*] Stang (1942) provides a different account that relates the Common Italic and Common Slavic imperfect, as shown in Chapter 4 (§ 4.8).

[*] See also Chapter 4 (§ 4.8) for the reconstruction of the imperfect in Common Slavic.

audi:bam was replaced by *audie:bam* 'I was listening' in Classical Latin. The reconstruction of the infinitive provides a satisfactory account for the imperfect formation of 1st and 2nd conjugations in Classical Latin, cf. correspondence between the imperfect stems and the infinitives. Divergence in the 3rd *-io:* and 4th conjugations is the result of a subsequent change. The early Latin *audi:bam* shows a correspondence with the infinitive of the same conjugation. A subsequent change into *audie:bam* could have been influenced by the close functional relation between the imperfect forms and present participles, i.e. both categories denote an action or event in progress.[10] The imperfect forms of the 3rd *-io:* conjugation, e.g. *capie:bam* 'I was taking', could have emerged by analogy with the imperfect forms of the 4th conjugation. Similarly, the long *-e:-* in the third conjugation may be explained by analogical extension from the first two conjugations. In light of evidence from early and Classical Latin, subsequent analogical remodelling of the imperfect forms of the 3rd and 4th conjugation, which were originally based on the infinitives, represents the most attractive solution. Postulation of the infinitive for the unattested imperfect formation also represents a uniform solution for Latin and Ancient Slavic.[11] As argued by Meillet, parallel reconstruction of the

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[10]Changes in the imperfect formation triggered by the functional similarities are also attested in Ancient Slavic. Certain earlier imperfect forms, based on the infinitives, were subsequently remodelled in analogy with the present stems, due to the functional convergence of the imperfect and present categories (see Chapter 4, § 4.3).

[11]As argued in Chapter 4 (§ 4.8), the imperfect in Common Slavic was most probably a periphrastic construction formed from the auxiliaries and infinitives.

periphrastic formation accounts for the triggering factor of the change, i.e. loss of the augment which resulted in formal similarities between imperfect and present.

Reconstruction of the original periphrastic imperfect with the infinitive is, however, not a generally accepted solution. Baldi (1976), for example, argues that the reconstruction of the periphrastic imperfect with the present active participle constitutes the most appropriate solution both from the phonological[12] and syntactic point of view. Baldi points to a lack of syntactic evidence for reconstructing the type of imperfect formation which combines the infinitive with the verb 'be', *ama:re eram. Reconstruction of the imperfect with the present participle is far more plausible, on the other hand, since it may freely combine with esse 'be'.[13]

3.1.3 Future

The merger of the PIE perfective aspect eliminates the possibility of sigmatic future formation in Latin. The realignment of the Classical Latin verb categories, which triggers the loss of the old perfective, imposes the necessity for new distinct future tense forms. Reduction of the late PIE three-way aspectual contrast in Classical Latin triggers a more developed tense system. In other words, Classical Latin compensates for a less developed aspectual system by a more developed three-way tense system. In Classical

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[12]See Baldi (1976:840-9) for a detailed account of possible reconstructed formations, which is beyond the scope of this thesis.

[13]See Baldi (1976:848-9) for the syntactic argumentation.

Latin, the future is characterized by the perfectum/infectum contrast, just as the present and past. Text analysis shows that the future forms, as opposed to the present and past forms, do not clearly exhibit perfectum/infectum aspectual contrast. Future perfect forms do not always express complete events (see § 3.4.7).

As shown below, Classical Latin formally preserves a few sigmatic futures. In addition, it develops two types of future, non-existent in Ancient Greek and late PIE. The future is based on the infinitive stem and the suffix *-bo:* in the first two conjugations, and on subjunctive forms in the third and fourth conjugation.

Ernout (1953:161) explains two different types of future as chronologically distinct developments. The rise of the future in *-bo:* diachronically follows generally used subjunctive based futures. The future in *-bo:* replaces the subjunctive type of the future only in the first two conjugations. The incompatibility of the subjunctive-type futures in the first two conjugations is attributed to phonological changes, more specifically, loss of the intervocalic *-y-* and the vocalic contraction, in the old subjunctive forms. That is to say, the subjunctive in *-a:-* in the first conjugation, **a:(y)a:,* and that in *-e:-* in the second conjugation, **e:(y)e:,* became identical with the present indicative forms after the loss of the intervocalic *-y-* and the contraction of identical vowels. These phonological changes rendered the subjunctive stems synonymous with the corresponding indicative present stems, e.g.

Table 10

**Present indicative and subjunctive stems
in the first two conjugations**

1st conjugation

ama:re 'to love'

indicative stem	subjunctive stem
ama:-	*ama:(y)a:- > ama:-

2nd conjugation

mone:re 'to warn'

indicative stem	subjunctive stem
mone:-	*mone:(y)e:- > mone:-

The verb stems in *-a:-* resorted to the subjunctive in *-e:-*, e.g. *ame:s* 2SG, and the verb stems in *-e:-* to subjunctive in *-a:-*, e.g. *monea:s*. These two conjugations resort to a periphrastic future construction analogous to the imperfect periphrastic constructions. The future periphrastic forms were based on the quasinominal verb forms (either infinitives or participles) and a form in *-bo:* 'be'; the rise of these forms in analogy with the imperfect periphrastic forms in *-bam* was precipitated by the existence of the future form *ero:* 'I will be' as opposed to the imperfect *eram* 'I was'. The future in *-bo:* is restricted to the first two conjugations and therefore must be a more recent formation compared to the general formation of the imperfect in *-bam*. The rise of the periphrastic future analogous to the periphrastic imperfect is triggered by the loss of the intervocalic

-*y*-.

   While most of the future forms are based on subjunctive inflections, verb stems
with the final vowel resort to the same element that occurs in the imperfect forms,
ama:bis 'you will love', *mone:bis* 'you will warn'.   Meillet (1966:30) is explicit in
postulating the periphrastic imperfect forms for the unattested Latin stages (to be shown
below), while exact origin of the future element *-bo:* remains uncertain. The emergence
of this type of future could be attributed either to the earlier periphrastic formations
based on the auxiliary of the verb *be* and the infinitive, or the innovatory synthetic type
of formation analogous to the imperfect forms.

   The origin of the future in *-bo:* is most probably periphrastic, parallel to the
imperfect *-bam*.[14]   Reconstruction of the future in *-bo:* raises the same problem in
determining the exact pattern of the original formation. The original periphrastic future
was most probably formed from the auxiliary verb 'be' and the infinitive.

   Aside from the future in *-bo:* and the subjunctive type of future thus far
examined, there was a more archaic future type in *-so:*. Ernout (1953:163) points out
that this type of future was rare even in the earliest literary documents. The only form
generally used was *faxo:* (from *facio:* 'I do'), otherwise it was restricted to a few verbs.
This future has a resultative function denoting the result of an event to be performed.
Buck (1933:281) points out that this type of future is not future perfect, but the "simple"
future as the future in *-so:* in Ancient Greek and in Oscan Umbrian. As shown in

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[14]For phonological details see Buck (1933:280)

Chapter 1, in Ancient Greek there is a formal and functional relation between the future and aorist stems; that is to say, perfective stems in the non-past denote a future event. This formal and functional alignment was diachronically a secondary development. The future most probably originated with ancient modal forms; it is not reconstructible for PIE. The origin of the -s- future in Ancient Greek was discussed in Chapter 2. While the -s- future was productive in Ancient Greek, only relics remain in Latin.

Ernout (1953:163) claims that *faxo: (facio:* 'I do') originated with the subjunctive or future while it subsequently became a means of representing an affirmative event. It was used only by archaic authors; in Cicero it was restricted to legal terminology.

There is no indication that the future in -s- was ever productive in Latin, as it was sporadically attested only in the earliest documents. The Latin future forms in -s- are related to the archaic modal forms, PIE subjunctive and optative. Since the PIE subjunctive and optative merged in Latin, the -s- element of the archaic future, e.g. *faxo: (facio:* 'I do'), *dixo: (di:co:* 'I say'), corresponds to the subjunctives in -s-, e.g. *faxim, dixim*. An exact origin of the -s-future in Latin as in PIE has been a matter of debate. While there is a general consensus that these forms are related to the subjunctive in Latin (Buck 1933:281, Ernout 1953:163), it is uncertain whether the -s-future in Latin and Ancient Greek was originally related to the aorist stems (see Chapter 1).

3.2 Aktionsart functions

Verb categories reviewed in § 3.1 have grammatical aspectual function. They participate in a major contrast of the Latin verb system between perfectum and infectum forms. Perfectum forms encompass the late PIE aorist and perfect functions, while infectum forms represent reflexes of the late PIE imperfect function, cf. Ancient Greek. Both in Ancient Greek (as was shown in § 2.4.8) and in Latin (to be shown in § 3.4.5), imperfect forms generally express past incomplete events, although they may also express past habitual events, having thus iterative or repetitive function. The imperfective function is inherently denoted by the imperfect forms and thus represents a grammatical aspectual contrast. Habitual or iterative function is determined by the context (as shown in the passages). The habitual or iterative function may also be expressed by Aktionsart, e.g. verb forms in suffix -*sk*- in Ancient Greek. Grammatical aspectual contrasts (to be discussed in § 3.3 and 3.4) should be distinguished from Aktionsart aspectual functions. Aktionsart represents a general term for various lexical aspectual functions including: durative, punctual, completion, realization, telic, inceptive and iterative (see § 2.2 in Chapter 2). These functions are not considered to represent main grammatical contrasts within the verb system itself.

3.2.1 Aktionsart classes

Lexical aspectual function may be expressed by a number of morphological/semantic classes that are generally confined to the present stems, as in Ancient Greek.

Stems with nasal suffix and infix

Verbs with a nasal suffix may have a completive/terminative function. This function, however, is not as clearly expressed in Latin, as it was in PIE and a number of other daughter languages such as Ancient Slavic, Hittite, and Ancient Greek.[15]

Table 11

Present stems in a nasal

cerno: 'perceive, see, discern'
lino: 'daub, besmear, anoint'
sino: 'let, allow, permit'
sterno: 'stretch out, extend'
contemno: 'despise, disdain'

Latin also preserves relics with the nasal infix. Originally, this morpheme was confined to the present stems (see Chapter 4, for the development of nasal classes in Ancient Slavic). There is a distinction between the verbs that have the nasal only in the present stems (I) and verbs with the nasal in other stems, particularly perfect or passive participle (II), as noted by Ernout (1953:134).

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[15]According to Lehmann (1993:179), this suffix in PIE expresses "terminative force".

Table 12

Verbs with the nasal in present stems, perfect or passive participle

(I)   findo: 'cleave, split, separate'
      linquo: 'leave, quit'
      tango: 'touch'

(II) fingo: 'touch, handle, stroke'   (finxi:, fictus)
      pungo: 'pierce into'   (pupugi:, -punxi:, punctus)

Verbs which have the nasal only in the present stems, forming present and imperfect forms, represent the more archaic layer. According to Buck (1933:270), the extension to other forms, such as perfect and passive participles is a subsequent development.

Stems with the -sc- suffix

In Latin, present stems in -sc- generally have inchoative functions.

Table 13

Present stems in -sc-

ama:sco: 'begin to love'
cale:sco: 'grow warm or hot'
obdormi:sco: 'fall asleep'
du:re:sco: 'grow hard, harden'
igne:sco: 'take fire, become inflamed'

The original meaning of the suffix was completive/terminative with iterative force, i.e. repetitive function, as Latin posco: 'beg, demand' (Meillet 1964:221). This original meaning of the suffix is more widely attested in Ancient Greek and Hittite. More recent Latin forms with the inchoative function are generally secondary derivations which are, as Buck (1933:271) states, derived from verbs, cale:sco: 'grow warm' (caleo:), nouns,

vespera:sco: 'become evening' (*vesper* 'evening') and adjectives, *du:re:sco:* 'grow hard' (*du:rus* 'hard'). With intransitive verbs this suffix has an inchoative function, and causative function with the transitive verbs, e.g. *inno:tescere* 'make known', *molle:scere* 'soften, weaken'.

Aside from these two major classes that expressed lexical aspectual functions, there was a number of functionally unmarked present classes, for example the present class in *-io:* (> *-yelo-*), i.e. *capio:* 'take, seize, grasp', *facio:* 'do, perform, accomplish', *audio:* 'hear, perceive'. As in Ancient Greek, this class is functionally unmarked, however in contrast with the marked classes mentioned above, it has an imperfective Aktionsart function (see Meillet 1903/67:219).

3.2.2 Aktionsart preverbs

As in Ancient Greek, preverbs generally add an adverbial or prepositional meaning to the verbs, especially to the verbs of motion, as shown below. Following Friedrich (1987)[16] derived verb forms express lexical aspectual functions, such as: punctual, completive, realized, telic. As opposed to Ancient Greek, inceptive or inchoative function is not represented by preverbs. This type of function is in Latin

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[16]See § 2.2 for definitions of these aspectual functions.

expressed by the suffix *-sc-*. Sometimes, Aktionsart preverbs simply intensify durative function of the simple verb.[17]

Punctual

sub 'under, below, beneath, underneath, at the foot of, at, by, near, before'

  du:co: 'to lead, conduct, bring forward, guide'
  subdu:co: 'to draw from under or from below, to draw or pull up, to take away
              secretly, steal, hide, cast up, calculate'

  eo: 'to go, walk, ride, sail, fly, pass, proceed, advance'
  subeo: 'to come or go under anything, to come or go up to, approach, advance,
           proceed, come secretly, submit to'

  verto: 'to turn, turn around or about'
  subverto: 'to turn upside down, upset, overturn, ruin, subvert'

Completion

ab, a:, abs 'from, away from, out of, down from, since, after, by, at in, on'

  du:co: 'to lead, conduct, draw, bring forward, guide'
  abdu:co: 'to lead, bring or take away, remove, carry away forcibly,
             seduce, alienate'

  jungo: 'to join or unite together, connect, attach, fasten'
  abjungo: 'to detach from a thing, remove, separate'

  verto: 'to turn, turn around or about'
  abverto: (a:verto) 'to turn (something) away from, to avert, turn off, remove,
            take away, drive away'

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[17]Following verb forms are taken from *A Latin Dictionary*, by Lewis, Charlton and Short, Charles, 1955 (first edition in 1879), Oxford: Oxford University Press.

ex, e: 'out of, forth, from, down from, after'

du:co: 'to lead, conduct, bring forward, guide'
e:du:co: 'lead forth, draw out, summon, bring up'[18]

pello: 'to beat, strike, push, drive, impel'
expello: 'to drive out or away, thrust out or away, eject, expel,
force out, remove'

verto: 'to turn, turn around or about'
e:verto: 'to overturn, turn out, drive out, expel'

de: 'from, away from, down from, out of'[19]

du:co: 'to lead, conduct, draw, bring forward, guide'
de:du:co: 'to lead or bring away, withdraw, drive out, expel'

verto: 'to turn, turn around or about'
de:verto: 'to turn away, turn aside, turn in, resort to'

per 'through, throughout, all over'

disco: 'to learn, to learn to know, to become acquainted with'
perdisco: 'to learn thoroughly or completely, to get by hart'

du:co: 'to lead, conduct, bring forward, guide'
perdu:co: 'to lead or bring through, lead, conduct'

Realization

dis 'asunder, in pieces, apart'

cerno: 'to distinguish, perceive, discern'
discerno: 'to separate, part, divide'

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[18]Since the Augustinian period, this verb denotes an upward motion, e.g. to raise, erect, build up, draw up (Lewis and Short 1955).

[19]The meaning of *de* ranges between that of *ab* 'away from' implying external departure and that of *ex* 'out of' denoting an *exterior* movement (Lewis and Short 1955).

rumpo: 'to break, burst, tear'
di:rumpo: 'to break, dash into pieces, burst asunder'

solvo: 'to loose, release, set free'
dissolvo: 'to loosen asunder, unloose, separate'

stringo: 'to draw, bind'
distringo: 'to draw asunder, stretch out'

Telic

in 'in, into, within'

du:co: 'to lead, conduct, bring forward, guide'
indu:co: 'to lead, bring, or conduct into a place, exhibit, bring into, introduce'

mitto: 'let go, release, send, send off, despatch'
immitto: 'to send into, to throw or cast into'

plico: 'to fold, lay or wind together, fold up, double up'
implico: 'to infold, involve, entangle, entwine, envelop'

intro: 'inwardly, internally, to the inside, within'

du:co: 'to lead, conduct, draw, bring forward, guide'
intro:du:co: 'to lead or bring into a place, to conduct into or within, bring in, introduce'

specto: 'to look at, behold, to gaze at, watch, observe'
intro:specto: 'to look into'

mitto: 'to let go, release, send, send off, despatch'
intro:mitto: 'to send in, let in or into, to introduce'

pro: 'before, in front of'

du:co: 'to lead, conduct, bring forward, guide'
pro:du:co: 'to lead or bring forth, to lead forward or out, to raise, promote, advance, lead, induce'

verto: 'to turn, turn around or about'
pro:verto: 'to turn forwards'

video: 'to see, look out on, look at, perceive, observe'
pro:video: 'to see forwards or before one's self, to see in the distance, discern, be provident, to act with foresight'

trans 'across, over, beyond'

eo: 'to go, walk, ride, sail, fly, pass, proceed, advance'
transeo: 'to go over or across, cross over, pass over, to be changed, transformed'

fero: 'to bear, carry, bring'
transfero: 'to bear across, to carry or bring over, transport'

cum 'with, together, together with, along with'

aestimo: 'to determine or estimate, to value, rate, appraise'
coaestimo: 'to estimate together with'

eo: 'to go, walk, ride, sail, fly, pass, proceed, advance'
coeo: 'to go or come together, to meet, assemble, collect together, to be united into a whole, to unite'

fero: 'to bear, carry, bring'
confero: 'to bring, bear or carry together, to collect, gather, to bring into connection, unite, join'

Aktionsart preverb *cum* 'with' is generally telic. It may, however, denote completion depending on the meaning of the simple verb, as in the following example.

pello: 'to beat, strike, push, drive, impel'
compello: 'to drive or bring together, to place, assemble, urge, compel'

Some Aktionsart preverbs such as *prae* 'before' are classified as durative, since they simply intensify imperfective function of simple verb form.

Durative

prae 'before, in front of'

audio: 'to hear, perceive, learn'
praeaudio: 'to hear beforehand'

video: 'to see, look out on, look at, perceive, observe'
praevideo: 'to see first or beforehand, to foresee, anticipate'

Aktionsart preverbs in Latin have the same functional implications as in Classical Greek. They express only semantic or lexical aspect without changing the grammatical category of the verb. Aside from slightly distinct functions, Aktionsart preverbs always denote the end of the event time, as in Ancient Greek. This type of function, however, does not pervade the verb system as a whole. A preverb may slightly modify the basic verb meaning by adding an adverbial nuance or may have no such effect at all. In other words, the preverb may solely produce an intensifying effect in the derived Aktionsart form.

amo: 'to be in love with, to be fond of, to find pleasure in, delight in'
deamo: 'to be desperately in love with, to love dearly or passionately, to be quite
        in love with, delighted with'

ri:deo: 'to laugh, laugh pleasantly, smile, laugh in ridicule, mock'
de:ri:deo: 'to laugh at, laugh to scorn, to scoff at, deride'

di:co: 'to say, pronounce, tell, mention, relate, affirm, declare, state,
        assert, affirm'
e:di:co: 'to declare, publish, make known, establish, decree'

disco: 'to learn, to learn to know, to become acquainted with'
e:disco: 'to learn by heart, commit to memory, to learn, study'

macio: 'make lean, thin, meagre, to reduce'
e:macio: 'to waist away, make lean, emaciate'

narro: 'tell, relate, narrate, report, recount, set forth, explain'
e:narro: 'to explain in detail, expound, interpret'

As in Ancient Greek, Aktionsart preverb does not always add the adverbial or prepositional meaning to the simple verb.

cla:ro: 'to make bright, clear, evident, illuminate, explain'
accla:ro: 'to make clear or evident, to show, make known'

moneo: 'to remind, put in mind of, bring to one's recollection, to admonish, advise, warn, instruct, teach, point out, announce, predict, foretell'
admoneo: 'to bring up to one's mind, to put in mind of, remind, suggest'

monstro: 'to show, point out, to indicate, intimate, inform, advise, teach, instruct, tell anything, to ordain, institute, appoint'
de:monstro: 'to point out, indicate, designate, show, demonstrate, to represent, describe'

mu:nio: 'to build a wall around, defend with a wall, to fortify, defend, protect, secure, guard, shelter'
e:mu:nio: 'to fortify, secure, provide with a wall, strengthen, make secure'

arto: 'to draw or press close together, compress, to contract, limit, circumscribe'
inarcto: 'to circumscribe, limit'

calesco: 'to grow warm or hot, to become excited, to glow, be inflamed'
incalesco: 'to grow warm or hot, to glow, kindle with passion'

cla:resco: 'to become or grow bright or clear, to begin to shine, become visible, evident, to become illustrious, famous, renowned'

incla:resco: 'to become clear or bright, to become famous or celebrated'

rogo: 'to ask, question, interrogate'
interrogo: 'to ask question, inquire, interrogate'

rumpo: 'to break, burst, tear, rupture, break asunder, burst in pieces, force open, break, violate, destroy, interrupt'

interrumpo: 'to break apart or asunder, break to pieces, break up, destroy, break off, interrupt'

In the examples above prefixed verb forms often have a limited range of meanings compared to the unprefixed simplex verb form, which shows that their semantic function is intensified compared to the unprefixed verb forms. Compare the meanings of the following pairs listed above, i.e. *moneo:/admoneo:*, *monstro:/de:monstro:*, *arcto:/inarcto:*, *cla:resco:/incla:resco:*. In cases where the preverb does not result in an adverbial meaning, derived Aktionsart forms often have a completive or terminative meaning clearly indicating a completion of the event, as in the following examples.

bello: 'to wage or carry on war, to war, to fight in war'
de:bello: 'to bring a war to an end, to finish a war, to conquer completely, to languish, subdue'

lu:do: 'to play, play at a game, mock, imitate, ridicule'
e:lu:do: 'to finish pay, delude, deceive, mock, jeer, barter'

a:resco: 'to become dry'
ina:resco: 'to become dry, to dry up, become quite dry'

disco: 'to learn, to learn to know, to become acquainted with'
perdisco: 'to learn thoroughly or completely, to get by heart'

As in Ancient Greek, Aktionsart preverbs in Latin do not produce a grammatical perfectivizing effect. In other words, Aktionsart preverbs have a semantic function which does not extend to the domain of grammar proper, i.e. they do not result in grammatical aspect distinctions. Aktionsart preverbs in combination with the present tense forms are sometimes used for future time reference, e.g. A. Gr. *áp-eimi* 'I will

leave', cf. Lat. *abeo:*. However, Aktionsart preverbs by no means represent a grammaticalized or consistent way of expressing the future time in these two languages.

It has been shown that both in Ancient Greek and Latin, Aktionsart preverbs express various types of aspectual functions. However, this type of aspect marking is not prevalent within the verb system itself. In Ancient Greek the grammatical function of perfectivity is expressed by the aorist category (§ 2.4.1) and in Latin by the perfectum category (§ 3.4.1). The grammatical functions of the verb categories are evidenced not only by the systemic contrasts but also by the usage of the verb categories in both languages.

3.3 Grammatical aspectual contrasts in Classical Latin

As does Ancient Greek, Classical Latin shows a distinction between grammatical and lexical aspect. The grammatical aspectual distinction in Classical Latin refers to the perfectum/infectum contrast which obtains in the whole verb system including the tense forms of the indicative mood, subjunctive mood forms and quasi-nominal verb forms. The perfectum/infectum contrast is often referred to as the contrast of two functions, i.e. anteriority and simultaneity, respectively. This type of functional contrast, represented by two distinct verb stems, is a systemic contrast. In this and the following section, it will be shown that the systemic functional contrasts of the verbal categories are to be distinguished from the contextual functions observed in their pragmatic usage. In other words, the analysis of the Latin texts shows that the functions defined by the position of

the verbal categories within a system do not always correlate with the functions observable in the contextual usage of verbal categories.

There is no absolute agreement regarding the dominant category, i.e. tense or aspect, within the verb system of Latin. Comrie (1985) and recently Pinkster (1990) and Kurzová (1993) argue that the Latin verb system is dominated by the tense contrast. Ernout (1953), Meillet (1966), Kurylowicz (1964), on the other hand, assert that the verbal category of aspect is crucial in distinguishing the verb forms in Latin. There is a tendency to define perfectum verb forms as the tense categories, e.g. Buck (1933:239), Pinkster (1990:221), Comrie (1985:56-83). Buck (1933:239) distinguishes between the perfect on the one side and pluperfect and future perfect on the other side regarding the aspectual/temporal functions. The Latin perfect represents the result of the PIE aorist and perfect merger, both in form and function. Thus the perfect which unites two aspectual categories, perfective and resultative, is opposed to the imperfect which expresses the imperfective aspectual function. In Buck's view, the two remaining perfectum verb forms of the indicative mood exclusively denote the relative time of the verb action. Buck's treatment of the perfectum verb forms partially conforms to the position assumed in this thesis. Usage of the perfect or present perfectum (§ 3.4.1) points to a combination of two functions, i.e. aorist and perfect, which are primarily aspectual. As shown below in the Latin text examples, pluperfect (§ 3.4.2) and future perfect (§ 3.4.7) may also express perfective events along with the function of relative aspect, labelled by Buck as "relative time".

Comrie (1985:56-83) treats all Latin perfectum verb forms as tense categories. The Latin perfectum verb forms are differentiated according to the absolute/relative tense criterion. Comrie categorizes the Latin perfect as the "absolute" tense, as it relates a past event or action to the present moment. The same function is ascribed to the present and simple future which relate the present and future events to the present moment, respectively. Within Comrie's framework participles refer to the relative time established by the main verb of the sentence and are classified as the relative tense categories (see Comrie 1985:60 for examples). The pluperfect and future perfect differ from the rest of finite verb forms that express the absolute tense. These two categories are referred to as the relative/absolute tenses. Actions and events, denoted by these two verb categories are consequently related to two points in time, i.e. the present moment of speech and the reference point in time. The pluperfect denotes an event related to a moment in past, while the future perfect denotes an event related to a moment in future.

In a recent work, Kurzová (1993:153) argues for a double temporal distinction. Absolute temporal contrast obtains between the past, present and future and the relative temporal contrast between imperfect/pluperfect, present/perfect and future/futurum exactum. In her opinion anteriority is a relative temporal category referring to the forms such as present and perfect, for example, where the event expressed by the perfect is related as anterior to the event expressed by the present. According to this view, the perfect is a past tense relevant to the present. It is argued in the present work that a verb system may not display a double temporal contrast (cf. Ancient Greek and Ancient

Slavic). The notion of anteriority, therefore, must be aspectual. The analysis of the verb category usage will also prove that their functions are aspectual as well as temporal. Kurzová (1993:154) claims that the perfect forms, whether they formally represent earlier aorist or perfect, do not represent aspect. The position adopted in this thesis is that the verb categories should not be viewed exclusively as tense or aspect. In the examined languages, verb categories are marked both for tense and aspect. As shown in § 3.4.1, the Latin perfect continues both aorist (past perfective) and perfect (present resultative) function. Moreover, systemic functions of the verb categories must be distinguished from their contextual functions. Taking into consideration both systemic and contextual functions (as indicated in passages below), perfectum verb forms, including perfect, are primarily aspectual.

According to Pinkster (1990:217-20), the Latin "tense forms" are "deictic categories" that locate the predication in time. Thus perfect, pluperfect and future perfect relate a predication to a moment anterior to present, past and future respectively, while the present, imperfect and future relate a predication as contemporaneous with a certain moment, present, past and future. Pinkster (1990:219) points out that the pluperfect in *Caesar locutus erat* 'Caesar had spoken', denotes an action anterior to a moment in the past; on the other hand, the imperfect *Caesar loquebatur* 'Caesar was speaking' expresses an action contemporaneous with the moment in past. According to Pinkster (1990:221), the tense categories, i.e. contemporaneousness and anteriority, are the most crucial distinctive factors in Classical Latin:

> The *communis opinio* is that in an earlier stage of Latin aspect was
> probably or certainly a productive category, but that the Latin of the texts
> we have at our disposal contains few (or no) traces of this.

A more precise statement is that Classical Latin, according to a number of researchers
(Ernout 1953, Kurylowicz 1964, Meillet 1966) and as evidenced by the texts, still retains
the late PIE aspectual functions.

Rules for the sequence of tenses make the merger of the PIE aorist and perfect
in Latin transparent. Two distinct functions of the Latin perfect, i.e. resultative and
perfective, are reflected by the usage of "primary and secondary tenses" in subjunctive
subordinate clauses. In purpose subordinate clauses (*ut* + subjunctive), for example, a
"primary tense" of the subjunctive (present or perfect) is governed by the perfect form
which has a resultative function. A "secondary tense" of the subjunctive (imperfect or
pluperfect) in the subordinate clause is governed by the perfect with the perfective
function. In the following examples, the perfect with the resultative function takes the
present subjunctive in the subordinate clause, whereas the perfect with the perfective
function takes the imperfect subjunctive in the subordinate clause.

> Hoc fe:ci: ut urbem **capiat** (present subjunctive).
> 'I have done this so that he **may capture** the city.'

> Hoc fe:ci: ut urbem **caperet** (imperfect subjunctive).
> 'I did this so that he **might capture** the city.'

Although the merger of the late PIE aorist and perfect had crucially changed the
verb system of Latin, the old perfective and resultative functions were preserved by the
perfectum category (as will be shown below by the contextual usage of the Latin verb

forms). Other perfectum forms such as the pluperfect (in § 3.4.2) and the future perfect (in § 3.4.7) often denote perfective events. A clear aspectual contrast within the Latin verb system started to fade only in later Latin, i.e. Latin of the imperial period.[39] Classical Latin represents a transitional stage between the earlier aspect dominated and later tense dominated verb systems. As shown in the text examples, even later Latin still retains traces of the inherited aspectual distinctions.

Anteriority and simultaneity indeed represent a very important functional distinction of the Latin verb forms. These two labels are used to distinguish between the forms based on the perfectum and infectum stems, respectively. In the indicative mood, verb forms based on the perfectum stem are the perfect, pluperfect and future perfect. The present, imperfect and simple future are based on the infectum stems. According to Pinkster (1990:221), anteriority and simultaneity are temporal categories critical for Classical Latin; the former locates the event before a certain moment, i.e. present, past or future while the latter defines it as simultaneous to a certain moment, i.e. present, past or future. Kurylowicz (1964:90) also views the anteriority/simultaneity distinction as the most crucial distinctive criterion for the Latin verb forms. This type of contrast is not temporal. The contrast of anteriority/simultaneity is represented by two types of stems, perfectum and infectum in three tenses, i.e. present, past and future. Anteriority represents relative aspect; it denotes reference of an action to a moment, i.e. present,

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[39]Note that complete disintegration of the aspectual system refers to spoken Latin, i.e. Vulgar Latin, while the literary texts of the later imperial period retain traces of a fundamental perfective/imperfective contrast.

past or future (Kurylowicz 1964:90). This relative aspectual contrast is dominant within the Latin verb system as evidenced by the presence of perfectum and infectum stems in all three tenses. As argued by Kurylowicz (1964:93), the perfectum/infectum opposition represents a contrast between a state or result of the complete or perfective action and an action itself. This type of contrast also denotes an anterior action as opposed to a simultaneous action. This type of relative distinction between two actions may be easily confused with tense.

The function of anteriority, expressed by the perfectum forms, has been defined in different ways. It has been defined as the tense denoted by all categories (Pinkster 1991 and Kurzová 1993). According to Comrie (1985), only the perfect expresses tense and is referred to as absolute tense; present, past and future participles denote relative tense, while the pluperfect and future perfect denote relative/absolute tense. According to Buck (1933), relative tense is denoted only by pluperfect and future perfect. Kurylowicz (1964) maintains that all perfectum forms express relative aspect.

It is clear that anteriority/simultaneity expressed by the perfectum and infectum stems is not a tense contrast, as evidenced by the Latin verb system. Recurrence of the perfectum/infectum stem contrast throughout the system, including all the tenses of the indicative mood, shows that anteriority/simultaneity expressed by the two types of stems may not be a temporal grammatical distinction. That is to say, in the indicative mood all tenses are represented by the two stems, perfectum and infectum.

It follows that the "tense" contrast between the forms based on the perfectum stems and the forms based on the infectum stems within a more general tense distinction of present, future and past may not represent a logical solution. Moreover, the subjunctive verb forms show the contrasts between the perfectum and infectum stems, both in the past and non-past. The quasi-nominal forms, infinitives and participles, are realized in three tenses: present, past and future. Note here, however, that the future infinitives (*ama:tu:rum esse* M 'to be about to fall in love') and participles (*ama:tu:rus* M 'about to love') are later developments not commonly used in Classical Latin. In Classical Latin, only two types of quasi-nominal mood forms were productively used, i.e. perfectum and infectum. As argued by Meillet (1966) and Ernout (1953:113-4), the aspectual system gradually disintegrated in the post-Classical stages changing into a temporal system.

In Classical Latin, however, the general aspectual distinction is still dominant. The opposition between perfectum and infectum stems expresses a contrast between complete, i.e. perfective, and incomplete, i.e. imperfective action. The following examples from Latin texts show that perfectum verb forms in the indicative may also express the result of the relevant past event. The perfect in Classical Latin expresses function of the aorist and perfect inherited from late PIE while denoting anteriority of the past event at the same time (in § 3.4.1). Anteriority, however, is not explicitly expressed by the perfect category. The pluperfect indicative verb forms often express the function of anteriority, besides the past perfective or resultative function (in § 3.4.2).

I argue in this thesis that the term "aspect" or "relative aspect" is more appropriate than "relative tense" in distinguishing the systemic function of anteriority from simultaneity. While it is undisputable that anteriority/simultaneity relate an event to a moment, i.e. present, past or future, this reference relation between the event itself and the point in time implies an aspectual function. Anteriority implies perfectivity as well as the result; perfectum verb forms express perfective or complete events as related to a moment in time. In other words, anteriority combines the late PIE aorist and perfect functions. On the other hand, simultaneity denotes imperfective events, also related to a certain moment in time. It follows that anteriority and simultaneity, expressed by the perfectum/infectum stems, inherently encompass the functions of perfectivity/result and imperfectivity, respectively. Anteriority also denotes the state or result of the perfective or complete event. The term "anteriority" may be used as a label for the consistent systemic contrasts. This type of function should not, however, be confused with the contextual function of anteriority. A systemic contrast of anteriority/simultaneity is consistent, but the contextual function of anteriority is not. As demonstrated in the following section, anteriority is a contextual variant of the perfectum categories which are used to represent either past perfective or present resultative events.

3.4 Function and usage of the verb categories in Latin

It will be shown in this section that anteriority/simultaneity is not the only function expressed by the perfectum and infectum stems. This functional distinctive

criterion may be used to describe the Latin verb system and the general alignment of the verb forms according to the stems, perfectum or infectum. Contextual usages of the perfectum forms show that the anteriority function that relates the past event to the present moment is only implied, but not explicitly expressed. The following excerpts exemplify contextual usage of verb categories. Literary works of different authors represent successive chronological periods of Latin: Plautus 3/2 BC, Caesar 1 BC, Cicero 1 BC, Seneca 1 AD, Scriptores Hisoriae Augustae 4 AD.

3.4.1 Perfect

Examples from Latin texts of various periods clearly show that the perfect or present perfectum in the indicative mood expresses either a past perfective event or present result of the past event.

resultative function

Plautus

LY. Iam **perdisti (PERF)** te atque me atque operam meam,
qui tibi nequiquam saepe **monstraui (PERF)** bene.
Pl. Ibidem ego meam operam **perdidi (PERF)**, ubi tu tuam:
tua disciplina nec mihi prodest nec tibi.
'LY. **You've ruined** yourself, and me, and all my efforts;
I've shown the way to virtue all in vain.
Pl. **I've wasted** my time where you've wasted yours;
Your discipline's no good to me or you.' (Bacchides 130-135)

BA. quis sonitu ac tumultu tanto nominat me at-
que pultat aedis?
NI. ego atque hic. SO. quid hoc est negoti nam, amabo?
quis has huc ouis **adegit (PERF)**?

NI. ouis nos uocant pessumae.
'Who's this then that names me with noisy disturbance,
    And beats my doors down?
NI. It's us two. Sl. Whatever is happening, my darling?
Who's driven these sheep to our place?
NI. The villains, they're calling us sheep.'
(Bacchides 1120-1122)

Caesar

Quo facto, duas res consecutus est[2], quod pignore animos centurionum devinxit (PERF) et largitione militum voluntates redemit (PERF). 'By this he achieved two things: by the loan he secured the loyalty of the centurions and by the handout he gained the support of the men' (The Civil War I, 39).

Cicero

Crotoniates autem Alcmaeo, qui soli et lunae reliquisque sideribus animoque praeterea divinitatem dedit (PERF), non sensit (PERF) sese mortalibus rebus inmortalitatem dare. 'Alcmaeon of Croton, who attributed divinity to the sun, moon and other heavenly bodies, and also to the soul, did not perceive that he was bestowing immortality on things that are mortal' (De Natura Deorum, XI 27).

Quam vero aptas quamque multarum artium ministras manus natura homini dedit (PERF). 'Then what clever servants for a great variety of arts are the hands which nature has bestowed on man!' (De Natura Deorum, LX 150)

Et haec aetas nostra, praeter te, Crasse, qui tuo magis studio, quam proprio munere aliquo disertorum, ius a nobis civile didicisti (PERF), quod interdum pudeat, iuris ignara est. 'And except yourself, Crassus, who rather from your own love of study, than because to do so was any peculiar duty of the eloquent, have learned the Roman system from our family, this generation of ours in unversed in law to a degree that sometimes makes one blush' (De Oratore I, X 40)

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[2]Resultative function is often expressed by the deponent verbs. Deponent verbs have passive form and active meaning, e.g. *Caesar has achieved (consecutus est) two things*; deponent verbs are represented by the passive participle and the 'be' auxiliary.

Seneca

Idem evenire nobis puta: alios vita velocissime **adduxit (PERF)**, quo veniendum erat etiam cunctantibus, alios **maceravit (PERF)** et **coxit (PERF)**. 'You may consider that the same thing happens to us: life **has carried** some men with the greatest rapidity to the harbour, they were bound to reach even if they tarried on the way, while others it **has fretted and harassed**' (Epistulae Morales II, LXX 4)

Quid in homine proprium? Ratio. Haec recta et consummata felicitatem hominis **implevit (PERF)**. Ergo si omnis res, cum bonum suum **perfecit (PERF)**, laudabilis est et ad finem naturae suae **pervenit (PERF)**; homini autem suum bonum ratio est; si hanc **perfecit (PERF)**, laudabilis est et finem naturae suae **tetigit (PERF)**. 'What then is peculiar to man? Reason. When this is right and has reached perfection, man's felicity **is complete**. Hence if everything is praiseworthy and **has arrived** at the end intended by its nature, when it **has brought** its peculiar good to **perfection**, and if man's peculiar good is reason; then if a man **has brought** his reason to perfection, he is praiseworthy and **has reached** the end suited to his nature' (Epistulae Morales II, LXXVI 10)

Non **desiit (PERF)** denique Drusi sui celebrare nomen, ubique illum sibi privatim publiceque repraesentare, libentissime de illo loqui, de illo audire: cum memoriae illius **vixit (PERF)**[22]; quam nemo potest retinere et frequentare, qui illam tristem sibi **reddidit (PERF)**. 'And lastly, she never ceased from proclaiming the name of her dear Drusus. She had him pictured everywhere, in private and in public places, and it was her greatest pleasure to talk about him and to listen to the talk of others - she lived with his memory. But no one can cherish and cling to a memory that he **has rendered** an affliction to himself' (Moral Essays II, To Marcia On Consolation III 2).

Augustinian period

Omnibus orientalibus provinciis carissimus fuit. Apud multas etiam philosophiae vestigia **reliquit (PERF)**. 'He was exceedingly beloved by all the eastern provinces, and on many, indeed, he **left** the imprint of philosophy.' (Scriptores Historiae Augustae I, Marcus Antonius XXVI. 2, 3)

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[22]In this instance *vixit* 'lived' combines the functions of the aorist and perfect. In other words, this perfect form represents a defined period of time along with the present result implications of the past complete event, e.g. Livia has lived a life of self-affliction due to the memory of her dear son Drusus. The past complete event referred to is not explicitly marked for the Aktionsart; *vixit* denotes a result of the past event perceived as a whole without the emphasis on termination.

Illi, quod nuli antea, populus Romanus sumptu suo in Capitolio ante Iovis Optimi Maximi Templum statuam auream decem pedum **conlocavit (PERF)**. 'In his honour - and to none before him - the Roman people at their own expense **erected** a golden statue ten feet high on the Capitol in front on the temple of Jupiter, Best and Greatest' (Scriptores Historiae Augustae III, The Defied Claudius III. 4)

Et, ut a Romulo incipiam, vero patre ac parente rei publicae, quae illius felicitas fuit, qui **fundavit (PERF)**, **constituit (PERF)** roboravitque **(PERF-CONJ)** rem publicam atque unus omnium conditorum perfectam urbem **reliquit!** 'For, to begin with Romulus, the true father and founder of the commonwealth, what felicity was his, who **founded, established** and **strengthened** this state, and alone among founders **left** a completed city.' (Scriptores Historiae Augustae III, Carus, Carinus, Numerian II. 2)

> Aorist, i.e. past perfective, function

> Plautus

Post cum magnifico milite, urbis uerbis qui inermus capit, **conflixi (PERF)** atque hominem **reppuli (PERF)**; dein pugnam **conserui (PERF)** seni. eum ego adeo uno mendacio **deuici (PERF)**, uno ictu extempulo **cepi (PERF)** spolia. is nunc ducentos nummos Philippos militi quos dare se **promisit**, dabit.
'I then **engaged** the braggart soldier, sacker of cities by words unarmed, And **beat him off**, and after that **joined** battle with the old man here. I **vanquished** him with a single lie, with a single stroke I **seized** the spoils Then and there. And now he'll pay the soldiers what he **promised** he would pay, two hundred sovereigns.' (Bacchides, 965)

> Caesar

Curio Marcium Uticam navibus **praemittit (PERF)**; ipse eodem cum exercitu **proficiscitur (PERF)**[25] biduique iter progressus ad flumen Bagradam **pervenit**. 'Curio sent Marcius **ahead** to Utica with the ships, while he himself **made** for the same place with his army and after two days' march **reached** the river Bagradas.' (The Civil War II, 24)

> Cicero

Tertia illa quam a Iove generatam supra **diximus (PERF)** 'The third is she whom we **mentioned** above as begotten by Jupiter.' (De Natura Deorum III, XXIII 59)

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[25]Perfect passive

Num quis quod bonus vir esset **gratias** dis **egit (PERF)** umquam? at quod dives, quod honoratus, quod incolumis. 'Did anyone **render thanks** to the god because he was a good man? No, but because he was rich, honoured, secured.' (De Natura Deorum III, XXXVI 87)

Tum et illa **dixit (PERF)** Antiochus quae heri Catulus **commemoravit (PERF)** a patre suo dicta Philoni et alia plura, nec se **tenuit (PERF)** quin contra suum doctorem librum etiam ederet qui Sosus inscribitur. 'Then Antiochus **put forward** the views that yesterday Catulus **told** us had been put forward in regard to Philo by his father, and also a number of others, and did not **restrain** himself even from publishing a book against his own teacher, the book to which is given the title of Sosus.' (Academica II, IV 12).

Meae totius orationis et istius ipsius in dicendo facultatis, quam modo Crassus in caelum verbis **extulit (PERF)**, tres sunt rationes, ut ante **dixi: (PERF)** una conciliandorum hominum, altera docendorum, tertia concitandorum. 'Under my whole oratorical system and that very readiness in speaking which Crassus just now lauded to the skies, lie three principles, as I said before, first the winning of men's favour, secondly their enlightenment, thirdly their excitement.' (De Oratore II, XXIX 128)

Seneca

M. Antonium, magnum virum et ingenii nobilis, quae alia res **perdidit (PERF)** et in externos mores ac vitia non Romana traiecit **(PERF)** quam ebrietas nec minor vino Cleopatrae amor? 'Mark Anthony was a great man, a man of distingu²shed ability; but what **ruined** him and **drove** him into foreign habits and un-Roman vi:es, if it was not drunkness and - no less potent than wine - love of Cleopatra?' (Epistulae Morales II, LXXXIII 25)

Atilius Regulus, cum Poenos in Africa funderet²⁴, ad senatum **scipsit (PERF)** mercennarium suum discessisse²⁵ et ab eo desertum esse rus, quod senatui publice

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²⁴Imperfect subjunctive *funderet* 'he was engaged' is used to represent a continuous, event, simultaneous with the perfect *scripsit* which has a perfective (specifically completive) function.

²⁵Perfective infinitive used in the subordinate clause, *discessisse* 'had absconded' denotes anteriority (and at the same time result) in relation to the perfect *scripsit* 'he wrote'.

curari²⁶, dum abesset Regulus, **placuit** (PERF). 'Atilius Regulus, when he was engaged in routing the Carthaginians in Africa, **wrote** to the Senate that his hired-hand had absconded and left the farm abandoned; whereupon the senate **decreed** that, as long as Regulus was away, his farm was to be managed by the State.' (Moral Essays II, To Helvia on Consolation, XII 5)

Augustinian period

Latin of the later imperial period was characterized by the decline of the earlier clearly distinguished perfective/imperfective functions. As documented in the texts of later Latin, perfectum verb forms could be used for the representation of imperfective events. In the following example, the perfect indicative forms in the main clause as well as the perfective infinitives in the subordinate clause express imperfective events, i.e. events in progress.

Corrupisse (PERF INF) eum Traiani libertos, **curasse** (PERF INF) delicatos eosdemque saepe **inisse** (PERF INF) per ea tempora quibus in aula familiarior **fuit** (PERF), opinio multa **firmavit** (PERF). 'That he **was** bribing Trajan's freedmen and **courting** and **corrupting** his favourites all the while he **was** in close attendance at court, was told and generally **believed**' (Sciptores Historiae Augustae I, Hadrian IV 5).

By and large perfect forms still represent either result (see the examples above) or past perfective events, as in the following example. Perfective aspect may be expressed both by the simple and the Aktionsart prefixed perfect forms, as shown in the following example.

Post in Siciliam **navigavit** (PERF), in qua Aetnam montem **conscendit** (PERF) ut solis ortum videret arcus specie ut dicitur, varium. Inde Romam **venit** (PERF) atque ex ea in Africam **transiit** (PERF) ac multum beneficiorum provinciis **adtribuit** (PERF).

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²⁶Two imperfective verb forms, i.e. imperfective infinitive *currari* 'to be managed' and imperfect subjunctive *abesset* 'he was away', are used for two situations/events, simultaneous with one another.

'Afterwards he **sailed** to Sicily, and there he **climbed** Mount Aetna to see the sunrise, which is many-hued, they say, like the rainbow. Thence he **returned** to Rome, and from there he **crossed** over to Africa, where he **showed** many acts of kindness to the provinces.' (Scriptores Historiae Augustae I, Hadrian XIII 3-4)

quintodecimo anno ad patriam **rediit (PERF)** ac statim militiam **iniit (PERF),**... 'He **returned** to his native city in his fifteenth year and at once **entered** military service,...' (Scriptores Historiae Augustae I, Hadrian II 1)

Quintum iduum Augustarum diem legatus Syriae litteras adoptionis **accepit (PERF)**; quando et natalem adoptionis celebrari **iussit (PERF)** . 'On the fifth day before the Ides of August, while he was governor of Syria, he **learned** of his adoption by Trajan, and he later **gave** orders to celebrate this day as the anniversary of his adoption.' (Scriptores Historiae Augustae IV 6)

Hic idem mensem Septembrem Tacitum appellari **iussit (PERF)**, idcirco quod eo mense et natus et factus est[27] imperator. Huic frater Florianus in imperio **successit (PERF)**,... 'He likewise **gave** command that the month of September should be called Tacitus, for the reason that in that month he was not only born but also created emperor. He was **succeeded** in the imperial power by his brother Florian,..' (Scriptores Historiae Augustae III, Tacitus XIII 5).

The Latin perfect started to overlap with the function of the imperfect only in the later stages of the imperial period, although it still predominantly expressed either resultative or perfective function. The Classical Latin perfect strictly expresses functions of the late PIE perfect, i.e. present resultative, and aorist, i.e. past perfective. Regardless of the period, the Latin perfect could express a function of anteriority. The function of anteriority is however only a contextual variant expressed along with the resultative and perfective functions.

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[27]Perfective aspect may also be expressed by deponent verbs, e.g. *natus et factus est imperator* 'he was born and also created emperor'.

Primusque sol, qui astrorum tenet principatum, ita movetur ut cum terras larga luce **compleverit (PERF SUBJ)**[28] easdem modo his modo illis ex patribus opacet; ipsa enim umbra terrae soli officiens noctem efficit. 'Take first of all the sun, which is the chief of the celestial bodies. Its motion is such that it first **fills** the countries of the earth with a flood of light, and then leaves them in darkness now on one side and now on the other; for night is caused merely by the shadow of the earth, which intercepts the light of the sun.' (Cicero, De Natura Deorum II, XIX 49)

Et quoniam de impudentia **dixi (PERF)**[29], castigemus etiam segnitiem hominum atque inertiam. 'And since I **have spoken** of the effrontery of men, let us go on to chastize their slackness and laziness.' (Cicero, De Oratore I, XLI 185)

Cum rem penitus causamque **cognovi (PERF)**[30], statim occurrit animo, quae sit causa ambigendi. 'When I **have** thoroughly **mastered** the circumstances of a case the issue in doubt comes instantly to my mind.' (Cicero, De Oratore II, XXIV 104)

Et quoniam me **promisi (PERF)**[31] aliquas epistulas esse positurum, quae creato Tacito principe gaudia senatus ostenderent, his additis finem scribendi faciam. 'Now since I **have promised** to quote some of the letters which showed the joy of the senate when Tacitus was created emperor, I will append the following and then make an end of writing.' (Scriptores Historiae Augustae III, Tacitus XVIII 1)

Beside the function of completion, result and the contextual function of anteriority, perfect forms often express habitual events in the past. A distinction of

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[28]Perfect subjunctive *compleverit* 'fills', used in the subordinate clause denotes result as well as anteriority in relation with the present subjunctive *opacet* 'leaves in darkness'.

[29]Perfect *dixi* 'I have said' expresses a resultative function in this case, but also, due to the context, an event anterior to the action/event expressed by the present subjunctive (jussive) *castigemus* 'let us chastize'.

[30]Perfect *cognovi* 'I have mastered' expresses resultative function and at the same time anteriority in relation with the present habitual event expressed by *occurrit* 'comes, occurs'.

[31]Perfect *promisi* 'I have promised' expresses a resultative function; at the same time it expresses anteriority in relation with the future form *faciam* 'I will make'.

perfective/resultative function and the past habitual function of the perfect category is determined by the context, just as the funtion of anteriority. The following excerpt illustrates the habitual function of the Latin perfect.

Saepe ad tibicinem **processit (PERF)**, ad organum se **recepit (PERF)**, cum processui et recessui cani iuberet. **Lavit (PERF)** ad diem septimo aestate vel sexto, hieme secundo vel tertio. **Bibit (PERF)** in aureis semper proculis aspernatus vitrum, ita ut diceret nil esse communius. 'Gallienus often went forth to the sound of the pipes and returned to the sound of the organ, ordering music to be played for his going forth and his returning. In the summer he would bathe six or seven times in the day, and in the winter twice or thrice. He always drank out of golden cups, for he scorned glass, declaring that there was nothing more common.' (Scriptores Historiae Augustae III, The Two Gallieni XVII 3-6)

3.4.2 Pluperfect

We have seen that the pluperfect, according to its systemic position, denotes the past result of a past anterior event. Examination of the Latin texts of various periods proves that the pluperfect does denote the function of anteriority in relation to another past event represented by the perfect category. This type of function, however, arises only from the context. In such cases the pluperfect forms combine the function of anteriority with the resultative or perfective function. In main clauses, pluperfect forms most often have the function of the Latin perfect, i.e. either resultative or perfective. The following excerpts demonstrate that the pluperfect may have a function of the late PIE perfect or aorist (cf. Classical Greek).

resultative function

Livia **amiserat (PLPF)**[32] filium Drusum, magnum futurum principem, iam magnum ducem; **intraverat (PLPF)**[33] pentius Germaniam et ibi signa Romana fixerat, ubi vix ullos esse Romanos notum erat. 'And Livia lost her son Drusus, who would have made a great emperor, and had already shown himself a great leader. For he had penetrated far into Germany, and had planted the Roman standards in a region where it was scarcely known that any Romans existed.' (Seneca, Moral Essays II, To Marcia On Consolation II 3)

perfective function

Fuit eo tempore etiam Parthicum bellum, quod Vologaesus paratum sub Pio Marci et Veri tempore indixit, fugato Attidio Corneliano, qui Syriam tunc administrabat. Imminebat etiam Britannicum bellum, et Chatti in Germaniam ac Raetiam **inruperant (PLPF)**[34] 'At this time, moreover, came the Parthian war, which Vologaesus planned under Pius and declared under Marcus and Verus, after the rout of Attidius Cornelianus, then governor of Syria. And besides this war was threatening in Britain, and the Chati **had burst into** Germany and Raetia.' (Scriptores Historiae Augustae I, Marcus Antonius VIII 6-7).

The following passages represent the usage of the pluperfect with the contextual function of anteriority along with the expressed resultative or past perfective function.

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[32]The pluperfect form *amiserat* 'lost' represents result without explicit expression of anteriority. The function of anteriority is however implied in relation with the hypothetical future situation, i.e. *Livia lost her son Drusus who would have made a great emperor*.

[33]The pluperfect form *intraverat* 'had penetrated' represents an anterior event in relation with the *amiserat* 'lost' along with the result.

[34]The pluperfect indicative form *inruperant* 'had burst' does not explicitly denote anteriority in relation to a past event or moment. Here it merely represents a past perfective (punctual according to the Aktionsart and context) event in contrast with the imperfective event represented by *imminebat* 'was threatening'.

Plautus

MN. Quid? Tibi non erat meretricum aliarum Athenis copia
quibu'cum haberes rem, nisi cum illa quam ego **mandassem (PLPF SUBJ)**[35] tibi.
'Well then, weren't there plenty of other courtesans in Athens for you to deal with, other
than the girl **I'd put into your charge?**' (Bacchides, 560)

Caesar

Quorum oratione permotus Varus praesidium quod **introduxerat (PLPF)**[36] ex oppido
educit ac profugit. 'Moved by what they said, Varus withdrew the garrison which he **had
put in,** and fled.' (The Civil War I, 13)

Cicero

Cum repente terram et maria caelumque **vidissent (PLPF SUBJ)**, nubium magnitudinem
ventorumque vim **cognovissent (PLPF SUBJ) aspexissentque (PLPF SUBJ-CONJ)**
solem eiusque cum magnitudinemque tum etiam efficientiam **cognovissent
(PLPF SUBJ)**, quod is diem efficeret toto caelo luce diffusa, cum autem terras nox
opacasset (PLPF SUBJ)[37], tum caelum totum cernerent astris distinctum et ornatum
lunaeque luminum varietatem tum crescentis tum senescentis eorumque omnium ortus et
occasus atque in omni aeternitate ratos inmutabilosque cursus - quae cum viderent,
profecto et esse deos et haec tanta opera deorum esse arbitrarentur. 'When they suddenly
had sight of the earth and the seas and the sky, and **came to know** of the vast clouds
and mighty winds, and **beheld** the sun, and **realized** not only its size and beauty but also

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[35]The pluperfect subjunctive form *mandassem* 'I had put in charge' denotes a past
perfective (realized according to the Aktionsart and context) event, but also an event
anterior to the situation/event represented by the imperfect form *erat* 'were'.

[36]The pluperfect indicative *introduxerat* 'had put in' expresses a past perfective
(specifically completive) event, but also an event anterior to the past events represented
by *educit* 'withdrew' and *profugit* 'fled'.

[37]Pluperfect subjunctive forms, *vidissent* 'had sight' (punctual Aktionsart),
cognovissent 'came to know' (inceptive), *aspexissent* 'beheld' (realized) and *opacasset*
'darkened' (inceptive), express past perfective events and at the same time anteriority in
relation with the past events expressed by the imperfect subjunctive forms *cernerent*
'saw', *viderent* 'saw'.

its potency in causing the day by shedding light over all the sky, and, after night had **darkened** the earth, they then saw the whole sky spangled and adorned with stars, and the changing phases of the moon's light, now waxing and now waning, and the risings and settings of all these heavenly bodies and their courses fixed and changeless throughout all eternity, - when they saw these things, surely they would think that the gods exist and that these mighty marvels are their handiwork.' (De Natura Deorum II, XXXVII 95)

At vero eius filii diserti, et omnibus vel naturae, vel doctrinae praesidiis ad dicendum parati, cum civitatem vel paterno consilio, vel avitis armis florentissimam **accepissent (PLPF SUBJ)**[38], ista praeclara gubernatrice, ut ais, civitatum, eloquentia, rempublicam dissipaverunt. 'His sons, on the other hand, who were accomplished speakers and equipped for oratory with every advantage of nature or training, after they **had taken over** a State that was flourishing exceedingly because of their father's counsels and their ancestors' military achievements, wrecked the commonwealth by the use of this eloquence to which, according to you, civil communities still look for their chief guidance.' (De Oratore I, IX 38)

Seneca

Ti. Caesar et quem **genuerat (PLPF)**[39] et quem **adoptaverat (PLPF)**[39] amisit,... 'Tiberius Caesar lost both the son he **had begotten** and the son he **had adopted**...' (Moral Essays II, To Marcia On Consolation XV 3).

Nonne tibi videbitur stultissimus omnium, qui flevit, quod ante annos mille non **vixerat (PLPF)**[40]? 'Would you not think him an utter fool who wept because he was not alive a thousand years ago?' (Epistulae Morales II, LXXVII 11)

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[38]The pluperfect subjunctive *accepissent* 'they had taken over' has a past perfective (specifically complete) function beside the function of anteriority in relation with the past event expressed by the perfect *dissipaverunt* 'wrecked'.

[39]The pluperfect indicative forms *genuerat* 'had begotten', *adoptaverat* 'had adopted' represent past perfective (realized according to the Aktionsart) events and at the same time events anterior in relation with *amisit* 'lost'.

[40]The pluperfect indicative *vixerat* 'was alive' represents a past perfective (complete event as denoted by the aorist unmarked for the Aktionsart) but also anterior event in relation with the past event represented by *flevit* 'wept'.

Augustinian Period

Exsecratus est denique principes qui minus senatoribus **detulissent (PLPF SUBJ)**[41] 'Finally, he denounced those emperors who **had not shown** this **deference** to the senators.' (Scriptores Historiae Augustae I, Hadrian VIII 10)

Et cum iam in nostra ripa, immo per omnes Gallias, securi vagarentur, caesis prope quadringentis milibus, qui Romanum **occupaverant**[42] solum, reliquos ultra Nicrum fluvium et Albam removit. 'And whereas they were wandering at large on our bank, or rather through all the country of Gaul, Probus, after slaying about four hundred thousand who **had seized** upon Roman soil, drove all the rest back beyond the river Neckar and the district of Alba.' (Scriptores Historiae Augustae III, Probus XIII 7)

As shown in the texts that represent various periods of the Latin language, anteriority in relation to the past events is often expressed by the pluperfect category. Anteriority may also be expressed by the past participles used in ablative absolute constructions.

3.4.3 Perfective participles

Ablative absolute constructions are dependent clauses consisting of substantives and their attributes (participles/adjectives), all of which are inflected for the ablative case. Their past participles denote events or actions which are anterior to the events

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[41]The pluperfect subjunctive *detulissent* 'had shown deference' expresses resultative function along with anteriority in relation with the past event expressed by the deponent verb *exsecratus est* 'denounced'.

[42]The pluperfect indicative form *occupaverant* 'had seized' expresses a resultative function along with anteriority in relation with the past event represented by *removit* 'drove back'.

represented by the verb of the main clause.[a] At the same time, past participles express resultative or perfective function. The following excerpts represent usage of the ablative absolute clauses.

ablative absolute clauses

Quibus rebus cognitis (ABL ABS)[b], confisus municipiorum voluntatibus Caesar cohortes legionis XIII ex praesidiis deducit Auximumque proficiscitur;... **'When Caesar heard of these events**, relying on the goodwill of the towns he withdrew the cohorts of the 13th legion from their garrison duties and set out for Auximum;...' (Caesar, The Civil War I, 12)

His datis mandatis (ABL ABS)[c], Brundisium cum legionibus VI pervenit, veteranis III et reliquis quas ex novo dilectu confecerat atque in itinere compleverat;... **'After dispatching this message**, he arrived at Brundisium with six legions, three of them veteran, the remainder those which he had newly raised and made up to strength along the way;...' (Caesar, The Civil War I, 25)

Talem vero existere eloquentiam, qualis fuerit in Crasso et Antonio, non **cognitis rebus omnibus (ABL ABS)**[d], quae ad tantam prudentiam pertinerent, tantamque dicendi copiam, quanta in illis fuit, non potuisse confirmo. 'Yet I maintain that such eloquence as Crassus and Antonius attained could never have been realized without a **knowledge of every matter** that went to produce that wisdom and that power of oratory which were manifest in those two.' (Cicero, De Oratore II, II 6)

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[a]Present participles, on the other hand, denote events which are simultaneous with events expressed by the verb of the main clause.

[b]The ablative absolute clause *Quibus rebus cognitis,...* 'When Caesar heard of these events,...' refers to a past perfective event. It also denotes anteriority in relation with another past event represented by the perfect form *deducit* 'withdrew'.

[c]The ablative absolute construction *His datis mandatis,...* 'After dispatching this message,...' expresses a past perfective event, but also an event anterior in relation with another past event expressed by the perfect form *pervenit* 'arrived'.

[d]Ablative absolute clause *cognitis rebus omnibus* 'having known every matter' denotes a result, but also a situation/event which is anterior in relation to another past event represented by the perfect infinitive *potuisse* 'could have'.

Perfectum verb forms in Classical Latin express primarily the resultative present function of the past event or the past perfective event. Coincidence of these two functions is borne by the merger of the late PIE perfect and aorist. Examples that illustrate usage of the perfectum forms at various periods of Latin show that these forms may contextually express a function of anteriority, especially pluperfect and the past participles in ablative absolute constructions.

Infectum forms, on the other hand, continue an imperfective function inherited from late PIE. Infectum forms in the present are represented in § 3.4.4.

3.4.4 Present

The present infectum forms, traditionally present tense forms, represent an imperfective present action or event. This type of function may be described as simultaneous with the present moment. The present tense forms may also express habitual events. Usage of the present tense forms is exemplified in the following excerpts.

present imperfective function

S.O. prodigium hoc quidemst: humana nos uoce **adpellant (PRES)** oues.
'What a portentous thing! The sheep **are calling** us with human voice!' (Plautus, Bacchides 1141)

Tum ut me Cotta vidit, "Peropportune" inquit "**venis (PRES); oritur (PRES)** enim mihi magna de re altercatio cum Velleio, cui pro tuo studio non est alienum te interesse."
'When Cotta saw me, he greeted me with the words: "You **come** exactly at the right moment, for ı **am** just **engaging** in a dispute with Velleius on an important topic, in

which you with your tastes will be interested to take part."' (Cicero, De Natura Deorum I, VI 15)

Sed quia de oratore **quaerimus (PRES)**, fingendus est nobis oratione nostra, detractis omnibus vitiis, orator, atque omni laude cumulatus. 'But since it is 'The Orator' we **are seeking**, we have to picture to our selves in our discourse an orator from whom every blemish has been taken away, and one who moreover is rich in every merit.' (Cicero, De Oratore I, XXVI 118).

At ille: "**Miror (PRES)**, patres conscripti, vos in locum Aureliani, fortissimi imperatoris, senem velle principem facere." 'Tacitus, however, replied: "I **marvel**, Conscript Fathers, that in the place of Aurelian, a most valiant emperor, you should wish to make an aged man your prince."' (Scriptores Historiae Augustae III, Tacitus IV 5)

present habitual function

Quid si etiam, Vellei, falsum illud omnino est, nullam aliam nobis de deo cogitantibus speciem nisi hominis occurrere? Tamenne ista tam absurda **defendes (PRES)**? Nobis fortasse sic **occurrit (PRES)** ut dicis; a parvis enim Iovem Iunonem Minervam Neptunum Vulcanum Apollinem reliquos deos ea facie novimus qua pictores fictoresque voluerunt, neque solum facie sed etiam ornatu aetate vestitu. 'Furthermore, Velleius, what if your assumption, that when we think of god the only form that presents itself to us is that of a man, be entirely untrue? Will you nevertheless **continue to maintain** your absurdities? Very likely we Romans do **imagine** god as you say, because from our childhood Jupiter, Juno, Minerva, Neptune, Vulcan and Apollo have been known to us with the aspect with which painters and sculptors have chosen to represent them, and not with that aspect only, but having that equipment, age and dress.' (Cicero, De Natura Deorum I, XXIX 81)

3.4.5 Imperfect

Imperfective function in the past is expressed by the past infectum or the imperfect verb forms. Imperfect verb forms express past events or actions in progress denoting thus simultaneity with a certain moment in the past.

past imperfective function

imperfect verb forms

Sed quod ab eo te mirifice diligi **intellegebam (IMPERF)**, arbitrabar illum propter benivolentiam uberius id dicere. 'But *knowing* his extraordinary esteem for you, I imagined that he was speaking with the partiality of a friend.' (Cicero, De Natura Deorum I, XXI 58)

Quod alter plus, lege agendo, **petebat (IMPERF)**, quam quantum lex in Duodecim Tabulis permiserat; quod cum impetrasset, causa caderet... 'For the one **was claiming**, by action on the statue, more than the provision in the Twelve Table permitted and, had he carried his point, his action must fail...' (Cicero, De Oratore I, XXXVI 167)

Subito in illam necopinantes inciderunt, accedere eam cotidie non **sentiebant (IMPERF)**[47]. 'They have stumbled upon it suddenly and unexpectedly, they **did** not **notice** that it was drawing nearer day by day.' (Seneca, Moral Essays II, On Shortness of Life, IX 4)

Imperfect verb forms may denote simultaneity with other events in the past.

While any imperfect verb form implicitly denotes simultaneity with a moment in the past,

they may explicitly denote simultaneity with other past events or actions contextually.

finite imperfect verb form - simultaneity

Nuntiabantur (IMPERF) haec eadem Curioni, sed aliquamdiu fides fieri non **poterat (IMPERF)**[48]; tantam **habebat (IMPERF)** suarum rerum fiduciam. Iamque Caesaris in

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[47]The Latin imperfect is often translated by the English preterite, due to the absence of clear aspectual distinctions in English. Note the contrast between the imperfective function of *sentiebant* and the perfective function expressed by *inciderunt* 'stumbled' in the Latin sentence.

[48]The imperfect form *poterat* 'could' represents an imperfective and simultaneous event in relation with the events represented by *nuntiabantur* 'received, was receiving news' and *habebat* 'had'. The imperfect *perferebantur* 'were being passed about' in turn represents an imperfective and simultaneous event in relation with events, represented by the verbs in the preceding sentence. The imperfect *existimabat* 'thought, was thinking' denotes an imperfective event which is also simultaneous with the past

Hispania res secundae in Africam nuntiis ac litteris **perferebantur (IMPERF)**. Quibus omnibus rebus sublatus nihil contra se regem nisurum **existimabat (IMPERF)**. 'The same news reached Curio, but for a while he did not believe it, so great was the confidence he had in what he was doing. Already, too, reports and letters about Caesar's success in Spain were being passed about. Encouraged by all these factors, he thought that the king would take no action against him.' (Caesar, The Civil War II 37)

As shown in the following passages, imperfect verb forms may also express past habitual

events. Past habitual events are not represented by distinct Aktionsart verb forms as in

Slavic (see § 6.2 in Chapter 6). Habitual or repetitive function in the past is determined

by the context and thus distinguished from the imperfective function in the past.

    past habitual function

Itaque tum illud quod erat a deo natum nomine ipsius dei **nuncupabant (IMPERF)**,.. 'Thus sometimes a thing sprung from a god was called by the name of the god himself.' (Cicero, De Natura Deorum II, XXIII 60)

Idem Victoriolas aureas et pateras coronasque quae simulacrorum porrectis manibus sustinebantur sine dubitatione **tollebat (IMPERF)**, eaque se accipere non auferre **dicebat (IMPERF)**, esse enim stultitiam a quibus bona precaremur ab iis porrigentibus et dantibus nolle sumere. 'Also he used to have no scruples in removing the little gold images of Victory and the gold cups and crowns carried in the outstretched hands of statues, and he used to say that he did not take them but accepted them, for it was folly to pray to certain beings for benefits and then when they proffered them as a gift to refuse to receive them.' (Cicero, De Natura Deorum III, XXXIV 84)

Haec enim quae dilatantur a nobis Zeno sic **premebat (IMPERF)**:... 'The thoughts that we expound at length Zeno used to compress into this form:...' (Cicero, De Natura Deorum II, VII 20)

Quamquam Antiochi magister Philo, magnus vir ut tu existimus ipse, negat in libris, quod coram etiam ex ipso **audiebamus (IMPERF)**, duas Academias esse, erroremque eorum qui ita putarunt coarguit. 'Although Philo, Antiochus's master, a great man as you yourself judge him, makes an assertion in his books which we used also to hear from

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perfective event expressed by the ablative absolute clause *Quibus omnibus rebus sublatus...* 'Encouraged by all these factors,...'.

his own lips, – he says that there are not two Academies, and proves that those who thought so were mistaken.' (Cicero, Academica I, IV 13)

Cum iret (IMPERF SUBJ)[49] ad hortos nominis sui, omnia Palatina officia **sequebantur (IMPERF).** **Ibant (IMPERF)** et praefecti et magistri officiorum omnium **adhibebanturque (IMPERF-CONJ)** conviviis et nationibus **lavabant (IMPERF)** simul cum principe. 'Whenever he **went** to the gardens named after him, all the staff of the Palace **followed** him. And there **went** with him, too, the prefects and the chiefs of all the staffs, and they **were invited** to his banquets and **bathed** in the pools along with the prince.' (Scriptores Historiae Augustae III, The Two Gallieni XVII 8-9)

3.4.6 Present/imperfective participle

Present participles denote simultaneity with other events.

present participle - simultaneity

Sulmonenses, simul atque signa nostra viderunt, portas aperuerunt universique, et oppidani et milites, obviam **gratulantes (PRES PART)** Antonio exierunt. 'As soon as the people of Sulmo saw our standards, they opened their gates and all came out **cheering**, soldiers and townsfolk alike, to meet Antonius.' (Caesar, The Civil War I 18)

Nam cum feriis Latinis ad eum ipsius rogatu arcessituque venissem, offendi eum **sedentem (PRES PART)** in exedra et cum C. Velleio senatore **disputantem (PRES PART)**[50], ad quem tum Epicuri primas ex nostis hominibus deferebant. 'It was the Latin Festival, and I have come at Cotta's express invitation to pay him a visit. I found him **sitting** in an alcove, **engaged in debate** with Gaius Velleius, a Member of the Senate, accounted by the Epicureans as their chief Roman adherent at the time.' (Cicero, De Natura Deorum I, VI 15)

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[49]Imperfect subjunctive used in the "Cum" clause

[50]Present participles *sedentem* 'sitting' and *disputantem* 'debating' express events simultaneous with the past moment represented by *offendi* 'found'.

3.4.7 Future

While perfectum/infectum verb forms in the past are most often distinguished according to the aspectual, i.e. perfective/imperfective function, this type of contrast is not as prominent in the future tense. There is a formal contrast between future infectum (future) and perfectum (future perfect) verb forms, which however does not always correlate with the functional aspectual contrast. Quite often the future perfect denotes simply a future without explicit expression of completion.

Quorum igitur causa quis **dixerit (FUT PERF)** effectum esse mundum? 'For whose sake then **shall** one **pronounce** the world to have been created?' (Cicero, De Natura Deorum II, LIII 133)

The future perfect may indicate anteriority or result in relation to another event within the context.

Eadem illa ratio monet, ut, si licet, moriaris quemadmodum placet; si minus, quemadmodum potes, et quicquid **obvenerit (FUT PERF)** ad vim adferendam tibi invadas. 'Reason, too, advises us to die, if we may, according to our taste; if this cannot be, she advises to die according to our ability, and to seize upon whatever means **shall offer** itself for doing violence to ourselves.' (Seneca, Epistulae Morales II, LXX 28)

The future may have an imperfective function denoting a future event in progress.

Ceterum magna **habebunt (FUT)** discrimina variante materia, quae modo latior est, modo angustior, modo inlustris, modo ignobilis, modo ad multo pertinens, modo ad paucos. 'There **will** be, of course, great differences according as the material varies, as it becomes now broader and now narrower, now glorious and now base, now manifold in scope and now limited.' (Seneca, Epistulae Morales II, LXVI 33)

The future may also expresses an indefinite future function, neutral with respect to aspect.

Sed hoc respondeo, plurimum interesse inter gaudium et dolorem; si quaeratur electio, alterum **petam** (**FUT**), alterum **vitabo** (**FUT**). 'But the reply which I do make, is that there is great difference between joy and pain; if I am asked to choose, **I shall seek** the former and **avoid** the latter.' (Seneca, Epistulae Morales II, LXVI 19)

3.4.8 Conclusions

Usage of the perfectum and infectum verb forms in Latin shows that there is no absolute correspondence between functions denoted by the verb categories and the systemic aspectual contrasts. Within the verbal system of Latin, perfectum verb forms have a primary resultative function and secondary perfective function. The verb forms based on the perfectum/infectum stems are differentiated on the basis of anteriority/simultaneity. Contextual function and usage of the verb categories indicates that the functions of simultaneity and anteriority arise only in particular contexts. The general distinction between the perfectum and infectum forms is the aspectual distinction between perfective/resultative and imperfective function, respectively. Moreover, usage of the perfectum forms shows that both resultative and perfective aspectual functions are equally represented, without preponderance of one or the other. A basic aspectual contrast between perfective/resultative and imperfective expressed by the perfectum/infectum verb stems respectively started to disintegrate only in late Latin.

Part II

Grammaticalized Aktionsart

CHAPTER 4

Aspect and Tense in Ancient Slavic:

Aktionsart Grammaticalization

4.1 Ancient Slavic and Old Church Slavic

This section provides a clarification for distinct terms used for the early linguistic stage

and the earliest recorded Slavic language, represented by the ecclesiastical documents

translated from Greek. It is crucial to make a distinction between the former, i.e.

Ancient Slavic, and the latter, i.e. Old Church Slavic, in order to avoid terminological

confusion.

While the term *Old Church Slavic* refers to the language of the Bulgaro-

Macedonian Christian ecclesiastic texts translated from Greek[1], the term *Ancient Slavic*

refers to the common predecessor of all modern Slavic languages, i.e. East, South and

West Slavic languages. This terminological distinction is multi-dimensional; it reflects

not only the geographic distinction, but more importantly a linguistic distinction.[2] In this

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[1] To be explained below

[2] The term *Old Church Slavic*, used in linguistics, was introduced by Vondrák
(1900) in order to emphasize the function of the early Slavic documents. Specifically,
it referred to the language of the Ancient Slavic monuments of the 10th and 11th century

thesis, the term *Ancient Slavic* is adopted to represent and explain the ancient verb system from which the verb systems of modern Slavic languages have evolved. The term *Common Slavic* is used to refer to the unattested stages of Ancient Slavic reconstructed on the basis of comparative evidence of Ancient Greek and Vedic Sanskrit and the internal evidence of Ancient Slavic.

General definitions of Old Church Slavic and Ancient Slavic require a more detailed explanation of the origin of the Old Church Slavic language which closely approximates the Ancient Slavic linguistic stage.[5] Nikolić (1991:5) claims that the most archaic Slavic literary language represented by the religious texts (including the parts of the Holy Writ, bibliographies of the saints and ritual texts) were written as early as the 9th century. These texts were translated from Greek by the brothers Constantine and Methodius of Salonika descended from an eminent family of a high-ranking official in the Byzantine Empire (Schmalstieg 1976:36). Constantine was a philosopher and a

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which constitute the Ancient Slavic Canon. *Ancient Slavic*, on the other hand, is a linguistic term that represents the most archaic common stage of the modern Slavic languages. It has a wide usage and encompasses all types of Ancient Slavic texts, including those with dialectal variations. This term was introduced by Fortunatov (1919) and the Russian academy (Nikolić 1991:16).

[5]Nikolić (1991) refers both to the earliest Slavic ecclesiastic texts (=Old Church Slavic) and the linguistic stage of Ancient as Old Slavic (a literal translation of *Staroslovenski* as it appears in the grammar of the Old Church Slavic language). He states that the Old Slavic language is simply referred to as Slavic in the earliest Slavic, as well as Greek and Latin documents. Among the Slavic sources the evidence of this general term is found in hagiographia, e.g. *jêyku slovênĭsky* 'Slavic language', *kunigy slovênĭskyjê* 'Slavic books'; it is also found in the Greek hagiography of Saint Clement, e.g. *ta solovenika grammata* 'the Slavic grammar', as well as in the Latin sources, e.g. Lingua Sclavinica, Sclavinisca, Sclavina (Nikolić 1991:15).

former diplomat, while his brother Methodius became a monk after having served as a civil administrator. The two brothers were appointed by the Byzantine Emperor, Michael the Third, for the "Moravian mission", at the request of the prince of Moravia, Rostislav, in 862 (Lunt 1974:1). A request for the mission in Moravia had a primary goal of introducing literacy, Slavic liturgy and organizing the Slavic national church among the Moravian population. By collaborative effort the two apostles created the glagolitic alphabet and translated a majority of Greek liturgical and biblical texts into Slavic. They arrived in Moravia accompanied by their disciples at the end of 863.

The geographic origin of the dialect used in the Old Church Slavic texts may be easily determined. According to Nikolić (91:13) there is no doubt that the dialect which Constantine and Methodius used for the translation of the Greek ecclesiastic documents (=Old Church Slavic) is of South-Slavic origin; however, its exact regional origin has been a matter of debate. Kul'bakin (1917) and Nikolić (91:9) are propagators of the "Macedonian theory"; they agree that Old Church Slavic is a literary modification of the dialect spoken in the vicinity of Salonika that both Constantine and Methodius spoke since their childhood.[4] Moreover, Seliščev (1952) points out that the Old Church Slavic translations may not be completely identified with the speech of the Slavic population in

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[4]Methodius hagiography provides a piece of evidence for the regional appurtenance of the dialect on which Old Church Slavic translations are based, whereby the Emperor Michael justifies the appointment of Constantine and Methodius for this important ecclesiastic and literary mission "Do you hear these words, Philosopher. No one except you could do these things. Therefore I provide many gifts and you may take your brother, prior Methodius and go! For both of you are of Salonika, and people of Salonika speak Slavic clearly!" (Chapter 5) (in Nikolić, 1991:7)

the Salonika region, (including the outskirts of Salonika). These written documents contained elements of the speech of the urban population which clearly differs from the Slavic speech of the country population. The Old Church Slavic documents reflect the phonetic, syntactic and lexical influence of Greek. Although the translations were based on the speech of the Slavic population on the outskirts of Salonika, they were substantially modified by the literary influence of Greek which was present neither in the speech of the city nor in the speech of the countryside population. Lunt (1974:3) also assumes that the dialect that Constantine and Methodius spoke was Southeastern Slavic Macedonian - a dialect spoken in Salonika and its outskirts. He also points out that the earliest translations probably contained some elements of a dialect spoken in Southern Bulgaria, where Methodius served as governor.

The earliest documents translated by Constantine and Methodius have not been preserved due to the resistance that this ecclesiastic and literary mission had encountered from the German clergy. After 40 months of establishing literacy and introducing liturgy to the Moravian population the two brothers had obtained the approval of the Roman Pope to use Old Church Slavic in the church liturgy. Unfortunately, at that point in 869, Constantine died after having accepted monastic vows and after having changed his name to Cyril. In 870 Methodius was appointed Archbishop of Moravia and Panonia which aroused strong opposition from the German priests. The German clergy violently resisted the Slavic liturgy fearing the political independence of Moravia and Panonia. After the death of Methodius in 885, Slavic priests along with their disciples were

expelled from Moravia and the Slavic monasteries and liturgy in the Czech state were formally abolished in 1097 (Lunt 1974:2).

However, as Nikolić (1991:11) states, brutality on the part of the German clergy could not annihilate the just deeds of Cyril and Methodius. Many of their expelled disciples had continued the mission they had initiated spreading Slavic literacy in other Slavic-speaking regions. The original documents translated by Cyril and Methodius had been destroyed, but Slavic literacy had revived and flourished. Cyril's and Methodius' disciples, headed by Clement and Naum, established a number of monasteries and schools in the region of Lake Ochrid, where their teachers' tradition was carefully carried on with respect to the glagolitic alphabet and the Old Church Slavic language (Nikolić 1991:11). From here the tradition of Slavic literacy extended into Bulgaria where Old Church Slavic continued as the literary language during the reigns of Emperor Symeon (893-927) and his successor Emperor Peter (927-969) (Schmalstieg 1976:5). By that time the original glagolitic alphabet had been replaced by the Cyrillic alphabet. The earliest Old Church Slavic documents date only from the end of 10th and 11th century and they represent the transliterations of the original documents translated by Constantine and Methodius two centuries earlier (Nikolić 1991:19).

4.2 Verbal system development between late PIE and Ancient Slavic

An outline of developments related to tense and aspect between late PIE and Ancient Slavic requires a special emphasis on Ancient Greek for two reasons.

First, there is a general consensus that the verb system of late PIE resembles the Ancient Greek and Vedic verb systems[5] (explicitly advocated by Meillet 1964:197). As shown in Chapter 2 Classical Greek continues a three-way aspectual distinction, i.e. imperfective, perfective and resultative/stative. The paradigmatic patterns of the late PIE verbal system are maintained, except that the perfect category is remodelled on the basis of the 1st aorist.

Another reason for tracing this connection is that Ancient Greek may provide important insights into the earlier stages of Ancient Slavic, i.e. Common Slavic, which have not been attested. Specifically, the internal evidence of Ancient Slavic and the comparative evidence of Ancient Greek, Vedic Sanskrit and Latin shows that the unattested Common Slavic stages may have resembled Ancient Greek. Ancient Greek (documented) and Ancient Slavic (undocumented, but accessible through Old Church Slavic) have typologically similar aspectual categories, i.e. imperfective, perfective and resultative, both in the past and non-past. Both languages have asigmatic and sigmatic aorist forms. Ancient Slavic, however, developed a new way of aspect marking which modified the inherited PIE verb system.[6]

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[5]Reconstruction of the late PIE verb system, by means of comparative method, is expounded in Chapter 1. Opposing views to this type of reconstruction are also presented.

[6]Modification of the late PIE verb system refers to a change in marking aspectual functions, i.e. a functional change - grammaticalization of Aktionsart and a formal change - resultative/stative aspect is expressed by periphrastic constructions, replacing the function of the late PIE reduplicated perfect, cf. Ancient Greek and Vedic Sanskrit.

In this section it will be argued that the verbal system of Ancient Slavic which presumably resembled that of Ancient Greek had undergone this major change in the marking of the perfective aspect before the earliest attested Old Church Slavic documents.

The earliest Old Church Slavic documents date from the 10th and 11th centuries A.D. Old Church Slavic documents are therefore not contemporaneous with Ancient Greek. Ancient Slavic represents a step further from the Greek-like late PIE. For this reason the verbal system of Ancient Slavic (represented by the evidence of the Old Church Slavic documents) could not be put on the same level with the Ancient Greek and Latin verbal systems. The Old Church Slavic evidence is used to reconstruct the earlier Common Slavic stages (internal reconstruction).[7]

Table 1 shows that Ancient Slavic maintained the three aspectual categories of the Greek-like PIE verbal system, i.e. imperfective, perfective and resultative/stative. The basic aspectual functions of these categories were modified by introducing a new way of perfective marking. While the aspectual contrasts were expressed by distinct verb stems in Ancient Greek and presumably late PIE, Aktionsart preverbs in Ancient Slavic acquired a major role in expressing grammatical aspect.

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[7]The comparative evidence of the aspectual distinctions in the past and non-past in Ancient Greek is also used (external reconstruction).

Table 1

Ancient Slavic verb system

	Non-Past	**Past**
Imperfective	Present idǫ 'I go, am going'	Imperfect iděaxʉ 'I was going'
Perfective		Sigmatic Aorist idoxʉ 'I went'* Asigmatic Aorist idʉ 'I went'
	Future izidǫ 'I will go out'	Sigmatic Aorist izidoxʉ 'I went out'
		Asigmatic Aorist izidʉ 'I went out'
Resultative	Perfect šɨlʉ jesmɨ PART AUX 'I have gone'	Pluperfect šɨlʉ běxʉ PART AUX 'I had gone'
	iziš ɨlʉn jesmɨ preverb+PART AUX 'I have gone out'	iziš ɨlʉ běxʉ preverb+PART AUX 'I had gone out'

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[a]*Unprefixed aorist forms function as imperfective in contrast with the prefixed aorist forms, which are unambiguously perfective. Grammaticalized Aktionsart replaced the inherited function of the sigmatic stem, i.e. perfective.

In Ancient Slavic Aktionsart preverbs had replaced the late PIE aorist stem in the marking of perfective aspect.[*] In § 4.4. it will be shown that the morphological class with a nasal element (-nō-, -ne-) and various types of lexical/semantic pairs also played an important role in perfective aspect marking. The grammaticalization of Aktionsart introduces apparent inconsistencies and contradictions in perfective aspect marking. Since Ancient Slavic had undergone a change, i.e. recategorization of the grammatical aspectual functions, the function of the late PIE aorist became redundant. It will be argued that Ancient Slavic was in a stage of changing the marking of grammatical aspect. Ancient Slavic still preserves the late PIE marking of perfective aspect in the past by the aorist category, while introducing the new way of perfective marking both in the past and non-past by Aktionsart. There is, however, a functional difference between the Ancient Slavic aorist (and presumably late PIE, cf. Ancient Greek) and Aktionsart, as explained in the following paragraph. Since Aktionsart is grammaticalized in Ancient Slavic, there is a crucial functional distinction between the aorist forms marked by Aktionsart and the aorist forms not marked by Aktionsart (preverbs or suffixes).

Analysis of the Old Church Slavic data will show that the aorist unmarked by Aktionsart had the same type of function as the Ancient Greek aorist. It inherently represents a complete past event. Depending on Aktionsart, i.e. inherent semantic

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[*]There is a slight distinction between the function of the sigmatic stem in the indicative forms of Ancient Greek and Aktionsart in Ancient Slavic. Aorist forms and sigmatic future forms denote complete events that may be explicitly perfective depending on the Aktionsart. Aktionsart forms in Ancient Slavic are always perfective.

function and the context, the aorist may explicitly denote perfective aspect, as in Ancient Greek (see § 2.4.1, and 4.5.1 for Ancient Slavic). In this chapter it will be argued that the unmarked aorist forms are recategorized as imperfective in relation to the aorist forms marked for perfective Aktionsart in Ancient Slavic. In general, it is acknowledged that the aorist category serves to describe a complete event in the past, as opposed to the imperfect which is used for the past tense in progress. Nikolić (1991:174) claims that the aorist is "the past complete tense". A dual function of the aorist is recognized by the authors of Old Church Slavic grammars.[16] Dostál (1954) states that aorist forms generally express the perfective aspect, while 40% are imperfective. Also, the imperfect verb forms are imperfective in 99% of cases, while only one percent are perfective. Dostál assumes that these statistics reflect the function of the aorist, i.e. completion of an action.[17] The aorist is more often associated with the perfective aspect, whereas the imperfect is predominantly associated with the imperfective aspect (in Schmalstieg 1976:149). Gardiner (1984:123) also points to an ambiguous function of the aorist, acknowledging existence of the imperfective aorist forms (i.e. those formed from imperfective verbs). He states that the aorist is commonly used for an action viewed as a whole, however it may also express a continuous, imperfective action.

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[16] Most grammars of the Ancient Slavic language are entitled *Old Church Slavic*.

[17] Completion of an action or explicit perfectivity is denoted by the aorist forms that are marked for Aktionsart.

In this section it is argued that an ambiguous function of the aorist is a consequence of the Aktionsart grammaticalization. The unprefixed aorist forms are neutral, *ide* 3SG (Sava Evangelium 48b) from *iti* 'to go', but imperfective in contrast with prefixed aorist forms, *izide* 3SG (Sava Evangelium 36b) from *iziti* 'to go out, leave' (see § 4.5.1 for the contextual usage of these forms). That is to say, the Aktionsart grammaticalization represents an improved way of perfective marking.

Aside from defining the aorist and imperfect categories, the authors of the Old Church Slavic grammars acknowledge the fact that the preverb prefixation results in perfective verb forms. Gardiner (1984:121) claims that "suffixless verbs become perfective when prefixed".[12] As argued here, a connection should be made between the two ways of perfective aspect marking. Aktionsart prefixation generally yielded the perfective verb forms, e.g. INF *iti* 'to go' IMPFV - *vъziti* PFV 'to go up, rise', *iziti* PFV 'to go out, leave', *otiti* PFV 'to go back, withdraw'. As a result the aorist forms were based on aspectual pairs and had both perfective and imperfective function, e.g. the unprefixed *ide* 3SG (Sava Evangelium 48b) is imperfective relative to the prefixed aorist forms *vъzide* 3SG (Sava Evangelium 40b), *izide* 3SG (Sava Evangelium 36b), *otide* 3SG (Sava Evangelium 45).[13] Perfectivizing preverbs could be combined with all verb forms.

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[12]Suffixless verbs refer to the verbs without imperfectivizing suffixes such as *-va-*, *-ja-*, e.g. *umytl* - *umyvati* 'to wash', *ostaviti* 'leave' - *ostavljati* (Gardiner 1984:121). It is generally acknowledged that these verbs remain imperfective in spite of Aktionsart prefixes.

[13]Contextual usage of these forms is exemplified in § 4.5.1.

The combination of the past tense categories such as the aorist and imperfect would give rise to the seemingly contradictory categories such as "imperfective aorist", AOR 3SG *ide* (Sava Evangelium 48b) and "perfective imperfect", IMPERF 3SG *proiděše* (Sava Evangelium 38b) from *proiti* 'to cross, pass'.[14] Since the Aktionsart preverbs (and Aktionsart in general) in Ancient Slavic have a restrictive effect upon the imperfective function of the verb, the prefixed imperfect forms, such as *proiděše*, acquired an iterative function (expressing repeated complete events) as opposed to the unprefixed imperfect forms which are clearly imperfective, e.g. IMPERF *iděše* 3SG (Sava Evangelium 50) from *iti* 'to go'.

The new way of perfective marking would produce consistent paradigmatic distinctions between prefixed and unprefixed aorist forms. If the preverb prefixation resulted in perfective verb forms, both prefixed (=perfective) and unprefixed (=imperfective) verb forms would be present in the aorist paradigms. There is a connection between the Aktionsart grammaticalization and the functional fluctuation of the aorist category. The functional ambiguities of the aorist, and the imperfect to a lesser extent, simply reflect a change in progress whereby the unprefixed aorist forms acquire an imperfective function in relation to the prefixed perfective aorist forms. The following paradigms represent unmarked vs. prefixed (Aktionsart marked) asigmatic aorist forms, *iti* 'go' vs. *iziti* 'go out'.

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[14]Contextual usage of the imperfect forms is exemplified in § 4.5.7.

Table 2

Aorist forms

Unprefixed aorist forms

	Singular	Dual	Plural
1st	idu	idověn	idomu
2nd	ide	ideta	idete
3rd	ide	idete	idō

Prefixed perfective aorist forms

	Singular	Dual	Plural
1st	izidu	izidově	izidomu
2nd	izide	izideta	izidete
3rd	izide	izidete	izidō

Aktionsart grammaticalization, already complete in Ancient Slavic, would tend to eventually eliminate the aorist category, which is exactly what happened. In Northern Slavic languages the aorist was lost between the 12th and 14th century. In the Southern Slavic languages it remained at least until the 15th century (except for Bulgarian, Macedonian and among Northern languages, Upper Sorbian, where it is still used).[13] In all other Slavic languages, the aorist, which is inherently neutral, gives way to the Aktionsart category which represents an improved way of perfective marking.

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[13]Bulgarian as well as Macedonian and Upper Sorbian are, in fact, the most conservative Slavic languages, regarding aspect, since they preserve the aorist category ousted in other Slavic languages. Survival of the aorist in Bulgarian and Macedonian is related to recategorization of the perfect as the inferential category, as explained in § 5.4 (Chapter 5).

The neutral function of the aorist category in Ancient Slavic has been acknowledged: "the aorist tense is a narrative tense usually and is rather neutral in regard to meaning" (Schmalstieg 1976:148). This type of function is inherited from late PIE (cf. Ancient Greek). We should keep in mind, however, that only unprefixed aorist forms are neutral; however, they function as imperfective in relation to the aorist forms marked for Aktionsart which are inherently perfective (as shown in § 4.5.1). The Ancient Slavic verb system and the formation patterns of the aspect/tense categories will be examined in § 4.3.

4.3 Representation of the Ancient Slavic verbal system

4.3.1 Grammaticalized Aktionsart

This section provides a detailed analysis of the Ancient Slavic verbal system with an emphasis on the verb class divisions and the formation of verb categories. It will be shown that formation of the verb categories differs from Ancient Greek and late PIE. Different principles in forming the tense and aspect categories in Ancient Slavic will be examined considering the major change in marking aspect. The different views of grammarians and linguists of Old Church Slavic concerning the formation patterns of the verbal categories will be evaluated.

As argued in § 4.2 Aktionsart acquired a major role in the marking of perfective aspect in Ancient Slavic. This grammaticalization process resulted in perfective/imperfective verb pairs which in Ancient Slavic formed the aorist and

imperfect. As shown in Chapter 2, the aorist and imperfect expressed the perfective and imperfective aspect in the past tense in Ancient Greek and presumably in late PIE. Internal evidence of Ancient Slavic and comparative evidence of Ancient Greek and Vedic Sanskrit points to a similar state of affairs in Common Slavic, i.e. earlier unattested stages of Ancient Slavic. In Ancient Slavic, grammaticalization of Aktionsart resulted in double aspectual marking. In other words, inherited aspect marking by the aorist and imperfect coexisted with grammaticalized Aktionsart. As pointed out earlier, Aktionsart function differs from that of the aorist. Aktionsart always has a perfective function[16]; on the other hand, the aorist simply represents complete events, while explicit perfectivity depends on the verb meaning. Double aspectual marking gradually resulted in a tendency to eliminate the aspect marking of late PIE in most Modern Slavic languages, where the old perfect category was recategorized as the past tense. Bulgarian, Macedonian and Upper Sorbian preserve inherited aspect marking beside the grammaticalized Aktionsart.[17] The aorist and imperfect are preserved in Bulgarian and Macedonian, because the perfect was recategorized as the inferential category.

The eventual disappearance of the old aorist and imperfect categories in most Slavic languages is caused not only by their redundant aspectual functions, but also by the ever increasing role of the perfect category in expressing the past tense.

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[16]Except for the Aktionsart imperfective forms including secondary/derived imperfectives (to be discussed in § 4.6 and 4.7)

[17]To be explained in § 5.4 (Chapter 5)

Grammaticalization of Aktionsart preverbs results in aspectual pairs which makes combining of both perfective and imperfective forms possible in forming tense/aspect categories. The Ancient Slavic perfect which could be formed from both perfective and imperfective verbs (*šĭlŭ jesmĭ* from *iti* IMPFV 'to go', *izišĭlŭ jesmĭ* from *iziti* PFV 'to go out') gradually acquired a major role in expressing past events (as shown in § 5.4). The perfective/imperfective aspectual opposition is unambiguously expressed in the perfect category. The unprefixed perfect forms came to express the imperfective aspect in the past in relation to the prefixed perfect forms which unambiguously express the perfective aspect in the past. The imperfective function of the unprefixed verbs was not contradictory in forming the perfect which had a primary resultative function in Ancient Slavic. The reason for this relatively natural combination, i.e. imperfective and perfect, lies in the grammatical function of the perfect category. We have already seen that the perfect category expresses the present state of a past event, by general consensus (see Chapter 1).

It has also been shown that combination of the perfective and imperfective verbs with the aorist and imperfect categories was not so natural. These combinations would produce clearly contradictory categories such as an imperfective aorist, i.e. an imperfective perfective in the past, and a perfective imperfect, i.e. a perfective imperfective in the past. The number of perfective imperfects is very small (Dostál 1954, see p. 10). As recognized by the authors of Old Church Slavic grammars these forms have an iterative function e.g. IMPERF *proiděše* 3SG Sava Evangelium 38b from

proiti PFV 'to cross, pass', cf. IMPERF *idĕše* 3SG Sava Evangelium 50 from *iti* IMPFV 'to go' (see the examples within the context in § 4.5.7). Schuyt (1990:9) states that the perfective derivatives in the imperfect express a function which combines unity with repetition. According to Gardiner (1984:124) perfective verbs do not generally form the imperfect; these forms are very rare due to a restrictive combination of the perfective aspect which expresses a completion with the imperfect which expresses duration in the past. Beside the logical contradictions which arise in combinations of perfectivizing preverbs and the inherited tense/aspect categories[18], there may be other reasons why the analytic perfect was recategorized as a past tense at the expense of the aorist and imperfect. Other relevant factors are discussed in § 5.3.

Meillet (1934:258) states that the analytic perfect lost the original expressive, i.e. resultative, function that it had in the most ancient texts (translations of the Gospels from the 10th and 11th century) and gradually acquired the past tense function. As argued above, perfect forms could be freely formed both from perfective and imperfective verbs. The grammaticalization of Aktionsart in Ancient Slavic and the freedom of combining perfectivizing markers with the analytic perfect would render the old aorist and imperfect redundant. Subsequently, these categories would tend to disappear. They have been eliminated altogether in Northern Slavic languages (with the exception of Sorbian), where

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[18]In Modern Macedonian the aorist is formed from the perfective verbs only and the imperfect only from the imperfective verbs, while Bulgarian preserved the "contradictory" aspectual marking. Preservation of the aorist and imperfect is related to recategorization of the old perfect as the inferential category (to be shown in § 5.4).

the Ancient Slavic perfect has been recategorized as the past tense. This formal and functional change is discussed in § 5.4 which shows that this process has been completed in Polish, is almost complete in Czech and in Serbo-Croatian is still in a transitional stage. In Russian, the past tense is expressed by the l-participle, while the verb *be* functioning as the auxiliary has been lost.

In this section (and § 4.2) it was argued that the Aktionsart grammaticalization resulted in the functional ambiguity of the aorist and imperfect. The ancient inherited functions of these categories became redundant due to the new way of grammatical perfective marking in Ancient Slavic. On the other hand, the formal similarities of these two categories represented one of the causes of the Aktionsart grammaticalization in Common Slavic (as argued in § 5.2). It will be argued that similarities in formation patterns between the aorist and imperfect categories contributed to a loss of clear aspectual distinction between the perfective and imperfective expressed by the aorist and present stems in the past tense. Also, the inherited aspectual contrast was completely eliminated in the non-past with the loss of the sigmatic future. These systemic factors had combined with the lexical contrast of well developed morphological classes (as shown § 5.1) to facilitate the grammaticalization of Aktionsart.

4.3.2 Formation patterns of the Present, Imperfect and Aorist

In this section, the formation of the present, imperfect and aorist categories is examined in order to show that the stem distinctions were not clearly correlated with aspectual functions.

We have seen that in Ancient Greek (and presumably late PIE) the imperfect and aorist were based on the distinct stems, present and aorist stem, respectively. Aside from the productive sigmatic type, there was also the asigmatic aorist, including the root and ablauted aorist in Ancient Greek (see § 2.1.1). The Latin verb system had changed, however it was characterized by a clear distinction between the perfectum and infectum stems. The formal stem distinctions inherited from PIE had been obscured in Ancient Slavic. A similarity in formation patterns between the aorist and imperfect categories is attested in all conjugations of Ancient Slavic, as shown below. An unusual characteristic of the Ancient Slavic imperfect category is a sigmatic morpheme historically shared with the sigmatic aorist. In the sigmatic aorist, the morpheme {s} is represented by three allomorphs: /s/, /x/ and /š/ (phonological details related to this morphological alternation will be addressed later). In the imperfect, only two allomorphs, /š/ and /x/, are attested.

The present, aorist and imperfect paradigms are represented in five distinct verb classes following Kul'bakin (1948) and Schmalstieg (1976).

Class 1

A general characteristic of this class is the present stem in *-e/o-*. There is a subdivision into two classes based on the distinction of the infinitive stems. The verbs of this class could either have an infinitive stem which equals the root, or an infinitive stem which ends in a suffix *-a-* (Kul'bakin 1948:156).

Table 3

Class 1 - Subclass 1

Verbs with the infinitive stem equal to the root

nes-ti 'to carry'

Present

Singular	Plural	Dual
1. nes-ŏ	nes-emʉ	nes-evě
2. nes-eši	nes-ete	nes-eta
3. nes-etʉ	nes-ŏtʉ	nes-ete

Old Sigmatic Aorist

1. něs-ʉ	něs-omʉ	něs-ově
2. nes-e	něs-te	něs-ta
3. nes-e	něs-ē	něs-te

New Sigmatic Aorist

1. nes-o-x-ʉ	nes-o-x-omʉ	nes-o-x-ově
2. nes-e	nes-o-s-te	nes-o-s-ta
3. nes-e	nes-o-š-ē	nes-o-s-te

Imperfect

1. nes-ča-x-ʉ	nes-ča-x-omʉ	nes-ča-x-ově
2. nes-ča-š-e	nes-ča-š-ete	nes-ča-š-eta
3. nes-ča-š-e	nes-ča-s-tõ	nes-ča-š-ete

Table 4

Class 1 - Subclass 2

Verbs with the infinitive stem with the suffix -a-

zʉv-a-ti 'to call'

Present

Singular	Plural	Dual
1. zov-õ	zov-emʉ	zov-evě
2. zov-eši	zov-ete	zov-eta
3. zov-etʉ	zov-õtʉ	zov-ete

Sigmatic Aorist

1. zʉv-a-x-ʉ	zʉv-a-x-omʉ	zʉv-a-x-ově
2. zʉv-a	zʉv-a-s-te	zʉv-a-s-ta
3. zʉv-a	zʉv-a-š-ě	zʉv-a-s-te

Imperfect

1. zʉv-aː-x-ʉ	zʉv-aː-x-omʉ	zʉv-aː-x-ově
2. zʉv-aː-š-e	zʉv-aː-š-ete	zʉv-aː-š-eta
3. zʉv-aː-š-e	zʉv-aː-x-õ	zʉv-aː-š-ete

Alternative (more recent) formations

1. zov-ča-x-omʉ	zov-ča-x-omʉ	zov-ča-x-ově
2. zov-ča-š-e	zov-ča-š-ete	zov-ča-š-eta
3. zov-ča-š-e	zov-ča-x-õ	zov-ča-š-ete

Class 2

The verbs of this class have a present stem in *-ne-* and the infinitive/aorist stem in *-nō-*. The verbal root could end either in a consonant, e.g. *dvig-nō-ti* 'to move', or in a vowel, e.g. *mi-nō-ti* 'to pass' (Kul'bakin 1948:166).

Table 5

Verbs with the root in a vowel

minō-ti 'to pass'

Present

Singular	Plural	Dual
1. min-ō	min-emu	min-evě
2. min-eši	min-ete	min-eta
3. min-etu	min-ōtu	min-ete

Sigmatic Aorist

1. min-ō-x-u	min-ō-x-omu	min-ō-x-ově
2. min-ō	min-ō-s-te	min-ō-s-ta
3. min-ō	min-ō-š-ě	min-ō-s-te

Imperfect

1. min-ěa-x-u	min-ěa-x-omu	min-ěa-x-ově
2. min-ěa-š-e	min-ěa-š-ete	min-ěa-š-eta
3. min-ěa-š-e	min-ěa-x-ō	min-ěa-š-ete

dvignōti 'to move'

Present

1. dvig-n-ō	dvig-n-emu	dvig-n-evě
2. dvig-n-eši	dvig-n-ete	dvig-n-eta
3. dvig-n-etu	dvig-n-ōtu	dvig-n-ete

Sigmatic Aorist

1. dvig-o-x-ʉ	dvig-o-x-omʉ	dvig-o-x-ově
2. dviž-e	dvig-o-s-te	dvig-o-s-ta
3. dviž-e	dvig-o-š-ē	dvig-o-s-te

Imperfect

1. dvig-n-ča-x-ʉ	dvig-n-ča-x-omʉ	dvig-n-ča-x-ově
2. dvig-n-ča-š-e	dvig-n-ča-š-ete	dvig-n-ča-š-eta
3. dvig-n-ča-š-e	dvig-n-ča-x-ō	dvig-n-ča-š-ete

Class 3

This class of verbs is characterized by the present stem in -*je/jo*-. These verbs

could be divided into two subclasses. In the first subclass the present stem differs from

the infinitive stem in the suffix -*je/jo*-. The verbs of the second subclass add the suffix

-*a*-, which is missing in the present stems (Kul'bakin 1948:168).

Table 6

Verbs with the present stem in -je/jo-

Subclass 1

zna-ti 'to know'

Present

Singular	Plural	Dual
1. zna-j-ō	zna-j-emʉ	zna-j-evě
2. zna-j-eši	zna-j-ete	zna-j-eta
3. zna-j-etʉ	zna-j-ôtʉ	zna-j-ete

Sigmatic Aorist

1. zna-x-ʉ	zna-x-omʉ	zna-x-ově
2. zna	zna-s-te	zna-s-ta
3. zna	zna-š-ē	zna-s-te

Imperfect

1. zna:-x-ʉ	zna:-x-omʉ	zna:-x-ově
2. zna:-š-e	zna:-š-ete	zna:-š-eta
3. zna:-š-e	zna:-x-ō	zna:-š-ete

Subclass 2

glagol-a-ti 'to speak'

Present

1. glagol-j-ō	glagol-j-emʉ	glagol-j-evě
2. glagol-j-eši	glagol-j-ete	glagol-j-eta
3. glagol-j-etʉ	glagol-j-ōtʉ	glagol-je-te

Aorist

1. glagol-a-x-ʉ	glagol-a-x-omʉ	glagol-a-x-ově
2. glagol-a	glagol-a-s-te	glagol-a-s-ta
3. glagol-a	glagol-a-š-ē	glagol-a-s-te

Imperfect

1. glagol-a:-x-ʉ	glagol-a:-x-omʉ	glagol-a:-x-ově
2. glagol-a:-š-e	glagol-a:-š-ete	glagol-a:-š-eta
3. glagol-a:-š-e	glagol-a:-x-ō	glagol-a:-š-ete

Class 4

According to Schmalstieg (1976:130), this class comprises the verbs with the infinitive stem in *-i-ti* and the verbs with the infinitive stem in *-ē-ti*.

Table 7

Verbs with the infinitive stem in -i-

mol-i-ti 'to beg'

Present

1. mol-j-ō	mol-imʉ	mol-ivě
2. mol-iši	mol-ite	mol-ita
3. mol-itʉ	mol-ětʉ	mol-ite

Sigmatic Aorist

1. mol-i-x-ʉ	mol-i-x-omʉ	mol-i-x-ově
2. *mol-i-s*	mol-i-s-te	mol-i-s-ta
3. mol-i	mol-i-š-ě	mol-i-s-te

Imperfect

1. mol-j-a:-x-ʉ	mol-j-a:-x-omʉ	*mol-j-a:-x-ově*
2. mol-j-a:-š-e	mol-j-a:-š-ete	mol-j-a:-š-eta
3. mol-j-a:-š-e	mol-j-a:-x-ō	mol-j-a:-š-ete

Table 8

Verbs with the infinitive stem in -ě-

vel-ě-ti 'to order'

Present

1. vel-j-ō	vel-imʉ	vel-ivě
2. vel-iši	vel-ite	vel-ita
3. vel-itʉ	vel-ětʉ	*vel-ite*

Sigmatic Aorist

1. vel-ě-x-ʉ	vel-ě-x-omʉ	vel-ě-x-ově
2. vel-ě	vel-ě-s-te	vel-ě-s-ta
3. vel-ě	vel-ě-š-ě	vel-ě-s-te

Imperfect

1. vel-ča-x-ʉ	vel-ča-x-omʉ	vel-ča-x-ově
2. vel-ča-š-e	vel-ě-š-ete	vel-ča-š-eta
3. vel-ča-še	vel-ča-x-ō	vel-ča-š-ete

Class 5

This class consists of five verbs: *jesmɨ* 'I am', *věmɨ*, *jamɨ* 'I eat', *damɨ* 'I give', *imamɨ* 'I have' (Kul'bakin 1948:180). According to Schmalstieg (1976:134) the verbs of this class are athematic; in the present tense forms there is no thematic vowel between the stem and the inflectional ending.

Table 9

Verbs with the athematic present

jas-ti[19] 'to eat'

Present

1. ja-mɨ	ja-mʉ	ja-vě
2. ja-si	jas-te	jas-ta
3. jas-tʉ	jad-ětʉ	jas-te

Aorist

1. jas-ʉ	jas-omʉ	jas-ově (jax-ove)
2. jas-tʉ	jas-te	jas-ta
3. jas-tʉ	jas-ě (jaš-ě)	jas-te

Imperfect

1. jad-ěa-x-ʉ	jad-ěa-x-omʉ	jad-ěa-x-ově
2. jad-ěa-š-e	jad-ěa-š-ete	jad-ěa-š-eta
3. jad-ěa-š-e	jad-ěa-x-ō	jad-ěa-š-ete

There is a general consensus that the verbal system of Ancient Slavic is based on the infinitive and present stems (Meillet 1934:275, Vaillant 1966:6, Schmalstieg 1976:104-6, Nikolić 1991:175). According to Meillet (1934:275) beside the system of the present, there is a system of the infinitive/aorist or rather system of the infinitive. The system of the present refers to the present forms, i.e. non-past imperfective forms (see Table 1).

The present forms of Ancient Slavic continue the morphology of PIE; they are formed by combining the present stems and the non-past inflection. However, the

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[19]The root final consonant -d is lost before the consonants -m and -v of inflectional endings. In the second person singular, *-d-s- is simplified to -s-. Before the inflectional endings with the initial -t, *-d dissimilates into -s (Schmalstieg 1976:136).

imperfect, i.e. imperfective in the past, is not any longer based on the present stems. It is generally agreed that both aorist and imperfect categories are based on the infinitive stems. Vaillant (1966:6) states that the infinitive stems serve as a base for the imperfect, aorist and the compound perfect. Both imperfect and aorist stems are by and large based on the infinitive stems; however, in certain conjugations the imperfect is based on the present stems. Formation patterns of the imperfect are summarized in the following paragraphs (see tables 3 - 8). The verbs of Ancient Slavic are represented by five classes with subcategories following Kul'bakin (1948) and Schmalstieg (1976).

We have seen that Class 1 is divided into two subclasses. The first subclass consists of verbs which have the infinitive stem equal to the root (Kul'bakin 1948:156). In this subcategory, all verb categories are formed from the root. Based on these verbs Meillet (1934:273) concludes that majority of the imperfect forms are ambiguous with respect to their formation; for example, it is difficult to determine if the imperfect *nesěaxŭ* is formed from the present *nes-ǫ* or the infinitive *nes-ti* 'carry'. This verb belongs to the first subgroup of the Class 1 verbs which have the infinitive stem equal to the root. In fact all categories of this verb type are based on the root. The second subclass comprises the verbs with the infinitive stem with the suffix -*a*-. According to Kul'bakin most of the imperfect forms of this subtype are based on the infinitive stems, e.g. *zьva:xь, kova:xь, žĭda:xь, tьka:xь* (1948:165). These forms however appear in the oldest texts of the Gospel (Codex Marianus - 11th century, Codex Zographensis 10-11th century); in later texts, Suprasliensis, some of these forms are remodelled on the present

stems, e.g. *zovĕaše* 516, *žepĕaxн* (*gнnati* - *ženð*). This type of remodelling represents a proportional or four-part type of analogy (covered by Kurylowicz's second law) which extends the imperfect formed from the present stem to other imperfect forms that were previously formed from the infinitive stem. In this instance the present stem is considered to be more basic than the infinitive stem. According to Hock (1991:212-8) the criterion for determining the more "basic" or "unmarked" grammatical feature derives from the "sphere of usage" provision; present tense forms are generally used more often than the infinitives. However, extension of the present stems in forming the infinitive in later stages of Ancient Slavic is not simply a proportional analogy which extends a more basic type of formation; there is a logical and systemic connection between the present and the imperfect forms since both express the imperfective aspect. The formal "rapprochement" of the present and imperfect is thus related to a functional connection of these two categories.

Class 2 verbs are characterized by the stem vowel -*e*- in the present forms, following the nasal suffix -*n*-. The thematic vowel -*e*- corresponds to the -*o*- of the aorist and infinitive stems, i.e. -*ne*- of the present systems corresponds to -*nð*- of the aorist/infinitive system. The imperfect forms of this class are based on the present stems, they have a characteristic present thematic vowel -*ĕ*- and the -*a*- extension characteristic of the imperfect forms, e.g. IMPERF *minĕaxн* 'I was passing' cf. AOR *minðxн* 'I passed', PRES *minð* 'I pass'.

We have seen that Class 3 is characterized by the suffix -*j*- in the present forms. As shown in Table 9, present forms in the first subclass have a characteristic suffix -*j*- which is absent in the infinitive system. This suffix may appear in infinitive forms of some verbs, e.g. *dajati*. In this class imperfect forms may have a characteristic suffix -*a*-, as in the first subclass, e.g. IMPERF *zna:xʉ* 1SG from *znati* 'to know'. Regardless of the subclass, -*j*- is sometimes present in the imperfect forms. While the aorist forms are always based on the infinitive stems, the formation of the imperfect is not so clear, as shown in the following examples (examples of the verb categories are in the 1st person singular forms).

Table 10

Class 3

subclass 1	zna-ti 'to know'	kry-ti 'to hide'
Present	zna-j-ō	kry-j-ō
Aorist	zna-x-ʉ	kry-x-ʉ
Imperfect	zna:-x-ʉ	kry-j-a:-x-ʉ
subclass 2	darova-ti 'to give'	umě-ti 'to understand'
Present	daru-j-ō	umě-j-ō
Aorist	darova-x-ʉ	umě-x-ʉ
Imperfect	darova:-x-ʉ	umě-j-a-x-ʉ

According to Schmalstieg (1976:129) the verb *uměti* 'to understand' belongs to the third subcategory; it is characteristic in that it has -*ě*- in both present and infinitive systems.

In the first subgroup of Class 4, the imperfect formation is unclear. The long vowel -*a:*- or -*a*- appears in the imperfect forms, while -*a*- is missing both in the present and aorist/infinitive forms. The imperfect forms of the second subclass are based on the aorist/infinitive stems, with the characteristic thematic extension -*a*-, as in the following examples.

Table 11

Class 4

subclass 1	mol-i-ti 'to ask'	xod-i-ti 'to go'
Present	mol-j-ō	xožd-ō (< *xod-j-ō)
Aorist	mol-i-x-ъ	xod-i-x-ъ
Imperfect	mol-j-a:-x-ъ	xožd-a:-x-ъ
subclass 2	vel-ě-ti 'to order'	slyša-ti 'to hear'
Present	vel-j-ō	slyš-ō
Aorist	vel-ě-x-ъ	slyš-a-x-ъ
Imperfect	vel-ěa-x-ъ	slyš-a:-x-ъ

Class 5 consists of five verbs only, all of which have imperfect forms based on the present stems, e.g. INF *dati* 'to give', PRES *dadětъ* 'they give', AOR *daxъ* 'I gave', *dašě* 'they gave', IMPERF *daděaxъ* 'I was giving', *daděaxō* 'they were giving', Schmaltieg (1976:138). See also Table 8 for complete paradigms of the verb *jasti* 'to eat'.

The fact that the imperfect forms are sometimes based on the present stems is generally acknowledged. Meillet (1934:273) points out that some imperfect forms based on the present stems are anomalous, attested only in the most ancient texts of the Gospel

(Codex Marianus and Zographensis) from the 10th and 11th century, e.g. IMPERF *idĕaxъ* 1SG of PRES *idō* 1SG - INF *iti* 'to go'; IMPERF *živĕaxъ* 1SG of PRES *živō* 1SG - INF *žiti* 'to live'. Also in the later texts there was a tendency to bring the imperfect category closer to the present stem (proportional analogy, Kuryłowicz's 2nd law). For example, the earlier imperfect form *zūva:xъ* which was based on the infinitive stem *zūvati* 'to call' was replaced by *zovĕaxъ* based on the present stem of *zovō* 'I call' (Meillet 1934:273, also Vaillant 1966:68). Vaillant (1966:68) states that the subsequent remodelling of the imperfect based on the present stem pertains to the imperfective function of both forms. Apart from these forms that developed in the later stages, the fluctuation of the imperfect formation between the present and infinitive stems reveals the probable[20] Common Slavic imperfect formation as based on present stems, cf. Ancient Greek and Vedic Sanskrit.

We have seen that the imperfect forms are more often based on the infinitive stems (Class 1 - Subclass 2 and Class 4 - with two subclasses, majority of formations in class 3, as summarized in table 12). Imperfect forms are clearly based on present stems only in Cojugation 2 (IMPERF *dvignĕaxъ* 1SG, PRES *dvignō* 1SG from *dvignōti* 'move')[21]. As shown in the paragraph above, imperfect forms formed from the present stems either represent relics of the formation pattern of late PIE (e.g. *idĕaxъ* 1SG from *iti* 'to go') or subsequent remodelling of the imperfect based on the present with which

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[20]reconstructed

[21]See the Table 5 for complete paradigms

it shares the imperfective function (e.g. *zovèaxʉ* 1SG from *zʉvati* 'to call'). It was also shown that the imperfect forms of verb Class 5 are based on present stems. This class however consists of only five verbs, compared to a more general productive formation based on the infinitive stems. Sometimes it is difficult to tell whether the imperfect forms are based on the present or the infinitive stem, as in Class 1.

The imperfect in most cases shares the infinitive stem with the aorist. The imperfect forms are distinct however in having an additional thematic vowel. As shown in Table 11, the imperfect forms have an additional thematic vowel -*a*- compared with the aorist forms in Classes 2, 3, and the second subgroup of Classes 1 and 4 (see table 14 for complete paradigms).

Table 12

**Verbs with the aorist and imperfect
based on the infinitive**

Class 1 - subgroup 2

zʉva-ti 'to call'

present - zov-ǫ̃   aorist - zʉv-a-x-ʉ   imperfect - zʉv-a:-x-ʉ
                                            (zʉv-a-a-x-ʉ)

Class 3 - subgroup 1

zna-ti 'to know'

present - zna-j-ǫ̃   aorist - zna-x-ʉ   imperfect - zna:-x-ʉ (zna-a-x-ʉ)

subgroup 2

glagola-ti 'to speak'

present - glagol-jǫ̃   aorist - glagola-x-ʉ   imperfect - glagol-a:-x-ʉ
                                                    (glagol-a-a-x-ʉ)

Class 4 - subgroup 2

velě-ti 'to order'

present - vel-jǫ̃   aorist - velě-x-ʉ   imperfect - vel-ěa-x-ʉ

Verbs in -*iti* belonging to the first subgroup of Class 4 have the aorist thematic vowel in
-*i*- corresponding to -*j*- of the imperfect. The long vowel *a:* is the result of analogy with
Classes 1 (subgroup 2) and 3.

Class 4 - subgroup 1

mol-i-ti 'to ask, beg'

present - mol-jǭ   aorist - mol-i-x-ʉ
imperfect - mol-j-a:-x-ʉ (*mol-i-a-xʉ > moljaxʉ)

Verbs in Class 5 and the first subgroup of Class 1 have the root present and aorist forms
and the imperfect forms with the thematic extension -ěa-.[22]

Table 13

Verbs with the present, aorist and imperfect
based on the root

Class 1 - subgroup 1

nes-ti 'to carry'

present - nes-ō   aorist - nes-o-x-ʉ   imperfect - nes-ěa-x-ʉ

Class 5

jas-ti 'to eat'

present - ja-m-ɨ   aorist - ja-sʉ   imperfect - jad-ěa-x-ʉ
     (< *jad-mɨ)   (< *jad-sʉ)

The following paradigms show this distinction between the aorist and imperfect formation
of the Class 1 (second subgroup) verbs. In the imperfect forms there is an additional
thematic vowel -a-, which results in the vocalic length distinction between the two types
of stems.

Table 14

Class 1, subgroup 2

znati 'to know'

		Aorist	Imperfect
Singular	1.	znaxʊ	zna:xʊ
	2.	zna	zna:še
	3.	zna	zna:še
Plural	1.	znaxomʊ	zna:xomʊ
	2.	znaste	zna:šete
	3.	znašě	zna:xõ
Dual	1.	znaxově	zna:xově
	2.	znasta	zna:šeta
	3.	znaste	zna:šete

Another striking similarity of the imperfect and aorist forms in Ancient Slavic is represented by the historically shared sigmatic inflection. According to Vaillant (1966:64) the imperfect sigmatic inflection is thematic as opposed to the athematic aorist inflection and is generally based on the same sigmatic morpheme {s} which has three allomorphic variants /s/, /x/ and /š/. As noted earlier, all three allomorphs appear in the sigmatic aorist paradigms, while only two allomorphs, /x/ and /š/, are present in the imperfect paradigms. Although only two allomorphs, /x/ and /š/ are shared by these two categories in Ancient Slavic, we may assume a full allomorphic range (/s/, /x/, and /š/) represented by a shared morpheme {s} in Common Slavic. The allomorphic variation /s/, /x/ and /š/ is attributed to the so-called RUKI rule. According to Hock (1991:442) the RUKI rule, whereby s changes into š in the environment following r, high vowels u

and *i* and a velar stop, operated at the unattested stages of Slavic (besides Indo-Iranian and Baltic). RUKI did not convert *s* into *š* if followed by an obstruent, e.g. A. Sl. *prustu* 'finger'. Furthermore in Slavic, the RUKI-*š* changes into *x* (see also Schmalstieg 1976:37).[22]

Apart from the RUKI rule, palatalization of *s* took place in Ancient Slavic before front vowels. These phonological changes have consequences for the aorist and imperfect paradigms. We may observe the conditioned variation of the morpheme {*s*} both in the aorist and imperfect, i.e. *s* before *t* in the aorist, the palatalized *š* before the front thematic vowel in the imperfect paradigm and *x* before a back vowel (see tables 3 - 9).

Vaillant (1966:64) and Gardiner (1984:77) point to distinctions in sigmatic inflection between the aorist and imperfect. The sigmatic marker is missing in the 2nd and 3rd person singular of the aorist paradigm. Schmalstieg (1976:105) claims that the 2nd and 3rd person singular aorist forms are etymologically "strong" aorists.[23] The "sigmatic" marker is however present in the 2nd and 3rd person singular of the imperfect paradigm and precedes the thematic vowel. The inflectional thematic vowel *-e-* appears in the 2nd person plural and 2nd and 3rd dual. There is also a distinction in the 3rd person plural, i.e. aorist *-še*, and imperfect *-xŏ*.

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[22] The effects of RUKI in Ancient Slavic are beyond the scope of this thesis and thus not discussed in detail.

[23] The term "strong" is used for the athematic or root aorist.

As argued in § 4.5.2 formal similarities between the aorist and imperfect represented one of the important factors for the grammaticalization of Aktionsart. We have also seen in Chapter I that the sigmatic marker was a characteristic of the aorist stem only, in late PIE. The extension of the sigmatic marker to the imperfect forms is an intriguing issue. The origin of the innovated imperfect formation will be investigated in § 4.8.

There were three types of aorists in Ancient Slavic. As in other I-E languages there was a basic distinction between asigmatic and sigmatic aorist forms. As shown in Chapter I, the asigmatic aorist, i.e. ablauted, or the strong aorist type, historically precedes the sigmatic aorist. In Ancient Slavic there was also a distinction between the older and more recent aorist types. Paradigms for the three types of aorists are provided in Table 15.

Table 15

Three types of aorist

Strong (Root) Aorist

iti 'go'

	Singular	Plural	Dual
1st	idu (< *id-om)	idomu	idově
2nd	ide	idete	ideta
3rd	ide	idetȏ	idete(a)

The Old Sigmatic Aorist

nesti 'carry'

	Singular	Plural	Dual
1st	něsu (< *ne:s-s-om)	něsomu	něsově
2nd	nese	něste	něsta
3rd	nese	něsu	něste(a)

Productive Aorist (New Sigmatic Aorist)

nesti 'carry'

	Singular	Plural	Dual
1st	nesoxu(< *nes-os-om)	nesoxomu	nesoxově
2nd	nese	nesoste	nesosta
3rd	nese	nesošě	nesoste(a)

The strong asigmatic aorist represents the relic of the earlier PIE stages. According to Schmalstieg the I-E aorist had two variants, the root or athematic aorist and the thematic aorist. Beside the root aorist shown above, Ancient Slavic preserves the thematic aorist,

e.g. *(su-)tɨre* - 3SG from *-tru-ti* 'to rub' (Sever'janov 1904:11, 311 in Schmalstieg 1976:112). Preservation of these forms suggests earlier productivity in Common Slavic that preceded the rise of the sigmatic aorist. It also supports the hypothesis that the Common Slavic verbal system resembled that of Ancient Greek; specifically the asigmatic aorist forms were based on the root and the more recent sigmatic aorist forms were based on the sigmatic stems. Ancient Slavic has two types of sigmatic aorists. The old sigmatic aorist was productive in all types of verbs (Nikolić 1991:189). Lunt (1974:90) and Nikolić (1991:189) recognize two variants of the old sigmatic aorist, sigmatic aorists with the constant -*s*- and the -*x*-type with the morphological variants -*x/s/š*. The -*x*-type appears in the forms which have an infinitive stem with the final velar consonant, *g* or *k*.

Table 16

-x- aorist

vesti (*ved-) 'to lead'

Singular	Plural	Dual
věsu (<*ve:d-s-om)	věsomu	věsově
vede	věste	věsta
vede	věsě	věste

rešti (*rek-) 'to say'

Singular	Plural	Dual
réxu (<*re:k-s-om)[25]	réxomu	réxovu
reče	réste	résta
reče	rěšě	réste

The -x- variant diachronically follows the sigmatic aorist. The earliest -x- forms were derived from -s- according to the RUKI rule (see p.35).

Subsequently the -x- variant, which was phonologically appropriate only after r, u, k, i, was generalized in other environments (Vaillant 1966:49). Vaillant (1966:57) points out that Ancient Slavic still preserved the old sigmatic forms, as in jěsu 'I took', věsu 'I led', while it generalized the aorist in -x-, as in jěxu 'I took', vedoxu 'I led'.

> In the attested Slavic languages we find the analogical spread of x in many places where it cannot be justified phonologically. Likewise in the aorist we find vacillations between the forms where -s- is expected etymologically and the new forms into which a -x- has penetrated analogically (Schmalstieg 1976:38).

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[25]Based on the lengthened grade (cf. PRES Latin leg-o: 'I read', PERF le:g-i:).

Thus the verb *jěti* 'to take' has two variant aorist forms, the aorist with an etymological -*s*- following the nasal vowel and the more recent aorist in -*x*-:

Table 17

Aorist forms of jěti 'to take'

		-s- aorist	-x- aorist
Singular	1.	jěsʉ	jěxʉ
	2.	jětʉ	jětʉ
	3.	jětʉ	jětʉ
Plural	1.	jěsomʉ	jěxomʉ
	2.	jěste	jěste
	3.	jěsě	jěšě

(Schmalstieg 1976:113)

Note that in both variants 2nd and 3rd person singular preserve the forms of the archaic root aorist. As Nikolić (1991:187) states, asigmatic forms in these two persons are attested in all verbs with consonantal stems where the sigmatic forms had been repressed. At first the -*x*- aorist was characteristic only of the verbs with stem final vowel and -*k*. Subsequently this type of aorist was even further generalized to the stems with final consonants giving rise to the -*ox*- aorist, or new sigmatic aorist. Gardiner (1984:76) explains this analogical spread by the preponderance of the verbs with stems that have a final vowel relative to the stems with the final consonant. According to Gardiner (1984:76) and Nikolić (1991:94), -*o*- is added to the stem final consonant preceding the sigmatic marker *s/x/š*:

Table 18

Aorist forms with the stem final consonant

| old sigmatic aorist | | | new sigmatic aorist | | |

nesti 'to carry'

singular	plural	dual	singular	plural	dual
něsu	něsomъ	něsově	nesoxъ	nesoxomъ	nesoxově
nese	něste	něsta	nese	nesoste	nesosta
nese	něsǫ	něste	nese	nesošǫ	nesoste

rešti 'to say'

rěxъ	rěxomъ	rěxově	rekoxъ	rekoxomъ	rekoxově
reče	rěste	rěsta	reče	rekoste	rekosta
reče	rěšǫ	rěste	reče	rekošǫ	rekoste

The new sigmatic aorist became especially productive in the later stages of Ancient Slavic. It is not attested in the Codex Marianus, and Glagolita Clozianus; there are very few occurrences of the new sigmatic aorist in Euchologium Sinaiticum; it is more represented in the Evangeliarum Assemani; in the Codex Zographensis, there is an equal distribution between the old and new aorist forms; in the Sava Evangelium the asigmatic aorist forms co-occur with the new sigmatic aorist forms; the old sigmatic aorist had been mostly abandoned, except *rěxъ* 'I said'; the new sigmatic aorist is preponderant in the late Codex Suprasliensis (Nikolić 1991:194).

It was shown in this section that the imperfect forms in Ancient Slavic had come to resemble the aorist forms. Most imperfect forms were based on the infinitive/aorist stems; at the same time all of them (including the imperfect forms based on the present

stems) historically had a sigmatic marker. The origin of the sigmatic marker in Common Slavic is examined in 4.8. It was also shown that formal similarities represented one of the causative factors for the Aktionsart grammaticalization.

4.3.3 Perfect

Beside the major functional innovation, i.e. Aktionsart perfectivization which coincided with secondary imperfectivization[26], Ancient Slavic introduces a formal change in the representation of the perfect category. There are very few relics of the earliest type of the PIE perfect represented by the class of stative verbs, e.g. *vědě* 'I know', cf. Ancient Greek *oĩda*, Vedic *véda* (all from *woid-a*). These stative forms, however, are not normal perfect forms, which would represent the result of a past event. Rather, they represent a present state without reference to a past event. Ancient Slavic has no relics of the synthetically expressed reduplicated perfect category. The late PIE reduplicated perfect was replaced with the analytically expressed perfect which is formed by combining the auxiliary of the verb *be* and the resultative l-participle[27], e.g. *dalŭ jesmĭ* 'I have given'.

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[26]To be discussed in § 4.7

[27]Resultative l-participle is used only in perfect and pluperfect constructions which denote resultative aspect.

Table 19

Perfect forms

dati 'to give'

	Singular			Plural			Dual		
	M	F	N	M	F	N	M	F	N
1.	dal-ʉ,-a,-o jesmɨ			dal-i,-y,-a jesmʉ			dal-a,-ě,-ě jesvě		
2.	dal-ʉ,-a,-o jesi			dal-i,-y,-a jeste			dal-a,-ě,-ě jesta		
3.	dal-ʉ,-a,-o jestʉ			dal-i,-y,-a sõtʉ			dal-a,-ě,-ě jeste		

Tracing the origin of the Ancient Slavic analytic perfect is an intriguing but extremely complicated issue which is beyond the scope of this thesis. The formal, although not functional, ambivalence of the perfect is worth mentioning. Specifically, the peculiarity of the formation pattern lies in the use of the present tense form of the verb *be* and the resultative participle. The Ancient Slavic perfect clearly represents the active voice and it is generally used with transitive and intransitive verbs. The function of the Ancient Slavic resultative participle is difficult to determine from the modern Slavic point of view. The reason for this is the changed function of the Ancient Slavic analytic perfect in all modern Northern Slavic language into a past tense.[29] The resultative participle used in the Ancient Slavic analytic perfect changed into an active participle used in the analytic formations of the modern Slavic languages.

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[29]In § 5.4 (Chapter 5) it will be shown that the Ancient perfect has been changed into a past synthetic tense in several modern Slavic languages.

Both functions of the l-participle, resultative and active, have been recognized by the authors of the Old Church Slavic grammars. Regier (1977:167) and Gardiner (1984:84) recognize that the l-participle is an active participle, although used only in analytic formations. Schmalstieg and Gardiner define it as resultative participle, which clearly indicates a stative function. It is intriguing that Gardiner claims that it is also used as an adjective.

The Slavic l-participle may have an adjectival origin. According to Meillet (1934:263) the Slavic l-participle derives from the predicative participial type. That is to say, the Slavic past participle was not an ancient participle proper. In I-E there was a type of participle with a predicative function that was fairly wide-spread, but restricted to certain dialects, beside the purely adjectival type in *-no-* and *-to-*. This participle that originally had a predicative function is found in other I-E languages, however it acquired a real participial function in very few of them. It became productive in the perfect formation in Ancient Slavic, but not in Baltic. In Armenian, it has both active and passive function, e.g. PART *sireal* 'loved'. The traces of the l-participle are found in other languages where they function only as substantives and adjectives, e.g. Latin *cre.dulus* from *cre:do:* 'I believe', Greek *si:ge:los* from *si:gáo:* 'I am silent, I conceal' (Meillet 1934:263). Vaillant (1966:83) also points to an adjectival origin of the Slavic l-participle; specifically it is an adjectival form based on the verbal stem, cf. Latin *tremulus* 'the trembling one' from *tremo:* 'I tremble'. He also states that it becomes productive in the conjugational systems only in Armenian, Tocharian and Slavic. In

Slavic it also has an adjectival function, e.g. *o-kroglŭ* 'round' is related only to the substantive *krogŭ* 'circle'. With intransitive verbs, the *l*-participle could function both as a participle and adjective, e.g. *kysělŭ* 'fermented, sour' from *kysěti* 'ferment'. The adjectival use was restricted in Ancient Slavic as in Serbo-Croatian, however it became productive in Russian (Vaillant 1966:83).

Beside the resultative participles, Ancient Slavic had both active and passive participles. The Ancient Slavic system of participles is represented in the following Table, e.g. *nesti* 'to carry'.

Table 20

Participles

	Present	Past
	Imperfective	Perfective
Active	nes-ōšt-	nes-ŭš-
Passive	nes-om-	nes-en-

Resultative l-participle
nes-lŭ

The development of the Ancient Slavic analytic perfect in modern Slavic languages shows a recategorization of the resultative participle to an active participle. In these languages the analytic perfect of Ancient Slavic gradually acquired the past tense function. In particular, the Aktionsart perfectivization allowed for the past perfective function of the prefixed perfect forms. These forms represented the improved marking of perfectivity in relation to the late PIE aorist. Subsequently, the function of the aorist

becomes redundant. Meillet (1934:208) compares the development of the Ancient Slavic analytic perfect to that of French which increasingly comes to resemble the preterite. The aorist consequently becomes less useful and it gradually disappears in most modern Slavic languages. In a similar fashion the increasing use of the perfect, in particular the use of the unprefixed perfect, as a past tense ousts the imperfect category. Meillet (1934:274) claims that the imperfect becomes redundant, because the analytic perfects formed from the imperfective verbs expressed the same function. Loss of the aorist implies loss of the imperfect in all modern Slavic languages, except for Bulgarian, Macedonian and Upper Sorbian. Changes of the analytic perfect between Ancient Slavic and modern Slavic languages are discussed in § 5.4.

4.3.4 Future

Future time reference was expressed in several ways in Ancient Slavic. Present forms of the perfective verbs and several types of periphrastic constructions were used to express the future. Perfectivizing preverbs combined with the present stem and non-past inflection to form the future perfective, e.g. *pridõtu rimlene* 'the Romans will come' (Schmalstieg 1976:147). The nature of the aspectual future should be sought in the verb system of Ancient Slavic which was characterized by a two-way tense contrast between the past and non-past. Perfective aspect always denotes the end of the event time, which in the past represents past perfective events, and in the non-past represents the future. The aspectual future is explained by incompatibility of the grammaticalized

perfective aspect with the moment of speech, or present.[29] The perfective Aktionsart never expresses present events which are simultaneous with the moment of speech, although it may express habitual or iterative events in the non-past, as shown in § 4.5.3.

Periphrastic forms were based on present tense verbs, e.g. *iměti* 'to have', *xotěti* 'to want', *načęti*, *vьčęti* 'to begin', and the infinitive (Schmalstieg 1976:147-8, Dostál 1954:613). As Schmalstieg points out (1976:148), constructions based on *načęti*, *vьčęti* 'to begin' were rarely used to express future in Ancient Slavic, e.g. *ne brěšti vьčĭnetъ* 'he will neglect'. Constructions with *iměti* 'to have', and *xotěti* 'to want' combining with the infinitive are not so rare in OCS documents, e.g. *imate razuměti* 'you 2SG will understand' (Codex Zographensis, Matthew XIII 14), *xotětъ sъtvoriti* 'he will do' (Codex Zographensis, John VI 6).[30] They represent modal constructions that may be used for future time reference.

4.4 Aktionsart preverbs in Ancient Slavic

As shown in Chapters 2 (§ 2.2) and 3 (§ 3.2) Aktionsart preverbs in Classical Greek and Latin have a lexical aspectual function. This lexical aspectual function is related to the modified meaning of the simplex unprefixed form through the prefixation of the Aktionsart preverb. As opposed to the Aktionsart preverbs in Ancient Greek and Latin, Aktionsart preverbs in Ancient Slavic have a double functional role, i.e.

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[29] See § 4.3 for Valin's (1975) account of the aspectual future in Slavic.

[30] These examples are contextually represented in § 4.5.3.

lexical/semantic and grammatical. While the Classical Greek and Latin Aktionsart preverbs have only lexical aspectual functions, Ancient Slavic preverbs always result in the perfective aspect (derived imperfectives represent an exception, see § 4.7). As in Ancient Greek and Latin, Aktionsart preverbs express various types of lexical aspectual function: punctual, completive, realized, telic and inceptive (following Friedrich 1978: 135).[31] Aktionsart preverbs in Ancient Slavic do not express durative function. In each instance, lexical aspectual functions are grammaticalized as perfective, as opposed to Ancient Greek and Latin.[32] Grammaticalized function refers to the consistent aspectual contrasts within the verb system itself. Aktionsart preverbs express perfective aspect both in the past and the non-past. In the non-past, Aktionsart preverbs are used for future time reference.

Aktionsart prefixation most often results in modifications by adding the adverbial or prepositional meaning to the basic verb stem, especially with the verbs of motion. Various Aktionsart functions, all of which are grammaticalized as perfective in Ancient Slavic, are represented in the following examples.

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[31]See § 2.2 for definitions of these Aktionsart functions

[32]Except for the secondary or derived imperfectives, to be discussed in § 4.6 and 4.7

238

Aktionsart forms in Ancient Slavic[33]

Punctual

do 'up to, to, as far as, until'

žĭdati IMPFV 'to await, expect, wait for, look around for'
dožĭdati PFV 'to hold out; to wait for, until'

iti IMPFV 'to go'
doiti PFV 'to arrive at, reach, overtake, come upon, find'

nesti IMPFV 'to carry, wear, bear, take, bring, convey'
donesti PFV 'to bring, carry to a place; to carry, take, convey hither'

Completion

vy (verbal prefix) 'from, of, through, for, in, out of, by'

vrěšti IMPFV 'to throw, hurl, cast, fling out, throw away'
vyvrěšti PFV 'to cast, throw away (to the wind), reject'

gŭnati IMPFV 'to drive, chase out, away, from, expel, search for, pursue'
vygŭnati PFV 'to drive out, expel, banish; to persecute'

pro (verbal prefix) - 'through (of completion)'[34]

glagolati IMPFV 'say, speak, preach, boast, tell, converse, talk, speak, refer to, call'
proglagolati PFV 'to begin to speak; to speak out, express, speak eloquently'

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[33]Verb entries are taken from *Material towards the Compilation of a Concise Old Church Slavonic - English Dictionary*, by T.A. Lysaght, 1978, Victoria University Press, Wellington and *Handwörterbuch Zu Den Altkirchenslavischen Texten*, by L. Sadnik and R. Aitzetmüller, 1955, Carl Winter Universitätsverlag, Heidelberg.

[34]*Pro* does not function independently as a preposition or an adverbial, i.e. its lexical meaning is bleached and it functions only as the perfective marker with the completive Aktionsart.

zъvati IMPFV 'to cry out, shout, to call, to invite'
prozъvati PFV 'to name, call, mention by name'

iti IMPFV 'to go'
proiti PFV 'to cross, pass, pass through, come to an end'

u - 'at, near, by, among, amidst, to, up to, towards'

běditi IMPFV 'to force, oblige, compel, urge, persuade'
uběditi PFV 'to prevail (upon someone), to give someone no choice'

moliti (sě) IMPFV 'to ask something of someone'
              (sě) - 'to implore, pray, to beg'
umoliti PFV 'to ask for, beg, to pray, to take pity upon, to entice, persuade'

Realization

na 'on, onto, in, into, towards, against'

iti IMPFV 'to go'
naiti PFV 'to come upon, rise above, fall upon, attack, seize,
              to come upon, happen, to find'

ostriti (sě) IMPFV 'to sharpen, quicken, provoke, arm'
naostriti PFV 'to sharpen, whet'

saditi IMPFV 'to plant, till, cultivate'
nasaditi PFV 'to cultivate, lay out, plant: fig. to settle, give a home to'

razъ - (verbal prefix) 'passing through, separation,
              conflict or intensification'[33]

vrěšti IMPFV 'to throw, hurl, cast, throw away'
razvrěšti PFV 'to betray, ruin, to scatter, disperse; to violate, outrage, injure'

točiti IMPFV 'to flow, pour out, spill; to rage, roar'
rastočiti PFV 'to spread, scatter, waste, squander, dissipate'

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[33]*Raz* does not function independently as a preposition or an adverb.

Telic

vъ - 'into, in, at'

gnězditi sě IMPFV 'to build a nest, to take up abode'
vъgnezditi sě PFV 'to settle oneself in a place, settle down, to make a nest in'

nesti IMPFV 'to carry, wear, bear, take, bring, convey'
vъnesti PFV 'to bring in, carry in, lead in; to enter'

vrěšti IMPFV 'to throw, hurl, throw away'
vъvrěšti PFV 'to throw, hurl, pitch, drop into'

nizu 'down, downward(s); down there, below, beneath'

vrěšti IMPFV 'to throw, hurl, cast, fling out, throw'
nizъvrěšti PFV 'to cast or throw down; to bring someone down,
            to bring someone low'

iti IMPFV 'to go'
nizъiti PFV 'to descend (from), come down'

po 'over, in'

vrěšti IMPFV 'to throw, hurl, cast, fling out, throw away'
povrěšti PFV 'to throw, fling down, to cast, throw away'

iti IMPFV 'to go'
poiti PFV 'to walk along, go, pass, proceed, advance'

podъ 'under, underneath'

iti IMPFV 'to go'
podъiti PFV 'to go in underneath anything, come, go in'

paliti IMPFV 'to burn (trans. and intrans.)'
podъpaliti PFV 'to set a flame from underneath, to inflame'

ryti IMPFV 'to dig'
podъryti PFV 'to undermine, to dig through; to break (a hole) through'

pri 'near, about, at, by'

vrěšti IMPFV 'to throw, hurl, cast, fling out, throw away'
privrěšti PFV 'to throw, fling down, cast upon, put down'

žiti IMPFV 'to live, exist, stay, reside, animate'
prižiti PFV 'to beget, procreate, to bear, give birth to'

zuvati IMPFV 'to cry out, shout, to call, to invite'
prizuvati PFV 'to summon, call, invoke, call on, fetch'

prě - 'before, in front of'

iti IMPFV 'to go'
prěiti PFV 'to pass, go by; to cross or pass over, elapse'

nesti IMPFV 'to carry, wear, bear, take, bring, convey'
preněsti PFV 'to convey (objects), to bring, carry,
transport, transfer, to move, to change into'

su - 'from (of), since, because, up to, instead of,
long, onto, with, together with, near, by'

zuvati IMPFV 'to cry out, shout, call, invite'
suzuvati PFV 'to call together, summon'

nesti IMPFV 'to carry, wear, bear, take, bring, convey'
sunesti PFV 'to bring down from above'

Aktionsart preverb *su* is usually telic. Depending on the meaning of the simple verb to

which it is attached, it may also express completion.

dělati IMPFV 'to work, toil, act, do'
sudělati PFV 'to make, produce, effect, do, perform, accomplish, achieve, fulfil'

Inceptive

vuz 'for, instead of, in compensation for'
as a prefix 'upwards, up, on high, back, otherwise, rather'

bojati sě IMPFV 'to be afraid, to fear'
vuzbojati sě PFV 'to become afraid, to be overcome with awe'

veličiti sě IMPFV 'to exaggerate (in size), extol, praise'
vuzveličiti sě PFV 'to do something great, to make great,
       to lift up against, to extol, praise'

glagolati IMPFV 'to say, speak, preach, boast, tell, converse, talk,
       speak, refer to, call'
vuzglagolati PFV 'to speak (in conversation, in tongues),
       to tell, say, talk of, to speak out'

iti IMPFV 'to go'
vuziti PFV 'to go up, rise; to climb, mount, come up'

za - 'by, in, across, instead of, for, because of'

graditi IMPFV 'to fence in, inclose, to build, found'
zagraditi PFV 'to bar, block up, to stop up, close (way)'

paliti IMPFV 'to burn'
zapaliti PFV 'to light, kindle'

iti IMPFV 'to go'
zaiti PFV 'to set (heavenly bodies), deviate, digress, pass, depart, leave'

iz 'out, out of, from out of, forth'

glagolati IMPFV 'to say, speak, preach, boast, tell, converse, talk, speak,
       refer to, call'
izglagolati PFV 'to declare, utter, speak, say'

iti IMPFV 'to go'
iziti PFV 'to go out, leave, go forth; to flow out'

nesti IMFV 'to carry, wear, bear, take, bring, convey'
iznesti PFV 'to bring out; to bear, yield, produce'

> o - 'in the course of, concerning, regarding, about,
> around, against, with, by, through'

ženiti sě IMPFV 'to marry, get married'
oženiti PFV 'to seek or promise in marriage, betroth'
-(se) 'to marry, take to wife'

žiti IMPFV 'to live, exist, stay, reside, animate'
ožiti PFV 'to return back to life, to revive'

Generally the meaning of the preverb is clearly expressed in the overall meaning of the derivative, as was shown in the examples above. However, there are cases where the Aktionsart preverb does not add the adverbial or prepositional meaning to the simple verb, but simply intensifies its fundamental meaning (as shown in the following examples). The intensified meaning of the derivative refers to a more clearly defined meaning comparing to the simple or unprefixed counterpart.

těsati IMPFV 'to try, test (someone); to question (someone)'
vustěsati PFV 'to ask, question, interrogate;
spec. to judge; to demand, claim, require'

xotěti IMPFV 'to want, wish, desire, will'
vusxotěti PFV 'to want, like; to wish, desire, covet;
to crave, long for; to deign, be pleased'

praviti IMPFV 'direct, guide; to accompany'
napraviti PFV 'to set right, direct, guide, arrange, rule, prepare'

There are also cases where the meaning of the Aktionsart preverbs is bleached and they no longer exist as fully autonomous semantic entities. These Aktionsart preverbs function then as perfective markers.

diviti sĕ IMPFV 'to be surprised (at), wonder (at), to be astonished, amazed (at)'
vъzdiviti sĕ PFV 'to be astonished, surprised (at); to wonder (at)'

slaviti IMPFV 'to praise, glorify, extol, magnify, revere'
vъslaviti PFV 'to glorify, bring honour to'

prositi IMPFV 'to beg, request, ask for, demand'
isprositi PFV 'to beg, request, ask for, demand'

čistiti IMPFV 'to clean, cleanse, purify'
očistiti PFV 'to clean, purify'

krasiti IMPFV 'to adorn, decorate, embellish'
ukrasiti PFV 'to order, arrange, adorn, embellish'

gnĕzditi sĕ IMPFV 'to build a nest, to take up abode'
ugnĕzditi sĕ PFV 'to build a nest'

In some cases a preverb which forms the perfective derivative acquires a highly abstract meaning after having amalgamated with the stem, e.g. *byti* IMPFV 'to be'/*izbyti* PFV 'to remain, exceed', in other words, 'to surpass the previous state of existence, keep existing'; *gladiti* IMPFV 'to stroke'/*izgladiti* PFV 'to adorn, decorate, attire'.

It was shown that in Ancient Greek (§ 2.2) and Latin (§ 3.2) Aktionsart preverbs have only lexical aspectual function. These functions do not constitute essential grammatical contrasts within the verb systems of Ancient Greek and Latin. The aorist category in Ancient Greek and the perfectum in Latin express grammatical aspectual functions. On the other hand, in Ancient Slavic Aktionsart preverbs have a main grammatical function (it will be shown in § 4.6 that perfectivity may also be inherent, expressed by the lexeme e.g., *dati* 'to give', or by the nasal suffix *-nŏ-*, *-ne-*, e.g. *minŏti* 'to pass'). Aktionsart preverbs always indicate perfective events whether in the past or

non-past, if not imperfectivized by suffixes. Even the inchoative and intensifying preverbs acquire a primary aspectual function within the verb system of Ancient Slavic.

Grammaticalization of lexical aspect represents an innovation in the perfective aspect marking which replaces the late PIE and presumably Common Slavic aorist function. This functional recategorization results in the redundancy of the old aorist function. The Ancient Slavic verb system has seemingly contradictory categories, i.e. imperfective aorist and perfective imperfect (as discussed in § 4.2). Given that Ancient Slavic introduces a new way of perfective marking to a system which inherited three types of aspectual categories, i.e. imperfective, perfective and resultative, it is not surprising that it has seemingly contradictory categories such as imperfective aorist and perfective imperfect. The grammaticalization of preverbs subsequently led to a loss of the aorist category, except for Bulgarian, Macedonian and Upper Sorbian which preserve the double aspectual marking of Ancient Slavic.[x]

Before the Aktionsart grammaticalization, the aorist was a neutral category representing complete events. Explicit perfectivity depended on the lexical aspect, i.e. Aktionsart. With the grammaticalization of Aktionsart, aorist forms marked for lexical aspect (punctual, completive, realized, telic, inceptive) formed a systemic contrast with the aorist forms unmarked for lexical aspect. Aorist forms which were not marked for Aktionsart continued the neutral function of the late PIE aorist, cf. aorist function in

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[x]As will be shown in § 5.4 (Chapter 5), the reason for retaining the aorist and *imperfect is recategorization of the old perfect category as the inferential in Bulgarian* and Macedonian, but not in Sorbian.

Ancient Greek (§ 2.4.1). However, they acquire an imperfective function relative to the prefixed aorist forms which are unambiguously perfective. The perfective imperfect refers to the Aktionsart marked imperfect forms which have an iterative or habitual aspectual function. As will be shown in § 4.7, the Aktionsart marker restricts the imperfective function of the imperfect category. Ancient Slavic represents a transitional stage between late PIE and Modern Slavic with respect to aspect marking.

Before the grammaticalization of Aktionsart, preverbs expressed only lexical aspect, as in Ancient Greek and Latin. Beside the Aktionsart preverbs, lexical aspect could also be expressed by various morphological and semantic classes (to be discussed in § 4.6). Tracing of the parallel prefixation to the unattested Common Slavic stages, reveals a tendency of verbs to form lexical aspectual pairs. As argued in this thesis, an important lexical role for various morphological/semantic classes constitutes one of the favourable conditions for the grammaticalization of lexical aspect in general.

4.5 Function and usage of the verb categories in Ancient Slavic

Typologically, the Ancient Slavic verb system is similar to that of Ancient Greek. Three types of aspectual functions obtain both in the past and non-past, i.e. perfective, resultative and imperfective. Assuming that the verb system of late PIE resembled that of Ancient Greek[3] a number of changes relating to the morhosyntactic expression of

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[3]Except for a firm establishment of the perfective aspectual function in the non-past, i.e. sigmatic future, see Chapter 2

aspect/tense functions took place. In Ancient Greek aorist stems expressed complete events both in the past and non-past. Depending on the Aktionsart, i.e. the inherent aspectual function of the verb, or the contextual usage, the aorist could also explicitly denote perfectivity with a number of subtly distinct functions.

In Ancient Slavic, the aorist survives only in the past, representing complete events. As in Ancient Greek, perfective function of the aorist (specifically punctual, completive, realized, telic, inceptive etc.) depended on the Aktionsart or contextual usage. Ancient Slavic differs form Ancient Greek in that Aktionsart aspectual functions are grammaticalized replacing the earlier stem contrast.

Survival of a number of sigmatic future participles indicates the possible productivity of the aorist stems in the non-past in Common Slavic. The reconstructed systemic contrast of aorist stems, in the past and non-past was in Ancient Slavic replaced by perfective Aktionsart. The grammaticalization of Aktionsart, i.e. lexical aspectual function, is indicated by a consistent systemic-contrast both in the past and non-past. In the past, Aktionsart forms always denote perfectivity regardless of the minute distinction. The same type of function is expressed by the Aktionsart non-past forms used for future time reference. In combination with the future forms, Aktionsart often refers to habitual and iterative events. Aktionsart also combines with the perfect periphrastic constructions.[38] There is no functional distinction between the perfect in Ancient Greek

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[38]Reduplicated perfect forms of late PIE (cf. Ancient Greek and Vedic) were replaced by the perfect periphrastic constructions in Ancient Slavic.

and Ancient Slavic, except that Aktionsart is systematized in the perfect system of Ancient Slavic. Perfect forms are either marked for Aktionsart or not. Aktionsart perfect forms refer to the present result of past events, explicitly marked for perfectivity. Perfect forms based on the imperfective verbs simply represent present result of a past event.

4.5.1 Aorist

Neutral aorist forms/aorist unmarked for Aktionsart

The aorist forms unmarked for Aktionsart represent complete events without emphasizing the final point of the event (cf. aorist in Ancient Greek). Compared to the Aktionsart aorist forms which explicitly express the end of an event (regardless of the minute distinction in meaning), unmarked aorist forms are neutral.

Po sixu že ide (AOR) isusu. na onu polu morě tiveriadiska. 'After these things, Jesus **went** over the Sea of Galilee, which is the Sea of Tiberias' (Codex Zographensis, John VI 1).

vuzumu na nemiže ležaše i **ide (AOR)** vu domu svoï slavě boga. 'Having taken (the bed) on which he was lying, he **went** into the house praising the God' (Sava Evangelium 48b).

oni že imuše isusa vedošě (AOR) ku kaijafě arxiereovi. 'Having grabbed Jesus, they **lead** him to Caiaphas, the chiefpriest' (Sava Evangelium 97).

i **moliše (AOR)**[39] i vъsi běsi glagoljǫšte. posъli ny vъ sviniję da vъ ně vъnidemъ. 'And all the demons begged him, saying, "Send us to the swine, that we may enter them"' (Codex Marianus, Mark V, 12).

jasmъ (AOR) prědъ tobojǫ i **pixomъ (AOR)**... 'We ate and drank in your presence' (Codex Marianus, Luke XIII 26).

i **slyšaste (AOR)** i oba učenika glagoljǫštъ. i po isusě **idete (AOR)**. 'The two disciples listened to him speak, and they followed Jesus' (Codex Marianus, John I 37).

I vъ tretii denъ braku **bystъ (AOR)**[40] vъ kana galileiscěi. ʔ bě mati isusova tu. 'On the third day there was a wedding in Cana of Galilee, and the mother of Jesus was there' (Codex Marianus, John II 1).

Azъ že **usъnǫxъ** ʔ **supaxъ (AOR)**[41]: vъstaxъ jako gospodъ zastǫpitъ mję: 'I lay down and slept; I awoke for the Lord sustained me' (Psalterium Sinaiticum, Psalm 3 5).

Perfective aorist/aorist marked for Aktionsart

Aorist forms marked for Aktionsart may have a number of different functions depending on the lexical meaning of the verb and its contextual usage.

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[39] The aorist form *moliše* 'prayed' denotes a past complete event without the emphasis on the final point or termination; the final point of the event is expressed by the imperative form *posъli* 'send' and the present perfective *vъnidemъ* 'enter', both of which are marked for Aktionsart.

[40] The aorist form *bystъ* 'was' expresses a past complete event without the emphasis on the terminating point, stating that a wedding simply took place. This type of function is also denoted by the aorist form *bě* 'was'.

[41] The aorist *supaxъ* 'slept' denotes a complete past event undefined in terms of its end; this type of aorist function, unmarked for lexical aspect, may be compared with the inceptive function of the aorist *usъnǫxъ* 'lay down' and realized function of the aorist *zastǫpitъ* 'sustained'.

sějǫštjumъ ova ubo **padošę (AOR)**[42] pri pǫti. i **pridošę (AOR)** pticę nebesъskyję. i **pozobašę (AOR)**[43] ja. 'And as he sowed, some seed fell by the wayside, and the birds **came** and **devoured** them' (Codex Zographensis, Matthew XIII 4).

i **jьmъše ï izvedošę (AOR)**[44] iz vinograda. 'And having grabbed him, they **led him** out of the vineyard' (Sava Evangelium 46b).

Isusu roždъšju sę vъ vithleomě ijud(eiscěmъ) vъ dъni iroda cěsarě. se vlъsvi ot vъstokъ **pridošę (AOR)**[45] vъ jerusalimъ. 'When Jesus was born in Bethlehem of Judea, in days of the emperor Herodes, sorcerers **came** from the east to Jerusalem' (Codex Marianus, Matthew II 1).

i otъpuštъ narodъ **vъzide (AOR)**[46] na gorǫ edinъ pomolitъ sę. 'And having dismissed the crowd, he **went** onto the hill alone, to pray' (Sava Evangelium 40b).

i abie vъsь gradъ **izide (AOR)**[47] vъ sъrětenie isusu. 'And immediately, the whole city **went out** into the meeting with Jesus' (Sava Evangelium 36b)

slyšavъ že junoša slovo se **otide (AOR)**[48] pečalъnъ. 'The young man, having heard that word, **left** in mourning' (Sava Evangelium 45).

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[42]Expresses punctual function

[43]Aorist forms *pridošę* 'came' and *pozobašę* 'devoured' have realized function in this particular context, although the preverbs *pri* 'near, at' and *do* 'up to, to' generally have telic function (see § 4.4).

[44]Expresses telic function

[45]Expresses telic function

[46]Expresses telic function

[47]Expresses telic function

[48]Expresses terminative/completive function

reče (AOR)[49] že imъ viděxъ (AOR)[50] sotonō ěko mlъnijō sъ nebese padъša. 'And he said to them, "I saw Satan fall like lightning from heaven"' (Codex Marianus, Luke X, 18).

Glasɨmъ moimъ kъ gospodovi vozɨvaxъ (AOR)[51]: I uslyša (AOR)[52] mě otъ gorỹ světyjě...svojě: 'I cried to the Lord with my voice, and He heard me from His holy hill. Selah' (Psalterium Sinaiticum, Psalm 3 4).

Aorist forms with the inchoative or inceptive function denote the beginning of a new state. At the same time they are perfective as they emphasize completion of a past event.

šɨdъ že i umyvъ sě prozɨrěxъ (AOR). 'Having gone and washed, I received sight' (Codex Zographensis, John IX 11).

uslyšavъ že irodъ cěsarъ sъměte sě (AOR). i vsi jerusalimljane sъ nimъ. 'When the emperor Herodus heard these things, he was frightened, and all Jerusalem with him' (Codex Marianus, Matthew II 3).

i vъsta (AOR) i služaše emu. 'Then she arose and was serving them' (Codex Marianus, Matthew VIII 15)

iždivъšju že emu vъsě. bystъ (AOR) gladъ krěpokъ na straně toi. i tъ načětъ (AOR) lišiti sě. 'But when he had spent all, there arose a severe famine in that land, and he began to be in want' (Codex Marianus, Luke XV 14)

Aorist forms marked for Aktionsart may also contextually denote anteriority besides the inherent perfective function.

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[49] Expresses terminative/completive function

[50] Expresses realized function

[51] Expresses terminative/completive function

[52] Expresses realized function

Tu bo irodu. posulavu jětu ioana. i suvěza i. vu tĭmĭnici. irodijedy radi. ženy filipa bratra svoego. jako oženi sě (AOR)[53] ejõ. 'For Herod himself sent and laid hold of John, and bound him in prison for the sake of Herodias, his brother Philip's wife; for he **had married** her' (Codex Zographensis, Mark VI 17).

egda že pridõ (AOR)[54] samarěne ku nemu. molěaxõ i da bi prěbylu u nixu…'So when the Samaritans **had come** to Him, they begged Him to stay with them…' (Codex Marianus, John IV 40).

pride že paky isusu vu kana ga(li)lěõ. ideže **sutvori** (AOR)[55] otu vody vino. 'Thus Jesus came again to Cana of Galilee where he **had made** the water wine' (Codex Marianus, John IV 46).

4.5.2 Perfective participle

Perfective participles inherently express past perfective events and contextually anteriority in relation to other past events.

Vu tužde dnĭ išĭdu (PFV PART)[56] isusu iz domu sěděaše pri mori. **'Having gone out** of the house on the same day, Jesus sat (was sitting) by the sea' (Codex Zographensis, Matthew XIII 1).

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[53]The aorist *oženi sě* 'married' expresses a past perfective (specifically inceptive) event and contextually anteriority in relation to other perfective (realized) events expressed by the aorist forms, *posulavu* 'sent', *jatu* 'laid hold', and *suvěza* 'bound'.

[54]The aorist form *pridõ* 'had come' expresses perfectivity (specifically telicity) and at the same time anteriority in relation with the past imperfective event denoted by the imperfect *molěaxõ* 'were begging'.

[55]The aorist form *sutvori* 'had made' denotes perfectivity (realization) and contextually also anteriority in relation to another perfective event (telic) expressed by the aorist form *pride* 'came'.

[56]Perfective active participle *išĭdu* 'having gone out' denotes a past perfective (telic) event and contextually anteriority in relation to another past event expressed by the imperfect *sěděaše* 'was sitting'.

i **vъspěvъše (PFV PART)**[37] izidošę vъ gorǫ eleon‡skǫjǫ. 'Having sung a hymn, they went out to the Mount of Olives' (Codex Zographensis, Matthew XXVI 30).

viděvši (PFV PART)[38] že dzvězdǫ vъzradovašę sę radostiǫ velijeǫ dzělo. 'When they saw the star, they rejoiced with exceedingly great joy' (Codex Marianus, Matthew II 10).

slъša[a]vъše (PFV PART)[39] že učenici divlěaxǫ sę dzělo...
'When His disciples heard it, they were exceedingly amazed...' (Codex Marianus, Matthew XIX 25).

    Dative absolute constructions

    Perfective participles within dative absolute constructions also express anteriority

in relation to other past events.

Večeru že **byvъšju (PFV PART)**[60] [DAT ABS] vъzleže sъ oběma na desęte učenikoma. 'Now when evening had come, He sat down with the twelve' (Codex Zographensis, Matthew XXVI 20).

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[37]Perfective active participle *vъspěvъše* 'having sung' denotes a past perfective (realized) event and at the same time anteriority in relation with another past perfective (telic) event expressed by the aorist *izidošę* 'went out'.

[58]The perfective active participle *viděvši* 'having seen' denotes a past perfective (realized) event, which is anterior in relation with another past perfective (completive) event expressed by the aorist *vъzradovašę sę* 'rejoiced'.

[59]The perfective active participle *slъša:vъše* 'having heard' refers to a past perfective (realized) event, anterior to another past event (imperfective) expressed by the imperfect *divlěaxǫ* 'were amazed'.

[60]The perfective active participle *byvъšju* 'having been' expresses a past perfective (completive) event, as well as anteriority in relation with another past perfective (inceptive) event denoted by the aorist *vъzleže* 'sat down'.

Dьni že byvušu (PFV PART)[6] rožьstva irodova [DAT ABS]. plěsa dušti irodičdina po srědě i ugodi irodovi. 'But when Herod's birthday was celebrated, the daughter of Herodias danced before them and pleased Herod' (Codex Marianus, Matthew XIV 6).

As shown in § 4.5.1 and 4.5.2 perfective events in the past are expressed by the aorist forms and perfective participles. The aorist inherently expresses complete events, whereas the aorist marked for lexical aspect always denotes the end of an event represented by one of the Aktionsart functions proposed above. Perfective participles always refer to the past perfective events and contextually express anteriority in relation to other past events.

4.5.3 Future

The perfective function in Ancient Slavic obtains both in the past and non-past. The Aktionsart aorist form expresses perfective aspect in the past, whereas the Aktionsart present forms express perfective aspect in the non-past and are often used for future tim e reference. Aorist forms which are not marked for lexical aspect express complete events in the past; the same type of function is denoted by the present forms unmarked for Aktionsart.

Present or non-past forms marked for perfective Aktionsart are often used for future time reference. Aktionsart always denotes perfectivity i.e. the final point of the

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[6]The perfective active participle byvušu 'having been' within the dative absolute construction denotes a perfective (completive) event and the same time anteriority in relation to the past perfective events expressed by the aorist forms plěsa 'danced' (neutral) and ugodi 'pleased' (realized).

event time; consequently this type of function in the future is denoted by the non-past forms marked for Aktionsart. Perfective non-past forms in Ancient Slavic thus differ from the sigmatic future in Ancient Greek. We have seen that in Ancient Greek sigmatic stems inherently express complete events; whether or not a sigmatic future explicitly emphasizes perfectivity, is determined either by Aktionsart or contextual usage. In Ancient Slavic, Aktionsart non-past forms used for future time reference always express perfectivity represented by a number of minute distinctions in function.

i jadōštemu imu reče. amin+ glagoljō vamu. jako edinu otu vasu prědastu (FUT)[a] mě. 'Now as they were eating, He said, "Certainly, I say to you, one of you will betray Me"' (Codex Zographensis, Matthew XXVI 21).

Prosite i dastu sě (FUT) vamu. ištěte i obręštete (FUT). tlucěte i otvruzetu sě (FUT)[b] vamu. 'Ask, and it will be given to you; seek, and you will find; knock, and it will be opened to you' (Codex Marianus, Matthew VII 7).

Glagoljō že vamu jako munodzi otu vustoku i zapadu pridōtu (FUT)[c] 'And I say to you that many will come from east and west' (Codex Marianus, Matthew VIII 11).

se azu posuljō ang'elu moi prědu licemu tvoimu. iže ugotovitu (FUT)[c] pōt+ tvoi. 'Behold, I am sending My messenger before My face, who will prepare Your way before You' (Codex Marianus, Mark I 2).

sego radi i prěmōdrost+ božiě reče. posuljō (FUT) v+ ně proroky i apostoly. i otu nixu ubijōtu (FUT). i iždenōtu (FUT)[d]. 'Therefore the wisdom of God also said, "I will

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[a] Expresses realized function

[b] All future forms in this passage express realized function according to their Aktionsart and contextual usage.

[c] Expresses telic function

[d] Expresses completive function

send them prophets and apostles, and some of them they **will kill** and persecute,.." (Codex Marianus, Luke XI 49).

otъvěšta isusъ i reče imъ. razorite crъkvъ sijǫ. i trъmi dъnъmi vъzdvignǫ (FUT)[67] jǫ. 'Jesus answered and said to them, "Destroy this temple, and in three days I **will raise** it up"' (Codex Marianus, John II, 19).

i **razuměate** (FUT)[68] istinǫ. i istina svoboditъ (FUT)[69] vy. 'And you **shall understand** the truth, and the truth shall make you free' (Codex Marianus, John VIII 32).

Although the future is more often denoted by Aktionsart forms in the non-past,

imperfective verb forms in the non-past may also be used for future time reference. In

such cases future events are represented as complete, rather than completed or perfective.

In particular contexts, they may be interpreted as imperfective.

ne pъcěte sě ubo glagoljǫšte. čto jamъ (FUT) li čto piemъ (FUT). li čimъ odeždemъ sě (FUT). 'Therefore, do not worry, saying, "What **shall** we **eat**?" or "What **shall** we **drink**?" or "What **shall** we **wear**?"' (Codex Marianus, Matthew VI 31)

The future may also be expressed by the periphrastic constructions, composed of

the verb *iměti* 'have' in the present tense and the infinitive.

i sъbyvaetъ sě imъ. proročъstvo isaiaiino glagoljǫštee. sluxъmъ uslyšite. i ne imate razuměti (FUT). zъrěšte uzъrite. i **ne imate viděti** (FUT).[70] 'And in them the prophecy

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[66] All future forms in this passage denote realized function according to their Aktionsart and contextual usage.

[67] Expresses inceptive function

[68] Expresses inceptive function which implies beginning of a new state

[69] Expresses inceptive function

[70] Compare negated periphrastic constructions *ne imate razuměti* 'you shall not understand' and *ne imate viděti* 'you shall not perceive' with the perfective non-past forms *uslyšite* 'you will hear' and *uzъrite* 'you will see'; both types of formations refer

of Isaiah is fulfilled, which says: "Hearing you will hear and **shall not understand,** and seeing you will see and **not perceive**"' (Codex Zographensis, Matthew XIII 14).

ne imate vъniti (FUT) vъ cěsarstvo nebesъnoje. 'you will not enter the kingdom of heaven' (Codex Marianus, Matthew V 20).

ne věsta sě česo prosěšta. možeta li piti čašǫ. jǫže azъ imamъ piti (FUT). 'You can drink the cup that **I am about to drink**' (Codex Marianus, Matthew XX 22).

Periphrastic constructions consisting of the verb *xotěti* 'want' in the present tense

and the infinitive are also used for the future time reference.

se že glagolaaše iskušaję i. samъ bo věděaše č+to xotětъ sъtvoriti (FUT). 'But He said this to test him, for He imself knew what He **would do**'' (Codex Zographensis, John VI 6).

4.5.4 Perfect

The perfect form denotes the present result of a past event.

i arxierei prěd(a)šę tě mně. č+to **esi** sъtv(o)rilъ (PERF)[72]. 'The chief priests delivered You to me. What **have You done**?' (Codex Zographensis, John XVIII 35).

čto estъ narna i tebě isuse syne božii. prišelъ.**esi** (PERF) sěmo prěžde vrěmene mǫčitъ nasъ. 'What do we have to do with You, Jesus, You son of God? **Have you come** here to torment us before the time?' (Codex Marianus, Matthew VIII 29).

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to the future events.

[7] In the English translation *will* becomes *would* as a result of agreement with the past tense of the main verb, *věděaše* 'knew'.

[72] The perfect form *esi sъtvorilъ* 'you have done' emphasizes a present result of a past event, whereas such an emphasis is not implied by the aorist form *prědašě* 'delivered'.

jako utailu esi (PERF) se otu prěmǫdryxu i razumunyxu. i ěvilu ě esi (PERF) mladen‡cemu. 'You have hidden these things from the wise and prudent and have revealed them to babes' (Codex Marianus, Matthew XI 25).

něste li č‡li (PERF). jako sutvori i iskoni možesku polu i ženesku. sutvorilu estu (PERF). 'Have you not read that He who made them at the beginning "has made" them male and female'' (Codex Marianus, Matthew XIX 4).

něste li č‡li (PERF) nikoliže. jako iz ustu mlad‡neč‡ i susǫštixu suvrušilu esi (PERF) xvalǫ. 'Have you never read "Out of the mouth of babes and nursing infants You have perfected praise"' (Codex Marianus, Matthew XXI 16).

jasm‡ prědu tobojǫ i pixomu. i na raspǫtiixu našixu učilu esi (PERF).[71] 'We ate and drank in Your presence and You have taught in our streets' (Codex Marianus, Luke XIII 26)

vuskrusni gospodi supasi mě bože moi: jako ty porazi v‡sję vraž‡dujǫštjęję mně vusue: zǫby grěš‡nyxu sukrušilu esi (PERF)[72]: 'Arise, O Lord; Save me, O my God: For you struck all my enemies on the cheekbone; You have broken the teeth of the ungodly' (Psalterium Sinaiticum, Psalm 3 7).

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[71]A difference in usage between the perfect and aorist in this passage may be easily observed. The perfect form sutvorilu estu 'has made' clearly expresses result of the past perfective (completed) event, while the aorist form of the same verb, sutvori 'made' simply refers to a past perfective event.

[72]In this example the perfect, učilu esi 'you have taught', emphasizes a present result of the past event, as opposed to the aorist forms jasmu 'we ate' and pixomu 'we drank' which are used to express simply past complete events.

[73]The perfect sukrušilu esi 'you have broken' emphasizes present result of a past event, as opposed to the aorist porazi 'you struck' which does not emphasize a result, but simply completion of a past event.

4.5.5 Pluperfect

Whereas the resultative function in the non-past is expressed by the perfect category, the same type of function in the past is expressed by the pluperfect. Pluperfect forms denote a past result pertaining to an anterior event. Contextually, these forms express anteriority in relation to another past event.

sōsĕdi že. i iže bĕaxō vidĕli (PLPF)[76] prĕžde. jako prositel+ bĕ. glagolaaxō. ne s+ li estu sĕdĕ i prosĕ. 'Therefore the neighbours and those who previously had seen that he was a beggar said, "Is not this he who sat and begged?"' (Codex Zographensis, John IX 8).

sice rĕste roditelĕ ego. jako bojaašete sĕ. ijudĕi. juže bo sĕ bĕaxō suložili (PLPF)[77] ijudei. da ašte kuto ispovĕstu xristosa. otulōč+nu sunumišta bōdetu. 'His parents said these things because they feared the Jews, for the Jews had agreed already that if anyone confessed that He was Christ, he would be put out of the synagogue' (Codex Zographensis, John IX 22).

4.5.6 Present

Imperfective present forms inherently denote events simultaneous with the moment of speech, representing the imperfective function in the non-past.

ab+e že suxodĕštju emu. se rabi ego surĕtō i glagoljōšte. jako synu tvoi živu estu (PRES). 'And as he was going down, his servants met him and told him, saying, "Your son is alive"' (Codex Zographensis, John IV 51).

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[76]The pluperfect bĕaxō vidĕli denotes a past result and within this particular context anteriority in relation to another past event expressed by the imperfect glagolaaxō 'they spoke, were speaking'.

[77]The pluperfect form sĕ bĕaxō suložili 'had agreed' denotes a past result and contextually anteriority in relation to the past imperfective event expressed by the imperfect bojaašete sĕ 'they feared' and the past perfective (completive/terminative) event expressed by the aorist rĕste 'said'.

onъ že otъvěštavъ reče azъ idõ (PRES) gospodi i ne ide. '"I am going, sir," but he did not go' (Codex Marianus, Matthew XXI 30)

glagola emu žena. gospodi viždõ (PRES) jako prorokъ esi ty. 'The woman said to Him, "Sir, I perceive that You are a prophet"' (Codex Marianus, John IV 19)

But imperfective present forms could also be used to denote habitual events or "general

truths". This type of function is determined by their contextual usage.

i světъ vъ tъmě svѣtitъ sě (PRES). i tъma ego ne obѣjětъ (PRES). 'And the light shines in the darkness, and the darkness does not grasp it' (Codex Zographensis, John I 5).

po tuždemѣ že ne idõtъ (PRES). nъ běžětъ (PRES) otъ nego. jako ne znajõtъ (PRES) štjuždego glasa. 'And they do not follow a stranger, but flee from him, for they do not know the voice of strangers' (Codex Zographensis, John X 5)

ne možetъ mirъ nenaviděti vasъ. mene že nenaviditъ (PRES). jako azъ sъvědětělѣstvujõ (PRES) o nemѣ. jako děla ego zъla sõtъ (PRES). 'The world cannot hate you, but it hates Me because I testify of it that its works are evil' (Codex Zographensis, John VII 7).

    Present forms marked for Aktionsart may also express habitual events.

Blagy člověkъ otъ blagago sъkrovišta srѣdѣca svoego iznositъ (PRES) blagoe. i zъly člověkъ otъ zъlaago sъkrovišta srѣdѣca svoego iznositъ (PRES) zъloe. 'A good man out of the good treasure of his heart brings forth good; and an evil man out of the evil treasure of his heart bring forth evil' (Codex Marianus, Luke VI 45).

ašte bõdetъ eteru člověku. sъto ovecъ. i zablõditъ (FUT) edina otъ nixъ. ne ostavitъ (FUT) li devěti desětъ i devěti na goraxъ. i šedъ ištetъ zablõdѣšějě. 'If a man has a hundred sheep, and one of them goes astray, does he not leave the ninety-nine and go to the mountains to seek the one that is straying?' (Codex Marianus, Matthew XVIII 12).

4.5.7 Imperfect

The primary grammatical function of the imperfect category is imperfective.

These forms inherently denote imperfective function in the past, which is parallel to the

inherent function of the present forms in the non-past.

Irodič že gněvaaše (IMPERF) sě na nі. i xotěaše (IMPERF) i ubiti. i ne možaaše (IMPERF). 'Therefore Herodias held it against him and wanted to kill him, but she could not' (Codex Zographensis, Mark VI 19).

po nemі iděaše (IMPERF) narodы mьnogы. jako viděaxǫ (IMPERF) znamenič. jažč tvorěaše (IMPERF) na nedǫžьnyxъ. 'Then many people followed Him, because they saw His signs which He performed on those who were diseased' (Codex Zographensis, John VI 2).

Jutro že paky pride kъ crіkvъ. i vіsi ljudіe iděaxǫ (IMPERF)* kі nemu. i sědъ učaaše (IMPERF) jě. 'But early in the mourning He came again into the temple, and all the people came to Him; and He sat down and taught them' (Codex Marianus, John VIII 2).

isusъ že iděše (IMPERF) sъ nimi. 'And Jesus was going with them' (Sava Evangelium 50).

Imperfect forms inherently express imperfective events, simultaneous with a certain point

in time in the past. Contextually, these forms may also express simultaneity with another

event in the past, either perfective or imperfective.

prijętъ že xlěby isusъ. i xvalǫ vъzdavъ. podastъ učenikomъ. a učenici vъzležěšteimъ. takožde i otъ rybu. eliko xotěaxǫ (IMPERF).** 'And Jesus took the loaves, and when

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*The imperfective function of the imperfect iděaxǫ 'came, were coming' is in contrast with the perfective (telic) function of the aorist pride 'came'; by the same token an aspectual difference may be observed between the imperfect uča:še 'taught, was teaching' and the (inceptive) aorist sědǫ 'sat down'.

**The imperfect xotěaxǫ 'wanted' expresses an imperfective event, which is contextually simultaneous with a past perfective (completive) event expressed by the

He had given thanks He distributed them to the disciples, and the disciples to those sitting down; and likewise of the fish, as much as they **wanted**' (Codex Zographensis, John VI 11).

Perfective/Aktionsart marked imperfect

The imperfect marked for Aktionsart may expresses past habitual events or a series of past perfective events. The imperfective function of the imperfect category is restricted by the perfective meaning of the Aktionsart marker.

i **isxoždanše** (IMPERF) kъ nemu vsě ijudèiskaja strana. i ierusaliměne. i **krištaxъ sě** (IMPERF) vsi vъ jordan+scěi rěcě. otъ nego. ispovědajǫšte grěxy svojě. 'And all the land of Judea, and those from Jerusalem, **went out** to him and **were all baptized** by him in the Jordan River, confessing their sins' (Codex Zographensis, Mark I 5).

i **proiděše** (IMPERF) isusъ grady vsě i vsě učě v+ s+n+mištixъ. 'And Jesus **was passing through** all the cities, teaching everyone in the synagogue' (Sava Evangelium 38b).

A series of past perfective events expressed by the Aktionsart imperfect could refer to a shorter period of time. In such cases, the event represented is not habitual, but imperfective denoting several recurrences, all defined in terms of completion. Such events are known to be iterative, as illustrated in the following examples.

slyšavъše **isxoždaxъ** (IMPERF). edinъ po edinomu. načïnъše otъ star+c+. 'Then those who heard it, **went out** one by one, beginning with the oldest' (Codex Zographensis, John VIII 9).

oni že **pomyšljaxъ** (IMPERF) glagoljǫšte. kako xlěbъ ne vъzěsomu. 'And they **were reflecting (pondering over)** among themselves, saying, "It's because we have taken no bread"' (Codex Marianus, Matthew 16 7)

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aorist *podastъ* 'distributed'.

4.5.8 Imperfective/present participle[60]

Imperfective participles denote imperfective events and at the same time simultaneity with other events.

Sego radi pritučami imʉ glagoljǫ. jako viděšte (IMPFV PART)[61] ne vidětʉ. i slyšěšte (IMPFV PART)[62] ne slyšětʉ. ni razumějǫtʉ. 'Therefore I speak to them in parables, because seeing they do not see, and hearing they do not hear, nor do they understand' (Codex Zographensis, Matthew XIII 13).

bě že sʉ nimi petrʉ stojě (IMPF PART) i grějě (sě) (IMPFV PART).[63] 'And Peter was with them standing and warming himself' (Codex Zographensis, John XVIII).

otʉ selě uzɨrite nebesa otvrʉsta. i ang'ely božijě vʉsxoděště (IMPFV PART) i nizʉxoděště (IMPFV PART)[64] nadʉ syna člověč‡skaago. 'You shall see hereafter heaven open, and the angels of God ascending and descending upon the Son of Man' (Codex Marianus, John I 52).

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[60]"Present" participle is the term traditionally used in the grammars of Old Church Slavic. Contextual usage of these forms proves that "imperfective" represents a more appropriate label.

[61]Imperfective active participle viděšte 'seeing' represents an imperfective event simultaneous with another imperfective event denoted by the present form vidětʉ 'see'.

[62]The imperfective active participle slyšěše 'hearing' also expresses an imperfective event which is contextually simultaneous with another imperfective event denoted by the present slyšětʉ 'hear'.

[63]The imperfective active participles stojě 'standing' and grějě sě 'warming' denote imperfective events, which are in this particular context simultaneous with the past imperfective event denoted by the imperfect bě 'was'.

[64]The imperfective active participles, vʉsxoděšě 'ascending' and nizʉxoděšě 'descending' denote imperfective events, simultaneous with a future event expressed by uzɨrite 'you shall see'.

egda že viděšě narodi jako isusa ne bystъ tu ni učenikъ ego. vъlězǒ sami vъ korablě. i pridǒ vъ kapernaumъ. iskǒšte (IMPFV PART)⁶⁵ isusa 'When the people therefore saw that Jesus was not there, nor His disciples, they also got into boats and came to Capernaum, **seeking** Jesus' (Codex Marianus, John VI 24).

Dative absolute constructions

Imperfective participles could be used within dative absolute constructions to denote simultaneity with other events.

Ešte emu **glagoljǒštu (IMPFV PART)**⁶⁶ kъ narodomъ [DAT ABS]. se mati i bratrъč ego stojaxǒ vъně. iskǒšte glagolati emu. 'While He was still **talking** to the people, His mother and brothers stood outside, seeking to speak with Him' (Codex Marianus, Matthew XII 46).

Just as in the present forms, imperfective participles marked for Aktionsart could be used to express a general truth or habitual events.

amin, amin, glagoljǒ vamъ. ne vъxoděi (IMPFV PART) dvъrъmi vъ dvorъ ovьčy. nъ prělazěi (IMPFV PART) inudu. tъ tatъ estъ. 'Most assuredly, I say to you, he who does not **enter** the sheepfold by the door, but **climbs** up some other way, the same is a thief and a robber' (Codex Zographensis, John X 1).

4.5.9 Conclusions

The aspect/tense analysis of the categories in the Ancient Slavic verb system (represented by the Old Church Slavic documents) shows three different types of

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⁶⁵The imperfective active participle *iskǒšte* 'seeking' denotes an imperfective event simultaneous with a perfective events expressed by the aorist forms *vъlězǒ* 'got into' and *pridǒ* 'came'.

⁶⁶Imperfective active participle *glagoljǒštu* 'speaking' within the dative absolute clause denotes simultaneity with the imperfective event expressed by the imperfect *stojaxǒ* 'they stood, were standing' in the main sentence.

aspectual functions combining with a two-way temporal distinction. Three types of aspectual functions are perfective, resultative and imperfective obtaining both in the past and non-past. Functional contrasts observed in the verb system of Ancient Slavic are very similar to those of Ancient Greek. The only difference pertaining to the grammatical aspectual function is that Aktionsart in Ancient Slavic is grammaticalized, as it obtains both in the past and the non-past. Aktionsart in Ancient Slavic expresses perfective aspect; in the past it denotes past perfective events, and in the non-past it expresses the future. We have seen in Chapter 2 that perfective aspect was grammatically expressed by the sigmatic aorist stems which in the past expressed complete events, and in the non-past they expressed future complete events. Perfectivity could explicitly be expressed only depending on the Aktionsart of the verb and the context. On the contrary, grammaticalized aspect, i.e. Aktionsart, always expresses perfectivity with a number of slightly distinct functions. A crucial difference between the two systems is that Ancient Greek grammatical function of perfectivity is not explicit (since the aorist inherently denotes complete events), while Ancient Slavic has a grammatical function of perfectivity, i.e. grammaticalized Aktionsart.

Resultative and imperfective grammatical functions are parallel in these two languages. The only difference is that Ancient Slavic resultative and imperfective verb categories have different formation patterns. The perfect and pluperfect, which express resultative aspectual function, are represented by periphrastic constructions, while the imperfect, which expressed the imperfective function in the past, shares a sigmatic

marker with the aorist in most verb classes (see § 4.3 for the formation pattern of verb categories in Ancient Slavic).

4.6   Development of Aspectual Contrasts from Common to Ancient Slavic -
Parallel Prefixation in Common Slavic and interactions of prefixation with the
earlier aspectual contrasts

This section shows how prefixation at the unattested Ancient Slavic stages interacted with the already existing morphological and semantic classes of verbs. It also provides the clues of how lexical aspect became grammaticalized within the verb system of Ancient Slavic. It will become obvious that favourable conditions existed in Common Slavic for the grammaticalization of lexical aspect. Grammaticalization of lexical aspect is partly related to various morphological and semantic classes that correlated with different types of Aktionsart contrasts of already existing verb pairs.[47] Lexical aspect, expressed by different classes, interacted with Aktionsart, expressed by the preverbs.

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[47]It will be argued that aside from these lexical factors, there was a number of grammatical factors related to the grammaticalization of lexical aspect. My position is different from that of Maslov (1958) and Schuyt (1990) who argue that well-developed morphological and semantic classes represent the only factor for grammaticalization of lexical aspect.

"Parallel prefixation" refers to the prefixation of simplex verb forms that already formed lexical aspectual pairs. Table 21 shows that there were several types of lexical aspectual pairs.[38]

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[38]Verb pairs here represent my modification of different classes proposed by Schuyt (1990:16-29). Shuyt (see also Mayo 1985:57) proposes a fundamental distinction between determinate and indeterminate verbs which encompasses various subdivisions. Since determinate/indeterminate distinction is not precise and does not properly account for various subdivisions, I propose a more general term, lexical aspectual functions.

Table 21

Simple Aktionsart pairs

determinate	indeterminate
gъnati	goniti 'to chase'
iti	xoditi 'to go'
nesti	nositi 'to carry'
vesti	voditi 'to lead'
lěsti	laziti 'to creep'

imperfective	iterative
suti	sypati 'to scatter, sprinkle'
tvoriti	tvarjati 'to create'
xoditi	xaždati 'to go, walk'

perfective	imperfective
dati	dajati 'to give'
lešti	lěgati 'to lie down'
pasti	padati 'to fall'
minõti	minovati 'to pass'
mrknõti	mrъcati 'to become dark'
dvignõti	dvidzati 'to move'

semelfactive	imperfective (iterative)
kapnõti	kapati 'to drip'
kliknõti	klicati 'to shout'
lanõti	lajati 'to bark'

There is a general agreement (Vaillant 1966, Schuyt 1990) that certain morphemes were associated with aspectual functions in Common Slavic (see below). These aspectual functions were not grammaticalized and should be referred to as Aktionsart or lexical aspect functions. I argue that the term "determinate/indeterminate", proposed by Schuyt

1990 and Mayo 1985, should be replaced by the more general term "Aktionsart pairs" in order to properly account for various subdivisions. Also the perfective/imperfective pairs should be classified as a subdistinction of the Aktionsart pairs, as they represent a lexical aspectual contrast (see the Table above). Based on this distinction, "parallel prefixation" applies to simple verb pairs that express different Aktionsart contrasts.

Lexical aspectual functions in Common Slavic were represented by several different types of verb pairs. There were perfective/imperfective pairs based on the inherent perfective function, as well as the determinate/indeterminate, imperfective/iterative and semelfactive/imperfective pairs (see table 21). Whether or not different types of verb pairs including the perfective/imperfective pairs refer to the grammatical aspectual contrasts that characterize the verb system as a whole will be addressed in this section. The issue of whether the simplex forms already formed an aspectual opposition prior to prefixation might provide important insights into the Aktionsart grammaticalization. It will be argued that although there was a tendency to form the pairs either on the old determinate/indeterminate contrast, the inherent perfective aspect, or other types of lexical aspectual contrasts (represented in Table 21), a consistent way of marking grammatical aspect had not evolved yet. Prior to the grammaticalization of Aktionsart these contrasts were essentially lexical.

According to Maslov (1958), simple verbs in Common Slavic had been grouped into semantically and morphologically distinct classes well before the process of prefixation was complete (in Schuyt 1990:295). A clear distinction between semantic and

morphological classes may be related to the issue of causes and effects of Aktionsart grammaticalization (to be discussed in § 5.1, Chapter 5). Maslov (1958) and Schuyt (1990:309) insist that the opposition, based on lexical aspectual pairs as well as on different semantic and morphological classes (see examples below), was already in the process of evolution prior to the finalization of prefixation, or rather univerbation.

Let us now return to the issue of "parallel prefixation" and well defined groups of simplex verbs in Common Slavic. There were several ways of grouping the simplex verb forms. Most Slavicists point out that the lexical aspectual functions came to represent grammatical aspect, following parallel prefixation. Determinate, imperfective, perfective and semelfactive members of the pairs, listed in table 21 became grammaticalized as perfective[89], while the indeterminate, iterative, imperfective and imperfective/iterative members became grammaticalized as imperfective[90] upon prefixation (following Maslov 1958, Mayo 1985:57, Schuyt 1990:309, Kuiper 1937:222). Besides this basic distinction, Slavic verbs were grouped into well defined semantic and morphological classes, as pointed out by Maslov (1958).

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[89]Members on the left

[90]Members on the right

Table 22

Semantic and morphological classes

1. Stative verbs, e.g. buděti 'to watch, be awake', bojati sě 'to be afraid'
2. Mutative (corresponding to perfective in Old Church Slavic texts), e.g. byti 'to be, exist' (PRES bǫde, lešti 'to lie down' (PRES lěže-), -rěšti 'to say' (PRES -rěšte-), sěsti 'to sit' (PRES sěde-)
3. Semelfactive verbs, e.g. kosnǫti 'to touch'; skočiti 'to spring, jump'
4. Evolutive verbs, e.g. pasti 'to fall', vesti 'to lead', plesti 'to braid, weave'
5. Indeterminate, iterative and imperfective verbs (forming aspectual pairs with determinate, imperfective and perfective counterparts, see table 23 for examples)

(Maslov 1958, Schuyt 1990:309)

All these verbs representing different semantic and morphological classes formed the pairs. The verb pairs were based on several types of Aktionsart distinctions (as shown in Table 21). The verb pairs could be based on the determinate/indeterminate, imperfective/iterative, perfective/imperfective and semelfactive/imperfective contrast.

Perfective/imperfective verb pairs could be based on inherently perfective verbs such as *dati* 'give', *lešti* 'lie down', *pasti* 'fall'. Perfective/imperfective pairs could also be based on the perfective verbs in *-nǫ-*, e.g. *mrknǫti* 'to become dark' (see table 20). From the synchronic point of view this type of a perfective verb may be considered a derivation from the imperfective verb. Schuyt (1990:22) points out that the semelfactives in *-nǫ-*, *-ne-* are derived from the imperfective verbs that express a repeated sound, visual impression or movement. It will be shown in this section that this morphological marker expressed the PIE lexical perfective (also inchoative) function.

It is crucial, however, to point out that aspectual distinctions shown in Table 21 were not grammaticalized in Common Slavic. Different types of semantic aspects were represented by a number of different morphological classes. These aspectual contrasts, however, do not represent a major grammatical distinction within the verb system itself in the same way as stem contrasts in late PIE. What is striking is a consistent lexical duality and pairing of the Ancient Slavic verbs, absent from I-E languages in general.

According to Maslov (1958, in Schuyt 1990:309) the combination of different semantic and morphological classes and prefixation have evolved into even more clearly defined verb classes, i.e. resultative, ingressive, delimitative and resultative-iterative verbs. Specifically the combination of terminative verbs (verbs expressing lexical perfective aspect) with prefixes that denoted perfective aspect contributed to the rise of grammatical aspectual distinctions (following Schuyt 309:1990, Mayo 1985:76). Simple verbs, which could originally have several lexical aspectual functions, became exclusively perfective upon prefixation (see Table 23). For example, the functional range of a verb such as *suberetĭ* 'collects' which originally encompassed several functions, i.e. perfective, imperfective and iterative, was narrowed down to perfective (in Schuyt 1990:309).

"Parallel prefixation" which applied to both members of Aktionsart pairs resulted in narrowing of the original semantic/morphological classes. Table 23 shows that several types of Aktionsart pairs inherited from Common Slavic were narrowed down to grammatical perfective/imperfective aspectual pairs.

Table 23

Parallel Prefixation

Development of grammatical perfective/imperfective pairs

determinate/indeterminate	perf./imperf.
nesti/nositi 'to carry'	prinesti/prinositi 'to bring'
vesti/voditi 'to lead'	izvesti/izvoditi 'to lead out'
lěšti/laziti 'to creep'	vʉlěšti/vulaziti 'to enter'

imperf./iterative	perf./imperf.
tvoriti/tvarjati 'create'	sʉtvoriti/sʉtvarjati 'create'
xoditi/xaždati 'to go, walk'	isxoditi/isxaždati 'to go out'

perf./imperf.	perf./imperf.
dati/dajati 'to give'	prědati/prědajati 'to deliver'
lešti/lěgati 'to lie down'	prilěšti/prilěgati 'to concentrate upon'
minôti/minovati 'to pass'	prěminôti/prěminovati 'to pass beyond'
dvignôti/dvidzati 'to move'	vʉzdvignôti/vʉzdvidzati 'to lift, raise up'

As Maslov (1958) points out, distinct semantic and morphological classes had evolved specifically in Ancient Slavic. Various Aktionsart functions inherited from PIE were maintained in all I-E languages. They were especially well represented in both Ancient and Common Slavic. It will be argued below that Aktionsart distinctions were not originally grammaticalized as a general aspectual distinction. Although they evolved into a perfective/imperfective grammatical opposition with the grammaticalization of Aktionsart, they were originally only lexical. They correlated with various morphological and semantic classes without a substantial impact on the verb system as

a whole. First let us consider the relation between certain morphological/semantic classes and aspectual categories.

As shown in Tables 21 and 23 the morphological types in *-nǒ-*, *-ne-* were already associated with the perfective aspect before prefixation, although consistent aspectual contrasts had not evolved yet. As argued below in this section these morphological types were originally significant in marking a lexical aspectual function in Common Slavic. It would be very difficult to determine exactly at which stage these morphological types became associated with perfectivity. Even before Aktionsart grammaticalization and "parallel prefixation" there was a tendency to form the verb pairs. As we have seen these verb pairs were based on various lexical aspectual contrasts. We have also seen that "aspectual pairs" were based either on inherently perfective verbs or perfective verbs with the suffix *-nǒ-*. An important issue here is whether this type of perfective function was dominant within the verb system of Ancient Slavic. It will be shown that it was not and that the above mentioned aspectual contrasts are essentially lexical. However this type of aspectual marking represented one of the important factors of the subsequent Aktionsart grammaticalization. As will be shown below, verbs in *-nǒ-*, *-ne-* were definitely recategorized as perfective at the attested stages of Ancient Slavic after the general grammaticalization of Aktionsart.

In general, the verbs in *-nǒ-*, *-ne-* could be associated with several classes in PIE, i.e. **-ne-*, **-neu-* and a nasal infix. The exact origin of the verbs in *-nǒ-*, *-ne-* represents a controversial issue. Endzelin (1912) and Tedesco (1948) agree that the verbs in *-nǒ-*,

-ne- originated with the present forms in *-neu- where the full grade was common. The type -ne- was subsequently generalized by analogy to the thematic verbs in -e-. The type -nŏ- separated from the present paradigm and extended to the infinitive and non-present forms in general. Stang (1942) and Vaillant (1966) claim that the type in -nŏ-, -ne- originated with the imperfect with *-neu- which was subsequently reinterpreted as aorist (in Schuyt 1990:275). Schuyt (1990:275, 287) combines the two views by stating that this verbal type originated in the present/imperfect system. Subsequently present forms in -ne- were differentiated from *-neu- by analogy to the present forms in -e-. Schuyt (1990:287) agrees with Stang and Vaillant that the verb type in -nŏ- is generally characteristic of the aorist forms which evolved from the earlier imperfect.[*]

Vaillant (1966:228) assumes that the two types in -nŏ-, -ne- originated with the single class which might have been associated with a number of different nasal types in I-E, i.e. -neu-, -ne- and the nasal infix. Stang (1942:54) shows that in Ancient Slavic -nŏ-, -ne- verbs were divided into two major classes according to certain morphological and functional criteria. The second class comprises two subgroups according to the distribution of the suffix -nŏ-.

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[*]One should note that the category *imperfect* necessarily implies existence of the *aorist*, since the two past categories form an imperfective/perfective aspectual opposition in the past. It logically follows that the aorist could not have been derived from the imperfect. Evolution of the imperfect and aorist categories followed stem differentiation. Before the imperfect/aorist differentiation, invariant stems served both for the perfective and imperfective function.

1. Verbs with the vocalic root, where *-nō-* is attested in the whole aorist/infinitive system[72], e.g. inf. *minōti* 'to pass', aor. *minōxŭ*, pres. *mine-*.

2. a) Verbs with consonantal root, where *-nō-* is attested only in the infinitive, e.g. inf. *dvignōti* 'to move', aor. *dvigŭ*, pres. *dvigne-*.

b) Verbs with consonantal roots where *-no-* is generally attested, e.g. imperf. inf. *sŭxnōti* 'to become dry', *vyknōti* 'to learn', perf. inf. *drŭznōti* 'to dare', *kosnōti* 'to touch'. These classes are correlated with aspectual functions in Ancient Slavic. The first class is represented by perfective verbs, second class by imperfective verbs and the third class contains both perfective and imperfective verbs. The morphological and functional distribution of verb classes in *-nō-*, *-ne-* in Ancient Slavic points to a common origin with a single nasal type. Occurrence of the nasal suffix in the present stems indicate that the function of the nasal type was originally lexical. Kuiper (1937:222) explicitly states that the original I-E nasal verb types in **-neu-* generally expressed lexical aspect which subsequently developed into the perfective. The original lexical function was well represented in many I-E languages, as shown below. This type of contrast, although present in most I-E languages, was particularly represented in Slavic where it subsequently contributed to its evolution into the grammatical perfective/imperfective opposition.

The Ancient Slavic type in *-nō-/-ne-* is presumably associated with the nasal infix of the earlier PIE stages. There is a limited number of present perfective forms with the nasal infix in Ancient Slavic (note here that these present forms became perfective only upon the general rise of perfectivity), e.g. *bōde-* 'be', *lēže-* 'lay', *rēšte-* 'tell', *sēde-* 'sit'

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[72]Most aorists are based on infinitives.

(Schuyt 1990:269, 275). The lexical function of the same morpheme in other I-E languages (see examples below) indicates that it most probably had the same function in Common Slavic and PIE, as shown below. According to Vaillant (1966:179), it has a specific origin because it is attested only in the present paradigms with the *-mi* primary inflection. The evidence of Sanskrit *rináktí* 'he leaves' and Avestan *-irinahti*, 1PL *riñčmáh* provides the basis for the reconstruction of 3SG *li-né-kʷ-ti*, 3PL *li-n-kʷónti* from the root *leikʷ* 'leave'. Hittite provides evidence for a double nasal infix, *sarni(n)kzi* 'he compensates', 3PL *sarnenkanzi* from the root *sark-*, while Greek provides evidence for two different nasal elements, i.e. an infix and a suffix, e.g. *limpáno:* from *lelpo:* 'I leave' (Vaillant 1966:179).[93] The nasal infix with the inchoative function was especially productive in Baltic until recently, e.g. Lith. PRES *sniñga* 'it snows', PRET *snigo*, INF *snìgti* (Vaillant 1966:180).

As we have seen above there are only four relics of the nasal infix in Slavic. However, certain nominal forms suggest greater productivity at the earlier stages, e.g. *stepeni* 'step, degree' suggests reconstruction of an earlier iterative form characteristic of present stems *stempe-* for *stōpiti* 'to tread' (Vaillant 1966:185). Relics of the nasal infix are in the great majority of cases restricted to the present stems. In Hittite the 'Aktionsarten' functions, i.e. iterative, intensive, inchoative or terminative, in the present tense were expressed by the nasal infix (Strunk 1994:5 p.c. through Vit Bubenik). Correlation with the present stems indicates that this marker, expressing lexical aspectual

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[93]According to some linguists, a double nasal represents an orthographic artifact.

function, was particularly productive at the early PIE stages prior to the rise of distinct aspectual stems. The nasal infix is related to the suffix *-neu- which must have arisen at the subsequent stages. It would be difficult to determine the exact relation between the early nasal infix and suffix *-neu-. Vaillant (1966:249) claims that some present stems in -ne- with the zero grade of the root replaced the earlier nasal infix e.g. A.Sl. *bu(d)-ne-* 'watch, guard', cf. *bundù* in Lithuanian. This replacement is partly accounted for by metathesis, but the major factor is attributed to the law of open syllables which had obscured the nasal infixation. As we have seen above, in Slavic, verb types in -nō-, -ne- were associated with several nasal types in I-E.

According to Vaillant (1966:223) present forms in -ne- show different distribution in I-E languages. In Indo-Iranian these forms are restricted to the thematic denominative verb forms, e.g. Skt. *ghu:rnati* 'to be unsteady, to wobble' – *ghu:rnah* 'unsteady, wobbling'. In Ancient Greek it was represented in the present root forms, e.g. *pí:no:* 'I drink', AOR *épion* 1SG. These forms were rare in Classical Greek, but they developed in Medieval Greek and continued in Modern Greek, e.g. *phérno:* 'I carry', AOR *éphera* 1SG, cf. Class. Gr. *phéro:*. The suffix -an- became productive at the expense of the nasal infix of the athematic ancient present forms, e.g. *mantháno:* 'I learn', AOR *émathon:* 1SG. This suffix was also rare in Latin, e.g. *lino:* 'I smear, plaster', PERF *le:ui:* 1SG. There are however traces that suggest productivity at the earlier stages, such as the enlargement of the root stems, e.g. *danunt* 'they give' based on the root *da:-*; *de:-stino:* based on the root *sta:-* and derived from **stano:*. This suffix

was however very productive in Gothic. It was based on the zero grade roots. As in Slavic it was very common in prefixed verbs and it expressed the inchoative function of the intransitive verbs, e.g. *us-bruknan* 'to break', cf. *brikan* 'to break, smash, shatter' (Vaillant 1966:223-4).

It was shown above that the suffix *-ne-* was particularly productive in Ancient Slavic. It was predominantly used in the present perfective subsystem and was thus distinct from *-nō-* which was restricted to the aorist subsystem. Stang's (1942:52) distinction of the Ancient Slavic verb types shows a general distribution of these two suffixes. Distinctive criteria are both morphological and semantic. The suffix *-nō-* is generally encountered in the aorist subsystem with the vocalic roots and infinitives, but not in the verb types with the consonantal roots. In the consonantal verb types, *-nō-* is restricted to the infinitive. Vaillant (1966:231) agrees that *-nō-* is regular in the vocalic verb type, but not in the consonantal verb type.

The systemic distribution of the nasal type *-nō-*, *-ne-* (in the aorist/infinitive and the present subsystems, respectively) suggests that the original function of the ancient nasal class/classes was lexical (including perfective/terminative and inchoative functions). There is general agreement that these two morphemes predominantly had a grammaticalized perfective function in Ancient Slavic. Stang's (1942) grouping of the verbal types shows that the verbs with the vocalic roots are always perfective, while the verbs with the consonantal roots are predominantly imperfective. These "imperfective" verbs generally have an inchoative function, e.g. *gybnōti* 'to perish', *mruznōti* 'to freeze',

dvignǒti 'to move', which indicates that the nasal class in general originally had lexical aspectual function. Vaillant (1966:257) agrees with Stang that the present forms in *-ne-* in Ancient Slavic comprised both perfective and imperfective verbs. This type of distinction continues even in Modern Slavic languages, although the number of imperfective verbs is limited compared to the perfective verbs. Vaillant (1966:253-4) shows that the present imperfective forms in *-ne-* in Ancient Slavic were more frequent than in the modern Slavic languages.

At the earliest stages of Ancient Slavic, the present imperfective forms were characterized by fluctuation between the two types of inflection, *-je-* and *-ne-*, e.g. *gyblje-*, *gybne-* from *gybnǒti* 'to perish'. Fluctuation between these two types of present forms represents a trace from Common Slavic. The present forms in *-je-* co-occur with the present forms in *-ne-* only in the oldest Slavic documents: the Gospels (Codex Zographensis and Marianus), the Psalterium Sinaiticum and the Euchologium Sinaiticum. They are completely ousted in the later Old Church Slavic documents, such as the Suprasliensis. Vaillant (1966:254), however, points out that the alternation of the present imperfective forms such as *gybne* (representing the verb Class 2 with the present stems in *-ne-*), and *gyblje* (representing the Class 3 verbs with the present stems in *-je-/-jo-*) is characteristic of the stages that preceded the complete establishing of grammaticalized aspectual distinctions. Both *gybne-* and *gyblje-* are imperfectives sharing a single infinitive form *gybnǒti* 'to perish' and a single aorist form *gybu* 1SG. The grammaticalization of lexical aspectual distinctions at the later stages rendered the present

forms in -*ne*- perfective. Thus, according to Vaillant (1966:254) present forms such as *stane*- (from *stati* - PFV 'to rise, stand up', Class 2) and *staje*- (from *stajati* - IMPFV 'stand', Class 3) constitute an aspectual pair.

We have seen that the nasal classes of PIE had a lexical, and not grammatical function. The grammatical perfective function was expressed by distinct stems at the late PIE stages. We have also seen that Ancient Slavic (and Common Slavic) had inherited the aorist and present stems that expressed perfective and imperfective aspect, respectively. The nasal classes consequently continued to express the original lexical aspectual function. At a certain stage of Common Slavic, the suffix -*n°*- was associated with the grammatical perfective function. The reason for this association may be related to the fact that a distinction between aorist and present stems in the past was not very clear (discussed in § 4.3) Prior to the Aktionsart grammaticalization, nasal suffixes did not have a perfective function, outside of the aorist paradigms. We have seen that the present forms in -*ne*- that coexisted with the forms in -*je*- were imperfective at the earlier stages. Whether or not the present forms in -*ne*- were distinct from the forms in -*je*- on the basis of lexical aspect is a complex issue. The nasal classes originally had a lexical aspectual function which was subsequently grammaticalized. Beside the present imperfective forms in -*ne*- of the earliest Slavic stages, there are relics of present imperfective, or rather inchoative, verb forms such as *gybnōti* 'to perish', *mruznōti* 'to freeze', *dvignōti* 'to move' (as pointed out by Stang 1942:54). It is important however to note that regardless of whether the nasal suffix appears in the aorist or present

paradigms, they retain the implication of the original lexical aspectual function. This type of function continues the original function of the nasal class at the PIE and unattested Slavic stages (Common Slavic). Following the Aktionsart grammaticalization preceding the earliest documented stages, a great majority of verbs in -*no*-,-*ne*- became perfective. Perfective and imperfective verb forms represented by these nasal types are attested both in the past and present (or rather non-past) paradigms of Ancient Slavic. There are very few remnants of the imperfective verbs with -*ne*- in Modern Slavic languages, such as *mrznem* 'I am freezing' in Serbo-Croatian, cf. *mrznu* in Czech and *mĕrznu* in Russian. Although essentially imperfective, these verbs have a nuance of a lexical inchoative meaning 'I am consistently becoming frozen'.

The well developed distinction of Aktionsart classes, which correlated with morphological verb types in Ancient Slavic, is closely related to the issue of Aktionsart grammaticalization. We have seen that Aktionsart, which universally represents lexical aspect, is grammaticalized in Ancient Slavic. The conditioning factors of this major grammatical change are investigated in § 5.1 and 5.2.

4.7 Derived or secondary imperfectives

In this section the idea of derived or secondary imperfectives is addressed in a broad sense. A primary goal of this section is to relate these forms to the grammaticalization of Aktionsart in Ancient Slavic and simple verb pairs in Common Slavic. These forms will be precisely defined in terms of their function in Chapter 6.

The terminology used for these formations varies among linguists and Slavicists: derived imperfectives (Vaillant 1966:475), secondary imperfectives (Schuyt 1990:16), iteratives (Kurylowicz 164:98). In order to avoid terminological confusion, it should be clarified that the usage of all three terms is correct. First, it will be shown that these forms had an iterative function prior to the grammaticalization of Aktionsart and some of them, depending on the Aktionsart, retain this function even in Modern Slavic languages (to be explained in this section). Second, the term *derived* is also appropriate since they are based on the derivatives of simple verbs that already formed pairs before prefixation. One type of pair was based on the determinate/indeterminate contrast. That is to say indeterminate verbs before prefixation formed pairs with determinate verbs, as in the following examples.

> determinate *vesti* 'lead'/ indeterminate *voditi*
> perfective *pri-vesti* 'convey'/ derived imperfective *pri-voditi*

As shown in this section and § 4.5 the verb pairs formed several types of lexical aspectual distinctions.

Schuyt (1990:16) uses the term *secondary imperfectives* for the same forms that originally, as simple verbs, already formed pairs (as shown below). Note that these aspectual pairs, e.g. *dati/dajati*, are based on the inherently perfective verbs such as *dati* 'give'. Aside from the verbs that had already formed pairs before "parallel prefixation" there was a number of unpaired imperfective verbs. Following prefixation, many of

these forms were associated with perfective aspect which subsequently triggered formation of the "secondary" prefixed imperfective forms (see examples below).

Derived or secondary imperfectives originate with the earlier iterative verb forms in Common Slavic. The rise of derived imperfectives is closely related to the process of prefixation and development of perfectivity in Common Slavic. Before the "parallel prefixation" and a general development of aspect, verbs already had a tendency to form pairs based on lexical aspectual distinctions. The pairs of simple verbs were based on several types of lexical aspectual contrasts: determinate/indeterminate verb pairs, such as *nesti/nositi*, *vesti/voditi*, *minōti/minovati*, perfective/imperfective verb pairs, e.g. *dati/dajati*, *pasti/padati*, and iterative/imperfective pairs, e.g. *tvarjati/tvoriti*, *xaždati/xoditi* (as discussed in § 4.4). "Parallel prefixation" of the original lexical aspectual pairs resulted in the derivative pairs. Prefixed verbs marked for lexical aspect were generally associated with perfective aspect (Mayo 1985:76, Schuyt 1990:16). Verbs that were already perfective only changed their lexical meaning depending on the preverb (Mayo 1985:57). Imperfective verbs that formed a contrast with iterative verbs resulted in a perfective/imperfective contrast of the derived counterparts (see examples for different types of contrasts among the simple verbs that resulted in perfective/imperfective pairs of the derived forms in Table 23).

Prefixed imperfective verbs, that already formed pairs with the perfective verbs, were generally imperfective, although there are instances of perfective iterative forms (Vaillant 1966:473 and Schuyt 1990:18). Vaillant (1966:473) shows that the aspectual

contrast depends on how the pair is formed. For example a prefixed indeterminate verb becomes imperfective, *prědajati* 'deliver', in relation to the prefixed perfective verb, *prědati* 'deliver' from which it is derived. On the other hand *razdajati* 'to distribute' is a perfective iterative which keeps the iterative function of the simple verb *dajati* 'to give' from which it is derived. (It will be shown in Chapter 6 that the iterative function of the derived verb also depends on the meaning of the Aktionsart). It subsequently gives rise to the derived imperfective *razdavati* (Vaillant 1966:473).

As Vaillant and Schuyt show, the simple unprefixed pairs retain their original lexical function, while the prefixed verbs are recategorized as perfective/imperfective pairs. This grammatical distinction of the derived verbs followed the grammaticalization of Aktionsart in Ancient Slavic. "Secondary imperfectives" were derived by prefixation of the earlier iterative, unmarked or imperfective verbs. These old functional contrasts represented a basis for the rise of grammatical aspectual contrasts in Ancient Slavic.

Table 23 shows correspondences between inherited pairs and derived perfective/imperfective pairs (different morphological classes form several types of verb pairs, following Vaillant 1966:475-95, Schuyt 1990:16-34). As shown below inherited pairs were arranged according to the different aspectual contrasts, i.e. determinate/indeterminate, perfective/imperfective or iterative/imperfective. Note that the simple determinate/indeterminate pairs continue the same type of function after Aktionsart grammaticalization while their prefixed counterparts are recategorized as perfective/imperfective pairs (examples are listed in Table 23). Simple imperfective verb

pairs are also referred to as secondary or derived imperfectives, as well as their prefixed counterparts, e.g. *dajati* from *dati* 'give', *prědajati* from *prědati* 'deliver' (Vaillant 1966:473, Schuyt 1990:18-28). Some simple verbs may also form imperfective/iterative pairs which in derived verbs form perfective/imperfective aspectual pairs. Some simple verbs, such as *kryti* 'to hide', *myti* 'to wash', do not have perfective simple counterparts. Prefixation of these verbs results in the perfective aspect which in turn gives rise to the secondary imperfectivization.

Table 24

Prefixation and derived imperfective forms

determinate/indeterminate	perfective/imperfective
nesti/nositi 'to carry'	prinesti/prinositi 'to bring'
vesti/voditi 'to lead'	izvesti/izvoditi 'to lead out'
lěšti/laziti 'to creep'	vulěšti/vulaziti 'to enter'

perfective/imperfective	perfective/imperfective
dati/dajati 'to give'	prědati/prědajati 'to deliver'
minōti/minovati 'to pass'	prěminōti/prěminovati 'to go, pass beyond'
lešti/lěgati 'to lie down'	prilěšti/prilěgati 'to concentrate upon'
pasti/padati 'to fall'	otupasti/otupadati 'to fall away, be lost'
roditi sě/raždati sě 'to be born'	poroditi sě/poraždati sě 'to bear'

imperfective/iterative	perfective/imperfective
tvoriti/tvarjati 'create'	sutvoriti/sutvarjati 'make, create, build'
xoditi/xaždati 'to go, walk'	isxoditi/isxaždati 'to go out'
byti/byvati 'be'	zabyti/zabyvati 'to forget'
kryti 'to hide'	prikryti/prikryvati 'to cover'
myti 'to wash'	otumyti/otumyvati 'to wash away'

denominative origin

substantive	perfective/imperfective
věstì 'news', izvěstì 'truth'	izvěstiti/izvěštati 'to confirm, convince'
vědì 'knowledge, learning'	propověděti/propovědati 'to announce, confess'

Forsyth (1970:27) makes a distinction between secondary and derived imperfectives. Both derived and secondary imperfectives are based on perfective verbs. While secondary imperfectives refer to the forms based on the prefixed perfective forms only, derived imperfective forms comprise both imperfective forms derived from prefixed

perfective forms and simple perfective forms. Secondary imperfectives refer to the imperfective forms derived from prefixed perfective verbs, e.g. Russian *zamërznut'* > *zamerzát'* 'freeze', *vspómnit'* > *vspominát'* 'remember'. Derived imperfectives, on the other hand, refer to a more general class including both secondary imperfectives and imperfectives derived from the simple perfective forms, e.g. Russian *kónčit'* > *končát'* 'finish', *prostít'* > *proščát'* 'forgive' (Forsyth 1970:27).

It has been asserted that the original function of the prefixed secondary imperfectives was iterative (Kuryłowicz 1964:98, Forsyth 1970:166). As Forsyth (1970:166) points out, secondary imperfectives derived by the suffixation of the prefixed perfective verb forms are referred to as iteratives, i.e. *mnogokratnye glagoly* (Ivanov 1964:387, Vinogradov 1947:510, Ward 1965:227). Forsyth argues that the iterative function is inherent to the secondary imperfectives. This original function of the secondary imperfectives has been generalized in Modern Slavic languages as the imperfective function. The imperfective function of these forms, however, retains the implications of iterativity. For example Russian verbs such as, *rasskázyvat'* (from *rasskazát'* 'tell, narrate'), *perepísyvat'* (from *perepisát'* 'to copy out'), which were originally only iterative, have acquired the general imperfective meaning without excluding a possibility of repetition (Forsyth 1970:166).

Forsyth (1970:167) points out that in Russian a number of secondary imperfectives in *-yva-/-iva* still express repetition as a general function both in the past and present tense. However, the function of iterativity is not restricted to this

morphological subclass of secondary imperfectives. The fundamental function of the secondary imperfective depends on the Aktionsart class. Thus, as Forsyth (1970:167) shows, secondary imperfectives with the preverb *pri*-, e.g. *prixodít'* 'come', may express only repetitive and not continuous processes. The relation between the Aktionsart of the secondary imperfectives and their grammatical function within the verb system as a whole will be examined in Chapter 6.

Kurylowicz (1964:99) also points out that the secondary imperfectives originally had an iterative function. He sees the rise of the secondary imperfectives as the mechanism for restoring the durative function of the prefixed verbs. He shows that the prefixation of simple verbs did not immediately entail perfectivization, although the preverbs blurred the imperfective or durative function of simple verbs. For example the meaning of the imperfective *pekǒ* 'I cook, bake' becomes restricted upon the prefixation of the Aktionsart preverb *pri* 'at' as in *pri-pekǒ*. The punctual meaning of the preverb at first affects the imperfective function of the derived verb imposing a necessity for a new derivative that would restore its original function, i.e. iterative - *pri-pěkajǒ*. According to Kurylowicz (1964:99-100) the rise of the secondary imperfectives, originally iteratives, preceded the grammaticalization of Aktionsart. Now it will be shown that the derivation of the iterative forms reinforces the grammaticalization of Aktionsart preverbs (as argued both by Kurylowicz 1964:99-100 and Schuyt 1990:310).

As shown above, secondary imperfectivization is closely tied to the process of prefixation in Ancient Slavic. Secondary imperfectivization follows prefixation - which

resulted in grammatical aspectual distinctions within the Ancient Slavic verb system. At first, prefixation most probably had the very similar effect encountered in Classical Greek and Latin (see Chapters 2 - § 2.2 and 3 - § 3.2). That is to say, preverbs simply had a lexical non-grammatical value.

Prefixation in Common Slavic did not immediately entail the grammaticalization of lexical aspect. As in Classical Greek and Latin, it often had just a lexical aspectual function which however did not at first constitute primary grammatical function within the verb system. A prefixed verb acquired a lexically punctual function first. As Kuryłowicz (1964:99) states, the durative[*] function of the prefixed present form *pri-pekŏ* is replaced by the secondarily derived *pripĕk-ajŏ*. A newly created *pripĕkajŏ* : *pripekŏ* opposition has an increasing tendency to limit *pripekŏ* to its secondary semantic function, i.e. perfective. In other words, the original primary present function of *pripekŏ* becomes redundant due to the rise of *pripĕkajŏ*. This kind of shift promotes originally secondary non-durative function as primary, specifically the function of eventuality and future. This functional shift, according to Kuryłowicz (1964:99), causes a change of grammatical relations between *pekŏ*, *pripekŏ* and *pripĕkajŏ*.

Kuryłowicz (1964:100) distinguishes between two stages relating to the functional relations of these three forms. At the first stage *pekŏ* and *pripekŏ* both represent present tense forms, although the prefixed present form has a punctual nuance in meaning. The rise of the iterative *pripĕkajŏ* triggers the promotion of the secondary semantic functions

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[*] Imperfective

of *pripekō* (eventuality), which means that the lexical and grammatical functions of *pripekō* are determined in relation to *pripēkajō*. The restriction of the prefixed present form to the future function represents the second stage. The prefixed present, *pripekō* comes to express the future relative to *pripēkajō* which restores its imperfective function. At the first stage, the opposition of these two forms is simply lexical, while at the second stage it becomes grammatical.

Given the nature of Aktionsart in Slavic, it is not surprising that the original function of secondary imperfectives was iterative and that these forms still retain the implication of repetition. We have seen that the prefixation of the simple imperfective verbs in most cases obscures their meaning and eventually results in the perfective aspect. That is to say, the original imperfective meaning of the verb is restricted. Consequently, the overall meaning of the secondary imperfective is to a certain extent restricted due to the Aktionsart preverb.

We have seen that grammaticalization of Aktionsart and secondary imperfective forms resulted from the interaction of the semantic with the grammatical functions. To summarize, the primary present function of the simplex unprefixed forms is weakened by prefixation. That is to say, prefixed verb forms become punctual first at the semantic level and then at the grammatical level. In fact they come to represent perfective aspect at the grammatical level. Secondarily derived imperfectives consequently have to be restricted in terms of their function. At first these forms had an iterative function. However, their rise reinforced the tendency of the Ancient Slavic verbs to form pairs and

to associate the verbal pairs with aspect. Also, since prefixation resulted in a changed meaning of the perfective verbs, there was a need for exact semantic or lexical counterparts. In Modern Slavic languages, the original iterative function of these secondary formations has been by and large generalized as imperfective. Secondary imperfective forms, however, still retain the implication of iterativity. In certain Aktionsart classes, secondary imperfectives may not have a "continuous" imperfective meaning. Restriction of their function is borne by the nature of Aktionsart preverbs which have a limitative effect on the verb (Discussed in Chapter 6).

4.8 Reconstructed features of the verb system in Common Slavic

This section provides evidence for the postulation of some features of the verb system of the unattested Common Slavic stages. Before postulating the basic formation principles of the tense/aspect categories and representing a general outline of the verbal system, certain features of the verb categories will be reconstructed. Exact reconstruction of all verb categories is beyond the scope of this thesis. Some reconstructed forms however will be represented in arguing for specific functional morphemes, such as the augment.

Reconstruction of the augment for Common Slavic has been suggested by Vaillant. It is generally known that the augment existed in Indo-Iranian, Armenian, Phrygian and Greek, while it is missing in Balto-Slavic. Vaillant (1966:551) points out that it would be natural to postulate its existence in Slavic based on many other features

shared with Iranian, Thraco-Phrygian, Armenian and Greek. Vaillant (1966:551) proposes reconstruction of the augment for Common Slavic on the basis of distinctions in accentuation patterns between unprefixed and prefixed aorist paradigms in Serbo-Croatian. He postulates the aorist form *éplete (2SG and 3SG) formed from the present form pleté 'knit', relying on the fact that only 2nd and 3rd person singular of the prefixed aorist paradigm in Serbo-Croatian have accent on the preverb. First person singular and all persons in the plural do not have accent on the preverb, as shown in the following paradigms.

Table 25

Serbo-Croatian prefixed vs. unprefixed aorist

singular		plural	
1. za-plètoh	plètoh	za-plètosmo	plètosmo
2. zà-plete	plète	za-plètoste	plètoste
3. zà-plete	plète	za-plètoše	plètoše

The paradigms above represent archaic Serbo-Croatian aorist forms.[59] The accentuation patterns that differ in the 2nd and 3rd person singular provide a clue to the existence of the augment at the Common Slavic stage. Vaillant (1966:551) assumes that the prefixed verbs have absorbed the augment, as in Greek, cf. S-Cr. zà-plete and the simple unprefixed aorist form plète. Assuming that the 2nd and 3rd person singular represent a remnant of the ancient asigmatic aorist, the stressed preverb absorbs the augment.

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[59] The aorist does not exist in speech today except for some regional dialects and literary language.

Both Vaillant and Meillet have commented on a peculiar formation of the Ancient Slavic imperfect and suggested different formation patterns for Common Slavic. Both Vaillant and Meillet suggested a periphrastic imperfect formation during the Common Slavic stages. Meillet (1934:272) explains the presence of the infinitive stems in the Ancient Slavic imperfect form *neséaxu* by an earlier periphrastic form 'I was to carry' (*INF *nesti* 'to carry' + IMPERF *běxu* 1SG 'be' > *nes+běxu* > *neséaxu*).* The form *běxu* has the imperfective meaning where the suffix -*ě*- denotes the state. Meillet claims that Slavic just as Latin, e.g. *fere:bam*, and Armenian, e.g. *berei*, abandoned the PIE imperfect formation which was preserved in Indo-Iranian and Greek and resorted to "an expressive way" of representing the process. He also states that languages that resorted to this new type of imperfect formation are the ones that had lost the augment. A periphrastic origin of the Latin imperfect, based on the evidence of the surviving periphrastic forms in Oscan and Umbrian has been postulated also by Buck, 1974 (see Chapter 3).

Vaillant (1966:65) postulates a parallel periphrastic formation for the imperfect in Slavic and Latin. Specifically, both Slavic and Latin formed a periphrastic imperfect with the verb *be* and the present participle. He claims that Balto-Slavic *be:* originates from the PIE *bhu-e:*- corresponding to the Latin -*ba:*- from *bhu-a:*. Balto-Slavic *be:*

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*The exact mechanism of origination of the Ancient Slavic imperfect remains inadequately explained. It seems that phonological attrition of the auxiliary does not provide an altogether satisfactory explanation. A more probable solution may rely on the remodelling of the Ancient Slavic imperfect on the basis of *běxu*, the imperfect of the verb *be*.

is related to the Slavic stems in -e:- or -a:- which originally denoted a state, such as Ancient Greek *ephú-e:n* 'I grew'. As Vaillant points out, these stems were subsequently enlarged in Slavic into -e:-ja:- and -a:-ja:-, as in *vidĕ-(j)axu* 'I was seeing' and *dĕla-(j)axu* 'I was doing' in order to differentiate the imperfect from the aorist. According to Vaillant Balto-Slavic *be:* (continued by Slavic *bĕ-* in the imperfect of the verb be) goes back to the period before the differentiation of the imperfect and aorist from the invariant stem. This view is not in accord with a widely assumed reconstruction of late PIE characterized by a three-way aspectual contrast.[97]

Undoubtedly, the origin of the Ancient Slavic imperfect is "mysterious". Whether it was indeed a periphrastic construction or a synthetic form, whereby the sigmatic marker is explained by the extension of the infinitive/aorist stems, is a complicated issue. If several I-E representatives, i.e. Latin, Balto-Slavic and Armenian, show signs of a possible periphrastic construction, the hypothesis should certainly not be dismissed. A hypothetical periphrastic construction combined the auxiliary of the verb *be* and either the infinitive (suggested by Meillet 1934:272) or the present participle (suggested by Vaillant 1966:65), as shown above. Periphrastic construction with the infinitive, e.g. **nesti bĕxu* 'I was to carry' may provide a better account for the imperfect formation in Common Slavic, since most imperfect forms are based on the infinitive stems. We have seen in § 4.7 that the imperfect forms based on the present stems represent either relics

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[97] The issue of the origin of the aorist and imperfect categories is beyond the scope of this thesis.

or subsequent formations. Since the imperfect forms are more often based on the infinitive than the present stem, the imperfect with the present participle is less probable. Compare the correspondences between present, present participle and imperfect in different verb classes.

Table 26

Imperfect formation

present (1SG)	present participle (NOM SG)	imperfect (1SG)
Class 1 - subclass 1	nes-ti 'to carry'	
nes-ǒ	nes-y	nes-ěa-x-u
subclass 2	zuva-ti 'to call'	
zov-ǒ	zov-y	zuva:-x-u, zov-ěa-x-u
Class 2	minǒ-ti 'to pass'	
min-ǒ	min-y	min-ěa-x-u
Class 3 - subclass 1	znati 'to know'	
zna-j-ǒ	zna-j-ě	zna:-x-u
subclass 2	glagola-ti 'to speak'	
glagol-j-ǒ	glagol-j-ě	glagola:-x-u
Class 4 - subclass 1	moliti 'to ask, beg'	
mol-j-ǒ	mol-ě	mol-j-a:-x-u
subclass 2	velěti 'to order'	
vel-j-ǒ	vel-ě	vel-ěa-x-u
Class 5	da-ti 'to give'	
da-mɨ (1SG)	dad-y	dad-ěa-x-u
dad-ětu (3SG)		

The Table above shows that most imperfect forms are based on the infinitive stems, while the present participles are based on the present stems.

Reconstruction of the Common Slavic imperfect with the present participle requires an explanation of how most imperfect forms came to be based on the infinitive stem. Fusion of the participle with the auxiliary would have to be followed by remodelling based on aorist forms.

It is impossible to determine with certainty whether the Common Slavic periphrastic compound was based on the present participle or the infinitive. The formation patterns of the Ancient Slavic imperfect point in favour of the infinitive, since the majority of imperfect forms are based on the infinitive stems. We have also seen in Chapter 3 that the same type of imperfect, reconstructed for Common Italic accounts for the imperfect formation of earlier and Classical Latin. Combining the infinitive with the verb *be* represents a uniform solution for the two languages that had resorted to a periphrastic expression of the imperfect. Moreover, this solution accounts in a uniform way for the change of the synthetic type of imperfect from late PIE to Ancient Slavic and Latin. As argued by Meillet (1934:272), a change in the imperfect formation in these two languages is not a coincidence, since both had lost the augment. Loss of the augment resulted in formal similarity between the present and imperfect, which differed only in inflectional endings.

It is also possible that the sigmatic marker in Ancient Slavic had spread from the aorist forms to the imperfect forms in Common Slavic. Parallels between the aorist and

imperfect sigmatic inflection were examined in all verb classes in § 4.3. If we were to assume that there was a partial functional overlap of these two categories, we would have find a justification for the spread of the sigmatic marker to the category that expressed the imperfective function in the past, i.e. the imperfect. It was shown in § 4.3 that there was a formal similarity between the aorist and imperfect in Common Slavic even before the grammaticalization of Aktionsart. We have also seen that this contrast had completely disappeared in the non-past with the loss of the sigmatic future. There are no attested sigmatic future forms (except for a few relics, future participle *byšęšt-*, *byšǫšt-* 'about to be'[*], cf. Lat. *fu:turus*) in Ancient Slavic, while the imperfect and aorist remained. It is possible therefore that the sigmatic future was ousted before the spread of the aorist sigmatic marker to the imperfect. That is to say, the loss of the sigmatic future could have initiated "rapprochement" of the aorist and imperfect represented by the historically shared sigmatic marker (as explained in § 4.3.2). These two developments would have represented symmetrical tendencies in marking aspectual categories in the past and non-past.

Examination of the developments in Ancient Slavic allows for two possibilities: imperfect forms were either periphrastic constructions or the sigmatic marker had spread from the aorist to the imperfect paradigms. The result of one or the other development is a formal "rapprochement" of the two categories that contributed to the grammaticalization of Aktionsart as a new way of perfective marking.

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[*]As pointed out by Viallant (1966:104)

Regardless of the origin of the Ancient Slavic imperfect, there is evidence that the Common Slavic verb system resembled that of Ancient Greek. That is to say, it had a *binary past/non-past tense opposition* with the three aspectual contrasts, perfective, resultative and imperfective. We may assume that at some point Ancient Slavic had introduced changes in forming the perfect and imperfect categories.

CHAPTER 5

Causes and Effects of the Aktionsart Grammaticalization

In this Chapter, the causes and effects of the Aktionsart grammaticalization are discussed. We have seen that Aktionsart acquires grammatical function in Ancient Slavic, unlike Classical Greek and Latin. Aktionsart preverbs and various morphological/semantic classes which express lexical aspect do not universally imply grammatical aspect. The major causal factors for the Aktionsart grammaticalization are therefore to be sought in the nature of morphological and semantic verb classes (discussed in § 4.6, Chapter 4) and the verbal system of Ancient Slavic. This major change is brought about by the interplay of a number of factors, both lexical and grammatical. Table 1 represents a brief outline of the lexical and grammatical factors that interacted, representing favourable circumstances for the grammaticalization of Aktionsart.

Table 1

Causes of the Aktionsart grammaticalization

Lexical Factors[1]

Interaction of prefixation of the Aktionsart preverbs with verbs that already formed pairs.

Earlier verb pairs already expressed a number of different lexical aspectual contrasts (Table 22 in § 4.6)

Grammatical Factors[2]

A shared sigmatic marker between the aorist and imperfect.

Loss of the sigmatic future, that may be reconstructed for Common Slavic.

All four of these factors contribute to blurring of the inherited aspectual contrasts. The sigmatic marker which in late PIE (and presumably Common Slavic, cf. Ancient Greek) expressed perfective aspect both in the past and non-past no longer represented a systemic marker of perfectivity. It was present both in the aorist and imperfect. The future time reference was denoted by the non-past forms marked for Aktionsart.

Aktionsart which always explicitly denotes perfectivity (except for secondary and derived imperfectives) represents an improved way of marking perfective aspect in relation to the aorist which inherently expresses complete events.

5.1 Lexical factors - interactions of lexical aspect with the inherited

grammatical categories

Different views have been proposed concerning the cause of the Aktionsart grammaticalization. According to Maslov (1958 and Schuyt 1990:294) evolution of the aspectual distinctions had started well before the process of prefixation was complete.

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[1]Discussed in § 5.1

[2]Discussed in § 5.2

He points to a clear distinction between certain semantic and morphological verbal classes which existed prior to the preverb prefixation in Common Slavic. According to Maslov (1958:18) verbs could be grouped into morphological and semantic classes, such as stative, mutative, semelfactive, evolutive, iterative/indeterminate (see Table 22 in § 4.6 for examples). These classes have evolved into more clearly defined groups following preverb prefixation, i.e. resultative, ingressive, delimitative, resultative-iterative and into general perfective/ imperfective distinction.

Schuyt (1990:309) agrees with Maslov that the rise of aspect in Ancient Slavic is related to a clear distinction between certain morphological and semantic verb classes. The interaction of a wide range of morphological classes[3], that originally correlated with the different types of lexical functions (represented by verb pairs), and prefixation gave rise to grammatical aspectual distinctions in Slavic. Within Maslov's theory simple verbs, which had already been distinguished on the basis of lexical function, developed into clearly defined semantic groups after prefixation. We have seen in Table 23 (§ 4.6, Chapter 4) that prefixation applied to different types of Aktionsart pairs, i.e. determinate/indeterminate, perfective/imperfective, semelfactive/imperfective and imperfective/iterative pairs. The origin of the aspectual contrast is specifically traced to the prefixed verbs with resultative meaning. According to Schuyt (1990:309) verbal derivatives such as *su-bereti 'he/she collects' (< PIE *-bhereti) originally had a wider range of lexical functions, i.e. terminative, progressive and iterative (expressing a

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[3]As represented in Table 21 in § 4.6, Chapter 4

repeated event). The productivity of prefixation resulted in an increasing number of verbal derivatives. The possibility of combining different preverbs with one simple verb allowed for a wider semantic range of these derived verbs. Upon prefixation, the functional range of verbs such as *suberetĭ 'he/she collects', was narrowed down. This derivative, for example, became perfective expressing only completion of the event; at the same time phase verbs which combined with verbs such as *suberetu* to express beginning or completion of the event or the present forms which expressed the progressive aspect gradually ceased to be used (Schuyt 1990:309).

According to Schuyt (1990:309), Maslov's proposal justifies the universal characteristics of Aktionsart preverbs. That is to say, Aktionsart preverbs *per se* are not inherently related to the perfective aspect. As was shown in Chapters 2 and 3, in Latin and Greek Aktionsart preverbs do not result in grammatical aspectual distinctions. Aside from grammatical factors (to be discussed), grammaticalization of lexical aspect in Ancient Slavic is seen as result of the interplay between clearly defined semantic and morphological classes and the prefixation of Aktionsart preverbs (originally adpreps). As the Aktionsart preverbs became associated with perfective aspect, the earlier Aktionsart (lexical) pairs developed into perfective/imperfective aspectual pairs. As shown in Table 23 (§ 4.6, Chapter 4) prefixation of the earlier Aktionsart pairs always results in perfective/imperfective pairs. The simple counterparts are however not always recategorized as grammatical aspectual pairs. Thus the simple determinate/indeterminate pairs, e.g. *nesti/nositi* 'to carry', *vesti/voditi* 'to lead', and the imperfective/iterative

pairs, e.g. *tvoriti/tvarjati* 'create', *xoditi/xaždati* 'to go', retain their original Aktionsart function. However the lexical perfective/imperfective and semelfactive/imperfective pairs of the simple verbs, are automatically recategorized as grammatical aspectual pairs, e.g. perfective/imperfective *dati/dajati* 'to give', *minǫti/minovati* 'to pass', semelfactive/imperfective *kliknǫti/klicati* 'to shout', *lanǫti/lajati* 'to bark'. As seen in these examples, the suffix *-nǫ-*, *-ne-*, which originally had a lexical aspectual function, was recategorized as the perfective marker.

Now let us examine how the earlier semantic and morphological classes related to the aspectual categories inherited from PIE. Different semantic and morphological classes participated in forming Aktionsart contrasts in Common Slavic. Semantic distinctions correlated with different morphological types. In § 4.6 we saw that the verbs with suffixes *-nǫ-*, *-ne-* and the nasal infix had a lexical aspectual function in a number of I-E languages. It was also shown that this morphological type became particularly productive in Ancient Slavic where it mostly correlated the grammaticalized perfective function. Even before the general grammaticalization of Aktionsart, the morphological type in *-nǫ-*, *-ne-* became associated with perfectivity although it was not yet grammaticalized. The reason for this association might lie in the verb system of Common Slavic which had changed the inherited aspectual distinctions.[4] As was shown

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[4]It will be shown in § 5.2 that the sigmatic future was ousted before the earliest attested documents representing a break down of the distinction of the perfective stem in the non-past. The distinction of the imperfective stem was also blurred in the past, since the imperfect was no longer based on the present stems.

in § 4.3 (Chapter 4), the inherited present and aorist stems, forming the imperfect and aorist categories in the past, became formally similar in sharing the sigmatic marker. Subsequently the marker -*nō*- was particularly productive in the aorist paradigms.

In order to see how these morphological and semantic classes interacted with the earlier aspectual categories, it is important to draw a distinction between lexical aspect and grammatical aspect. Aspect is categorized as *lexical* or *semantic* if it does not produce crucial grammatical distinctions within the verb system itself. Grammatical aspectual distinctions would refer to consistent oppositions between aspectual functions within the verb system. We have seen that the verb system of Ancient Greek is characterized by a consistent three-way opposition between imperfective, perfective and resultative aspect. Grammatical aspectual functions of Ancient Greek are based on stem distinctions; impertective aspect is expressed by present stems, perfective aspect by aorist stems and resultative aspect by perfect stems (See Table 11 in Chapter 2). An aspectual category is recognized as grammatical if it is consistently opposed to another category both in form and function. For example, the perfective function in the past in Ancient Greek is expressed by several types of aorist stems. This type of aspect is productively expressed by the sigmatic aorist or so-called 1st aorist e.g. *élu:sa* from *lú:o:* 'I loosen'. The ablauted aorist or so-called 2nd aorist, e.g. *élipon* from *leípo:* 'I leave' and root aorists, e.g. *édo:ka* from *dído:mi* 'I give', equally express the perfective aspect in the past, although they are not as numerous since they represent relics of the earlier PIE stages. Resultative aspect in the non-past is represented either by reduplication, e.g.

PERF *léluka* from *lu:o:* 'I loosen', or lengthening (i.e. reduplication) of the initial vowel, e.g. PERF *e:ró:te:ka* from *ero:táo:* 'I ask'; both types are characterized by the perfect marker *-k-* in most cases.[5]

It was shown in § 2.2 that the Aktionsart preverbs simply modify the basic meaning of the verb without producing grammatical contrasts within the verb system. One of the major diagnostic criteria for determining whether the preverb expresses a grammatical aspectual function is testing the functions expressed by the non-past prefixed verb forms. In Ancient Greek Aktionsart preverbs freely combine with the present tense forms. Although the preverbs may result in a lexical aspectual function, i.e. perfective/terminative and inchoative, they generally do not affect the present tense function. In other words, Aktionsart preverbs do not participate in systemic aspectual contrasts; such present tense forms are not used for the future time reference.

Lexical aspectual function may be expressed by a number of suffixes, e.g. *-sk-*, *heurísko:* 'I find' (inchoative). We have seen in § 2.1.4 that this suffix may have several types of lexical functions: iterative, perfective or inchoative.[6] Neither Aktionsart preverbs nor suffixes, such as *-sk-*, express major aspectual grammatical distinctions within the verb system.

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[5] See the Table 1 in Chapter 2 for the systemic aspectual contrasts of the Ancient Greek verb system

[6] See § 2.1.4 in Chapter 2 for other morphemes that express lexical aspectual functions.

As shown in § 3.2, Aktionsart preverbs and a number of suffixes that express lexical aspectual functions in Latin have no effect on the major aspectual distinctions within the verb system itself, and therefore do not represent grammatical aspectual contrasts. The same diagnostic criteria in determining grammatical aspectual contrasts are applied as in Ancient Greek. The Latin verbal system is characterized by the binary perfectum/infectum aspectual opposition which is prominent in all tenses, i.e. present, future and past (see Table 5 in Chapter 3). Perfectum verb forms that express both perfective and resultative aspect, are represented by a number of morphological markers which all have the same grammatical aspectual function. The most productive morphological marker for the perfectum category is the suffix -vi-. A less productive marker -s-, as in vi:xi: from vi:vo: 'I live', du:xi: from du:co: 'I lead', is a remnant of the PIE aorist sigmatic marker. This type of marker is, however, reinterpreted within the changed Latin system. The three-way aspectual opposition of late PIE is changed into a binary perfectum/infectum by the merger of the old aorist and resultative categories. Subsequently the old sigmatic marker is recategorized as a perfectum marker.

Ancient Slavic had inherited a three-way aspectual opposition from late PIE. Three aspectual categories, i.e. imperfective, perfective and resultative[7], are present both in the past and non-past (see Table 1 in § 4.2.). However, the grammaticalization of

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[7] Ancient Slavic introduced a new way of marking resultative aspect by periphrastic perfect forms, which inherited the function of the late PIE reduplicated perfect.

lexical aspect altered the inherited aspectual categories. Aktionsart always entails a perfective function (except for secondary imperfectives). We have seen in § 4.5.1 (Chapter 4) that the aorist forms marked for Aktionsart possess either perfective/terminative or inchoative function. Simple aorist forms, as in late PIE, remained neutral in terms of completion. Aorist forms which were not marked for Aktionsart, e.g. *vedošę* (Sava Evangelium 97) from *vesti* 'to bring, lead, direct', function as imperfective in opposition to the aorist forms marked for Aktionsart, e.g. *izvedošę* (Sava Evangelium 46b) from *izvesti* 'lead away, out'.[8] Aorist forms marked for Aktionsart, therefore, are characterized by improved marking for perfectivity compared to the aorist forms inherited from late PIE, cf. Ancient Greek. Aktionsart verb forms also formed an aspectual opposition in the compound perfect forms. Unprefixed perfect forms, e.g. *šĭlŭ jesmĭ* 'I have gone', functioned as imperfective when opposed to the prefixed perfect forms, e.g. *izišĭlŭ jesmĭ* 'I have gone out'.

Although in Ancient Slavic Aktionsart preverbs became a dominant category in marking perfective aspect, the same grammatical function could be expressed by a number of different morphemes. We have seen in § 4.6 that the verbs in *-nǫ-*, *-ne-* became a particularly productive category in Ancient Slavic in marking perfective aspect. The Old Church Slavic documents show that the nasal suffix *-nǫ-* was mostly restricted

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[8]These examples are represented within the context in § 4.5.1 (Chapter 4); although *izvesti* 'to lead away, out' expresses a systemic imperfective function as opposed to the perfective *vesti* 'to bring, direct', these two examples specifically represent a telic/non-telic Aktionsart contrast.

to the aorist/infinitive system. The nasal suffix -*ne*-, on the other hand, occurred with the present stems expressing the perfective function. The following table represents the present, aorist and imperfect paradigms of the verb types *dvignōti* 'to move' and *minōti* 'to pass' (following Kul'bakin 1948:166-7 and Schmalstieg 1976:117-8).

Table 2

Present, imperfect and aorist of the nasal verbs

Present

Singular	1. dvig-n-ō	min-ō
	2. dvig-ne-ši	min-e-ši
	3. dvig-ne-tu	min-e-tu
Plural	1. dvig-ne-mu	min-e-mu
	2. dvig-ne-te	min-e-te
	3. dvig-n-ōtu	min-ōtu
Dual	1. dvig-ne-vě	min-e-vě
	2. dvig-ne-ta	min-e-ta
	3. dvig-ne-te	min-e-te

Imperfect

Singular	1. dvig-n-ěa-x-u	min-ěa-x-u
	2. dvig-n-ěa-š-e	min-ěa-š-e
	3. dvig-n-ěa-š-e	min-ěa-š-e
Plural	1. dvig-n-ěa-x-omu	min-ěa-x-omu
	2. dvig-n-ěa-š-ete	min-ěa-š-ete
	3. dvig-n-ěa-x-ō	min-ěa-x-ō
Dual	1. dvig-n-ěa-x-ově	min-ěa-x-ově
	2. dvig-n-ěa-š-eta	min-ěa-š-eta
	3. dvig-n-ěa-š-ete	min-ěa-š-ete

Aorist[9]

		Singular	Plural	
Singular	1. dvig-ʉ	dvig-o-x-ʉ	min-ō-x-ʉ	
	2. dviž-e	dviž-e	min-ō	
	3. dviž-e	dviž-e	min-ō	
Plural	1. dvig-omʉ	dvig-o-x-omʉ	min-ō-x-omʉ	
	2. dviž-ete	dvig-o-s-te	min-ō-s-te	
	3. dvig-ō	dvig-o-š-ē	min-ō-š-ē	
Dual	1. dvig-ově	dvig-o-x-ově	min-ō-x-ově	
	2. dviž-eta	dvig-o-s-ta	min-ō-s-ta	
	3. dviž-ete	dvig-o-s-te	min-ō-s-te	

Internal evidence from Ancient Slavic and comparative evidence from other I-E languages (see § 4.6) suggests that the nasal suffi.. had a lexical aspectual function in Common Slavic prior to the grammaticalization of Aktionsart. The most convincing evidence that these two morphemes did not have a grammaticalized perfective function (outside of the aorist paradigms) is encountered in the earliest documents of Old Church Slavic (Gospels in Codex Zographensis and Marianus, Psalterium Sinaiticum, Euchologium Sinaiticum). These texts provide evidence that present imperfective forms in *-je-* coexisted with the present imperfective forms in *-ne-*, e.g. *gublje-*, *gubne-* from *gybnōti* 'to perish'. Imperfective forms in *-je-* were subsequently eliminated; they do not occur in Supraspliensis, the later Old Church Slavic manuscript. Vaillant claims (1966:254) that the *-ne-/-nō-* alternation represents the relics of the earlier stages of Ancient Slavic where the nasal classes were not yet associated with the perfective

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[9] The verb *dvignōti* 'to move' retains the strong or root aorist besides forming the more recent sigmatic aorist.

aspectual function. With the general grammaticalization of Aktionsart, the morphological/semantic classes -nǒ-, -ne- acquired a grammatical perfective function.

There are only four verbs in Ancient Slavic that retain the old nasal infix, e.g. bǒde- 'be', lěže- 'lay', rěšte- 'tell', sěde- 'sit'. These verbs were also recategorized as perfective with the general perfectivization of Aktionsart in Ancient Slavic. The comparative evidence of I-E languages, especially of Baltic, shows that this morpheme was a productive marker of the inchoative and other types of lexical aspectual functions in Common Slavic (see § 4.6). Internal and comparative evidence suggest that Common Slavic had several productive ways of expressing Aktionsart or lexical aspectual function i.e., nasal suffixes -nǒ-, -ne-, the nasal infix, and simple or unprefixed verb pairs, represented in Table 21 in § 4.6.[10] Among the categories mentioned the nasal infix was probably the least productive. It was restricted to present stems and it expressed inchoative and other types of lexical aspect, based on a few relics in Ancient Slavic and the evidence of I-E languages. The nasal suffixes -nǒ-, -ne- were more productive and spread throughout the verbal system; -no- was common in the aorist/infinitive system, while -ne- was mostly restricted to the present stems. Determinate, semelfactive and perfective function[11] (compare tables 21 and 23 in § 4.6) was in fact expressed by a number of verbal types that characterized distinct semantic and morphological verb

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[10]We have seen that the simple, unprefixed verb pairs represented several types of lexical aspectual contrasts: determinate/indeterminate, imperfective/iterative, perfective/imperfective, semelfactive/imperfective.

[11]These functions expressed lexical aspect or Aktionsart in Common Slavic.

classes. Distinct morphological and semantic classes represented a very productive way of expressing lexical aspectual or Aktionsart contrasts prior to the Aktionsart grammaticalization.

The common functional contrast of various verb classes allowed for the consistent pairing of verbs. A tendency to form verb pairs in the Common Slavic verb was based on the lexical, i.e. Aktionsart, contrast represented by a number of morphological and semantic classes. Consistent verb pairing, on the basis of lexical contrast, was a prominent feature of the Common Slavic verb system even before the Aktionsart grammaticalization. These contrasts in Common Slavic were not equivalent to the grammatical aspectual contrast expressed by the I-E aorist/present stems. In other words, morphological and semantic classes did not participate in expressing primary aspectual contrast within the verb system of Common Slavic. This contrast interacted with the inherited PIE verbal categories (perfective, imperfective and resultative), but it did not *per se* cause restructuring of the verb system. We have seen in § 4.6 that the importance of various Aktionsart functions, represented by morphological and semantic verb classes, was defined as one of the crucial factors in relating Aktionsart prefixation with grammaticalization in Common Slavic (Maslov 1958, also supported by Schuyt 1990:309). Distinct morphological and semantic classes which formed different types of lexical contrasts represented a basis for the general Aktionsart grammaticalization.

Lexical aspectual contrasts expressed by various morphological and semantic classes combined with the Aktionsart function expressed by the preverbs. These

morphological and semantic classes represented a basis for a number of verb pairs (see footnote 10). Combining of the Aktionsart preverb with the determinate, perfective or semelfactive member of the earlier simple pairs subsequently resulted in perfective aspect (as shown in Table 23, § 4.6), beside the grammatical factors (to be discussed in the following section). The following example represents prefixation of a verb that already had a lexical perfective function, expressed by -nǝ- in the aorist and -ne- in the present (see the Table 2 in this section).

> **minŏti** PFV 'to pass by, pass, pass away'
> **minovati** IMPFV 'to pass by, go past'
>
> **prě** 'before, in front of' + **minŏti** PFV 'to pass by, pass, pass away'
> **prěminŏti** PFV 'to go, pass beyond'

Note here that *minŏti* was grammatically perfective with the general Aktionsart grammaticalization in Ancient Slavic. Before the preverbs acquired the status of grammatical perfectivizers, verb pairs such as *minŏti/minovati* expressed a lexical contrast (following Maslov 1958, Schuyt 1990:309).

It will be shown below in the following subsection that grammaticalization of lexical aspect is not solely related to the importance of lexical aspectual functions expressed both by various semantic/morphological classes and preverbs; a number of crucial factors are to be sought within the verb system of Ancient Slavic. In other words, Aktionsart grammaticalization results from an interplay of several factors, both semantic and grammatical.

5.2 Grammatical factors

Favourable circumstances for Aktionsart grammaticalization could have existed in the verb system itself. It will be shown here that the Ancient Slavic verb system was not characterized by clear-cut distinctions between aspectual categories. It was shown in Chapter 1 that the verb stems were crucial in expressing aspectual functions within the verb system of late PIE. That is to say, there was a clear distinction between the present and aorist stems in expressing the imperfective and perfective function respectively, e.g. *élu:on* 'I was loosening', *élu:sa* 'I loosened' from *lú:o:* 'I loosen' (Ancient Greek). In Ancient Slavic the sigmatic marker was historically shared by the imperfect and aorist categories (as discussed in § 4.3.2.).

Table 3

Sigmatic aorist and imperfect

pluti 'to sail'

	sigmatic aorist (older type)[12]	imperfect
Singular	pluxн (< *plu-s-om)	plověaxн
	plu	plověaše
	plu	plověəše
Plural	pluxomн	plověaxomн
	pluste	plověašete
	plušě	plověaxõ
Dual	pluxově	plověaxově
	plusta	plověašeta
	pluste	plověašete

A change in the formation pattern of the imperfect category in Ancient Slavic could be explained in two ways. It is possible that the sigmatic marker represents the relic of the old periphrastic construction which was formed from auxiliary běхн, the imperfect form of the verb *be* and the infinitive (suggested by Meillet 1934:272).[13] A very similar pattern of formation may be detected in the imperfect forms of Latin (discussed in Chapter 3). According to Meillet (1934:272) the imperfect forms of Ancient Slavic have an obscure origin. He further argues that the old imperfect is lost in the languages which

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[12]There are two types of sigmatic aorist in Ancient Slavic, i.e. the older and more recent type (as shown in § 4.3, Chapter 4).

[13]Possible formations of the imperfect in Common Slavic were discussed in § 4.8. As opposed to Meillet, Vaillant (1966:65) claims that the imperfect was based on the present participle.

also lost the augment. In order to restore the function of the PIE imperfect a new periphrastic form meaning *I was in the process of* arose. Ancient Slavic imperfects such as *nesěaxu* 'I was carrying' must have a periphrastic origin[14] just as Latin *fere:bam* and Armenian *berei* (Meillet 1934:272).

The formal "rapprochement" of the Ancient Slavic imperfect and the aorist represents one of the factors for the grammaticalization of Aktionsart. It was shown that the Aktionsart grammaticalization represents an improved marking of perfectivity, comparing to the inherited aorist stems. Aktionsart grammaticalization was partly facilitated by formal "rapprochement" of the imperfect and aorist, which was marked by the shared sigmatic marker. That is to say, there was a tendency to base both aorist and imperfect forms on the aorist/infinitive stems (as was shown in detail in § 4.3). Whether the earlier sigmatic marker of the imperfect forms is the result of the original periphrastic constructions or the formal remodelling of paradigms, it represents one of the significant factors for the grammaticalization of Aktionsart. In other words, since the aorist and imperfect shared /š/ and /x/ allomorphic variants of the historical sigmatic morpheme {s} (as discussed in § 4.3.2), the system needed a new way of perfective marking.

To summarize, the Ancient Slavic imperfect could have originated as a periphrastic construction. Subsequent cliticization gave rise to the imperfect forms with the sigmatic marker resulting in certain formal similarities between the aorist and imperfect. The sigmatic marker could have also generalized from the aorist to the

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[14]Discussed in § 4.8

imperfect paradigms. Similarities in formation patterns and inconsistencies in forming the imperfect and aorist (see Tables 3 - 11 in § 4.3 for paradigms in different verb classes) obscure the inherited aspectual contrast of these categories. The lack of clearly defined stem distinctions represented a very favourable condition for grammaticalization of Aktionsart aspectual contrasts. That is to say, the late PIE stem distinctions were obscured in Ancient Slavic thus requiring a new way of perfective/imperfective aspect marking. In § 4.3 it was also argued that the Aktionsart grammaticalization, that had already commenced in Ancient Slavic, had probably influenced further increase in similarity between the aorist and imperfect categories. In addition, with the progressive decay of phonemic length the imperfect *zъvaːxъ* and the aorist *zъvaxъ* (from *zъvati* 'to call') became homophonous during the later stages.

Beside the increasing opacity of the aorist and imperfect categories, the rise of the new future forms in Ancient Slavic is closely related to the Aktionsart grammaticalization. The late PIE sigmatic aorist stems, that combined with the non-past inflection (Ancient Greek *eleúsetai* 'he will go' from *érkhetai* 'he goes'), were replaced by the non-past forms marked by the perfective Aktionsart to express future time reference in Ancient Slavic (*pri-idǫtъ* 'they will come' - Codex Marianus, Matthew VIII 11, cf. *idǫ* 'I go' Codex Marianus, Matthew XXI 30).[15] It will be shown that the loss of the sigmatic future may be in a way related to the new form of perfective marking. The use of the present perfective forms was already firmly established by the time of the

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[15]Examples within the context are provided in § 4.5.3 (Chapter 4).

earliest Old Church Slavic documents (as shown in the passages taken from Gospels, in § 4.5.3), while sigmatic future forms in the indicative mood had been completely ousted (to be discussed below).[16] The Aktionsart grammaticalization in general implies rise of the aspectual future. That is to say, a perfective/imperfective contrast characterizes the verb system as a whole and it necessarily obtains both in the past and non-past forms (see Table 1 in § 4.2). The past Aktionsart forms represent perfective events in the past. Present forms marked for Aktionsart also represent perfective events, which based on incompatibility with the moment of speech, could be classified as the perfective forms in the non-past and used for future time reference.[17] The moment of completion represented by the perfective aspect is normally incompatible with the moment of speech. This characteristic of the perfective aspect was also recognized by Meillet (1934:284) who claims that the completion of a process has only two possibilities for accomplishment relative to the moment of speech. The process is either already complete prior to the moment of speech or it is about to start with anticipated completion in the future. Present forms marked for the Aktionsart could also be used for the habitual events, as shown in § 4.5.6.

Traces of the sigmatic future are detected in the most ancient Old Church Slavic documents. According to Vaillant (1966:104) conservative Slavic texts retain the future

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[16]Sigmatic future participles such as *byšęšt-*, *byšǫšt-* (from *byti* 'be') represent a basis for reconstruction of the sigmatic future in Common Slavic.

[17]See § 2.3. in Chapter 2 for the cognitive analysis of aspectual contrasts in Ancient Greek.

participle *byšēšt-*, *byšōšt-* (from *byti* 'be') which is subsequently replaced by the future participle *bōdōšt-* based on the present perfective *bōde-*. Assuming an earlier unity of Baltic and Slavic, Vaillant (1966:104) provides supporting evidence for the sigmatic future in Ancient Slavic. Baltic languages continued the sigmatic future forms, which were altogether ousted in Slavic, e.g. Lit. *līksiu* from *līkti* 'to stay', *darỹsiu* from *darỹti* 'to do' cf. Latv. *likšu*, *darīšu* (Vaillant 1966:104). In Ancient Slavic the sigmatic future was replaced by the perfective present forms. Given that Ancient Slavic introduced rigorous aspectual distinctions, prefixed present forms acquired perfective function and started to be used for future time reference, e.g. *ziždō* 'I build'/*suziždō* 'I will build' (Vaillant 1966:104-5). As Schuyt (1990:310) points out, even before the grammaticalization of Aktionsart the present tense forms had a wide semantic range including future time reference.

The loss of the sigmatic future in Ancient Slavic (assumed from the survival of the future participles) and a tendency of the verb system to have parallel aspectual contrasts in the past and non-past (cf. Ancient Greek and Ancient Slavic) suggest that the lack of the sigmatic marker in the non-past might have been one of the factors for a new way of perfective marking. Vaillant (1966:462) seems to support the view that the loss of the sigmatic future is related to the grammaticalization of Aktionsart. In order to continue the function of the sigmatic future forms, preverbs acquired a major role in representing the anticipated result of the verbal action. The present forms in general, both perfective and imperfective, continued the future function. Vaillant points out that

present forms with preverbs always have a resultative function denoting the future, while the forms without preverbs may also indicate the future. Prefixed present forms thus express the future, e.g. *u-zɨrẽtɩ* 'he will see', *po-suljetɩ* 'he will send', *sɩ-beretɩ* 'he will collect' (Mark XIII 26-27), while the imperfective present forms without the preverb may express the durative future, e.g. *čɨto jamɩ li čɨto pijemɩ* 'what shall we eat or what shall we drink' (Matthew VI 31) (Vaillant 1966:462-3). Vaillant concludes that the loss of the sigmatic future relegates its function to the present forms, both perfective and imperfective, which is related to the rise of aspect. Grammaticalization of lexical aspectual contrasts is triggered by frequent use of the preverbs with the present forms to express the future, and the parallel use of preverbs in the aorist to express perfective aspect in the past.

> ...le recours paticulièrement fréquent à une forme à préverbe pour exprimer le futur, et également l'aoriste à préverbe par opposition à l'imparfait, prétérit du verbe simple, constituait une première ébauche du système de l'aspect: le verbe à préverbe se trouvait pourvu d'une certaine valeur grammaticale (Vaillant 1966:463).
> 'Particularly frequent resorting to a preverb in order to express the future, and also the frequent use of the preverb with the aorist in contrast with the imperfect represented the first outline of the aspect system: the prefixed verb was provided with a certain grammatical value' (translated by S.M.).

It could also be speculated that the Aktionsart grammaticalization triggered the loss of the sigmatic future. The general absence of the sigmatic future forms indicates that the loss of the future is related to the Aktionsart grammaticalization. Given that the sigmatic future forms are generally absent and that the present forms could be used for future time reference, it is very probable that the sigmatic future was lost prior to the

grammaticalization of lexical aspect. It follows that the loss of the sigmatic future forms represents one of the favourable conditions for the grammaticalization of lexical aspect or Aktionsart, along with the obscured perfective marking in the past represented by the earlier morphological marker -s- both in the aorist and imperfect.

The most adequate solution should be sought in an interplay of the causative factors thus far outlined in this section. We have seen that a general tendency of the verbs to form pairs that expressed a number of lexical aspectual functions, represented by various morphological and semantic classes and Aktionsart preverbs, contributed to the grammaticalization of the lexical aspect in general. It was also shown that the grammaticalization of lexical aspect was facilitated by the favourable conditions within the verb system itself. That is to say, increased similarity of the aorist and imperfect in form obscured the perfective/imperfective contrast in the past (see Tables 3-11 in § 4.3 for review of verb classes). Also the loss of the sigmatic future would have influenced Aktionsart grammaticalization for the purpose of expressing the future. A new way of perfective marking was necessary in the past and also in the non-past for the purpose of expressing the future.

Aktionsart grammaticalization allowed for continuation of the future function in the non-past forms after the loss of the sigmatic future in Common Slavic. Ancient Slavic (as represented by OCS documents) therefore shows a change from one type of aspect marking to another. As shown the late PIE (and presumably Common Slavic) aspect marking by means of stems had been considerably weakened in the verb system

of Ancient Slavic as a whole. It was completely ousted in the non-past forms, i.e. the sigmatic future forms, while the distinction between present and aorist stems was blurred in the past. I hereby disagree with Kurylowicz that the future function of the prefixed forms such as *pripekǒ* 'I shall bake well' is not to be related to the perfective aspect.

> The future value characteristic of *pripekǒ* is not to be accounted for by the perfective aspect but to be considered as a residuary function in spite of being strongly represented in the historical languages. This follows from the other secondary uses of *pripekǒ* like habitual action or possibility of action. (Kurylowicz 1964:100)

It is true that the present forms, both prefixed and unprefixed, were characterized by a wide functional range which included the future function. However, the secondary use of *pripekǒ*, which eventually becomes the main exponent of future function, represents a consequence of the sigmatic future loss. That is to say, loss of the future forms imposed a necessity for the new future forms. And since Ancient Slavic had undergone weakening of one type of aspectual contrast, it had subsequently resorted to another, i.e. contrast expressed by the grammaticalized Aktionsart. As shown in the following paragraph this change had operated symmetrically both in the past and non-past.

As shown in this thesis, both Ancient Greek and Ancient Slavic (and presumably late PIE) have a temporal past/non-past distinction (compare table 1 in Chapter 2 with table 1 in § 4.2). Past and non-past forms are characterized by a three way aspectual opposition, i.e. imperfective, perfective and resultative. Aspectual contrasts are primary, obtaining both in the past and non-past forms.

The perfective aspect in the non-past forms expresses a future function in both languages. In Ancient Greek, the sigmatic aorist stems in combination with primary, i.e. non-past, endings express the future function. In Ancient Slavic the grammaticalized Aktionsart in the non-past forms denotes the future. It may be observed that also in the past, the aorist stems and Aktionsart represent grammatical aspectual functions in Ancient Greek and Ancient Slavic, respectively.[18] In Ancient Greek aorist forms combine with secondary (i.e. past) inflection to form the past perfective. In Ancient Slavic Aktionsart combines with the aorist to express the perfective aspect (§ 4.5.1)[19] in the past and with the imperfect to express the iterative function (§ 4.5.7). It also combines with the non-past perfect category to express the result of the past perfective events (§ 4.5.4).

Grammaticalized Aktionsart represents an improved way of perfective marking in relation to the aorist category in Ancient Slavic where the sigmatic marker which was historically shared by the aorist and imperfect was no longer a distinctive marker of perfectivity. Aktionsart grammaticalization gives rise to the perfective aorist forms which are opposed to the aorist forms unmarked for Aktionsart. The aorist forms unmarked for Aktionsart are inherently neutral for aspect and preserve the function of the late PIE aorist in representing complete events. These forms are imperfective when

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[18] Grammaticalized aspect in Ancient Slavic, i.e. Aktionsart, always expresses perfective function, while the aorist in Ancient Greek inherently denotes complete events which could have a perfective function, depending on the lexical meaning of the verb.

[19] Aorist forms unmarked for lexical aspect denote complete events, as in Ancient Greek. These forms are neutral compared to the aorist forms marked for lexical aspect which explicitly denote perfectivity, i.e. inception or termination of an event.

opposed to the aorist forms marked for Aktionsart, although they do not inherently express the imperfective aspect denoted by the imperfect.

In Ancient Slavic aspectual contrasts, represented by Aktionsart, exist both in the past and non-past, replacing the old stem contrast of late PIE. The future function of the non-past forms is therefore related to the perfective aspect. Loss of the sigmatic future represents one of the factors for the association of the Aktionsart with the future in the non-past forms, e.g. *proideṫъ* 'he will pass' (Sava Evangelium 139b).[20] As argued above in this section, a need for continuing the future function via a new aspectual contrast was not the only cause of the Aktionsart grammaticalization.

As we may observe, several factors, both lexical and grammatical, combined to trigger grammaticalization of the lexical aspect (Aktionsart). As Anttila (1972/1989:180) points out, historical linguists tend to look for a single cause in explaining diachronic changes. For example, according to Maslov (1958) and Schuyt (1990:309) the rise of aspect is related to a well defined distinction of morphological and semantic verb classes that had already been correlated with various lexical aspectual functions. Vaillant (1966:463), on the other hand, shows that the triggering factors are to be sought within the verb system; Aktionsart grammaticalization is related to the loss of the future whereby the preverbs acquired a grammatical role in expressing the future and the perfective role in the past.

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[20] See this example within the context in § 4.5.3.

I would like to emphasize that all the factors outlined in this section are equally important; both lexical and systemic/grammatical factors interact to bring about a grammatical change. Systemic factors responsible for this major grammatical change are not to be restricted to the loss of the sigmatic future. We have also seen that the Ancient Slavic past categories, i.e. aorist and imperfect, became increasingly similar. In general, we have evidenced fading of clear aspectual distinctions in the system inherited from PIE. In the past tense the imperfect historically shared a sigmatic marker with the aorist. And in the non-past, sigmatic forms that expressed the future had been ousted. Consequently the whole system required a new way of perfective marking both in the past and non-past. According to Anttila a number of different factors combine to cause a language change.

> The causality of change resides in a complicated texture of social, physiological, psychological, phonological (and other systemic) factors. It is clearly wrong to seek only one factor which would explain everything. One must acknowledge the psychological factor to be the strongest one - that is the general tendency towards simplicity and symmetry (Anttila 1972:193).

That there is indeed "a general tendency towards simplicity and symmetry" is evidenced by the systemic contrasts within the verb systems of Ancient Greek and Ancient Slavic. Both languages show parallel functional contrasts in the past and non-past.

The loss of the sigmatic future in Ancient Slavic imposed a requirement for an alternative way of expressing the future, i.e. grammaticalized Aktionsart of the present

forms, or more precisely non-past. A symmetrical aspectual contrast operated in the past where the Aktionsart acquired the perfective function in the aorist and perfect forms. The criterion of "simplicity and symmetry" was crucial in eliminating the old aspectual categories in the past, i.e. aorist and imperfect in most modern Slavic languages. That is to say, Aktionsart or lexical aspectual function in general replaced the old aspectual categories both in the past and non-past.

5.3 Effects and accompanying processes

The loss of the old aspectual categories in the past, i.e. aorist and imperfect, represents a result or effect of the Aktionsart grammaticalization. Aktionsart preverbs and suffixes had already acquired the perfective aspectual function in Ancient Slavic, while the old aorist and imperfect categories persisted until the 15th century in most Slavic languages. Lexical aspect or Aktionsart could combine with all categories in the past, i.e. perfect, aorist and imperfect.[21] As shown in § 4.2, prefixed perfect forms, e.g. *iziš+lu jesm+* 'I have gone out', acquired perfective function relative to the unprefixed perfect forms, e.g. *š+lu jesm+* 'I have gone'. By the same token prefixed aorist forms, e.g. *izvedoše* 3PL (Sava Evangelium 46b) from *izvesti* 'to lead out, away' became

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[21]Combining of the preverb with the imperfect is relatively rare due to the contradictory function of the two (see § 4.5.3 for examples). Prefixed imperfect forms have an iterative function representing a repeated event in the past.

perfective relative to the unprefixed aorist forms, e.g. AOR *vedoše* 3PL (Sava Evangelium) 97 from *vesti* 'to lead'.[22]

An interesting issue is why the perfect became recategorized as the past tense in most Slavic languages at the expense of the old aorist category. According to Vaillant (1966:58-9) one of the causes of the loss of the aorist is to be sought in its function relative to the perfect. Vaillant points to the limitations of the aorist usage. In Ancient Slavic one of the usages of the aorist was to express the past which is based on direct knowledge while the perfect refers to the act obtained indirectly through informing. A distinction between the aorist used for direct narration and the perfect used for indirect narration has fully developed in Bulgarian and Macedonian which preserve both categories, to be discussed in § 5.4. In Ancient Slavic the aorist also indicated the recent past as opposed to the perfect which could refer both to the distant past and legendary past. Vaillant also points out that in certain dialects of Eastern Serbian (the region of Banat) the aorist function is maximally restricted to the actions of the same day. A generally limited usage of the aorist subsequently lead to its disappearance (Vaillant 1966:58-9).

Vaillant (1966:58) argues for a multiple causation of the loss of the aorist. Functional limitations were accompanied by the morphological ambiguity of certain aorist forms. There is an ambiguity in form between the 2nd and 3rd person singular, e.g. S.-

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[22]These examples are represented within the context in
§ 4.5.1.

Cr. *reč* 'you said, he said', in the aorist paradigm. Another type of formal ambiguity obtains between the 2nd and 3rd person of the aorist and the imperative, e.g. A.Sl. *sъtvori* from *sъtvoriti* 'to make, do, create'. Also, the third person singular of the aorist could be easily confused with the same person of the present perfective used for future reference, e.g. *reče* 'he said', *reče(tъ)* 'he will say' after the disappearance of *-tъ* in the present paradigms (Vaillant 1966:58).

The factors outlined above are not crucial, however. This is also emphasized by Vaillant (1966:58) who claims that these morphological factors do not affect the aorist in the languages in which it is preserved. The loss of the aorist in most Slavic languages represents an effect of Aktionsart grammaticalization. Grammaticalized Aktionsart eliminated the need for the old aorist and imperfect. We have seen that the broader functional range of the old perfect category was a decisive reason for its survival. The old resultative category, i.e. perfect, has been generally recategorized as a past tense in most modern Slavic languages. Perfective aspect in the past came to be expressed by perfectivized Aktionsart in the compound forms (as shown in § 5.4). Some Slavic languages, i.e. Bulgarian, Macedonian and Upper Sorbian, retain the aorist and imperfect categories beside the generally productive perfect forms.

Aktionsart grammaticalization had more than one effect. If a grammatical change arises from an interplay of multiple causes, it is logical that it would produce multiple effects. It led to the loss of the aorist and imperfect categories. As a matter of fact, this grammaticalizing change resulted in complete restructuring of the inherited verb system.

The aorist and imperfect became redundant due to the Aktionsart aspectual contrast in the perfect category.

We have seen in § 4.2 that the Aktionsart forms were opposed to the forms unmarked for Aktionsart both in the past and non-past in Ancient Slavic. Since the Aktionsart often modified the lexical meaning of the verb, there was a need for imperfective counterparts with the identical lexical implications. Prefixation[23] which gradually resulted in the perfective grammatical aspect gave rise to the secondary imperfective forms.

Table 4

Prefixation and secondary imperfective

simple verb	perfective	secondary imperfective
kryti 'to hide'	pri-kryti 'hide slightly'	pri-kry-va-ti

In § 4.7 it was shown that these forms were derived before the firm establishment of the Aktionsart aspect in Ancient Slavic. At first prefixed forms simply had a lexical aspectual function whereby the preverb obscured the imperfective function of the simple verb. A strong association of the preverb with the lexical aspectual function triggered the rise of the secondary imperfective. The secondary imperfective in turn reinforced the lexical aspectual function of the prefixed verb, representing one of the factors for the rise of grammatical aspectual distinctions (as argued by Kuryłowicz 1964:98, see § 4.7). The rise of the secondary prefixed forms coincided with the prefixation of the simple

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[23]Aktionsart is most often represented by the prefixed verbs.

verb forms. Association of the prefixed forms with the perfective aspect triggered association of these secondary forms with the imperfective aspect. "Secondary imperfectivization" therefore accompanies Aktionsart grammaticalization. Parallel prefixation of earlier lexical pairs (discussed in § 4.6) results ultimately in prefixed perfective and prefixed imperfective pairs. Originally determinate, perfective, or semelfactive members acquired a perfective function relative to the unmarked or imperfective members (see Tables 20 and 22 in § 4.6 for examples). It seems that the secondary imperfectivization was simultaneous with the Aktionsart perfectivization in general.

5.4 Effects of the Aktionsart Grammaticalization on the Modern Slavic
perfect constructions

A new way of perfective marking already employed in Ancient Slavic rendered the aorist and imperfect redundant and led to their disappearance. The aorist was lost in the Northern Slavic languages between the 12th and 14th centuries, but remained in Southern Slavic at least until the 15th century. The aorist and imperfect are still present in Macedonian and Bulgarian, direct descendants of Southern Ancient Slavic, and in Sorbian.

The preservation of the aorist and imperfect in Macedonian and Bulgarian is related to recategorization of the perfect construction as the inferential. There are two

types of perfect constructions in Macedonian. They may express present result of a past event.

Gledam,	gorata	se	svršila[24]
see-1SG	forest-ART	REFL	finish-PP-PFV-F

'I see, the forest has finished'

They may also used in renarration to express an event heard from someone else, but not witnessed.

Ti	si	padnal	od	drvo
you	be-2SG	fall-PP-PFV-M	off	tree

'I heard you fell off a tree'

The aorist, formed only from perfective verbs in Macedonian, denotes completed events witnessed by the speaker.

dojdov 'you SG came'
pokažav 'you SG showed'

There are also two types of perfect constructions in Bulgarian. The perfect with the l-participle based on the aorist stem denotes either a direct statement or renarration, i.e. an event not witnessed by the speaker.

čel	si
read-PP-AOR	be-2SG

(1) 'you have read'
(2) 'they say you read'

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[24]Examples are taken from de Bray, 1980

Perfect forms with the imperfect participle denote only events which are not witnessed by a speaker.[25]

    četl   si
    read-PP-IMPERF be-2SG
    'I hear (they say) you were reading'

The aorist in Bulgarian is used in direct statements, denoting complete events, e.g. *čètox* 'I read', as opposed to the imperfect which expresses events in progress, e.g. *četjàx* 'I was reading'.

Certain dialects of Serbo-Croatian also retain the aorist and imperfect. Both aorist and imperfect are marginal in the spoken languages, especially the imperfect. Both aorist and imperfect are more common in literary works where they retain the same functions as the Ancient Slavic categories. Aorist forms represent inherently complete events without an explicit emphasis on the internal structure of an event. Aorist forms marked for the Aktionsart always have a perfective function. Aorist forms unmarked for Aktionsart are neutral, however compared to the aorist forms marked for Aktionsart they acquire imperfective function. These regional dialects of Serbo-Croatian retain the Ancient Slavic state of affairs.

The analytically expressed perfect in Ancient Slavic represents the resultative aspect in the non-past. It is formed by combining the full form of the auxiliary 'be' and the resultative participle, e.g. *šĭlŭ jesmĭ* - IMPFV 'I have gone', *izišĭlŭ jesmĭ* PFV 'I

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[25]Recategorization of the perfect as the inferential category is a complex issue related to language contact, which is beyond the scope of this thesis.

have gone out'.[26]   Between Ancient Slavic and Modern Slavic, the perfect starts to acquire a major role in expressing past events, except for Bulgarian, Macedonian and Sorbian.   Otherwise, the loss of the aorist and the imperfect allows for the recategorization of the old perfect as the past tense in modern Slavic languages.

In modern Slavic languages, Serbo-Croatian for example, the old perfect category is in the process of becoming the past tense category. Here the Ancient Slavic prefixed perfective perfect, e.g. *iziš+lu jesmĭ*, is being recategorized as the past perfective form, e.g. *izišao sam*[27] 'I have gone out, I went out', while the Ancient Slavic imperfective perfect, e.g. *š+lu jesmĭ*, is being recategorized as the past imperfective form, e.g. *išao sam* 'I have gone out, I was going out'.   Just as the Ancient Slavic unmarked perfect, the unmarked past forms in Serbo-Croatian function as imperfective when opposed to their marked perfective counterparts.   The indicators that reveal a change in progress are the active function of the past participle which used to function as resultative, as well as the synchronic structure of the periphrastic form.   It is also important to note that the current past forms in Serbo-Croatian have an ambiguous meaning indicating either a past event or the ensuing state.   All these indicators point to a gradual change from the perfect to the past tense category.

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[26]This aspectual pair specifically expresses a non-telic/telic Aktionsart contrast besides the general imperfective/perfective aspectual contrast.

[27]See examples of perfect, which represent intermediate stages, below.

The Ancient Slavic periphrastic perfect was formed by combining the full form of the auxiliary 'be' and the resultative l-participle, e.g. *dalʉ jesmɨ* 'I have given'. While the resultative l-participle was used only in compound tenses, both active and passive participles existed. The full form of the auxiliary and the resultative participle which implies the state or result of a past event indicate that the Ancient Slavic periphrastic form was a perfect category and not a past tense. Meillet (1934:264-5) argues that the perfect indicates a result or state of the past action, and thus is clearly distinct from the aorist. The following examples show that the Ancient Slavic perfect corresponds to the Ancient Greek perfect:

Ancient Slavic

sɨ pride kʉ nemu...i reče emu. rav'vi, věmɨ čko otʉ boga **prišɨlʉ esi (PERF)** učitel'i... 'This man came to Jesus...and said to him, "Rabbi, we know that you are a teacher that has come from God.."' (Codex Marianus, John III 2).

Ancient Greek

hoûtos ê:lthen pròs autòn...kaì eîpen autô:y. rabbí, oídamen hóti apò theoû **elé:luthas (PERF)** didáskalos (John III 2, in Meillet 1934:265).

However, there are cases where the Ancient Greek aorist corresponds both to the aorist and perfect in Ancient Slavic. Thus Ancient Greek *apéthanen*(AOR) 'she died' may correspond to the Ancient Slavic aorist, e.g. *dušti tvoě umrětʉ*(AOR) 'your daughter died' (Mark V 35), but it may also correspond to the Ancient Slavic perfect, e.g. *otrokovica něstʉ umrʉla*(PERF) *nʉ sʉpitʉ* 'The child is not dead, but sleeping' (Mark V 39), in Meillet 1934:264. According to Meillet (1934:264) translators of the Greek

Gospel were not able to correctly perceive distinctions between the aorist and perfect since the two were functionally blurred in later stages. However, it is possible that the Ancient Slavic perfect, particularly perfect forms based on the Aktionsart perfective verbs, had already started to be associated with the past tense. In other words, recategorization of the old perfect as the past tense form had already started in Ancient Slavic. As argued here this type of recategorization represents one of the consequences of the Aktionsart grammaticalization and the aorist redundancy. In the following paragraphs it will be shown that Ancient Slavic represented only an initial stage for the functional overlap between the aorist and perfect. The perfect was definitely associated with the past tense only in medieval and modern Slavic languages.

As Seliščev (1952:173) points out, the perfect function in Ancient Slavic is often different from the perfect function in Ancient Greek; it is often closer in meaning to the Ancient Greek aorist. He states that in Ancient Slavic translations of the Ancient Greek texts, perfect forms sometimes correspond to the Ancient Greek aorists and sometimes to the perfect. In light of the major change that had already taken effect in Ancient Slavic, i.e. the grammaticalization of Aktionsart, the periphrastic perfect formed from the Aktionsart perfective verbs would have corresponded in function to the Ancient Greek aorist. Seliščev (1952:173) recognizes the functional correspondences between the Ancient Slavic perfect and the Ancient Greek aorists, e.g. Codex Marianus - A. Sl. *dalu esi*, A. Gr. - *édo:kas*; Codex Assemanius - A. Sl. *sutvorilu estu*, A. Gr. *epoíe:sen*. He also points out that the Ancient Greek aorist *epoíe:sen* may correspond to the Ancient

Slavic aorist *upodobi* (note here that the Ancient Greek aorist corresponds to the Aktionsart marked aorist in Ancient Slavic). This state of affairs indicates that the Common Slavic perfect had inherited the late PIE function of the perfect, i.e. resultative, although the formation pattern had changed. Aktionsart grammaticalization had most probably taken effect at some point in Common Slavic and triggered a chain of developments in Ancient Slavic. One of the effects was the association of the perfect with the past tense. This type of association however was not firmly established in Ancient Slavic, as the aorist and imperfect were still productive in expressing past tense events. As shown above, aorist forms, unmarked for Aktionsart, correspond to the Ancient Slavic (and presumably late PIE) sigmatic aorist.

The following paradigm illustrates the general pattern of formation of the periphrastic perfect in Ancient Slavic.

Table 5

Periphrastic perfect in Ancient Slavic

priti 'arrive, come, approach'

Singular	Plural	Dual
priš≀lu jesmĭ	priš≀li jesmu (M)[28]	priš≀la jesvě (M)[29]
priš≀lu jesi	priš≀li jeste (M)	priš≀la jesta (M)
priš≀lu jestu	priš≀li sōtu (M)	priš≀la jeste (M)

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[28] prišuly jesmu (F), prišula jesmu (N)

[29] priš≀lě jesvě (F and N)

Although the full form of the auxiliary was generally used in the periphrastic perfect forms, the occurrence of clitics is already attested in the Old Church Slavic documents (Seliščev 1952:173, Nikolić 1990:213). As Seliščev (1952:173) points out, the 11th century speech of Bulgarian Slavs was characterized by the reduction of the auxiliary in the 3rd person singular, e.g. *posulalu jestu - je posulala* 'he has sent', and 3rd person plural, e.g. *sǫtu prišłli - sǫ prišłli* 'they have arrived' (Suprasliensis). In the 3rd person singular, the auxiliary is sometimes omitted, e.g. *sutvorilu* 'he has created', *pokazalu* 'he has shown' and more rarely in the 3rd person plural, e.g. *subrali* 'they have collected', *besědovali* 'they have discussed' (Suprasliensis). Reduction of the auxiliary was however not a rule in Ancient Slavic, as the full forms of the auxiliary are also documented. In cases of reduction, the position of the auxiliary is not restricted to the sentence second position:

i ravuny namu **sutvorilu**(PP) **jě esi**(AUX) [PERF] 'And you have made them equal to us' (Codex Marianus, Matthew XX 12).

i čto **esi**(AUX) **sutvorilu**(PP) [PERF] 'and what have you done?' (Codex Marianus, John XX 35)

Examples such as these show that in Ancient Slavic the reduced auxiliary is not necessarily cliticized to the participle. It is not necessarily cliticized to the negative, either, e.g. *ne dalu jesmı̵, něsmı̵ dalu* 'I have not given' (in Nikolić 1991:213).

Formation of the Ancient Slavic periphrastic perfect has undergone considerable changes between Ancient and modern Slavic languages. As shown below, in most Slavic languages the reduced auxiliary is cliticized to the participle. In Russian however the

auxiliary is regularly omitted, In other Slavic languages, the auxiliary is either cliticized to the participle, as in Serbo-Croatian and Czech, or changed into an inflectional ending, as in Polish (see the examples below). It will be shown in what follows that Slavic languages are in different stages of recategorizing the Ancient Slavic periphrastic perfect into a synthetic past tense form.

In Serbo-Croatian full form auxiliaries were already replaced by clitics in the second half of the 15th century.[30]

End of the 15th century

Ti   si   bila[31]
you   be-2SG   be-PP-IMPFV-F
'You (SG) were'

16th century

Ostao   je[32]
PFV-remain-PP-M be-3SG
'He remained'

---

[30]Dialectal variations between Serbian and Croatian dialects are not addressed in representation of the Medieval data. The following examples are used simply to show a change between Ancient Slavic and modern Slavic perfect formation. The same applies to the future forms in medieval Serbo-Croatian, represented later on. Verses that exemplify the perfect and future formation are taken from the medieval lyric and epic poetry compiled and translated by Thomas Butler in his Monumenta Serbocroatica - A Bilingual Anthology of Serbian and Croatian texts from the 12th to the 19th century, 1980, Michigan Slavic Publication, Ann Arbor, Michigan.

[31]From the *Vision of Tundal*, a version from the glagolitic Petrisov Zbornik, 1468.

[32]From the folk balad *Kraljević Marko i Brat Mu Andrijaš* by Petar Hektorović

18th century

Kadali je		zora	zabilila[33]		
When be-3SG		dawn	PFV-turn light-PP-F		

'When the dawn turned light...'

19th century[34]

Ja	sam	bio	u	carevoj	vojsci
I	be-1SG	be-PP-IMPFV-M	in	sultan's	army

'I was in the Sultan's army'

The present day Serbo-Croatian periphrastic form has a modified structural configuration compared to the Ancient Slavic periphrastic perfect. It consists of a reduced cliticized auxiliary which according to Wackernagel's Law always occupies the unstressed, sentence second, position. In constructions with morphological predication the auxiliary is encliticized to the participle.

Ja	sam	išao/išla
I	be-1SG	go-PP-IMPFV-M/F

'I was going, I have gone'

Constructions with morphological predication
Išao/išla	sam
go-PP-IMPFV-M/F	be-1SG

Likewise, the unmarked l-participle has acquired the active function having changed from the Ancient Slavic resultative l-participle. The formal and functional development of the

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[33]A Fourth Song about Duke Janko and Saint John of Capistrano, How They routed Emperor Mehmed, Murat's Son, Below Belgrade in 1456, by Andrija Kačić-Miošić, written in the 18th century.

[34]Taken from the epic poem *Marko Kraljević and Mina from Kostur*, published by Vuk Stefanović Karadžić in the 19th century

Ancient Slavic perfect at the contemporary stage of Serbo-Croatian allows a prediction of a future full fledged past form whereby the clitic following the participle will probably become an inflectional personal ending.

The resultative function of the Ancient Slavic perfect has almost completely undergone a functional recategorization into past tense in modern Serbo-Croatian. However, Serbo-Croatian past/perfect forms are still periphrastic forms composed of the l-participle and the cliticized auxiliary. In other words, the periphrastic form has not yet changed into the synthetic form. The enclitic is still autonomous in Serbo-Croatian periphrastic forms. The full-form auxiliary is very rare as a part of the periphrastic form in statements where it may be used for emphatic purposes.

```
Oni     jesu        otišli
They    be-3PL      PFV-go away-PP-M PL
'They went away/have gone away'
```

The reduced auxiliary is most often used in statements.

```
Oni     su          otišli
they    be-3PL      PFV-go away-PP-M PL
'They went away/have gone away'
```

The full-form auxiliary is however regularly used in questions, as in the following example.

```
Jesu        li          otišli
be-3PL      QUEST       PFV-go away-PP-M PL
'Have they gone away?'
```

Otherwise the cliticized auxiliary is regularly used in the past/perfect periphrastic forms in modern Serbo-Croatian. It is cliticized to the l-participle only in constructions with

morphological predication. Observe the positioning of the enclitic in formations with and without the pronoun in the following paradigms which represent the past/perfect periphrastic form of the verb *ići* 'go'.

Table 6

Past/perfect forms in Serbo-Croatian

Singular	Plural
ja sam išao 'I was going'	mi smo išli 'we were going'
ti si išao 'you were going'	vi ste išli 'you were going'
on je išao 'he was going'	oni su išli 'they were going'

subjectless forms

Singular	Plural
išao sam 'I was going'	išli smo 'we were going'
išao si 'you were going'	išli ste 'you were going'
išao je 'he was going'	išli su 'they were going'

In negative formations, the reduced auxiliary is cliticized and incorporated into the negative particle. Negated auxiliaries are therefore not enclitics, but the full form auxiliary verbs which are not restricted to the sentence second position.

Table 7

Negated past/perfect forms in Serbo-Croatian

Singular	Plural
ja nisam išao	mi nismo išli
ti nisi išao	vi niste išli
on nije išao	oni nisu išli

subjectless forms

Singular	Plural
nisam išao	nismo išli
nisi išao	niste išli
nije išao	nisu išli

Various Slavic languages are in different stages of changing the perfect. Following Bubenik (1993:177), modern Slavic languages show various degrees of phonological attrition of the Ancient Slavic copula *jesmĭ* 'I am'. While Serbo-Croatian is still clearly at the clitic stage, a complete change into the synthetic past tense has resulted in Polish forms of the following type, e.g. *pisał+em* 'I wrote', *pisał+eš* 'you SG wrote'. According to Bubenik (1993:177), an excessive phonological attrition in Polish reduced the clitic into an inflectional suffix. Czech is half way between the clitic stage and the inflectional stage. Only in the second person singular has the clitic changed into an inflectional ending, e.g. *psal=sem* 'I wrote', but *psal+s* 'You SG wrote'. As we have seen, Serbo-Croatian is still at the clitic stages. In Russian the cliticized

auxiliary is completely lost in the past forms.[35] The past tense in Russian is formed of the infinitive stem, suffix -*l* and gender suffixes, i.e. masculine 0, feminine -*a*, neuter -*o* in the singular and -*i* for all genders in plural.

Table 8

Past tense in Russian

	Singular			Plural
	M	F	N	
govorit' 'speak'	govoril	govorila	govorilo	govorili
čitat' 'read'	čital	čitala	čitalo	čitali

Meillet (1934:264) points out that the absence of the auxiliary in Russian pertains to the general absence of the copula in the present tense.

The loss of the imperfect category between Ancient Slavic and Modern Slavic languages makes the recategorization from the imperfective perfect, i.e. unmarked perfect, to the imperfective past possible. In a parallel manner, loss of the old aorist category which used to function as the past perfective in late PIE had triggered the recategorization of the Aktionsart perfective perfect, i.e. the perfect marked with the Aktionsart preverb, as the past perfective tense, in Ancient Slavic.

It was shown in § 4.3 that perfective aspect in the non-past was used for future time reference. This type of future is continued in the contemporary West and East Slavic languages, but not in the South Slavic languages. In Russian, for example

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[35]According to Bubenik (1993:177) in Russian the clitic was lost in the perfect periphrastic constructions in the 11-12th century.

perfective future forms are represented by the present tense of the perfective verbs, e.g. *uspeju* 'I will succeed', *rešu* 'I will solve, determine', *zastroju* 'I will build'. Imperfective future forms in Russian consist of the future form of the verb *byt'* 'be' and the infinitive, e.g. *budu čitat'* 'I will be reading', *budu slušat'* 'I will be listening' (Vinogradov 1960:473).

Various periphrastic constructions were used for the future time reference in Ancient Slavic. Constructions based on *iměti* 'to have' and *xotěti* 'to want' were common in Ancient Slavic and continue to function as modal constructions in modern Slavic (see the examples below). Now it will be shown how the formations used for future time reference in Ancient Slavic developed in Serbo-Croatian.

One of the modal constructions used for future time reference in Ancient Slavic consisted of the present tense auxiliary *iměti* 'to have' and the infinitive, e.g. *imate razuměti* 'you (PL) will understand' (Codex Zographensis, XIII 14). In contemporary Serbo-Croatian, these constructions express modality, meaning 'is to, supposed to'.[x] Croatian dialects continue the same form of this periphrastic construction, e.g. Croatian *imam raditi* 'I have to work'. In Serbian, on the other hand, this construction has

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[x]These constructions do not express modality in all Modern Slavic languages. In Ukranian, for example, they are used for future time reference, e.g. *čitat-imam* 'I will read'.

undergone changes whereby the infinitives are replaced by the complementizers followed by the finite present forms", e.g.

```
Imam            da          radim
have-1SG        COMP        work-IMPFV-PRES-1SG
'I have to work'
```

Another type of a modal construction used for future time reference in Ancient Slavic consisted of an auxiliary *hoteti* 'will, want' and the infinitive, e.g. *xotěu sutvoriti* 'he will create' (Codex Zographensis, John VI 6). In Serbo-Croatian, this type of modal has split into two constructions.

One of them is the same type of modal construction used in Ancient Slavic. In languages not affected by the Balkan Sprachbund, Croatian, for example, the infinitive continues to be used with the auxiliary, e.g. *hoću raditi* 'I want to work', while the southern Slavic languages, such as Serbian, for example, replace the infinitive by the subordinate clause with a finite verb form, e.g.

```
Hoću            da          radim
want-1SG        COMP        work-IMPFV-PRES-1SG
'I want to work'
```

Replacement of the infinitive by a finite subordinate clause is one of the linguistic features shared by the Balkan languages, i.e. Serbo-Croatian, Macedonian, Bulgarian, Greek, Albanian and Romanian (Joseph 1983:1). As Joseph (1983:1) shows, the loss of the infinitive is related to a convergence of a number of linguistic features with the

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³This change is related to linguistic convergence with the neighbouring Balkan languages, see the following page.

neighbouring languages of the Balkan peninsula, known as the Balkan Sprachbund.[*]

It is important to point out that Serbian and Croatian, although considered to be the same language, behave differently with respect to the loss of the infinitive. The following paradigms demonstrate a difference in modal constructions between Serbian and Croatian dialects, as in the verb *raditi* 'work'. It may be observed that the full form of the auxiliary is not restricted to the sentence second position.

Table 9

Modal constructions in Croatian and Serbian

Croatian

Singular

(ja) hoću raditi 'I want to work'
(ti) hoćeš raditi 'you want to work'
(on, ona, ono) hoće raditi 'he (she, it) wants to work'

Plural

(mi) hoćemo raditi 'we want to work'
(vi) hoćete raditi 'you want to work'
(oni) hoće raditi 'they want to work'

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[*]See Joseph (1983), Chapter 7, where he examines the causation problem of the infinitive loss in Balkan languages.

Serbian

Singular

(ja) hoću da radim 'I want to work'
(ti) hoćeš da radiš 'you want to work'
(on, ona, ono) hoće da radi 'he (she, it) wants to work'

Plural

(mi) hoćemo da radimo 'we want to work'
(vi) hoćete da radite 'you have to work'
(oni) hoće da rade 'they want to work'

The same type of modal construction, which was in Ancient Slavic based on the full form of the auxiliary *xoteti* 'will, want' and the infinitive, is in the process of being recategorized as the future tense form both in Serbian and Croatian.

The following examples illustrate earlier Serbo-Croatian future formations which already at the end of the 15th century employed the cliticized auxiliary.

The end of 15th century

Nad   mnom   ću   pisati[39]
Above me-LOC   will-1SG   write-INF-IMPFV
'I will write above me'

16th century

Skoro,   skoro   promijenìt   će[40]
soon   soon   PVF-change-INF   will-3SG
'Soon, soon it will change'

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[39] Taken from lyric poem *The vila ('fairy, nymph') that rules me and my life* by Džore Držić, written in the second half of the 15th century

[40] Taken from lyric poem *Do Not, Do Not, O My Beloved* by Ivan Bunić Vučić, 16th century

18th century

Ali	ko	će	sili	odoliti[a]
But	who	will-3SG	force-DAT	PVF-resist-INF

'But who will resist force?'

19th century

Uzeću	te	za	vernu	ljubovicu[e]
PFV-take-INF	you-ACC-2SG	for	faithful	wife

'I'll take you for my faithful wife'

In Modern Serbo-Croatian, future constructions also consist of the reduced auxiliary *hteti* 'will' and the infinitive. The reduced auxiliary always occupies the unstressed sentence second position according to Wackernagel's Law, and in parallel with the past constructions, it is cliticized to the non-finite category.

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[a]From *A Fourth Song about Duke Janko and Saint John of Capistrano, How They Routed Emperor Mehmed, Murat's Son, Below Belgrade in 1456*, by Andrija Kačić-Miošić, written in 18th century

[e]Taken from epic poem *The Maid of Kosovo*, published by Vuk Stefanović Karadžić in the 19th century

Table 10

Future forms in Serbo-Croatian

Serbo-Croatian

Singular	Plural
ja ću raditi 'I will work'	mi ćemo raditi 'we will work'
ti ćeš raditi 'you will work'	vi ćete raditi 'you will work'
on će raditi 'he will work'	oni će raditi 'they will work'

constructions with morphological predication

Serbian

Singular	Plural
radiću 'I will work'	radićemo 'we will work'
radićeš 'you will work'	radićete 'you will work'
radiće 'he will work'	radiće 'they will work'

Croatian

Singular	Plural
radit ću 'I will work'	radit ćemo 'we will work'
radit ćeš 'you will work'	radit ćete 'you will work'
radit će 'he will work'	radit će 'they will work'

Under the influence of the Balkan Sprachbund, Serbian future constructions often replace the infinitive forms by the complementizer clauses, e.g. *Ja ću da radim* 'I will work/want to work'. However, these constructions are very close in meaning to the modal constructions which are based on the full form auxiliary and complementizer clauses, e.g. *Ja hoću da radim* 'I want to work'. Future formations composed of the clitic-like

auxiliary and the complementizer clauses (shown in the following paradigm) represent a functional overlap of the future and modal constructions.

Table 11

Future formations with the clitic-like auxiliary in Serbian

Singular

ja ću da radim 'I will/want to work'
ti ćeš da radiš 'you will/want to work'
on će da radi 'he will /want to work' work'

Plural

mi ćemo da radimo 'we will/want to work'
vi ćete da radite 'you will/want to work'
oni će da rade 'they will/want to work'

As in the past constructions, the reduced auxiliary is cliticized to the negative in negated constructions.

Table 12

Negated future constructions in Serbo-Croatian

Singular

(ja) neću raditi 'I will not work'
(ti) nećeš raditi 'you will not work'
(on, ona, ono) neće raditi 'he (she, it) will not work'

Plural

(mi) nećemo raditi 'we will not work'
(vi) nećete raditi 'you will not work'
(oni) neće raditi 'they will not work'

As in the perfect compound forms, the formal development and the structural configuration of the Serbo-Croatian future show a change in progress, i.e. a change from a modal construction in Ancient Slavic to a full fledged future tense. Modern Serbo-Croatian future forms are presently at the clitic stage.[43] Loss of the Aktionsart perfective non-past has allowed for the recategorization of the Ancient Slavic modal constructions into a future tense in Southern Slavic languages.

This Chapter represents a number of grammaticalization processes. Between PIE and Ancient Slavic, Aktionsart had been grammaticalized as the perfective aspect. This type of semantic/syntactic convergence, occurs in all Slavic languages. Aktionsart grammaticalization triggers a loss of the PIE aorist category in most Slavic languages. Other grammaticalization processes also replace the old functions. The aspectual periphrastic form, i.e. perfect, is changing into a past tense form. In Southern Slavic languages a modal periphrastic form is changing into a future tense form. These two grammaticalization processes restore the old lost functions. The Ancient Slavic perfect category is being recategorized into a past tense in order to compensate for the loss of the old aorist and imperfect, i.e. perfective and imperfective in the past. The Ancient Slavic modal category is being recategorized as a future tense in order to compensate for the loss of the PIE and Ancient Slavic aspectual expression of the future in Southern Slavic languages.

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[43]Not all Slavic languages employ a cliticized auxiliary in such constructions. An invariable particle šte in Bulgarian and k'e in Macedonian are used in future formations.

CHAPTER 6

Aktionsart Implications

6.1 Reflexes of the verb category functions of late PIE in Modern Slavic

In this section, it will be shown how the functions of late PIE verb categories are reflected in Ancient Slavic and Modern Slavic. Specifically, the functional correspondences of tense/aspect forms between Late PIE and Slavic will be investigated. It will also be shown how functions of the Slavic tense/aspect categories correspond to functions of Ancient Greek and Latin categories.

We have seen in Chapter 1 that the late PIE verb system was characterized by a three-way aspectual contrast in the past and non-past. This type of verb system is postulated on the basis of the comparative evidence of Ancient Greek, Vedic Sanskrit, Latin and Ancient Slavic. Ancient Greek and Vedic retain a three-way aspectual contrast both in the past and non-past, while Latin and Ancient Slavic show morphological traces of the same type of tense/aspect categories. The following table shows the Ancient Greek verb system which reflects the late PIE tense/aspect categories.

Table 1

Ancient Greek verb system

lú:o: 'I loosen'

	non-past	past
IMPFV	present lú:o: 'I loosen'	imperfect élu:on 'I was loosening'
PFV	future lú:so: 'I will loosen'	aorist élu:sa 'I loosened'
RES	perfect léluka 'I have loosened'	pluperfect elelúke: 'I had loosened'

Latin and Ancient Slavic show morphological traces of late PIE tense/aspect categories; their functions are, however, modified. In Latin, the aorist and perfect of late PIE had merged into the present perfectum, e.g. *monui:* from *moneo:* 'I warn'. Although the sigmatic marker was still retained in some perfectum forms, e.g. *du:xi:* from *du:co:* 'I lead', *vi:xi:* from *vi:vo:* 'I live', it had ceased functioning as a systemic marker of perfectivity. We have seen that in late PIE sigmatic stems had a perfective function both in the past and non-past, cf. Ancient Greek AOR *élu:sa*, FUT *lú:so:* from *lú:o:* 'I loosen'. The loss of the sigmatic marker in Latin entailed the loss of the late PIE aorist and future. As a consequence, a distinct future tense arose in Latin. The aorist/perfect merger therefore resulted in a verb system with a two way aspectual contrast, i.e. perfectum/infectum, and a three way tense contrast, i.e. past, present, and future.

Table 2

Latin verb system

moneo: 'I warn'

	infectum	**perfectum**
present	present moneo:	perfect monui:
past	imperfect mone:bam	pluperfect monueram
future	future mone:bo:	future perfect monuero:

Perfectum/infectum is not a tense contrast. The Latin verb system shows that the perfectum/infectum opposition consistently yields two forms for each verb in all three tenses. The perfectum category in Latin primarily expresses resultative function according to its systemic position, given that it is opposed to the present infectum. Thus the perfect or present perfectum¹ *monui:* 'I have warned' systemically expresses anteriority and it is opposed to the present *moneo:* 'I warn'. According to its systemic position the Latin perfect has the function of the late PIE perfect, cf. Ancient Greek *léluka* 'I have loosened'. It was argued in Chapter 3 that systemic contrasts do not always correspond to the contextual usage of categories in Latin. The Latin perfect contextually denotes both past perfective events, corresponding thus to the aorist

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¹"Perfect" is a traditional term as opposed to "present perfectum" which accounts for the systemic perfectum/infectum contrast in the Latin verb system.

category, and the present result of the past events, corresponding to the late PIE perfect category (§ 3.4.1).

Equally, the past perfectum *monueram* 'I had warned', according to its systemic position denotes a past result of an anterior event. It functions as the late PIE pluperfect, cf. Ancient Greek *eleluíke* 'I had loosened'. We have seen in Chapter 3 that the Latin pluperfect systemically expresses anteriority. Its contextual usage, however, shows that it may also simply express past perfective events (§ 3.4.2).

Contrasts within the Latin verb system show that the merger of the late PIE aorist (perfective) and perfect (resultative) yielded the present perfectum, i.e. an aspectual function which is primarily resultative. This type of function, however, does not exclude the perfective function of the aorist. A past event is universally implied by the perfect category since it expresses a present result pertaining to a past event. The perfective function of the Latin perfect may not be determined by ''s position in the verb system alone; however it is equally expressed in the contextual usage (See § 3.4).

While the Latin perfectum reflects the primary resultative function of the Late PIE perfect, the infectum continues the late PIE imperfective function. There is no functional distinction between the present infectum *moneo:* 'I warn' and non-past imperfective in Ancient Greek (and presumably in late PIE) *lú:o:* 'I loosen'.[2] Both are referred to as present forms. Also, the past infectum *mone:bam* 'I was warning' continues the late PIE

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[2]Usage of the present forms in Ancient Greek and Latin are represented in § 2.4.7 and 3.4.4, respectively.

past imperfective, cf. Ancient Greek *élu:on* 'I was loosening'. The Latin past infectum and Ancient Greek (and presumably late PIE) past imperfective are referred to as imperfect forms. Imperfect forms in these two languages may also contextually denote habitual or iterative events.[1]

Careful examination of the Ancient Greek and Latin verbal systems as well as the reconstruction of the late PIE (Chapter 1) verb system show correspondences between the tense/aspect categories. Ancient Greek had continued systemic tense/aspect contrasts characteristic of late PIE. It was shown that the three-way aspectual contrast, i.e. imperfective, perfective and resultative, obtained in the past and non-past. It was also shown that the late PIE perfective and resultative aspectual contrasts had merged into the perfectum in Latin. Loss of the aorist stem, which in the non-past had future time reference, had given rise to a distinct future tense in Latin (see also Chapter 3). It has been argued that the Latin present perfectum (traditionally called perfect) systemically represents the present resultative function and thus corresponds to the perfect of late PIE. We have seen that this category contextually expresses both past perfective, corresponding to the PIE aorist, and present resultative, corresponding to the PIE perfect functions. On the other hand, the infectum reflects the Late PIE imperfective function without any functional or semantic changes.

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[1]Usage of the imperfect forms is discussed in § 2.4.8 for Ancient Greek and § 3.4.5 for Latin.

Now we shall examine functional correspondences of aspectual categories between late PIE and Ancient Slavic. As shown in Chapter 4, Aktionsart preverbs acquired a grammatical perfective function in Ancient Slavic which is further reflected in Modern Slavic languages. We should keep in mind that although perfective aspect could be expressed by the suffix -nō-/-ne- (minōti 'to pass') or inherently (dati 'to give'), the Aktionsart preverb represented the most productive way of expressing perfective aspect. As shown in Table 3, Aktionsart replaces the late PIE perfective function, expressed by the sigmatic stems.⁴ As the sigmatic future was ousted before the earliest OCS documents, the combination of perfectivizing preverbs with the present forms was used for future time reference. One may observe that the principle in forming the future is the same as in Ancient Greek (and presumably late PIE); the perfectivizing marker combines with the primary, non-past inflection, e.g. lú:so: 'I will loosen'. The grammaticalization of Aktionsart changed the systemic aspectual contrasts in Ancient Slavic. The aorist forms unmarked for Aktionsart, idoxъ, simply represent complete events (without the emphasis on the end), continuing thus their inherently neutral function. In relation to the aorist forms marked for Aktionsart, izidoxъ, they function as imperfective. Aorist forms unmarked for Aktionsart do not represent the internal view of the event, which is expressed by the imperfect. Thus the contrast between the aorist,

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⁴As shown in Chapter 4, grammaticalized Aktionsart always expresses perfective function (either inchoative or perfective/terminative). The aorist expresses complete events; it explicitly denotes perfectivity depending on the lexical aspect of the verb and contextual usage.

expressing complete events, and imperfect, expressing imperfective events, still functions in Ancient Slavic. Grammaticalized Aktionsart however represents an improved marking for perfectivity in relation to the aorist.

Grammaticalized Aktionsart also affects the resultative category. The perfect, marked for Aktionsart, *iziš̸lu jesm̸*, acquires a perfective function in relation to the unprefixed perfect forms, *š̸lu jesm̸*.

Table 3

Ancient Slavic verb system

	non-past	past
IMPF	present idō 'I go'	imperfect idĕaxu 'I was going'
PFV		aorist idoxu 'I went'[5]
	preverb + present = future izidō 'I will go out'	preverb + aorist izidoxu 'I went out'
RES	perfect š̸lu jesm̸ 'I have gone'[6]	pluperfect š̸lu bĕxu 'I had gone'
	preverb + perfect iziš̸lu jesm̸ 'I have gone out'	preverb + pluperfect iziš̸lu bĕxu 'I had gone out'

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[5]Aorist forms, unmarked for Aktionsart, have an imperfective function when opposed to the aorist forms, marked for Aktionsart.

[6]Resultative forms, marked for Aktionsart, i.e. perfect and pluperfect, have a perfective function when opposed to the forms unmarked for Aktionsart.

Aktionsart grammaticalization had changed the function of the inherited PIE aspectual categories and introduced seemingly contradictory categories, i.e. imperfective aorist and perfective imperfect. It was argued in Chapter 4 that the unmarked aorist forms are imperfective *ide* 3SG (Sava evangelium 48b) from *iti* 'to go' in contrast with the aorist forms marked by the perfective Aktionsart *otide* 3SG (Sava Evangelium 45) from *otiti* 'to go back'.[7]

Another seemingly contradictory category is the perfective imperfect, e.g. *proiděše* 3SG (Sava Evangelium 38b) from *proiti* 'to cross, pass'.[8] Its function is not contradictory; prefixed or rather Aktionsart marked imperfect forms have an iterative function, i.e. expressing a past repeated event. Grammaticalized Aktionsart has restricted the imperfective function of the imperfect form resulting in the past form that represents a series of perfective events. The unprefixed imperfect forms, e.g. *iděše* 3SG (Sava Evangelium 55) from *iti* 'to go', continue the late PIE imperfect function.

In § 5.4 it was shown that the perfect category, present resultative in late PIE and Ancient Slavic, gradually became recategorized as the past tense in modern Slavic languages (except for Bulgarian, Macedonian and Upper Sorbian). In some languages, e.g. Polish, the Ancient Slavic perfect compound has been completely changed into synthetic past tense forms, while the process has not been completely finalized in Serbo-Croatian and Czech. In these languages recategorization of the old perfect compound

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[7]These examples are represented within the context in § 4.5.1.

[8]Imperfect verb forms are contextually represented in § 4.5.7.

into past forms was accompanied by the elimination of the aorist and imperfect. In Modern Slavic, Aktionsart perfective past forms, e.g. Serbo-Croatian *otišla sam* 'I went away', correspond to the late PIE and Ancient Slavic aorist function with a slight distinction.[9] On the other hand, the imperfective past forms, e.g. *išla sam* 'I was going', correspond to the late PIE and Ancient Slavic imperfect function. It will be shown in § 6.2 that the secondary or derived imperfective forms, depending on the Aktionsart, may also continue the late PIE and Ancient Slavic imperfect function.

Both Aktionsart grammaticalization and secondary imperfectivization (to be discussed in § 6.2) represent innovations which interact with the inherited aspectual categories in Ancient Slavic. Functions of the new aspectual categories are to be sought in the nature of the Aktionsart. While the aspectual contrasts of Ancient Greek (and presumably late PIE) and Latin are strictly grammatical, the Ancient Slavic aspectual contrasts often carry Aktionsart implications. That is to say, Aktionsart often changes the fundamental meaning of the verb (as shown in § 4.3). In the following section we shall see that the meaning of the verb is crucial in determining the exact function of the secondary or derived imperfectives.

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[9]The aorist of Ancient Slavic (cf. Ancient Greek) expresses complete events, as opposed to the grammaticalized Aktionsart forms which are always perfective.

6.2 Function of the secondary imperfectives

As argued by Forsyth (1970:166-7), Veyrenc (1964:152-3), Kuryłowicz (1964:98)
etc., secondary imperfectives in Ancient Slavic originally had an iterative function. An
iterative function implies a series of repeated events as opposed to a continuous event or
action. The iterative function of the secondary or derived imperfectives is a side effect
of the Aktionsart grammaticalization. Since Aktionsart in Slavic has a grammaticalized
perfective function, the overall meaning of the secondary imperfective is restricted.
Prefixation of an imperfective verb such as *kryti* 'to hide' (in Ancient Slavic), results in
a perfective verb *pri-kryti* which expresses an event of a limited duration. A secondary
imperfective is obtained by suffixation of the perfective verb, *pri-kry-va-ti*.[10] Perfective
aspect, which could be expressed either by the preverb, inherently (*dati* 'to give') or by
the suffix *-nŏ-/-ne-* (*minŏti* 'to pass'), necessarily affects continuous function of the
secondary imperfective by limiting it into a series of perfective events.

It has been argued that the iterative function of the secondary imperfectives has
been gradually generalized as the imperfective. It is possible that the loss of the
imperfect category represents one of the reasons for this type of recategorization. We
have seen that the old perfect has been recategorized into the past form in modern Slavic
languages. While the imperfective past forms correspond to the function of the old
imperfect, the exact function of the past forms marked for Aktionsart depends on the

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[10]This particular secondary imperfective has acquired a general imperfective
function in modern Slavic languages.

Aktionsart class and procedural classification (as shown below). Since the Aktionsart forms often change the lexical meaning of the verb, a need of having past imperfective forms with identical lexical meaning may account for the tendency to generalize function of the Aktionsart past forms as imperfective. It will be shown however that the exact function of the secondary imperfective depends on the Aktionsart class.

Depending on the Aktionsart, some secondary imperfectives could only express iterative function, e.g. S-Cr. *izlazili su* - iterative 'they were going out, used to go out'. In modern Slavic languages a majority of secondary imperfectives have become associated with the imperfective function, while still retaining the iterative implications (examples in the citation below are from Russian).

> ... it is obvious that although iterativity was the original grammatical meaning expressed positively and inherently by secondary imperfectives, this has, in the majority of cases, been lost as an essential meaning, and the verbs (such as *rasskázyvat*[11], *perepisyvat*[12] etc.) have become simply imperfective forms capable, like any other imperfective, of implying among other meanings that of repetition (Forsyth 1970:166).

As noted above gradual functional recategorization of the secondary imperfectives could be explained by the loss of the old imperfect category and lexical modifications introduced by the Aktionsart grammaticalization (as explained in the following paragraphs).

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[11]From *rasskazát'* 'tell, narrate'

[12]From *perepisát'* 'to copy out'

We have seen in § 5.4 that the languages which lost the aorist and imperfect resorted to the old perfect construction for the purpose of expressing past events. It was shown that in Polish the old perfect has been completely recategorized as the past tense, while the change is still in progress in Czech and Serbo-Croatian, for example. In Russian, the auxiliary verb *be* is completely lost, and the past tense expressed by the l-participle. Recategorization here refers to the formal change of the Ancient Slavic perfect construction. Ancient Slavic generally employed the full form of the auxiliary with the participle. In modern Slavic languages, the auxiliary verb *be* has been reduced either to a clitic or an inflectional endir g. Modern Slavic languages are in various stages of this formal change (see § 5.4. for examples in different Slavic languages).

It should be noted however, that the functional recategorization followed loss of the aorist and imperfect in the above-mentioned languages, regardless of the formal status of the old perfect construction. The lost functions of the old aorist and imperfect categories were relegated to the periphrastic perfect. Functions of the ousted aorist and imperfect categories were replaced by the Aktionsart perfective and imperfective derivatives in the system of the perfect. For example, the perfective periphrastic form in Serbo-Croatian, *otišao* (PART M SG) *sam* (AUX 1SG) 'I went away', replaced the aorist function of Ancient Slavic, *otidŭ* 'I went away', while the imperfective periphrastic form, *išao* (PART M SG) *sam* (AUX 1SG), replaced the function of the Ancient Slavic imperfect, *idĕaxŭ* 'I was going'.

The Ancient Slavic perfect construction has been increasingly used as a preterite in modern Slavic languages. Combination of the perfective Aktionsart with the perfect construction replaced the old aorist function. We have seen that Aktionsart universally modifies the fundamental meaning of the verb. In Slavic, Aktionsart generally has an effect at two levels, lexical and grammatical, e.g. Serbo-Croatian *ići* IMPFV 'go', *otići* PFV, *od* 'away, away from') 'go away'. In cases of complete semantic incorporation, Aktionsart preverbs have only a grammatical, perfectivizing function, *čekati* IMPFV 'to wait', *sačekati* (PFV *sa* 'with') 'to wait'. However, a perfective verb marked by Aktionsart often has a modified lexical meaning and thus differs from the simple imperfective verb from which it is derived. In cases where the Aktionsart modifies the basic verb meaning, the perfective verb has identical lexical implications with the secondary or derived imperfective, *ići* 'to go' IMPFV, *otići* 'to go away' PFV, *odlaziti* (SEC IMPFV). That is to say, the perfective verb forms a lexical pair with the secondarily derived imperfective. However, some secondary imperfectives, such as *odlaziti* (SEC IMPFV) 'go away' or *izlaziti* (SEC IMPFV) 'go out', express iterative and not imperfective function immanent to the imperfect category. *Odlaziti* and *izlaziti* most often denote habitual events and not the continuous process. Habitual versus continuous function may be tested with adverbs (a criterion proposed by Forsyth 1970:165). *Odlaziti* and *izlaziti*, for example, may co-occur with the adverbs that indicate a habitual event as in *redovno* 'regularly', *često* 'often', *svaki dan* 'every day'. On the other hand, these verbs may not combine with the adverbs compatible with a continuous process, e.g.

dugo 'long time'. The secondary imperfective *izlaziti* (*ići* - IMPFV 'go', *izići* - PFV 'go out') may combine with the adverb *dugo* 'long time', however only in the habitual sense. As shown in the following examples, *izlaziti* may not combine with *dugo* 'long time' to express a continuous process or event. *Odlaziti* behaves in identical fashion.

```
Dugo    su              izlazili
long    be-3PL          PFV-go out-PP-IMPFV-M PL
'They were going out (used to go out) for a long time'

*Dugo       je           izlazila
long        be-3SG       PFV-go out-PP-IMPFV-M SG

iz      kuće
out of  house-GEN
'She was going out of the house for a long time'
```

As shown, *odlaziti* and *izlaziti* may express only habitual, repeated events in combination with temporal adverbs. These verbs could express continuous processes or events only when contrasted against other events, either perfective or imperfective, as in the following examples.

```
Odlazili                        su          kad

PFV-go away-PP-IMPFV-M PL       be-3PL      when

smo         ih          sreli
be-1PL      they-ACC    PFV-meet-PP-M PL
'They were going away when we met them'

Posmatrali                      smo         ih          dok
observe-PP-IMPFV-M PL           be-3PL      they-ACC    as

su          izlazili                    iz          kuće
be-3PL      PFV-go out-PP-IMPFV-M PL     out of      house-GEN
'We were observing them, as they were going out of the house'
```

These particular secondary imperfectives are derived from the terminative procedurals[13] and generally do not express imperfective or continuous events, except in contrast with other events.

The simple imperfective verb *ići* 'to go' is compatible with both types of adverbs, i.e. adverbs used for habitual events and continuous processes. The use of simple imperfective verbs is not restricted, since they are essentially imperfective while having iterative implications at the same time. As shown in the following examples, simple imperfective verbs could denote both continuous and habitual events.

Dugo	je	išla	kroz	šumu
long	be-3 SG	go-PP-IMPFV-F SG	through	forest-ACC

'She was walking through the forest for a long time'

Išli		su	kući	kad
go-PP-IMPFV-M PL		be-3PL	home-DAT	when

smo	ih	sreli
be-1PL	they-ACC	PFV-meet-PP-MPL

'They were going home when we met them'

Često	su	tamo	išli
often	be-3PL	there	go-PP-IMPFV-MPL

'They were often going there/They often went there'

Although the simple imperfective and Aktionsart perfective verb often differ at the lexical level, they often constitute a real grammatical pair which reflects the late PIE imperfect and aorist function, respectively. Even in cases of complete semantic incorporation, an Aktionsart perfective verb often forms a grammatical aspectual pair with the simple

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[13]Terminative procedurals denote termination of an event.

unprefixed imperfective, rather than the secondary imperfective. For example *sačekati* PFV 'to wait' forms a grammatical aspectual pair with the simple imperfective *čekati* 'to wait', and not with the secondary imperfective *sačekivati* 'to wait'. As shown in the following examples, a simple imperfective has a general imperfective function which also inherently implies iterativity. On the other hand, the secondary imperfective has only iterative function.

> Čekala   ih   je   dugo
> wait-PP-IMFV-F SG they-ACC be-3SG   long-ADV
> 'She was waiting for them for a long time'

> Čekala   ih   je   često
> wait-PP-IMFV-F SG they-ACC be-3SG   often
> 'She often waited for them'

> *Sačekivala   ih   je   dugo
> PFV-wait-PP-IMPFV-F SG   they-ACC be-3SG long
> 'She was waiting for them for a long time'

> Sačekivala   ih   je   često
> PFV-wait-PP-IMPFV-F SG they-ACC be-3SG often
> 'She often waited for them'

This particular secondary imperfective may not be used in any type of context for the events that express duration, as it is classified as a totalizing procedural.[14]

> *Sačekivala   ih   je
> PFV-wait-PP-IMPFV-F SG   they-ACC be-3SG

> kad   smo   je   videli
> when be-1PL   she-ACC   PFV-see-PP-M PL
> 'She was waiting for them when we saw her'

---

[14]Totalizing procedural emphasizes totality of a completed event or action.

The function of the secondary imperfectives was originally only iterative. Most secondary imperfectives were subsequently generalized as imperfective, while the ones belonging to certain Aktionsart classes as well as certain procedural formations still retain an iterative function (see below). Aktionsart perfective verbs may form aspectual pairs with secondary imperfectives that express a continuous action, e.g. *ići* IMPFV 'go', *proći* PFV 'pass', *prolaziti* SEC IMPFV 'pass'. Secondary imperfectives marked by Aktionsart, such as *prolaziti*, have an imperfective function while retaining the original iterative implications.

Dugo	su	prolazili
long-ADV	be-3PL	PFV-pass-PP-IMPFV-M PL

kroz	grad	
through	city-NOM/ACC	

'They were passing through the city for a long time'

Često	su	prolazili
often-ADV	be-3 PL	PFV-pass-PP-IMPFV-M PL

kroz	grad-NOM/ACC	
through	city	

'They often passed through the city'

A secondary imperfective may form a valid aspectual pair with the Aktionsart perfective verb if it denotes a gradual or unfolding process. It will be shown in the Chart below that the verbs denoting such processes belong to Classes 3 and 4. A secondary imperfective such as *prolaziti* 'go through' denotes a continuous gradual process while its perfective counterpart *proći* represents a complete event followed by a new state (Class 3). Secondary imperfectives, such as *izlaziti* 'go out' and *odlaziti* 'go away' most

often denote iterative processes or events (see examples above).[15] The function of these particular secondary imperfectives is restricted, since their perfective counterparts, i.e. *izíći* 'go out' and *otíći* 'go away' are terminative procedurals.

Whether the perfective verb forms a valid aspectual pair with the simple imperfective verb or the secondary imperfective, largely depends on the Aktionsart Class and the procedural classification. It will be shown that the verbs belonging to the 2nd Aktionsart class (see below) mainly have the iterative function. According to Veyrenc (1963:152-3), secondary imperfectives in Russian belonging to the class of Aktionsart verbs that express instantaneous event as opposed to a gradual process leading to completion may express only iterative function. Aktionsart which emphasizes instantaneous completion has a restrictive effect on the overall meaning of a derived imperfective, e.g. Russian *naxodít'/naití* 'find', *prixodít'/príití* 'come, arrive', *prinosít'/prinestí* 'bring'. The iterative function of the secondary imperfectives is not a characteristic of this class only. Secondary imperfectives that are classified as totalizing Aktionsart procedurals may have only iterative function, e.g. Russian INF *čitát'* IMPFV 'read', *pročitát'* PFV 'read', *pročítyvat'* SEC IMPFV, Serbo-Croatian *čekati* IMPFV 'wait', *sačekati* PFV 'wait', *sačekivati* SEC IMPFV. Although there has been a tendency in modern Slavic languages to associate secondary imperfectives with the general imperfective meaning, a large number still have mostly iterative function, i.e. secondary imperfectives derived from totalizing and terminative procedurals, secondary

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[15]Maslov (1948) does not account for these particular verbs.

imperfectives derived from the perfective verbs that denote instantaneous assumption of a new state (Class 2 - see below). In these cases Aktionsart perfective verbs form grammatical pairs with the simple imperfective verbs which clearly express continuous events or actions (as recognized by Forsyth 1970:167). According to Forsyth (1970:167) in some verb trios a simple imperfective verb such as *čitát'* forms a valid aspectual pair with the Aktionsart perfective *pročitát'*, while the secondary imperfective *pročítyvat'* is an iterative unpaired form.

Note that the verb trios in modern Slavic languages are based on the simple imperfective forms, that were originally unpaired prior to prefixation in Common Slavic. We have seen in § 4.6 (Chapter 4, Table 22) that prefixation applied both to the single unpaired verbs and to the simple verb pairs, i.e. "parallel prefixation". The term secondary or derived imperfective may apply to the form derived secondarily from the Aktionsart perfective which was in turn derived by the prefixation of the simple imperfective form, e.g. Ancient Slavic *kryti* IMPFV 'to hide', *pri-kryti* PFV 'hide', *pri-kry-va-ti* SEC IMPFV. There are also prefixed aspectual verb pairs that before parallel prefixation already formed Aktionsart pairs, e.g. Ancient Slavic *nesti* DET/*nositi* INDET 'to carry', *prinesti* PFV/*prinositi* IMPFV 'to bring'. Prefixed imperfective forms of this origin are also referred to as secondary imperfectives. Iterative function of the secondary imperfective does not depend on its origin, but on the Aktionsart class. Thus *prinositi* (S-Cr.), *prinosít'* (Russ.), which originally functioned as the indeterminate member of the Aktionsart pair, has an iterative function in modern Slavic, while *prikrivati* (S-Cr.)

has been generalized as imperfective. Imperfective members of the simple aspectual pairs that were based on the inherent perfective Aktionsart even before parallel prefixation, continue a general imperfective function, e.g. *dati* PFV/*davati* IMPFV 'give'.

Slavic verbs could be divided into a number of aspectual/semantic classes. The following tables show a broad classification of Serbo-Croatian verbs, also applicable to Slavic languages in general (based on Maslov's 1948 and Forsyth's 1970, pp. 46-56 classification of the Russian Aktionsart). Distinct classes represent the lexical meaning of verbs, procedural nuances and possible derivations of the aspectual counterparts. Possible procedural nuances are indicated in certain Aktionsart classes. Note that the secondary imperfectives of the Class 2 most often have an iterative function as well as the secondary imperfectives derived from terminative procedurals. As shown above, secondary imperfectives derived from totalizing procedurals always have iterative function.

Class 1

Perfective verbs of the first class denote an instantaneous performance of an action followed by an assumption of a new state. This class includes inceptive (or

inchoative) procedurals[16] which may form aspectual pairs with the simple imperfective verbs (also assumed by Forsyth 1970:47).[17]

Table 4

Class 1 verbs

perfective	imperfective
srušiti 'tear down, destroy'	rušiti 'to tear down'
zaplakati 'start crying'	plakati 'to cry'
zapaliti 'set on fire'	paliti 'burn, set on fire'
slomiti 'break'	lomiti 'break'
zakačiti 'hang'	kačiti 'hang'

Inceptive procedurals generally do not yield secondary imperfectives. Despite a nuance distinction which denotes inception, i.e. beginning of the action, inceptive procedurals form valid aspectual pairs with the simple unprefixed counterparts. An assumption adopted in this thesis is that the valid aspectual pairs are based on the grammatical aspectual distinction, and not on the Aktionsart nuance.

Class 2

Perfective verbs of the second class represent an instantaneous assumption of a new state. As opposed to the first class, the lexical meaning of these verbs does not emphasize an action or process itself. Consequently, this class does not include

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[16]Inceptive or inchoative procedurals denote beginning of an event.

[17]According to Maslov (1948), perfective verbs belonging to this class are unpaired, as they do not form valid aspectual pairs with the unmarked imperfective forms (explained below).

procedural forms. Imperfective verbs of this class may not express a gradual process; they most often have an iterative function, expressing repeated events (Maslov 1948).

<div align="center">Table 5</div>

<div align="center">**Class 2 verbs**</div>

naići 'find'	nailaziti 'find'
prići 'approach'	prilaziti 'approach'
prineti 'bring'	prinositi 'bring'
uključiti 'switch on'	uključivati 'switch on'

This type of verb pairing (proposed by Maslov 1948) is based on the identical lexical implications of the pair members. Since the function of the imperfective forms is mostly iterative, these verbs generally do not denote a continuous action or process. Generally speaking, secondary imperfectives of this class do not combine with the adverbs of duration, as in the following examples.

*Dugo   je   uključivao
long   be-3SG   PFV-switch on-PP-IMFV-M SG

svetlo
light-NOM/ACC
'He was switching on the light for a long time'

*Dugo   je   nailazila

long   be-3SG   PFV-find-PP-IMPFV-F SG

na   tu   knjigu
on-PPEP   that-ACC   book-ACC
'She was finding that book for a long time'

If the context, however implies a repeated or habitual action over a long period of time, a secondary imperfective of this class may combine with the adverb *dugo* 'for a long time'.

> Dugo su joj prilazili
> long be-3PL she-DAT PFV-approach-PP-IMPFV-M PL
> 'They were approaching her for a long period of time'

These verbs may combine with adverbs such as *često* 'often' or *redovno* 'regularly' without restriction.

> Često je uključivao
> often be- 3SG PFV-switch on-PP-IMPFV-M SG
>
> svetlo
> light-NOM/ACC
> 'He was often switching the light on'

Verbs of this class do not have real imperfective counterparts. Secondary imperfective verbs denote habitual or iterative events. The restricted function of the secondary imperfective results from the Aktionsart of the perfective verb from which they derived. Most secondary imperfectives of this class could denote an imperfective action only when contrasted with another event, as in the following examples.

> Prilazio joj je
> PFV-approach-PP-IMPFV-M SG she-DAT be-3SG
>
> kad smo ga zapazili
> when be-1SG he-ACC PFV-notice-PP-3PL
> 'He was approaching her when we noticed him'

Prinosila	mu	je
PFV-bring-PP-IMPFV-F SG	he-DAT	be-3SG

hranu	kad	smo	ušli
food-ACC	when	be-1PL	PFV-come in-?P-M PL

'She was bringing food up to him when we came in'

Class 3

Imperfective verbs of this class represent a gradual continuous action or process.

Perfective verbs represent a transition into a new state as a consequence of an unfolding

gradual action. As Forsyth (1970:49) points out, imperfective verbs express a gradual

tendency towards a completed event. The point of completion is however not necessarily

implied by the imperfective verbs of this class.

Dugo	je	birao,	i	na
long	be-3SG	choose-PP-IMPFV-M SG	and	at

kraju	ništa	nije	izabrao
end-LOC	nothing	NEG-be-3SG	choose-PP-PFV-M SG

'He was choosing for a long time, and at the end he did not choose anything'

Imperfective verbs of this class simply express a tendency towards a completion which

may be achieved, as in the following example.

Dokazivala	se	dugo	i	na	kraju
prove-PP-IMPFV-F SG	herself	long	and	at	end-LOC

je	se	dokazala
be-3SG	herself	PFV-prove-PP-F SG

'She was proving herself for a long time, and at the end succeeded (in proving
herself)'

Table 6

Class 3 verbs

perfective	imperfective
izabrati 'choose'	birati 'choose'
probuditi 'waken, wake up'	buditi 'waken'
dati 'give'	davati 'give'
nestati 'disappear'	nestajati 'disappear'
propasti 'deteriorate'	propadati 'deteriorate'
rešiti 'solve'	rešavati 'solve'
sakriti 'hide out'	sakrivati 'hide'
skupiti 'collect'	skupljati 'collect'
spasiti 'save up'	spašavati 'save'
ustati 'get up'	ustajati 'get up'
uhvatiti 'catch'	xvatati 'catch'

This class encompasses a small number of procedural perfective forms, e.g. attenuative[18] - *prikriti* 'hide a little', cumulative[19] - *nasaditi* 'plant a large quantity', distributive[20] - *rasplamsati* 'flame all over' (following Forsyth 1970:51).

Class 4

As in the Class 3, imperfective verbs of the Class 4 represent a gradual unfolding process or action. Imperfective verbs of this class differ in that they imply an eventual accomplishment, e.g. *jesti* IMPFV/*pojesti* PFV 'eat'. In other words, the imperfective *jesti*, as in *Oni su jeli* 'They were eating' implies that a certain amount of food was being

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[18]Attenuative procedurals express a degree of completion, without a complete achievement of a result.

[19]Cumulative procedurals denote culmination of a possible achievement.

[20]Distributive procedurals denote a spatial expansion or excessive degree of completion.

eaten. As Forsyth (1970:51) points out, these forms represent a cumulative action excluding however the explicit reference to the culminating point or accomplishment. He points out that a degree of accomplishment is determined by the subject or the object of the perfective verb, e.g. *Pojela PFV je celu tortu* 'She ate the whole cake', *Izučili PVF su istoriju Rima* 'They studied thoroughly the history of Rome'. Following Maslov (1948) and Forsyth (1970:51-2) these verbs are divided into two subclasses, i.e. a) verbs that denote concrete actions and processes which gradually lead toward a concrete result, i.e. situation or physical object, and b) verbs which denote emotional states, perception and speech.

Table 7

Class 4 verbs

A	perfective	imperfective
	pročitati 'read'	čitati 'read'
	izučiti 'study thoroughly'	izučavati 'study thoroughly'
	izdejsvovati 'effect, act'	dejsvovati 'effect, act'
	napisati 'write down'	pisati 'write'
	pojesti 'eat up'	jesti 'eat'
	sagoreti 'burn down'	goreti 'burn'
	sagraditi 'build up'	graditi 'build'

B	perfective	imperfective
	izraziti 'express'	izražavati 'express'
	poverovati 'believe in'	verovati 'believe'
	pomisliti 'think about'	misliti 'think'
	zažaliti 'regret, feel sorrow for'	žaliti 'regret'
	objasniti 'explain'	objašnjavati 'explain'
	poslušati 'listen to'	slušati 'listen'
	poželeti 'wish for'	želeti 'wish'
	pozvati 'call out'	zvati 'call'

As Forsyth states (1970:53), these verbs denote processes and therefore may form procedurals, e.g. inceptive - *potrčati* 'start running', evolutive[21] - *razgovarati* 'keep talking', absorptive[22] - *zapričati se* 'be absorbed in conversation', attenuative - *poigrati se* 'play a little', cumulative - *nagovoriti* 'convince', totalizing - *naučiti* 'learn', terminative - *dotući* 'beat down'.

Class 5

Class 5 is represented by the imperfective verbs which do not have perfective counterparts (according to Maslov 1948). These verbs represent a state or action without implying progress or finalization. The basic classification scheme, presented here, was originally proposed by Maslov (1948). Imperfective verbs of the class 5 do not have perfective aspectual partners, according to Maslov's criterion of transposition (see below). However, many of these verbs give rise to perfective procedurals forming thus valid aspectual pairs, e.g. *živeti* IMPFV 'live' - *proživeti* PFV 'live through' (following Forsyth 1970:56).

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[21]Evolutive procedurals emphasize a steady development of an action.

[22]Absorptive procedurals express absorption or concentration on an action.

Table 8

Class 5 verbs

States

imperfective	perfective
biti 'be'	
spavati 'sleep'	odspavati 'finish sleeping' - terminative
živeti 'live'	proživeti 'live through' - totalizing
plakati 'weep'	zaplakati 'burst into tears' - inceptive
imati 'have'	
brinuti se 'worry'	zabrinuti se 'start worrying' - inceptive
verovati 'believe'	poverovati 'start believing' - inceptive
znati 'know'	saznati 'realize' - inceptive
blještati 'shine'	zablještati 'start shining' - inceptive
ležati 'lie'	odležati 'finish lying' - terminative

Activities

imperfective	perfective
raditi 'work'	odraditi 'finish working' - terminative
gledati 'watch'	pogledati 'glance' - attenuative
vrteti 'turn'	zavrteti 'start turning' - inceptive
teći 'flow'	isteći 'flow out' - totalizing

In representing a Slavic verbal system, a clear distinction should be made between primary aspectual functions which represent grammatical aspect and lexical Aktionsart distinctions. In Slavic, the grammatical aspectual opposition obtains between Aktionsart perfective verbs which form pairs with imperfective verbs. We have seen that imperfective aspect may be represented either by simple imperfective verbs or secondary derived imperfectives, depending on the Aktionsart class and procedural classification. In all Slavic languages Aktionsart or lexical aspect represents the primary grammatical

perfective aspect which replaces the old I-E aorist function. Secondary grammatical aspect refers to iterative formation. It was shown that the secondary imperfectives in Ancient Slavic originally had an iterative function, e.g. *prinositi* 'to bring'. This particular derived imperfective, belonging to the 2nd Aktionsart Class (distinction proposed by Veyrenc 1963:152-3, also Maslov 1948 and Forsyth 1970), retains the original iterative function. In this chapter it is argued that this type of secondary imperfective has an iterative function which is secondary not only diachronically but also synchronically in Ancient and Modern Slavic languages.

A distinction between secondary Aktionsart function, iterative, and primary grammatical aspect pertains to the issue of "valid aspectual pairs". Defining perfective/imperfective aspectual pairs is a controversial issue. It has been noted by Maslov (1959) and Isačenko (1962) that unprefixed verb *čitát'* and the prefixed verb *pročitát'* (Russian) are not valid aspectual pairs. The denial of the validity of these aspectual pairs is based on the distinction in semantic implications. Maslov (1948:307) proposes a criterion of validity of aspectual pairs which relies on transposition. If the past perfective verb form could be transposed into the historic present without changing the lexical meaning, the two verb forms constitute a valid aspectual pair, e.g. *otkryl* (Russian) 'he opened'/*otkryváet* 'he is opening'. In real aspectual pairs transposition from the past to the present historic forms is not accompanied by any lexical modifications (as shown in Forsyth 1970:35-37), e.g.

On vstal,   pošël   k   oknú   i
PVF-he get up-PP PVF-go-PP to   window-DAT and

otkryl   egó
PFV-open-PP it-GEN
'He got up, went to the window and opened it'

On vstaët,   idët   k
he get up-IMPFV-PRES-3SG   go-IMPFV-PRES-3SG   to

oknú   i   otkryváet   egó
window-DAT and open-IMPFV-PRES-3SG   it-GEN
'He gets up, goes to the window and opens it'

If, however, transposition into the present historic forms requires addition of an adverbial

phrase or another verb, or substitution for another verb, the verbs in question do not

constitute real aspectual pairs.

addition of an adverb

Pósle obéda   on   pospál
after lunch-GEN he   slept-PFV-PP
'After lunch he had a sleep'

Pósle obéda   on   spit   .   nedólgo
after lunch-GEN he   PFV-sleep-PRES-3SG   a little
'After lunch he sleeps a little'

substitution

On poljubíl   eë   s   pérvogo
he PVF-fall in love-PP her-ACC at   first-GEN

vzgljáda
sight-GEN
'He fell in love with her at first sight'

On	vljubljáetsja		v	neë
he	PFV-fall in love-PRES-3SG		with	her-LOC

s	pérvogo	vzgljada
at	first-GEN	sight-GEN

'He falls in love with her at first sight'

(Forsyth 1970:35-7)

The criterion of transposition implies that prefixed perfective forms most often constitute valid aspectual pairs with secondarily derived verb forms. Proposals of this type show the insistence on identical lexical/semantic aspectual pairs. They emphasize the opposition between formal lexical pairs, disregarding the verbal system as a whole and not specifying how the semantics relates to grammatical verbal functions.

This thesis proposes a complex model that does not simply concentrate on formal pairs *per se*. Specifically, the proposed model emphasizes interrelation between lexical aspect and grammatical aspect (also recognized by Forsyth 1970:40-6). This type of distinction automatically brings up the issue of distinguishing primary grammatical and secondary Aktionsart functions. The insistence on formal pairing based on lexical/semantic identity of verb forms misses more crucial grammatical distinctions within the verb system.

We have seen that the primary grammatical aspectual distinction may obtain either between simple imperfective forms and perfective forms (marked by the Aktionsart), or between perfective forms and secondary imperfectives. Whether the secondary imperfective may qualify as imperfective is determined by the Aktionsart class

or procedural classification. Within the model proposed in this thesis one imperfective verb form may be opposed to a number of perfective lexically/semantically distinct verb forms. These perfective verb forms, derived by Aktionsart preverb prefixation, serve as an input to a secondary iterative verb formation. This proposal is distinct from the views exposed above in that it recognizes a primary perfective distinction between an imperfective verb form and a set of lexically distinct perfective forms which share a common denominator of perfectivity. Examples are taken form Serbo-Croatian.[23] Iterative Aktionsart aspect has also been recognized as secondary or subaspect by Forsyth (1970:30).

Table 9

Aspectual pairs in Serbo-Croatian

Imperfective	Perfective	Iterative
	otići 'go away'	odlaziti
ići	izaći 'go out'	izlaziti
	ući 'go in'	ulaziti
	doći 'come'	dolaziti

Perfective Aktionsart verb forms form lexical/semantic pairs with iterative verb forms, secondarily derived by suffixation. It should be noted that iterative verb forms (listed above) are not imperfective in the sense that unprefixed imperfective forms are,

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[23]The principles in forming the Aktionsart verb forms are very similar in all Slavic languages.

but rather habitual. Iterative verb forms used in the perfect and future constructions represent a series of perfective events. As shown above these particular verbs are derived from the perfective verbs classified as terminative procedurals. They may express imperfective events only when contrasted with another event (see the examples above). Even in the present tense iterative forms do not represent events perceived as imperfective at the moment of speaking. They may be used in the present only to indicate an instantaneous event such as *I am going away now* or *I am going out right now*. Even in these cases, these verbs may indicate an immediate future, in other words they denote events just about to occur. Most often, these secondary imperfectives represent habitual events. Iterative verb forms are also very often used in the present tense for the action planned for the immediate future, but never for continuous unfolding action at the moment of speech. In other words, they do not denote an imperfective aspect, as seen in the following examples.

Imperfective Present

Idem	tamo
go-IMPFV-PRES-1SG	there
'I am going, I go there'	

Instantaneous event in the Present

Odlazim	ovog momenta
PERF-go-IMPFV-PRES-1SG	at this moment
'I am leaving at this moment'	

Iterative Present - Habitual Present

Često odlazim   tamo
Often PFV-go-IMPFV-PRES-1SG there
'I often go there'

Iterative Present - Immediate Future

Odlazim   tamo
PFV-go-IMPFV-PRES-1SG there
'I will be going there'

Avıon dolazi   u   devet
Plane PFV-arrive-IMPFV-PRES-3SG at   nine
'The plane arrives (is arriving) at nine'

Iterative Past - Habitual Past

Odlazila   sam   tamo
PFV-go-PP-IMPFV-F SG be-1SG   there
'I used to go there'

Iterative Future - Habitual Future

Odlaziču   tamo   redovno
PFV-go-IMPFV-FUT-1SG there regularly
'I will be going there on a regular basis'

These verbs may denote an imperfective event only in contrast with other events. In other words, imperfective aspect is not inherent to these verbs, it must be determined by the context.

Odlazili   su   kad
PFV-go away-PP-IMFV-M PL   be-3PL   when

smo   ih   sreli
be-1PL   they-ACC   PFV-meet-PP-M PL
'They were going away, when we met them'

Iterative verb forms constitute solely semantic/lexical aspectual pairs with perfective Aktionsart verb forms. A grammatical distinction that obtains between the perfective and iterative Aktionsart formations is secondary, i.e. a distinction between perfective and habitual aspect. In cases where the secondary imperfective is classified as iterative (according to the Aktionsart class or the procedural classification), a primary grammatical distinction obtains between unprefixed imperfective verb forms and the Aktionsart perfective verbs. Aktionsart perfective verbs may be semantically/lexically distinct from the imperfective simplex form. However, there is a grammatical aspectual distinction between a simple imperfective form and the Aktionsart perfective forms. This primary grammatical distinction substitutes for the PIE aorist/present stem contrast in Slavic languages, except for Macedonian, Bulgarian and Upper Sorbian.

We have seen that the perfective Aktionsart verb forms continue the I-E aorist stem function. The I-E present stem function may be continued either by simple imperfective forms or by secondary imperfectives which are not exclusively iterative. Secondary imperfectives that have iterative function only do not contribute to the major aspectual contrasts in Slavic. This type of function may be comparable to function of the suffix *-sk-* in Latin and Ancient Greek.

The suffix *-sk-* has an Aktionsart function in Ancient Greek and Latin. Generally, this suffix has the iterative function in Ancient Greek and inchoative in Latin. As shown in the following examples, this suffix may also have an inchoative function in Ancient Greek, too (see also § 2.1.4)

Ancient Greek

heurísko: 'I find'
gignó:sko: 'i learn, come to know'

Latin

no:sco: 'I learn, come to know'
glisco: 'I burst out, blaze up, grow up'
cla:resco: 'I become clear, bright, begin to shine'

This suffix expresses secondary Aktionsart function and not the major aspectual function within the verb system. While perfective aspect in Ancient Greek (represented by the aorist in the past and future in the non-past) and perfectum forms in Latin have primary or main grammatical functions, inchoative or iterative Aktionsart represents lexical aspect.

The late PIE perfective function, represented by the sigmatic aorist stems, was replaced by the Aktionsart perfective aspect in Ancient Slavic. Most generally perfective aspect is expressed by preverbs. Aside from adding a nuance of prepositional or adverbial meaning, Aktionsart preverbs result in primary perfective aspect. Perfective Aktionsart may also be expressed by the suffix *-nō-/-ne-* (*minōti* 'to pass') or inherently (*dati* 'to give').

Aktionsart perfective forms are present both in the past and non-past (see table 1 in § 4.2).

CONCLUSIONS

Several issues related to aspect revolve around the focus of the study - grammaticalization of lexical aspect (=Aktionsart) in Ancient Slavic (as discussed in iii). Generally speaking, tracing the evolution of earlier semantic formants into markers of major grammatical functions requires drawing of clear distinctions between the lexical/semantic and grammatical aspect within a single language (ii). A contrastive analysis of languages which represent two types of grammaticalized aspect (morphological and lexical) is also necessary (i). Since the grammaticalization was studied from a diachronic perspective, archaic languages such as Ancient Greek, Latin, and Ancient Slavic, represent best candidates for this type of endeavour. Synchronic analyses of the verb systems of these languages show the historical origin of the verb categories. The issues addressed in this thesis are:

(i) Morphological expression of grammatical aspect as opposed to grammaticalized Aktionsart, i.e. lexical expression of grammatical aspect.

In order to represent this kind of distinction two types of aspect systems were compared and contrasted. The verb systems of Ancient Greek and Latin, characterized by the morphological expression of grammatical aspect (Part I) were contrasted with the verb system of Ancient Slavic (Part II) which underwent a change between the earlier (Greek-like) system after the grammaticalization of lexical aspect.

(ii) The morphological expression of grammatical aspect as opposed to lexical aspect in Ancient Greek and Latin

The morphological expression of grammatical aspect was contrasted with lexical aspect (=Aktionsart) in Ancient Greek and Latin. Synchronic analyses of aspect in these two languages from the cognitive/functional point of view were supplemented by a diachronic account of the categorial changes from late PIE. A cognitive analysis of verb categories, which introduced the subject's view of the event time in relation to universe time, was combined with an account of grammatical functions expressed by these categories. The representation of grammatical aspectual functions was supplemented by an analysis of contextual functions.

We have seen that Ancient Greek inherited fundamental aspectual contrasts from late PIE. Evolution of the aspect system from late PIE to Ancient Greek shows a firm establishment of a three-way aspectual contrast (perfective, resultative and imperfective) in the past and non-past. Particularly, a relation between the perfective in the past (=aorist) and perfective in the non-past (=future) emerged. In Ancient Greek these two categories were related both formally and functionally. While in late PIE future time was expressed by desiderative forms, in Ancient Greek future was denoted by sigmatic stems, just as in the aorist. In other words, both the aorist and future were formed from the sigmatic stems which had an aspectual (perfective) function.

A major change that took place in pre-Latin was the merger of the past perfective (=aorist) and present resultative (=perfect) into the perfectum. This merger triggered

realignment of a three-way into a two-way aspectual contrast. The two-way aspectual contrast was between perfectum forms, which expressed both perfective and resultative aspect, and infectum forms, which expressed imperfective aspect. Loss of the aorist, which expressed perfective aspect, necessitated a distinct future tense in Latin.

It was shown that grammatical aspectual functions are consistently expressed within the verb system itself which is not the case with lexical aspect. Thus in Ancient Greek and Latin lexical aspect does not participate in major grammatical contrasts. In Ancient Slavic, on the other hand, lexical aspect permeates the verb system. That is to say, Aktionsart expresses grammaticalized perfective aspect in the past and equally in the non-past where it is used for future time reference. Since Aktionsart was grammaticalized, it replaced the inherited aspectual functions: the aorist (=perfective in the past) and sigmatic future (=perfective in the non-past), in Modern Slavic languages.

(iii) The major goal of this thesis was to analyze grammaticalization of Aktionsart. This process that took place at some point in Common Slavic had a long term effect on the verb system of Ancient Slavic and gradually contributed to the weakening of the inherited aspectual contrasts. The causes of this major change have been examined and distinguished from its effects. As was shown, a number of causes or factors, both lexical and grammatical, combined to provide favourable circumstances for the Aktionsart grammaticalization. Lexical factors are represented by a consistent verb pairing which expressed a number of lexical aspectual contrasts and a number of morphological/semantic classes in Common Slavic. Grammatical factors are represented

by the verb system itself; generally, grammaticalization of Aktionsart was precipitated by the loss of clear aspectual contrasts. In particular, the assumed loss of the sigmatic future might have required a new type of future which could be expressed by the perfective aspect in the non-past. There was also a blurring of aspectual contrasts in the past, since the aorist and imperfect came to share a sigmatic marker. Some readers may feel that the evidence for the loss of sigmatic future forms is not very convincing. This, however, does not affect the main arguments for the grammatical factors attributed to the grammaticalization of Aktionsart in Ancient Slavic. We may equally assume that the sigmatic future did not exist, but that the mere absence of the sigmatic future would have provided the same effect. In both cases, the absence of the systemic aspectual contrast would have contributed towards the major change in expressing grammatical aspect.

This major grammaticalizing process has had a long term effect since the changes that have been triggered are still in progress in Modern Slavic languages. All Modern Slavic languages that have eliminated the aorist and imperfect are in the process of changing the Ancient Slavic perfect into a past tense category. Recategorization of the old perfect represents a compensation for the lost categories, i.e. aorist (=perfective in the past) and imperfect (=imperfective in the past).

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