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THE ROLE OF THE *-Ū-STEMS IN THE MORPHOLOGICAL REMODELLING OF THE COMMON SLAVIC NOMINAL DECLENSIONAL SYSTEM

by

ROBERT A. ORR

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

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Tom M. S. Priestly
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...

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Dedication

To my Father and Mother

Abstract

In this dissertation is proposed a new framework for reconstructing the evolution of the CS nominal declensional system, with particular attention to the role which the *-ŭ-stems may have played.

This dissertation falls into three parts,

I) A discussion of the IE background, in which is outlined a new framework for the reconstruction of the nominal system. Also, a brief review of some of the relevant literature on the *-ŭ-stem declension in CS is offered.

II) Problems caused by the proposed framework. In previous discussions of CS nominal morphology heavy reliance has been placed on Auslautgesetze (sound changes peculiar to the final syllable). In this study, however, an attempt has been made to dispense with Auslautgesetze and seek morphological (i.e., analogical) solutions for the relevant problems. In section A a theoretical framework for the proposed solutions is discussed in some detail, and in sections B, C, and D the role played by the *-ŭ-stems is described. Sections E, F, G, and H deal with other forms for which Auslautgesetze have been proposed, and in each

instance an alternative explanation is offered.

III) The evolution of the *-ŭ-stem endings in the modern Slavic languages. In these final sections the attested development of undisputed *-ŭ-stem endings is outlined. Some parallels between the reconstructed prehistoric developments and the attested developments are noted.

Acknowledgements

I would like to express my sincerest thanks to the following people, without whom this thesis would never have been completed.

First of all, to my supervisor, Dr. T.M.S. Priestly, who listened patiently to all sorts of ideas right from the beginning, and never failed to provide constructive criticism and advice. I am especially grateful for the tremendous amount of his time which he gave up to read several versions of both individual chapters and the entire dissertation. To him I owe a debt that I can never really repay.

Next, I would like to express my thanks to computer maestro Terry Butler, without whose skills this dissertation would still be a spidery manuscript. His repeated efforts to ensure that all the complicated diacritics were available deserves special mention.

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Table of Contents

Abbreviations

1) Languages

Alb - Albanian

Arm - Armenian

Bg - Bulgarian

Br - Belorussian

CC - Common Celtic

CG - Common Germanic

CI - Commmon Italic

CS - Common Slavic

Cz - Czech

Du - Dutch

EIE - European Indo-European

Eng - English

Far - Faroese

Fr - French

Ger - German

Hitt - Hittite

IE - Indo-European

Go - Gothic

Gr - Greek

Ka - Kashubian

LS - Lower Sorbian

Lat - Latin

Latv - Latvian

Lith - Lithuanian

M - Macedonian

NIE - North Indo-European

OCS - Old Church Slavonic

OCz - Old Czech

OE - Old English

OI - Old Irish

OIc - Old Icelandic

OP - Old Polish

OPr - Old Prussian

OR - Old Russian

P - Polish

PIE - Proto-Indo-European

Po - Portuguese

R - Russian

Ru - Rumanian

ScG - Scottish Gaelic

SC - Serbocroatian

Sk - Slovak

Skt - Sanskrit

Sn - Slovenian

Toch - Tocharian

U - Ukrainian

US - Upper Sorbian

We - Welsh

2)Grammatical Terminology

These abbreviations appear in either the upper or lower case.

n.s. - nominative singular

a.s. - accusative singular

g.s. - genitive singular

d.s. - dative singular

i.s. - instrumental singular

l.s. - locative singular

pl. (plural) or du. (dual) may be substituted for s.

abs. - absolutive

anim. - animate

inan. - inanimate

erg. - ergative n/a. - nominative/accusative

n.g.c. - number, gender, and case

nom. - nominal

pr.p.a. - present participle active.

pron. - pronominal

The abbreviations (m.), (f.), (n.) appearing in the headings of tables denote masculine, feminine, and neuter respectively. V and C denote vowels and consonants respectively.

3)Bibliographical

Ass. - Codex Assemanius

Mar. - Codex Marianus

Ps.F. - Psałterz Floriański

Ps.Pu. - Psałterz Puławski

Sav. - Savvina Kniga

Supr. - Codex Suprasliensis

Zogr. - Codex Zographensis

The symbol ˙ over a vowel, e.g., *-ȧm, means that the vowel in question is either long or short.

I. The Indo-European background

A. Introduction - assumptions underlying the proposed reconstructions

1) Problems with general reconstruction.

The Slavic languages have been attested in written form for just under a thousand years. During that time it can be seen that they have undergone vast and far-reaching phonological, morphological, and syntactic changes.

Since we know that human language has been on this earth much longer than a thousand years, however, it seems reasonable to assume that the languages attested in these earliest texts are themselves the products of long, complicated evolutions.

Actually tracing these evolutions is far more difficult. The problem is compounded by the fact that even the languages attested in early texts are usually "dead", and so analysis of the text (which is often faulty, see especially Schmalstieg 1974: 15 and 1976a: 102) becomes an exercise in reconstruction in itself.

If we have no texts (as frequently happens), and the existence of the previous stage of the language is merely inferred, we are forced to rely on a combination of the following:

i) Comparative evidence from related languages which can shed light on certain problems.

E.g., the presence of a "j" in certain forms in Russian (новая) is one of the pieces of evidence which helps us to reconstruct one in the ancestors of their Polish cognates (nowa).[1]

ii) Internal reconstruction from morphophonemic alternations.

E.g., the existence of a K/Č alternation in OCS peko pečeši is one of the pieces of evidence which allows us to reconstruct a change K > Č/-FV in CS.

iii) Evidence from loanwords.

This evidence is fraught with difficulties, as one must work with at least two different chronologies and systems simultaneously: that of the recipient and that of the donor. E.g., Finnish akkuna - "window" is usually supposed to be a borrowing from the ancestor of Russian окно < *okŭno < *ăkŭnă, and it is usually proposed that the Finnish form provides evidence for the reconstructed sound change CS *ă > o.

iv) Evidence from archaic dialects of the language under study.

E.g., the preservation of a velar spirant in Scots where it has been lost in English (nixt/nait , boxt/bo:t).

v) Description by contemporary grammarians.

This only exists for a very few languages, but is extremely helpful in determining coeval pronunciation (e.g., Old Icelandic, see Haugen 1972).

vi) Evidence from language typology.

Although this criterion, like borrowings, is fraught with difficulty (Schmalstieg 1980: 17-18 and Comrie 1978: 393), it can be invaluable, e.g., the postulation of a PIE series *t/t/d instead of the traditional *t/d/dh allows us to solve at least three previously unrelated conundrums (see Hopper 1973 and 1977, Miller 1977).

vii) Evidence from geography.

This criterion is of doubtful value in certain instances, but it can be of assistance in showing areas of linguistic convergence (e.g., the development of the Balkan Sprachbund, involving convergence from members of no less than four IE language families). Dialect geography can also be of some value in tracing isoglosses. For further information, see Anttila 1972: 289-299.

viii) Fixed oral tradition.

Sometimes older forms of a language can be preserved orally through exceptional circumstances, e.g., the Faroese word <u>havtyrdil</u>, taken down from a rhyme recorded on Mykines, was established definitely as a native word from this

evidence.[2]

For a comprehensive discussion of these problems and their handling see Priestly 1972.

Once we have picked our way through the maze, we have no irrefutable proof that we have found the correct solution; what we have is merely a collection of hypotheses. The hypothesis which seems to explain the most, the one which seems most plausible, is generally accepted. In this dissertation we are trying to solve certain problems in the evolution of CS, and to group some of the proposed solutions as part of a wider trend: the drive to preserve nearly all the complicated distinctions of number, gender, and case inherited from Late IE. It is proposed that the hypotheses advanced explain the data more comprehensively than the traditional theories.

But as yet there are no yardsticks by which one can judge such competing hypotheses. The hypotheses are constantly coming under attack as newer ones are formed and more evidence comes to light.[3]

2) The example of the laryngeal theory.

One example of a battlefield of competing hypotheses is the laryngeal theory. In 1879 de Saussure first published his conception of certain "coefficients sonantiques" in an attempt to explain certain apparent irregularities in IE ablaut. In 1927 Kuryłowicz pointed out that in the recently

discovered Hittite texts there were older instances of laryngeal consonants which seemed to fit de Saussure's reconstructions. Much research followed, and by 1955 Lehmann could write "...the evidence (for the laryngeals) is almost uncontestable"(1955: 28). In 1973, however, and again in 1980, Schmalstieg demonstrated that it was perfectly possible to reconstruct a plausible phonological system for IE without recourse to laryngeals at all. Doubtless this is by no means the last word on the subject.

3) Problems in the reconstruction of IE declension.

The reconstruction of the evolution of the CS declensional system presents similar problems. Much has been written on certain contentious aspects of the subject, without any satisfactory definitive conclusion being reached. It is my belief that certain assumptions have been made about the declension and certain phonological processes in Late IE and early CS which have caused people to take erroneous reconstructions as their starting point. I propose that the reconstructions to be outlined in this dissertation are just as plausible as the more traditional ones, and claim as their great merit that they do not need to be explained by Auslautgesetze (sound changes peculiar to the final syllable).

At this stage yet another problem should be noted. When we discuss IE declension, we deal with final syllables,

which are frequently subject to large scale analogical and morphological restructurings which sound change on its own cannot explain.

Furthermore, it is often proposed that many of the complicated declensional (and conjugational) systems attested in Baltic, Slavic, Greek, Sanskrit, etc. were acquired after PIE had finally split up into its various dialect continua.[4]

It is therefore quite probable that we will not be able to find exact phonological correspondences between the endings of the declensional systems of the various languages as we can do with the roots. Thus, while, e.g., the root *bhVr- (as found in Skt bharāmi, φερω, ferō, beir, berǫ) is PIE, the ending -ŭmĭ (which is attested only in Baltic and Slavic, e.g., OCS synŭmĭ) is not. The morphosyntactic categories themselves do not correspond ,e.g.,

OCS	Latin	Gothic[5]	Sanskrit
Nominative	Nominative	Nominative	Nominative
Vocative	Vocative	Vocative	Vocative
Accusative	Accusative	Accusative	Accusative
Genitive	Genitive	Genitive	Genitive
	Ablative		Ablative
Dative	Dative	Dative	Dative
Instrumental			Instrumental
Locative			Locative

When one compares the attested IE languages, one can find different cases used for the same function from language to language.

For example, the *genitive* in the OCS *-ŏ-stems seems to correspond to the *ablative* in the Latin and Sanskrit, e.g.,

vlŭka - lupō (<*-ōd) - vṛkāt. In Sanskrit the *-o-stems are the only noun declension that shows a distinct ablative ending in the singular. In other noun declensions the ablative is the same as the genitive in the singular. The ablative never has a distinct form in the plural and dual.[6] It seems to be a fairly safe assumption that the genitive usually reconstructed for (P)IE had not fully evolved by the time that the protolanguage had split up into its various dialect continua. In this section reconstructions will be proposed for only the nominative and accusative. Such an approach is similar to that adopted by Lehmann 1958.

In subsequent sections greater emphasis will be placed on the reconstruction of the nominative and accusative.

4) Assumptions.

In attempting to reconstruct earlier stages of the CS nominal system, certain assumptions will be made. These will be of both general and particular application. The first is valid inside and outside Slavic.

i) The nominative and accusative singular cases, taken together, can exert enough "pull" on the rest of the system to set in train major morphological reanalyses. Support for bracketing these cases together comes from the fact that they are often merged, especially in the plural and dual.

This assumption is of a more general nature than subsequent assumptions, and is essential for approaching the problems presented in III B and III C.

A wide variety of evidence seems to support this proposal. The ancient Greeks and Romans regarded the nominative as the basic case (Lat casus rectus). Word-counts of Slavic languages have shown that each of these two cases occur more often than any other one.[7] For a cautionary note, see Maher 1969, where an instance of the oblique cases exerting greater influence on the evolution of the paradigm is cited.

Certain assumptions have been made which apply only to Slavic.

ii) The quality of vowels in final syllables is not affected *solely by being in word-final syllables.*

There is further discussion of this issue in II A. The assumption does *not* conflict with the "law of open syllables" assumed for CS, by which consonants in word-final position are lost. It is proposed here that *all* sequences of *VN(+C) in final position should develop into CS *VC, *unless this development is thwarted by specific morphological or word-specific factors* (see II, where every instance which up till now has traditionally been explained by an Auslautgesetz is explained by various morphological processes). Auslautgesetze is taken here to mean developments of nasal sonants and vowels; it does *not* apply

to phenomena such as the loss of final obstruents, which can be seen as resulting from syllable-final rather than word-final position.

iii) The vowel written normally as CS *ā (Shevelov's Ā) did *not* undergo fronting when it followed a "j", whereas the vowel written normally as *ă (Shevelov's Ă) *did* undergo such a fronting. This proposed development is *not* an Auslautgesetz; it is reconstructed for all positions in the word. This assumption is made on the basis of the following facts:

iii *α*) The sequence *-jā- is extremely common in declensional endings in Slavic (see especially II C and II D).

iii *β*) The sequence *jā- can be reconstructed in internal position as well, e.g., the suffix *-jānĭnŭ.[8]

iii *γ*) The vowel *ă is normally assumed to have been -tense, whereas the vowel *ā is assumed to have been +tense. Tense vowels would be less prone to fronting in this instance.

iii *δ*) CS *ě shifts to *ā after č,ž,š, and j, e.g., čādŭ < *čědŭ < *kědŭ; bĕžātĭ < *bĕžětĭ < *bĕgē+tĭ; *stŏjātĭ < *stăjětĭ < *stājētĭ.

Possibly the change developed either as a) *-jā- > *-jē- > *-jā-, or as b) *-jā > *-jā- > *-jā (no change).

Whichever way the change proceeded, it would have been simultaneous with the following: c) *-jă- > *-jĕ- > *-jĕ-.

This assumption is important for handling the data in II C, II D, and II G.

iv) The *-m posited as an accusative singular ending for almost all nouns in PIE was added *only* to non-neuter *-(j)ŏ-stems and *-(j)ā-stems in CS. For details, see I B.

v) Nouns and adjectives of the *-ŭ-stem class were more numerous in Slavic than is generally believed. For details, see I C.

vi) Slavic shows a marked tendency to preserve many of the inherited complicated nominal categories, while most other EIE language families show a tendency to discard them. For details, see II A.

vii) PIE had an ergative/absolutive construction. For details, see 1 B.

5) Summary and chart of the proposed reconstructions.

i) A Summary of the evolution of part of the CS case system.

At this point follows a summary of the important reconstructions to be proposed and discussed. This summary

is given here for reference, and the individual points raised will be discussed in detail in II B, II C, and II D. The summary takes the form of a table, in which the neuter *-jŏ-stems are omitted.

Stage I: CS/Late NIE (already split up by various isoglosses).

Stems

	*-ŭ (m.)	*-ŏ (m.)	*-ā (f.)	*-jŏ (m.)	*-jā (f.)	*-ŏ (n.)
N.S.	-ŭ-s	-ă-s	-ā-ø	-jă-s	-jā-ø	-ă-ø
A.S.	-ŭ-ø	-ă-m	-ā-m	-jă-m	-jā-m	-ă-ø
N.PL.	-ăŭ-es	-ā-s	-ā-s	-jā-s	-jā-s	-ā-ø
A.PL.	-ū-s	-ă-ns	-ā-ns	-jă-ns	-jă-ns	-ā-ø

Notes:

α) Vowels were probably short before *-ns.

β) Note the heavy functional load carried by the nasals and the *-s. Slavic is the only IE language to lose both of these elements in final position and preserve its case system, although the nasal is reflected in the previous vowel.

γ) Note the first distinction appearing between Baltic and Slavic: in Slavic, but not in Baltic, the *-m of the accusative singular has failed to spread beyond the *-(j)ŏ- and *-(j)ā-stems, and has not spread to the neuters at all.

δ) The neuter *-jŏ-stems at this stage would have *-jă in the n/a.s. and *-jā in the n/a. pl. In stage II *-jă would be fronted to *-jĕ and *-jā would not be changed.

Stage II: Vowel fronting after "j".

Stems

	*-ŭ (m.)	*-ŏ (m.)	*-ā (f.)	*-jŏ (m.)	*-jā (f.)	*-ŏ (n.)
N.S.	-ŭ-s	-ă-s	-ā-ø	-jĕ-s	-jā-ø	-ă-ø
A.S.	-ŭ-ø	-ă-m	-ā-m	-jĕ-m	-jā-m	-ă-ø
N.PL.	-ăŭ-es	-ā-s	-ā-s	-jā-s	-jā-s	-ā-ø
A.PL.	-ū-s	-ă-ns	-ā-ns	-jĕ-ns	-jĕ-ns	-ā-ø

Stage III: Nasalisation and the loss of *-s.

Stems

	*-ŭ (m.)	*-ŏ (m.)	*-ā (f.)	*-jŏ (m.)	*-jā (f.)	*-ŏ (n.)
N.S.	-ŭ	-ă	-ā	-jĕ	-jā	-ă
A.S.	-ŭ	-ǫ	-ǫ	-ję	-jǫ	-ă
N.PL.	-aŭ-e	-ā	-ā	-jā	-jā	-ā
A.PL.	-ū	-ǫ	-ǫ	-ję	-ję	-ā

It is assumed that all nasal vowels are inherently long.

At this point it will be shown how III could have evolved into the system attested in OCS.

Syncretic endings which have arisen as a result of the changes proposed for stage III.

1) Masculine *-ŏ-stem n.s.- neuter *-ŏ-stem n/.a.s.

2) Masculine *-jŏ-stem n.s. - neuter *-jŏ-stem n./a.s.

3) Feminine *-ā-stem n.s. - feminine *-ā-stem n.pl.

4) Feminine *-jā-stem n.s.- feminine *-jā stem n.pl.

5) Feminine *-ā-stem a.s.- feminine *-ā -stem a.pl.

6) Masculine *-ŏ-stem n.pl.- neuter *-ŏ-stem n./a.pl.

7) Masculine *-ŏ-stem a.s. - feminine *-ā-stem a.s./a.pl.

8) Masculine *-ŏ-stem a.s. - masculine *-ŏ-stěm a.pl.

9) Masculine *-jŏ-stem a.s. - masculine *-jŏ-stem a.pl.

ii) A Summary of the proposed remodelling.

In order to eliminate the above syncretisms, a major morphological reanalysis is called for.

I propose that the *-ŭ-stems were utilised to save distinctions of number, gender, and case in the masculine *-(j)ŏ-stem declension, and even to some extent in the feminine *-ā-stem declension. Supported by the existence of a neuter pronoun *tă < *tăd, and the appearance of a neuter ending *-ă (< *ăs) in the *-s-stems (which were fairly numerous in CS), *-ă was retained as the neuter n./a. singular ending and *-ŭ was taken over from the *-ŭ-stems as a masculine ending (II B). It was also extended to the accusative singular masculine because the nasalisation of *-ā carried with it the loss of distinctive length, thus

eliminating the difference between masculine and feminine accusative singular (II C). In order to maintain this distinction, therefore, the *-ŭ-stem accusative singular ending was generalised to the masculine accusative singular also (III B).

Meanwhile, a different syncretism had arisen in the *-(j)ŏ-stems. The *masculine* nominative singular had fallen together with the *neuter* nominative singular, whereas the accusative *singular* had fallen together with the *-(j)ŏ-stem accusative *plural*. The solution selected was to remodel the *-jŏ-stem nominative and accusative singular after the pattern of the *-ŭ-stems (II B and II C).

In the plural, meanwhile, several other syncretisms had developed. In the nominative plural the distinctions among masculine, feminine, and neuter had been eliminated. This was resolved by the neuter keeping *-ā as its ending, the feminine taking over the *accusative* plural ending,[9] and the masculine taking the ending from the pronoun (II H). The accusative plural masculine and feminine had taken over the *-ŭ-stem ending to sort out the syncretism of singular and plural (II D). The feminine *-jā-stems, however, were already able to maintain this distinction (*-jǫ singular/ *-ję plural), and so there was no need for them to be remodelled.

The table below will make this clear.

Stage IV: A chart of the proposed remodelling

Stems

	*-ā	*-ŏ (m.)	*-ŭ (m.)	*-jŏ (m.)	*-jā	*-ŏ (n.)
N.S.	-a	-ŭ	-ŭ	-ĺ(<*-jŭ)	-ja	-o
A.S.	-ǫ	-ŭ	-ŭ	-ĭ(<*-jŭ)	-jǫ	-o
N.PL.	-y	-i[10]	-ove	-i	-ję	-a
A.PL.	-y	-y	-y	-ję	-ję	-a

(The changes *ă >o, *u > *w > v /-V, *ū > y are assumed to have taken place at this stage). For further information see II B, II C, and II D.

B. The *-ŭ-stems in IE: comparisons with Slavic.

1) Introduction - the noun in IE.

i) Stem class and gender.

From the earliest attestations of IE languages, and in many instances right down to the present, we can classify nouns according to *two* at least types of category. These are 1) *stem-class*, and 2) *gender*, both of which are very important in any discussion of IE nominal morphology. In the recoverable historical period they have tended to imply each other (e.g., in OCS all *-ŭ-stems are *masculine*), but one can still find evidence that this was once not so.

For example, Latin has masculine, feminine, and neuter nouns in its *-ŭ-stem class, e.g., exercitus - *masculine*; anus - *feminine*; genu - *neuter*. On the other hand in Late OR all nouns ending in a hard consonant are automatically masculine.

ii) Root, stem formant and inflectional ending.

The earliest reconstructible IE seems to have monosyllabic *roots* of the basic pattern CVC (*bVr-), with certain variations, e.g., CCLVJC (*sprVjg-), CCV̄ (*stV̄).[11] Attempts have been made to reduce *all* roots to the pattern CVC.[12] To many roots were added *stem formants* (usually vowels), and onto these *stem formants* were added

inflectional endings. When *inflectional endings* were added *directly* (without an intervening stem formant), the forms are called athematic. In the attested IE languages these are far less numerous than the thematic forms (forms with stem formants). Both nouns and verbs can be thematic or athematic.

It is essential from the start to make a distinction between root and stem formant, because there is sufficient evidence to show that many of these stem formants are later additions. If we examine the PIE root *p-d, we find:

OCS podŭ: *-ŭ-stem (see I C)

Go fōtus: *-ŭ-stem

Lat pedis(g.s.): consonant stem (athematic)

Gk ποδοσ (g.s.): consonant stem

Lith pādas: *-ŏ-stem

From this (and numerous similar examples) it appears that stem formants are later additions to the root. The stem formants *-ŏ- and *-ā- are often attested as additions to a form which already contains other stem formants (see I C and I B 4 below).

Most of the vowels posited for PIE can be used as nominal stem formants.

The exact grammatical and semantic origin of these stem formants is a vexed question. It is commonly believed that they are pronominal in origin (Specht 1947: 391, Adrados 1975: 819-823, Schmalstieg 1980: 179), although later developments have obscured this considerably. In this

dissertation we will not be discussing the particular *origins* of the stem formants in any great detail, but rather tracing the development of one of them within a certain dialect of IE.

The stem formant *-ŭ- seems to have had an ablaut variant *-ou-(*-eu-), with which it alternated in declension and conjugation. The alternation seems to be ancient; it must, however, have been productive for an extended period, as it was used to form case-endings that appear to have evolved independently in the different IE languages.[13]

2) The early evolution of gender in IE.

i) Introduction - The Reconstruction of the Ergative.

Parallel to the differentiation of nouns by stem-class, there arose a system of differentiation of nouns by gender. The interplay between the two, and the confusion resulting therefrom, is one of the more fascinating problems in the study of the IE languages.

As this dissertation is not primarily concerned with PIE gender and its evolution, I will present only a cursory treatment of the way I believe it developed. This summary should be included, as the assumptions contained therein are essential for the reconstructive framework on which the reconstructions to be discussed are based. In the modern IE languages we find several types of gender system. Some

languages have two genders (French), some three (German), and some none at all (Modern Persian). The Slavic languages have developed several sub-genders (see Stankiewicz 1968) in addition to the basic three-gender system (see III).

If one traces these systems to Proto-Germanic, Proto-Romance, Proto-Slavic, Proto-Indic etc., one can find a formidable array of evidence to support a three-gender system: masculine-feminine-neuter.

The exception is Hittite, where we have what seems to be a two-gender system: inanimate-animate. Nowadays the commonly-held opinion is that Hittite never had a feminine gender, although it used to be believed that it did have it at one time, but later lost it.[14]

It is usually believed nowadays that PIE had originally the same sort of system as Hittite, and the feminine gender is the result of the splitting of the former animate gender.

The rise of the feminine gender seems to be bound up with the spread of the stem formant *-ā-, which according to many scholars is a later development (Brugmann 1897 (quoted by Miranda 1975), Gray 1932, Bernštejn 1974: 134).

Adapting several similar theories of IE gender (Uhlenbeck 1901, Vaillant 1936, Savčenko 1968, Miranda 1975, Shields 1976, Schmalstieg 1980), I offer a scheme of the evolution of PIE gender, taking into account the ergative proposed by numerous scholars (including most of the above), as it fits in very well with the reconstructions proposed in I A.

ii) Nearly all the attested IE languages have a construction contrasting nominative (subject of both transitive and intransitive verbs) vs. accusative (direct object of transitive verbs).[15] There are, however, several pieces of evidence that in earlier IE, possibly surviving vestigially into the various branches, there was a different construction, such as found in Georgian, Basque, and numerous Australian languages - the opposition absolutive (direct object of transitive verbs and subject of intransitive verbs) vs. ergative (subject of transitive verbs).

A chart will help to make this clear, at the same time showing the relationship of the old system to the new.

OLD	NEW
ABSOLUTIVE (DIRECT OBJECT) (SUBJECT OF INTRANSITIVE VERBS)	ACCUSATIVE NOMINATIVE (SUBJECT OF INTRANSITIVE VERBS)
ERGATIVE (SUBJECT OF TRANSITIVE VERBS)	NOMINATIVE (SUBJECT OF TRANSITIVE VERBS).

At the earliest stage of the evolution of IE gender, there would have been a formal opposition in the endings of the noun: *-ø (absolutive) vs. *-s (ergative).[16] The scholarly consensus, in which I concur, seems to be that *-s was

originally an ergative suffix (Uhlenbeck 1901, Vaillant 1936, Savčenko 1968). For a contrary view, see Shields 1976 (discussed below). This would have gone hand in hand with the type of gender system attested in Hittite, and would have helped to make the distinction between nouns classified as *animate* (which could take the *-s ergative marker) and nouns classified as *inanimate* (which could not, see Tchekhoff 1978: 228).

iii) Later on, there appeared the *-ŏ-/*-ā-stem opposition, which cannot be separated from the rise of the new feminine gender. The *-ā-stems originally had *collective* meaning, and this later shifted to *individual*. One noun (*quenā > γυνη, žena, bean etc.) seems to have given the impetus for the formation of the new feminine gender. This would have been parallelled by the rise of *assonance concord*, whereby the new ending spread to attributive adjectives and pronouns, thus creating strings such as *tā neuā quenā.

Miranda (1975: 202n) accepts that one noun, if frequent enough, could form the basis of a new gender, but seems not to accept that a change *collective > individual could have provided a spur for this: "Brugmann's (1897) other suggestion that an originally collective noun ending in *-ā might have undergone semantic change to denote a female (e.g., *ekwā "mare" developing from *ekwā "drove of horses") is questionable since such changes are hard to find." Such a

change is, however, attested in the Carinthian Slovenian dialect of Sele Fara where the word žéȷstu now means "woman". This word, descended from CS *ženĭstvo, originally had collective meaning.

Once the masculine/feminine distinction had become established, it invaded the *-ŭ-stems and *-ĭ-stems, in which up to this point the primary distinction had been neuter/non-neuter (animate-inanimate). This process was carried further in some languages than in others - see 5 below for the position of the feminine *-ŭ-stems.

Meanwhile the old ergative had split into nominative and genitive and the *-s had become more productive in the genitive than in the nominative. At this stage, therefore, it was *not* added to the *-ā -stems in the nominative singular, only in the genitive singular.

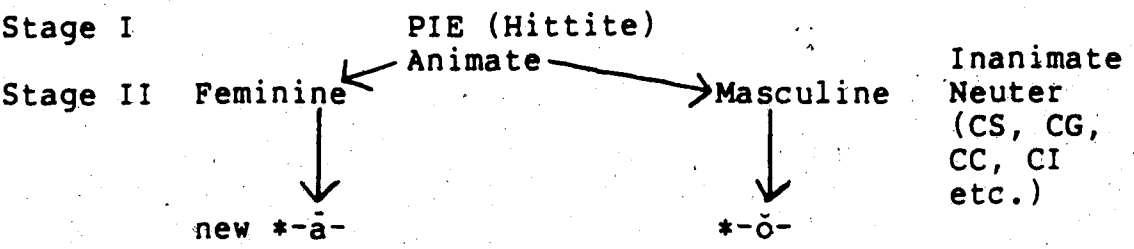
At this stage the difference between singular and plural in the noun declension had not properly developed, and the *-s is attested in both.[17]

iv) Furthermore, a significant transfer of *marking* has occurred. The *agent* ergative would have been *marked* under the old scheme and the *patient* absolutive *unmarked* (cf. Greenberg 1961: 95, Trask 1979: 385, Comrie 1981: 119-20[18]). With the merging of the two types of subjects (transitive and intransitive) the direct object has become marked and the subject unmarked.

With this shift in marking, a new ending was added in certain stems, to show the new direct object (*accusative*). This was *-m, taken from the *pronominal* *-ŏ-stems and added *first* to the masculine *-ŏ-stems, *then* to the feminine *-ā-stems, and then to the other paradigms. In some dialects it was extended to more classes than in others.

However, there was another group of endings which had originated from PIE absolutives: the neuter nominative/accusative singular. As the new neuter nouns would have appeared in the accusative more often than in the nominative (see Tchekhoff 1978:228), the *-m of the accusative singular of the masculine *-ŏ-stems and the feminine *-ā-stems would have likely been extended to the neuters as well. The question of the range of *-m in this function is so important that it deserves a subsection to itself (see 3 below).

At this point a chart follows to show the proposed evolution from a two-gender system in PIE to a three-gender system in CS.



3) <u>The IE accusative singular *-m</u>.

The assumption that the *-m seen in the accusative singular masculine and feminine and in the nominative and accusative neuter of the *-ŏ-stems and the *-ā-stems is *later* than the *-s of the masculine nominative singular of several paradigms, and that its range was restricted in CS, was referred to in I A. It is now time to justify this proposal.

Support for the proposal is admittedly meagre. The following may be taken as possible pointers:

i) The accusative plural of non-neuter nouns in PIE is supposed to have been formed by the addition of *-s to the accusative singular, which would give us *-Ns in many instances. For Slavic, however, this *-Ns ending can only be reconstructed with certainty for the *-jŏ /jā-stems (see II D 5); the other stem classes seem to have an accusative plural ending in *-V̄s, where *V = relevant stem vowel (see II A, II C, II D).

ii) Problems arise in the reconstruction of the accusative singular of the feminine *-ū-stems if a final *-m is proposed. An alternative solution is posited, sketched here in outline:

N.S. ljuby < *leub-ū-(*s)
A.S. ljubŭvĭ < *leub-ū-(i) (NOT leubŭu-m̨).

The accusative singular is usually reconstructed as *-ŭum̨,[19] which has one slight difficulty attached. It is

connected with one rather vexing problem in historical Slavic phonology: the reflexes of the IE syllabic sonants which, as is commonly known, undergo a two-way split: *l̥ > *ĭl/ŭl, *r̥ > *ĭr/ŭr, *m̥ > *ĭm/ŭm, *n̥ > *ĭn/ŭn.

The conditions for this split, which Slavic shares with Baltic, are not clear. In particular, the fate of the nasal sonants remains a problem (see Shevelov 1964: 83). Shevelov 1964: 325-6 draws attention to another, related problem: the *-ĭ/ŭN- combinations reconstructed for CS should have developed into nasal vowels.

This problem should be approached with caution, as it is fraught with difficulties, nevertheless I feel that there is one neglected factor which should be considered: the sound "m" is a labial segment, *-ŭ- is also a labial segment. Why should the *m̥ have developed into *ĭm in this environment, and not into *ŭm? (And thence, according to the reconstruction, to *ŭ?) It seems more likely that the does not represent a phonological reflex of *m̥ in this instance. I propose that the *-ĭ here is taken from the -ĭ-stems, as is much of the rest of the consonant stem declension in the Slavic languages.[20]

iii) In Slavic and East Baltic (especially Lithuanian), it is *possible* to reconstruct the neuter nominative/accusative singular *-ŏ-stem as a *bare stem*, *without* the *-m which is reconstructed for all of IE on the strength of Celtic, Greek, Italic, and Indo-Iranian,

together with some slightly ambiguous evidence from Hittite and Old Prussian.

This *-m ending in the neuter would seem to have the same function as the *-m ending in the accusative singular masculine/feminine, and it seems that it was added to the bare stem as IE switched from ergative to nominative/accusative. It is generally agreed that this *-m has the same origin across all the three genders.[21]

As this *-m had a restricted range in the neuter, it should be *possible* for it to have had a more restricted range in the masculine and feminine also. The Lithuanian evidence seems to point to the presence of this *-m in all forms of the masculine and feminine accusative singulars, but the Slavic evidence seems to show (see below) that we can reconstruct most of the accusative singulars (*-ŭ-stem, *-ĭ-stem, all consonant stems) *without* the *-m.

This would mean a very ancient morphological isogloss between Baltic and Slavic, but this should not be too surprising, considering the vast number of phonological isoglosses which separate them.

iv) In addition to a possible confirmation of iii) above, Hittite shows an accusative singular masculine *-ŏ-stem *without* the *-m in certain forms, e.g., lahha paizzi - "he goes to war." The accusative of direction appears in Italic, Greek, Germanic, and Slavic, so it seems quite reasonable to reconstruct it for IE also.

v) The proposed system, with the accusative marked with a zero in several forms, is typologically by no means impossible. Let us consider the system in three IE languages:

a) Faroese	Masculine	Neuter
N.	bátur	horn
A.	bát	horn

In this system the *nominative* has the ending, and the lack of an ending on the accusative is sufficient marking. This system is perfectly stable - it has lasted at least 1,000 years and shows no sign of remodelling.[22]

b) Latin and Greek *-ŏ-stem declension:

	Masculine	Neuter
N.	dominus-ἀνθρωποσ	bellum-ἐργον
A.	dominum-ἀνθρωπον	bellum-ἐργον.

The masculine nominative singular on the one hand is opposed to the neuter nominative/accusative singular and the masculine accusative singular on the other.

c) Latin *-ŭ-stem declension:

	Masculine	Neuter
N.	exercitus	genu
A.	exercitum	genu

Here we have a three-way opposition: masculine nominative singular vs. masculine accusative singular vs.

neuter nominative/accusative singular.

It is proposed that the *-ŭ-stem declension in CS would have had a system corresponding to a) above, whereas the *-ŏ -stems would have had a system corresponding to c).

	Masculine	Neuter
N	*sūnŭs	*mĕdŭ
A.	*sunŭ	*mĕdŭ
N	*gVrdās	*pălja
A.	*gVrdām	*pălja

vi) Kuryłowicz, Savčenko, Shields.

Kuryłowicz 1964: 209-11 proposes a system in which the *-m of the accusative singular is *earlier* than the *-s of the nominative singular, which would be impossible under the reconstructions being proposed here for Slavic. As far as I can see, however, Kuryłowicz does not offer any justification for proposing this. Savčenko, on the other hand, argues quite convincingly for the reconstruction of an *s vs. ø opposition as the earliest recoverable case system in IE, with other elements being added on later. The ending "*s" would have had an "ergative" (in Savčenko's terminology , "active") meaning, and *-m would have had an "absolutive"("passive") meaning. A cardinal point in his reasoning is that the *-m in the accusative singular masculine/feminine and the nominative/accusative singular neuter are one and the same ending.

His proposal of an *s(ergative) vs. ø(absolutive) distinction would seem to agree quite well with what we know about the marking of ergatives in extant languages: the absolutive is more likely to be unmarked while the ergative is more likely to be marked.[23] The ending *-m would be added as IE changed from an ergative to a nominative/accusative language.

Shields 1976 pass. and 1978 pass. posits an *-N(absolutive) vs. ø(ergative) opposition as the earliest recoverable stage of PIE nominal inflection, with the *-s being added later - the reverse of Savčenko's ordering.

This approach runs into several difficulties. To make this reconstruction plausible, Shields has to assume wholesale loss of the *-N formant in certain categories in Baltic, Slavic, and Hittite, throughout the whole of IE in other categories (Shields 1978: 193 fn.). He explains this loss by postulating a massive analogical reworking, arising from the confusion between what he calls "animate agent" nouns and "inanimate" nouns. The former would be declined and behave syntactically exactly like the "animate" nouns, i.e., they would be in either the absolutive or the ergative case.

There are other difficulties with Shields' proposals. There are several examples of "animate agents", which would have had to lose their *-N vs. ø distinctions to become neuters. Why did they not simply shift to the morphologically identical "animates" and turn up in the

modern IE languages as masculines or feminines? Only a few of them actually do so.[28]

Finally, there is the marking problem. As we have seen above, the ergative is more marked than the absolutive, as a general rule, and so one would expect it to take the more salient ending. Although this is to some degree a matter of personal preference, Savčenko's *s(ergative) vs. ø(absolutive). seems to me more convincing than Shields' *ø(ergative) vs. N(absolutive)

There is always the possibility, of course, that the ø ergative in Shields' scheme arises from the previous loss of some segment, unreconstructable with our present state of knowledge, which would serve as an ergative case ending.

In certain IE languages the *-m has extended itself further than in others: in Old Irish, for example, the *-m has spread from the neuter *-ŏ-stems to the neuter *-ŭ-stems, which is unusual.

It is therefore proposed that several nominal stem-classes in CS had a bare-stem as the accusative singular ending, i.e., without the *-m commonly reconstructed in this position. It was shown that there are a few pieces of evidence from IE to back up this proposal, and further support comes from typology. It is proposed that such a reconstruction deserves consideration. In II it will be shown that this proposal can easily be accommmodated into a reconstruction of the CS nominal declension system.

4) The evolution of stem-classes: the rise of the *-ŏ/ā-stems.

i) Introduction.

It seems reasonable to suppose that the emergence of the various stem-classes took place in the following order:

a) consonant stems - heteroclitics. Their origin seems to be buried fairly deeply in the past. Certain derivational suffixes (e.g., *-ŏs, *-mĕn) can also be counted as forming consonant stem nouns.

b) *-ĭ-stems, *-ŭ-stems.

c) *-ŏ-stems, *-ā-stems.

These stem formants often appear in combination, but certain combinations are far more common than others. The chart below will give some idea of the possibilities of combining the three types listed above. Those marked + are fairly common, those marked - seldom or never occur.

FIRST MEMBER	*C	*-ĭ	*-ŭ	*-ŏ	*-ā
SECOND MEMBER					
*C	0	-	-	-	-
*ĭ	+	0	-	-	-
*ŭ	+	+	0	-	-
*ŏ	+	+	+	0	-
*ā	+	+	+	-	0

ii) The expansion of the *-ŏ/ā-stems.

It is striking that there is a proliferation of derivatives in IE languages using *-ŏ-stems and *-ā-stems, many of them built on older *-ĭ-stems and *-ŭ-stems, which in turn are often built on still older consonant stems. It

is extremely common for *-ŏ-stems and *-ā-stems to be built directly onto older consonant stems and heteroclitics. In historical grammars of the various IE languages *-jŏ- and *-jā-stems are treated as separate categories from the *-ŏ-stems and the *-ā-stems, in some of them *-wŏ-(< *-ŭ+ŏ) and *-wā-(<*-ŭ+ā)-stems are also so treated. Several of these, as we shall see in I C, can be traced back to *-ŭ-stems with *-ŏ- and *-ā- enlargements. All the IE languages have *-ŏ- and *-ā- stem adjectives as their most numerous type. The other stem classes seem to be rarer and, in many cases, disappearing.

For example, in OCS the *-ŭ-stem adjectives have all transferred into the *-ŏ- and *-ā-stems, many of them through the suffix *-k-:

gladŭkŭ <	*gVldŭ+k+ŏs
ǫzŭkŭ <	*anzŭ+k+ŏs

Although OCS still preserves a great variety of the original PIE *nominal* declensional paradigms, its *adjectival* paradigms are limited to the *-ŏ-stems and *-ā-stems (with one or two exceptions).[25] This seems to be a general pattern throughout IE languages - the adjectives have fewer declensional patterns than the nouns.

Even when the older classes of noun survive, they show contamination with the *-ŏ- and *-ā-stem endings. Two examples should suffice here: newer, more productive case endings are invading the older, less productive ones.,

a) The *-ū-(v)-stems[28] in Slavic (examples taken from OCS) have generalised *-ā-stem endings in the dative, instrumental, and locative plural, e.g., crĭky crĭkŭvamŭ crĭkŭvami crĭkŭvaxŭ.

In the modern Slavic languages this process has gone even further: the *-ū-(v)-stems have all but vanished as an independent noun class and have mostly been absorbed by the *-ĭ-stems.

b) In Lithuanian, from the earliest attestations, the plural paradigm of the *-jŭ-stem nouns is rendered with *-jŏ-stem endings.

	Singular		(but) Plural	
	*-jŭ-	*-jŏ-	*-jŭ-	*-jŏ-
N.	karãlius	brólis	karãliai	bróliai
V.	karãliau	bróli	karãliai	bróliai
A.	karãlių	brólį	karãlius	brólius
G.	karãliaus	brólio	karãlių	brólių
D.	karãliui	bróliui	karãliams	bróliams
I.	karãliumi	bróliu	karãliais	bróliais
L.	karãliuje	brólyje	karãliuose	bróliuose

iii) The relative age of IE stem-classes - pointers from comparison.

As discussed in I A 3, it has been proposed by many scholars (e.g., Hirt 1927: III: 38, Mažiulis 1970: 329, Schmalstieg 1980: 46) that PIE's case system was poorly developed at the time when the major dialect continua began to split off. Many of the oblique cases postulated for PIE by earlier generations of scholars had not properly

developed (e.g., the instrumental, the locative, the dative). Some languages have continued to gain case inflection after their first attestations.[27]

However, certain stem classes seem to have been more uniform within PIE than others. If the *-ŭ-stems, to take one example, are indeed older than the *-ŏ-stems, as the brief outline of part of the system of PIE nominal derivation seems to show, it might be reasonable to find them much more easily traceable to a common source.

I admit that it does not necessarily follow that exact correspondences in related languages are traceable back to one common source - one should always bear in mind the process of independent, yet parallel evolution.[28] However, when one takes this in conjunction with the facts of derivation quoted above, the probability increases that we will obtain fruitful results. Furthermore the *-ŭ-stem nouns (and adjectives where they exist) show the *older* (anim. vs. inan.) gender distinction, for the more recent masculines and feminines appear to develop from the old animate, while the neuter can be associated with the old inanimate.

As we saw in I A, the morphosyntactic categories in the nominal declensions in IE languages do not correspond with one another (see the table in the appendix). Within the various case systems found in IE languages, Greek and Old Irish correspond to Gothic, Lithuanian corresponds to Slavic, and Hittite to Sanskrit, although Hittite does not make a distinction between singular and plural to the same

extent that the other IE languages do.[29]

In several IE languages there seem to be residues of fuller case systems: Old High German has an instrumental case in addition to the cases which it shares with Gothic, e.g., tag - instr.tagu, whereas Latin has several vestiges of an old locative, which would seem to correspond fairly well with locatives in other IE languages, e.g., Romae - "in Rome".

As we are discussing a peculiarly Slavic development, and as the Slavic declensional system shows several archaic features, let us consider the *-ŏ-stem nominal paradigms of a selection of IE languages in relation to Slavic. For Slavic, OCS will be taken as representative (the use of the OR or OCz. paradigms would not alter the conclusions significantly). We will examine the *-ŏ-stem nominal paradigms of Latin, Gothic, Sanskrit, Lithuanian, Greek and Hittite. Forms that correspond *both* phonologically and morphosyntactically with the equivalent OCS form will be underlined, e.g., Greek ἀνθρωπε, OCS grade (vocative singular). Forms that *may* correspond are marked "?", e.g., OCS grady Latin dominos? (accusative plural). These forms are *possible* equations, many of which have been proposed in previous articles and books on the subject. In this dissertation it will be shown that many of them are not in fact exact phonological parallels. The table is given in the appendix.

The Old Irish *-ŏ-stem declension is so similar to the Latin, that it is omitted here.

Even if we accept all of those questionable forms, the number of exact correspondences is very small. The most consistent correspondence with OCS, spread over all IE, is the vocative singular. Other correspondences are less frequent - the Sanskrit locative singular and plural (but not dual) correspond exactly, as does the Gothic dative plural.

If we consider the *-ŭ-stem paradigm, however, we find a much greater number of exact correspondences. (See again the table in the appendix).

It therefore seems likely that contacts between the various IE languages were stronger when the *-ŭ-stems were productive than when the *-ŏ-stems became productive.[30]

iv) Conclusion.

The rise of the *-ŏ-stems and *-ā-stems goes hand in hand with the rise and extension of the new feminine gender. The *-ĭ-, *-ŭ-, and consonant stems, however, were split according to the old animate/inanimate distinction, and as the masculine(neuter)/feminine distinction gained in importance (a trend which was to result in the elimination of the neuter in many later stages of the IE languages), the *-ŏ-stems and *-ā-stems, the most common classes to show this distinction, extended their range correspondingly.

5) The evolution of stem-classes: the retreat of the *-ŭ-stems in IE.

i) General Remarks

The *-ŭ-stem declension seems to have been mostly masculine in many IE languages. In certain IE languages, feminine *-ŭ-stems developed, but the feminine was less successful in penetrating this declension than it was in others, and OCS shows no trace of having had any feminine *-ŭ-stems.

It seems that the *-ŭ-stems were absorbed by the more numerous *-ŏ-stems over much of IE. A factor that could have contributed to this, specifically in Old Icelandic and Old Irish, was the development of root alternations conditioned by the *-ŭ-in the following syllable. With the loss of many final syllables in these languages, the declension became based to too great a degree on root alternations, and although *some* root alternations in these declensions survive in these languages until this day, there has been a tendency to lose several of them, especially the *-ŭ-based alternations, cf. Mańczak 1958: 301-12.

ii) Individual IE groups.

In Greek, Sanskrit, and Hittite *-ŭ-stems, both nouns and adjectives, are fairly numerous.

In Latin, the *-ŭ-stem nouns, due no doubt to their identity with the *-ŏ-stems in the nominative and accusative

singular, show rapid absorption by the latter. There are no *-ŭ-stems adjectives left in Latin by the earliest attestations.

In Old Irish there are very few *-ŭ-stem nouns, and, as in Latin, they are absorbed fairly rapidly by the *-ŏ-stems.

In Germanic (e.g., Gothic) there are few *-ŭ-stems, nouns and adjectives, and these tend to be absorbed.

In Lithuanian both *-ŭ-stem nouns and adjectives have survived remarkably well. They number roughly 1500.

iii) The Slavic evidence: the recognition of *-ŭ-stems.

In Slavic the *-ŭ-stem declension is not attested as an independent paradigm from the earliest records. However, there is an extension of *-ŭ-stem endings into the *-ŏ-stem paradigm on a scale not seen elsewhere in IE,[31] the results of which persist till this day. It will be shown in this thesis (especially in II B, II C, II D) that this influence goes further and deeper than previously imagined.

It has been mentioned above that the CS declension system preserves many archaic features, such as the lesser extension of the IE accusative marker *-m. If the *-ŭ-stem declension does indeed belong to a more archaic stratum of the IE languages, then we might reasonably expect to find it better preserved in Slavic than elsewhere.

If we strip away the derivational suffixes, some of which have clearly been added comparatively recently, then we can expose numerous former *-ŭ-stems which in many instances have cognates in other IE languages.

Most of these suffixes will have a *-u element in them, poi[illegible] at some stage to an affinity with the *-ŭ-stems. It is [illegible]t to remember that *-ŭ- and *-v- are in co[illegible]y distribution in Early CS, so therefore we can exp[illegible]ind a *-v-, supported by cognates, as the only clue [illegible] former *-ŭ-stem in many instances (e.g., see gol[illegible] *korŭ, *derŭ, in I C 3). Many of these have cognates [illegible]wŏ- and *-wā-stems in other IE languages.

At other times we can find the ablaut variant *[illegible]u(/eu)- (realised in attested Slavic as -uC-/-ovV-) u[illegible]ised as a derivational suffix. Verbs and adjectives fo[illegible]ed by means of this suffix are extremely numerous, and sti[illegible] productive in the modern languages, and several borrowed roots and compounds are "Slavicised" by using it (e.g. [illegible]R арестовать, цифровый: neither of these forms is nat[illegible]lavic). Therefore we have to be extremely careful with this particular suffix. If possible, we should only use forms attested in the earliest written Slavic, before the big influx of borrowing from Western sources got under way.

Finally, the suffix *-kŏ/kā- seems to have been added to many former *-ŭ-stems and *-ĭ-stems, and its presence, especially with adjectives, is often of great assistance in determining whether a form was originally a *-ŭ-stem or not. This seems to have been an inheritance from PIE, since both Latin and Sanskrit show similar forms, e.g., Lat verrūca < *versu+k+ā, Skt guruka < *guru+k+ŏ.

One such form seems to be reconstructed for Germanic: Old Icelandic borgr < *bhoru+k+ŏ (see Stang 1972: 15), cf. OCS gladŭ+k+ŭ Lith glodus.

Bernštejn (1974: 132 passim) urges caution in dealing with such material. His proposals will be treated in more detail in I C. If we search for features listed above in the earliest Slavic, and in the dialects, we are likely to uncover several old *-ŭ-stems. If we find these features in addition to *-ŭ-stem declensional endings on the forms in question, we will have a strong case for labelling these forms as original *-ŭ-stems.

6) Conclusions.

i) PIE passed from a stage of being an *ergative* to a *nominative/accusative* language.

ii) PIE's gender system changed from *animate/inanimate* to *masculine/feminine/neuter*; the rise of the new *masculine/feminine* distinction is intimately connected with the *-ŏ-/-ā-stems.

iii) The *-s which appears on the masculine nominative singular on many paradigms is an original ergative suffix.

iv) The *-ā- and -*-ŏ-stems belong to a more recent

stratum of IE than the rest: they show a *masculine/ feminine* distinction while the others show an *animate/inanimate* distinction.

v) Throughout IE, the *-ŏ-stems are far more heterogenous than the *-ŭ-stems.

vi) Within Slavic possible original *-ŭ-stems can be recognised by the presence of one, or preferably more than one, of the following:

a) The presence of derivatives in *-u-(-v-).

b) The presence of older derivatives in *-ou-(-ov-).

c) The presence of a suffix *-k-.

d) The appearance of *-ŭ-stem declensional endings on the forms under discussion.

e) Cognates in other IE languages.

C. The reconstruction of original *-ŭ-stem nouns in adjectives in Slavic

1) Introduction - the scholarly consensus.

Now that we have established a set of reconstructions and a sequence of morphological developments from PIE to CS, we must next evaluate and synthesise the proposals offered by various scholars on the vexed topic of this section. For it is one of the contentions of this dissertation, that, even after the excellent studies of Ekkert (1959, 1963), Spiers (1977) et al., the full corpus of CS *-ŭ-stems has not yet finally been worked out.

The first difficulty with which we are confronted is one of presentation; many authorities have already written on this subject, either as the relevant part of a grammar of OCS, OR, OCz. etc., or as a separate study in its own right. One problem has therefore been mere selection. Furthermore, no two of the authorities in question have come to the same conclusions on the subject. See Ekkert 1963: 14 and Thorndahl 1974: 14.[32]

However, there are four points about which all, or nearly all, of the authorities are agreed. The best way to approach this problem, therefore, is to start off from this common ground. The four points are:

i) The *-ŭ-stem nouns were all masculine in Slavic.

Here Slavic is in the minority among the IE languages: only East Baltic and Old Icelandic agree with Slavic in this respect. We find that Indo-Iranian, Greek, Gothic, and Italic have *-ŭ-stems of all genders. Old Irish has masculine and neuter *-ū-stem nouns, but no feminines.[33]

Hittite, which seems to represent an earlier stage of IE in many respects, has masculine and neuter (animate/inanimate) *-ŭ-stems.

ii) The earliest attested Slavic has no separate *-ŭ-stem adjective declension, but it does have adjectives which are cognates of *-ŭ-stems in other IE languages..

Here Slavic agrees with Old Icelandic and Italic. All three have adjectives which are reconstructible from other IE languages, notably Gothic and Greek, e.g., Go aggwus OCS ǫzŭ-kŭ, Gk ἐλαχυσ OCS lĭgŭ-kŭ, Skt tanuḥ OCS tŭnŭ-kŭ.

This warrants further discussion; see I. C 4 below.

iii) As a general tendency in IE (and Slavic), the *-ŭ-stem declension has fewer nouns and adjectives than the *-ŏ-stem declension, and tends to merge with it.

It would be beyond the scope of this study to trace back how far this tendency operated in PIE. It is probable that the *-ŏ-stems extended their range thanks to the existence of a vast number of derivational suffixes in *-ŏ(such as *-kŏ- above), which often contrasts with *-ā- (see, e.g., Bernštejn 1974: 134). Usually the traffic is

one-way: the *-ŭ-stems tend to be absorbed into the *-ŏ-stems, and to leave few traces.

In Slavic, however, the merger took place with the *-ŭ-stems exerting a great deal of influence both within and beyond the new hybrid declension (see especially II B, II C, II D, III A, III B, III C).

iv) There are six nouns which virtually all the scholars consulted agree in categorising as original *-ŭ-stems.

The nouns listed below are glossed according to their OCS meanings as given, unless otherwise stated. They will be accompanied by cognates from elsewhere in IE and from the modern Slavic languages, and also by derivatives which follow the patterns shown in I B. Also included, where they lend support to this categorisation, will be grammatical information from the various modern Slavic languages.

1) *volŭ - "ox".

R вол, Sn vol, P wół.

This word has no sure cognates outside Slavic, and so only internal evidence can be used; this evidence is, however, very strong. For a fairly convincing etymology, see Trubačev 1960: 44.

The forms volovĭnŭ - "oxen" (adj.), and volovina - "beef" are attested in OCS. OR has a form волуи. For more

examples, from all over Slavic, see Ekkert 1959: 104 and 1963: 7-14 and Spiers 1977: 75.

Many modern Slavic languages still show an original *-ŭ-stem genitive singular -u for this word, e.g., Ü вíл g.s. вóлу, P wół wołu (but note Sn vòl g.s. vóla). In Polish this constitutes an exception to the rule that animate nouns form their genitive singular in -a. It seems attractive to think of wołu as an original *-ŭ-stem genitive singular which has survived.

2) *vĭrxŭ - "top, summit".

R верх, SC vrh, Cz vrh

This word is cognate with the Lithuanian form viršùs, also a *-ŭ-stem. The Latin form verrūca - "wart" possibly also points to an original *-ŭ-stem by its derivational vocalism.

Like *volŭ-, *vrĭxŭ- has numerous *-ŭ-stem based derivatives. In Russian we have the forms наверху - "upstairs", and верховье - "upper reaches of a river". In OCS we have vĭrxu -"above", vĭrxovĭnŭ - "upper"(adj.), while in Slovenian we find verhovje -"summit".

The form *vrĭxŭ- also has preserved much of its original inflection. Besides the regular genitive singular верха , Russian has an alternative form верху. Czech, Slovak, and Polish all preserve the *-ŭ-stem singular ending: vrch: vrchu, vrch: vrchu, wierzch: wierzchu.

3) *domŭ- "house".

R дом, Bg дом, Cz dům

Cognates for this word are particularly numerous. Latin has a form domus (f.), which is declined in a mixed *-ŭ/ā-stem declension reminiscent of the mixed *-ŏ/-ŭ-stem paradigms in the modern Slavic languages (see III). Greek and Sanskrit both have *- ŏ-stem forms (δομος , damah), and Sanskrit also has a form damūnah - "pertaining to a house" (see Meid 1958). This root seems to be connected with the Greek verb δέμω - "I build". Baltic has no sure cognates, although Lith nāmas (an *-ŏ-stem!) "house, home", is often cited (with an exceptional change of *d- to *n-).

Within Slavic, there are several fossilised expressions which can be traced back to an original *-ŭ-stem paradigm, such as Russian домой < *domovi - "home" (direction) [34]; из дому - "from home". *-Ū-stem based derivatives are also very common : OCS domovitŭ - "master of a house", Cz. domový Bg. домовен.

This noun has preserved its old *-ŭ-stem declension comparatively well. In Polish its locative singular is domu, which is odd considering that in the modern language -u is used for stems ending in a soft consonant or a velar (see III C). In Russian there is a fossilised locative singular: на дому.

4) *medŭ - "honey".

R мёд, SC med, P miód

This form has many cognates outside Slavic, nearly all of which point to an original neuter *-ŭ-stem. It is the only original IE neuter *-ŭ-stem for which we have a cognate in Slavic. We have Skt mádhu - "sweet, intoxicating drink", Gk μεθυ - "wine", OIc mjǫðr - "mead", OI mid (< *medu) - "mead", OPr meddo - "honey". Lithuanian and Latvian have the masculine gender in this word, e.g., Lith medus - "honey".[35]

The word for "bear" in Slavic languages (R медведь, P niedźwiedź (miedźwiedź), Bg медвед etc.) seems to show a *-ŭ-stem based derivative. It has a cognate in Skt madhuvád - "eater of sweet things".

There are also many derivatives using the stem *-ov-: OR медовыи, SC medov, Cz medový - "honey"(adj), Bg медовина - "syrup"; OCS omedviti - "sweeten".

Russian has a genitive singular мёду used in a partitive sense, but this is regular for uncountable nouns (see III B). A form medu also appears in OCS - Suprasliensis 291.8. Ukrainian and Polish have normal genitive singulars in -u, e.g., мід - меду; miód - miodu.

5) *polŭ- - "half, sex".

U пів, Sn pol, P pół

There do not seem to be any sure cognates in other IE languages, although Albanian palë < *polnā is mentioned by Vasmer 1973.

Derivatives and fossilised expressions showing the original allegiance of this noun are plentiful. Various forms of the word for "mid-" in Slavic languages show a *-ŭ-stem (R полдень полудня g.s., OR полудьние, OCS poludinŭ (adj.), OCz. poludienǫk - "midday meal", Sk poludné - "south", U полудень). There are also many forms such as R половину - half.

Fossilised forms still showing the old *-ŭ-stem declension are attested: OR съполу - "by half", P pospołu - "together", OCz. spolu - "together". In several OCS texts (namely Zogr., Mar., Ass., Sav., Supr.,) a *-ŭ-stem dual form, one of the very few attestations of a *-ŭ-stem dative/instrumental dual, is recorded: the form polŭma. There is also a nominative /accusative dual poly, attested in Supr.

6) *synŭ I - "son" (distinct from synŭ II - "tower").

R сын, Bg син, P syn.

This is possibly the best-attested original *-ŭ-stem in Slavic. There are cognates from nearly every branch of IE, except for Italic and Celtic: Skt sūnuḥ - "son", Gk (Cretan), ὑιυσ - id., Go sunus - id., Lith sūnùs - id., all of which are *-ŭ-stems.

Derivational forms are also attested to back up this information, e.g., OCS synovĭnŭ - "filial".

Nearly all of the original *-ŭ-stem declension of this noun is preserved in OCS; only the dative and locative

plural are not attested. It is the fullest *-ŭ-stem paradigm that we have. It is one of the only two nouns in Russian to form a plural with the *-ov- suffix сын сыновья (nom.pl.) : кум кумовья - "godfather". Polish preserves much of the old declension intact (apart from the genitive singular syna, locative singular synie, and a few forms in the plural, see III B and III C). Czech has a similar pattern. A few Carinthian Slovenian dialects have taken the suffix -ov- so characteristic of South Slavic and extended it to the genitive singular, e.g., sin - g.s. snova.

2) Areas of disagreement.

Now we come to the controversial part of this section, the area where most scholars disagree. I do not believe that any of them holds that the six nouns listed above were the *only* *-ŭ-stems in CS, but which were the other ones?

Several of the scholars listed below, and others besides, maintain that the *-ŭ-stems were more numerous then one might suppose at first glance. This is one of the basic assumptions that must be made in order for proposed reconstructions to seem more plausible: a declension consisting of many nouns and adjectives, several of them of fairly high frequency, is much more likely to extend its influence than a smaller one containing nouns and adjectives of lesser frequency.

This assumption is not new: it dates back at least to 1867, when Schleicher declared: "К склонению основ на -ŭ- принадлежит больше форм, чем обычно предполагают" (quoted in Ekkert 1963: 14), Meyer: "Im Urslavischen sind die u-Stamme zahlreicher, als sie in den Slavischen Einzelsprachen überliefert sind" (quoted in Ekkert 1963: 14) ; Ekkert 1963: 14 : "Однако перечисленными шестью несомненными случаями праславянских имён существительных с ŭ-основой не исчерпывается группа слов, имевших в праславянском ŭ-основу ."; Spiers 1977: 80: "It is in any case obvious that the *-ŭ-stems were at one time sufficiently numerous to disrupt entirely the old *-ŏ-stem declension." For contrary or cautionary views see Ferrell 1965, Gălăbov 1973, Feinberg 1978.

Below is given a list of over 70 nouns which are *possible* original *-ŭ-stems. Obviously one cannot go into the same amount of detail with them all. Therefore only a few important or interesting words will be discussed. Three of them are tentatively proposed as *-ŭ-stems for the first time.

The views of fifteen scholars have been consulted : Scholvin 1877 (Sc), Leskien 1969: 77-8 (L), Vondrák 1924: 656-8 (Vo), Shakhmatov 1957: 82 passim (Sh), Meillet 1934: 331 passim, 412 passim (Me), van Wijk 1931: 170-4 (vW), Diels 1932: 152-8 (D), Vaillant 1948: 89-92 (Va), Ekkert 1959, 1963 (E), Nandriş 1969: 64-5 (N), Thorndahl 1974 (Th), Kiparsky 1967: 25 (K), Trubačev 1960, 1974 passim (Tr), Bernštejn 1974 (B), Spiers 1977 (Sp). In the table below,

the authorities will be grouped as to whether they are more or less sure of the *-ŭ-stem pedigree of a given noun.[36]

	NOUN (root)	MEANING	SCHOLARS more probable	SCHOLARS less probable
7	*ablŭ-	"apple"	E B	
8	*adŭ-	"hell"		vW E
9	*bVrgŭ-	"bank, edge"	Sp	
10	*bobrŭ/bebrŭ-	"beaver"	E B Tr	
11	*borŭ- I	"hog, castrated pig"	E B Tr	
12	*borŭ- II	"pine forest"	E B Tr	
13	*čerŭ-	"womb"	B	
14	*činŭ-	"rank"	L Sh Me vW Va N Th B	Sc Vo D Tr E Sp K
15	*darŭ-	"gift"	Me vW E N Th	Vo D K Sh
16	*derŭ-	"tree"	E Tr B Vo	
17	*dlŭgŭ-	"debt"	L	Sp
18	*dolŭ-	"valley"	Sc Sh	D vW
19	*dǫbŭ-	"oak"		vW D E
20	*duxŭ-	"spirit"		vW
21	*gadŭ-	"reptile"		vW
22	*gVlsŭ-	"voice"	L	vW Sp
23	*golŭ-	"head"	E	
24	*gVrdŭ-	"town, city"		D E
25	*grexŭ-	"sin"	vW N Th	D E
26	*grobŭ-	"grave"	Sp	
27	*grozdŭ-	"grapes"	E N ThvW	D
28	*groznŭ-	"grapes"	vW E	D
29	*grumŭ-	"bushes"	L vW	D Sp
30	*gvozdŭ-	"forest"		E
31	*grunŭ-	"furnace"	E	
32	*jadŭ-	"poison"	L E Th Tr	D vW Sp
33	*jilŭ-	"mud, slime"	Tr B E	
34	*korŭ-	"sharp point"	E	
35	*kVrtŭ-	"time" ("notch?")	Sc L Sh N	Me vW D E Sp
36	*ledŭ-	"ice"	Me E N T K B	vW Vo D
37	*lěsŭ-	"forest"		Sp
38	*listŭ-	"leaf"	E	
39	*loji-	"tallow"		Orr
40	*mirŭ-	"peace"	L Sh vW Va E Sp	Me D

41	*možĭ-	"man"		E
42	*nizŭ-	"lower part"	Sc Sh vW	D E
43	*olŭ-	"ale"	Sh E K B	
44	*pisŭ-	"dog"		E
45	*plodŭ-	"fruit"		E
46	*podŭ-	"floor"		Orr
47	*popŭ-	"priest"	vW	
48	*rędŭ-	"row"	L Va Sp	Sc vW E D
49	*rodŭ-	"clan, race, kind"	L	vW Sp D E
50	*sadŭ-	"garden"	vW D Th	Me D
51	*sanŭ-	"high rank"	L Me vW E Th	Sc Sh D Va K Sp
52	*smVrdŭ-	"stench"		E
53	*sVldŭ-	"malt"	Th	
54	*sǫdŭ-	"court"		vW D E
55	*sǫkŭ-	"branch"		E
56	*stanŭ-	"camp, position"	L Me vW E N Th	D Sp Sh
57	*svatŭ-	""		E
58	*synŭ- II	"tower"	Sc vW	Sh D Sp
59	*tirnŭ-	"thorn"	E B Sp	
60	*trudŭ-	"labour"		E
61	*tŭlkŭ-	"sense"		Orr
62	*tŭrgŭ-	"trade"	Th K	E
63	*udŭ-	"member"	Va E N Th	vW K
64	*valŭ-	"wave"		E
65	*vękŭ-	"age"		Sp
66	*vętŭ-	"branch"		E
67	*vidŭ-	"sight, appearance"		Sp
68	*voždĭ-	"leader"		E
69	*vračĭ-	"doctor"	vW	
70	*vŭnŭ-	"outside"	Sc Sh	vW D
71	*židŭ-	"Jew"		vW E
72	*žirŭ-	"fat"	E	
73	*zmĭjĭ-	"snake"		vW N
74	*znojĭ-	"heat"		vW
75	*bytŭkŭ-	derived from by - "be"	E	
76	*čętŭkŭ-	derived from čę - "begin"	E	
77	**-jętŭkŭ-	derived from ję - "take"	E	
78	*-pletŭkŭ-	"derived from plet - "braid"	E	
79	*-statŭkŭ-	derived from sta - "stand"	E Vo	
80	*-vitŭkŭ-	derived from vi - "wind"	E Vo	

It is possible to subdivide the above forms. Several of them have derivational suffixes containing a *-ŭ (e.g., *-nŭ, *-rŭ). Others are formed by the addition of other vocalic elements straight onto the *-ŭ (e.g., *-ŭ+*ā : *korŭ+ā > korvā). Certain scholars (e.g., Meillet 1934: 413) have proposed that CS had *-jŭ-stems (e.g., zmijĭ). Meillet 1918: 99 suggested that several nouns ending in *-d- were original *-ŭ-stems, and that these exerted influence on other nouns with an ending in *-d-. Yet others derived from old supines in *-tŭ- with a *-k- based suffix added (see below under *-bytŭkŭ).

These nouns can be grouped thus:

i) Nouns ending in derivational suffixes.

a) *-nŭ-: *činŭ, *grŭnŭ-, *sanŭ-, *stanŭ, *synŭ II[37], *tĭrnŭ-, *groznŭ-

b) *-rŭ-: *darŭ-, *mirŭ, *pirŭ-, *žirŭ

ii) Nouns formed by the addition of other vocalic formants: *-ŭ-. + V(*-ŏ-, *-ā-, *-ĭ-).

*borŭ- I(*boruo-), *derŭ, (*deruos), *golŭ-(*goluā-), *korŭ (*koruā), *větŭ-(*větŭĭ-).

iii) Possible original *-jŭ-stems.

*možĭ-, *vračĭ-, *zmijĭ-, *znojĭ-, *lojĭ-

Nouns ending in the suffix *-tŭkŭ-.

*-bytŭkŭ-, *-čętŭkŭ-, *-jętŭ-kŭ-, *-pletu-kŭ-

v) Nouns ending in *-dŭ-.

*grozdŭ-, *jadŭ-, ledŭ-, *plodŭ-, *rędŭ-, *sadŭ-, *smordŭ-.

which possibly exerted an influence on:

*adŭ-, *gadŭ-, *gVrdŭ-, *rodŭ-, *sędŭ-, trudŭ-, udŭ-, *židŭ-.[38]

3) A detailed discussion of certain forms.

At this stage the following nouns will be discussed: *ablŭ, *činŭ-, *darŭ-, *derŭ-, *dolŭ-, *grěxŭ-, *jadŭ-, *kVrtŭ-, *korŭ-, *lěsŭ-, *lojĭ-, *nizŭ-, *pĭsŭ-, *plodŭ-, *podŭ-, *rędŭ-, *sanŭ-, *sVldŭ-, *stanŭ-, *tĭrnŭ-, *tŭlkŭ-, *tŭrgŭ-, *věkŭ-, *vidŭ-, *vŭnŭ-, *bytŭkŭ-.

i) *ablŭ- - "apple" usually appears in the modern Slavic languages with a *-k- suffix (e.g., R яблоко, P jabłko, Sk jablko, SC jabuka). However, suffixless forms such as Bg я́дло (dialectal я́бод) are also attested.

The forms quoted above point to CS *-lŭ- (*not* *ł) , and therefore Ekkert 1963: 21 and Bernštejn 1974: 242 accept it as a former *-ŭ-stem. Trubačev 1974: I: 44 passim, however, reconstructs it as a former consonant stem, saying: "Нет оснований видеть в нём -u- основу."

The IE cognates are not of much assistance here: Germanic and Celtic back up the theory of a reconstruction *ablŭ-: OE æppel < *ablŭ-, OI ubull < *ablŭ-, whereas Baltic seems to show an original consonant stem (with secondary root vocalism, see Trubačev 1974: I: 45) - Lith óbuolas, obelìs, OPr woble etc.

It has been proposed (Porzig 1954: 197) that the Slavic root is borrowed from the Celtic and Germanic roots. See Lane 1933: 251.

ii) *činŭ- - "rank" seems to range between definite *-ŭ-stem (Thorndahl 1974: 22) and possible *-ŭ-stem (Scholvin 1877: 508-9). It is attested in OCS texts with *-ŭ-stem endings several times and has several *-ŭ- based derivatives: R чиновник (<OCS) - "official", OP czynowaty - "in the military". There is also a possible cognate outside Slavic, which would strengthen this hypothesis; Skt cinóti - "arrange" (-o-<*-au/ou).

iii) *darŭ- - "gift" has no *-ŭ-stem cognates outside Slavic: Gk δωρον, Lat dōnum, and Skt dānam all seem to point to an original *-ŏ-stem. This point is taken up by Bernštejn 1974: 250, who, conceding the large number of -u-/-ov- derivatives which suggest an original *-ŭ-stem (e.g., R дарова́ть - "to give as a gift", P darownie - "gratis", Bg да́ровит - "gifted" etc.), proposes that *darŭ- is in fact an original *-ŏ-stem.

The form *darŭ- seems to be formed from the root *dō+rŭ. With *mirŭ, *pirŭ, and *žirŭ it makes up a small group of nouns ending in *-r + vocalic stem formant. Ekkert 1963: 74 passim sees these as old *-ū-stems, whereas Bernštejn 1974: 38 and Trubačev 1974: IV: 192 see them as *-ŏ-stems which later came under *-ŭ-stem influence. Most authorities would assign at least one of them to the *-ŭ-stems, e.g., Meillet *darŭ- and possibly *mirŭ-, but not *pirŭ- and *žirŭ- (1934: 331, passim).

iv) *derŭ- - "tree, wood" is not attested as a root without a stem formant in Slavic, but elsewhere in IE it is (e.g., Gk δορυ g.s. δουρος - "spear", Skt daru - "wood"). Within Slavic it has a host of forms with *-ŭ based suffixes to back this up, e.g., R дерево, P drzewo, Cz dřevo, SC drevo etc., all meaning "tree, wood". It is probable that these neuter forms go back to an *-s-stem, e.g., R древесный - "wooden", OCS drěvo g.s. drěvese (Supr. 402.9).

Besides the Greek and Sanskrit forms quoted above, there are plenty of IE cognates: OE teoru - "tar", We derw-en (pl derw) - "oak", ScG dearbh - "certain", Hittite taru - "wood", Lith dervà -"tar".

There are three ablaut grades attested for this root: *derŭ/ dorŭ/drŭ, and Slavic shows all three of them, e.g., P drzewo -"tree"/ zdrowie- "health"/ drwa - "firewood" (cf. Friedrich 1970: 140, passim).

v) *dolŭ- - "valley", *nizŭ- "lower part", *vŭnŭ-

-"outside". These forms are treated together, as they seem to be considered original *-ŭ-stems for the same reason - they have genitive singulars attested with -u (which could easily be not genitive singulars, but simply fossilised adverbial expressions, in the manner of R из дому or наверху, with an early spread of -u from the *-ŭ-stems.) Russian also has долой - "down with...," <*dolovi, parallel to домой < *domovi, from the former *-ŭ-stem dative singular.

The earlier scholars tended to assign most, if not all, of these forms to the *-ŭ-stems, e.g., Scholvin 1877: 508-9, whereas the later scholars either ignore them or are more cautious: Spiers 1977 does not mention them. Van Wijk 1931: 174 treats them all as adverbs: "Und auch из вьноу, до низоу beweisen keine *-ŭ-Stämme, ebensowenig до долоу, und adverbial gebrauchte долоу, Einfluss von врьхоу und auch von Adverbien wie отъ тъждоу ist möglich." Ekkert does not mention *vŭnŭ-, while he assigns dolŭ- to the *-ŏ-stems and treats *nizŭ- as one of the "имена существительные, которые не могут быть объединены по какому-либо признаку в определённую группу" (1963: 86).

Derivatives based on *-ŭ-stems of these nouns cannot be found within Slavic, and the IE cognates are all *-ŏ-stems: OIc dalr -"valley", Gk θολοσ - "round building".[38]

vi) *grěxŭ- - "sin", *plodŭ - "fruit", rędŭ- - "row". These forms are used as cautionary examples by Bernštejn

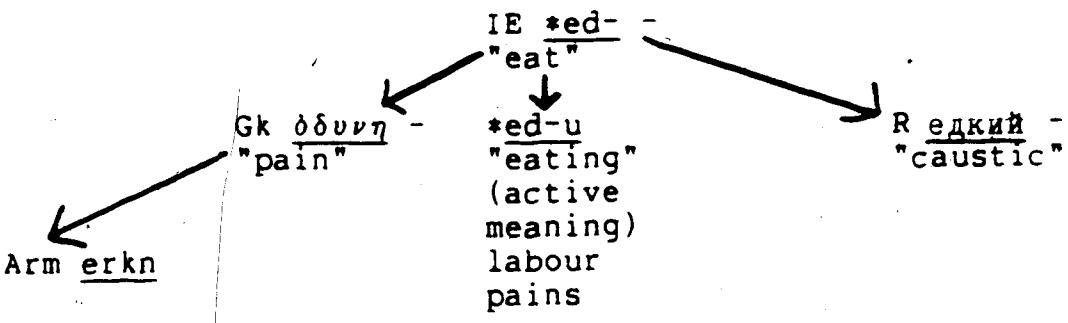
1974: 138, who points out that we have no way of ascertaining whether the *-ŭ/ov- variant is the older of the following pairs: *grěxovinŭ-/*grěšinŭ-, *plodovŭ-/*plodinŭ-, *rędovŭ-/*rędinŭ-.

vii) *jadŭ-, *ědŭ- - "poison" is one of Meillet's *-dŭ-stems (see above). Trubačev 1974: VI: 45-7 connects it with *ědŭkŭ-, R едкий - "caustic", which is derived from the root *ed- - "eat". Semantically the connection between poison and eating is not too far-fetched, although the exact nature of the connection is debatable - the root *dō- - "give" has been suggested as a possible component of this form also (see Trubačev, Vasmer), cf. Fr poison < Lat potionem, Ger Gift < geben.

Ekkert 1980: 74 quotes a large number of IE cognates showing a *-ŭ-stem extension of the root *ed-, e.g.,

Arm erkn < *eduōn	"labour pains"
Gk ἐδυνη /ὀδυνη	"pain"
Lat edūlis	"gluttonous"
Lith ėdùs	"gluttonous"

Many of these forms are close to "caustic" semantically, e.g.,



viii) *kVrtŭ- -"time". Although this noun is mentioned by most scholars, it is usually in the context of being a doubtful original *-ū-stem, especially with later writers. Its *-ŭ-stem pedigree is based on the OCS phrase dŭva kraty "twice", supposedly a *-ŭ-stem dual, together with Skt kṛtuh - "time" and Lith kartùs - "bitter". (Note Lith kartas (*-ŏ-stem) "time"). I would like to suggest that further support for the *-ŭ-stem pedigree of this noun comes from the Slavic reconstruction for "short" (R короткий - comparative- короче, Sn krátek - comparative - krájši etc.), which does seem to show an original *-ŭ-stem (see further, under adjectives). Ekkert 1963: 86, 93-5 mentions the two roots, but does not seem to connect them.

ix) *korŭ- - "sharp point, horn", like *derŭ-, is not attested as a root in Slavic, but it does have derivatives and cognates in other IE languages which make an original *-ŭ-stem seem likely: R корова - "cow", P krowa - "cow", Bg крава -"cow". There is also a Polish dialectal form karw < *kṛu + ŏ, with a Lithuanian cognate kárvė - "cow". For a comprehensive list of the cognates of R корова, see Trubačev 1960: 40. Bernštejn 1974: 242 says that the addition of *ā to the root happened very early, "возможно ещё в дославянский период ." Cognates in the rest of IE are plentiful: Lat cornu- "horn", (with a secondary *-ŭ-stem), cervus -"stag", We carw - "stag", OHG hiruz -"stag", Gk *κορυσ* g.s. *κορυθοσ* - "helmet". Related to this root is a form that seems to have

IE *ḱ: Latv sarna, R серна, P sarna, all meaning "roe-deer"; see Georgiev 1981: 43. The original meaning of this root must be "horn", "sharp point", if one takes into account the following meanings:

Baltic : "cow", "roe-deer"

Slavic: "cow", "roe-deer"

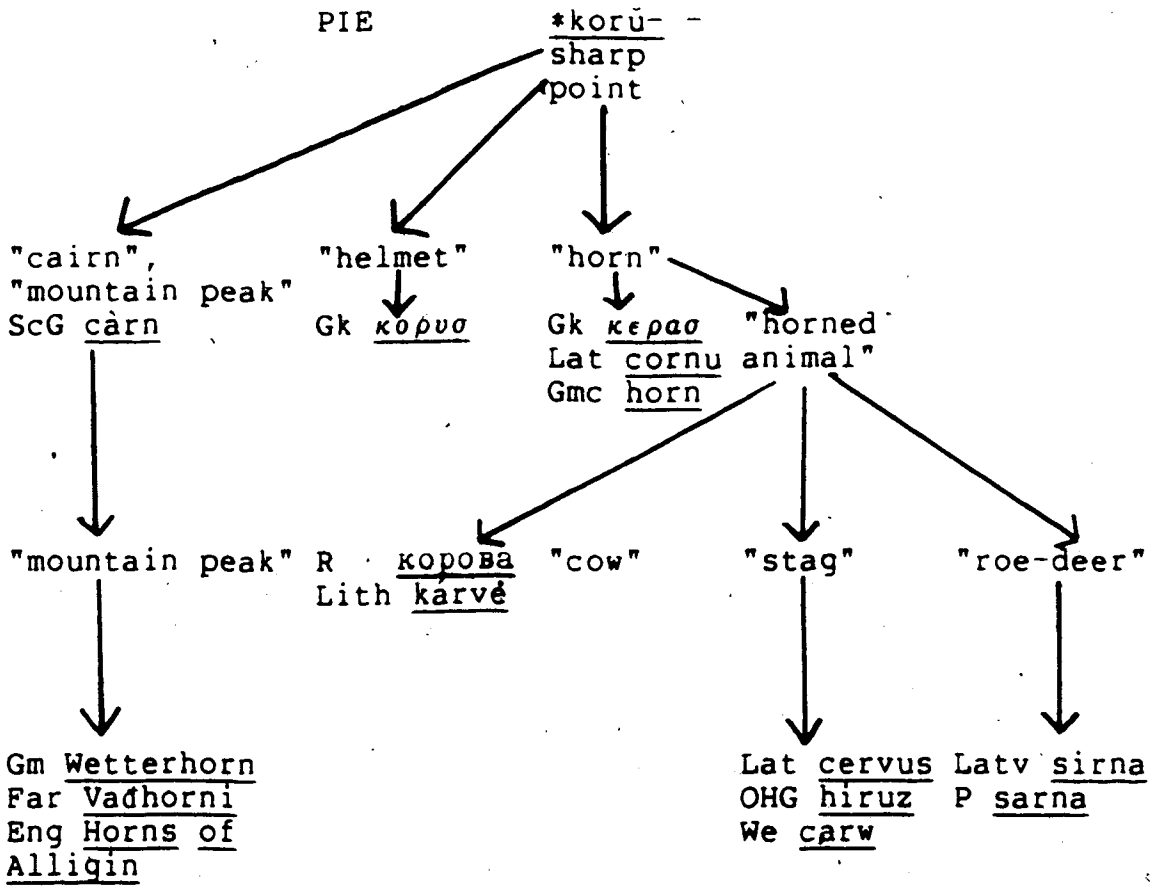
Latin : "horn","stag"

Greek : "helmet", "horn"

Germanic: "horn", "stag"

Celtic: (We) "stag", (ScG) càrn - "mountain, heap of stones"

The best solution seems to be this:



x) *lěsŭ- -"forest". This root does not often appear on any list of original *-ŭ-stems; only Spiers 1977: 80 suggests it as a possibility.

There are three reasons for Spiers' proposal:

a) The existence of forms such as R из лесу and в лесу, showing old genitive and locative singulars in modern Russian. A form such as из лесу (showing the old stress pattern) is of a comparatively rare type, and could point to an original *-ŭ-stem. A form such as в лесу is of much less value, since the former *-ŭ-stem ending -ý has greatly extended its range in Russian (see Thorndahl 1974). Several nouns have taken over this ending in an exclusively locative meaning, e.g., шкаф - "cupboard" - в шкафу.

b) The presence of derivatives, such as P lasowy - "forest (adj)", Cz lesovna - "forester's house", lesový "forest (adj)".

c) The presence of a possible cognate *-u- based form in OE: læs g.s. læswe "pasture", ME leaswow - "pasture land."

I propose that *lěsŭ- is probably an old *-ŭ-stem, following Spiers 1977: 80.

xi) *lojĭ- - "tallow", mentioned in passing in Georgiev 1981: 339 is another possible *-ŭ-stem. It has *-ū based cognates in Lithuanian (lājus- "tallow") and Greek (ἔλαιον - "oil"). Within Slavic, Polish has a derivative łojowy.

xii) *pĭsŭ- -"dog". In his 1959 article Ekkert was

hopeful that the connection of this root with Go faíhu - "cattle", Lat pecus g.s. pecoris, Skt paśu -"id" would hold (1959: 120-2), but in his longer 1963 study he seems to have changed his mind, coming out in favour of the connection of this form with *pĭstrŭ- - "many-coloured" (1963: 86-7), following Trubačev 1960: 19-22.

Recently a totally different etymology was proposed by Hamp (1980: 35-42). He points out that the form reconstructed for PIE as *ḱuōn - "dog", has reflexes in *all* IE dialect continua apart from Slavic (1980: 39-40) according to the standard theory. Hamp suggests that the "earliest recoverable form for the lexical entry 'dog' should be reconstructed as *peḱu-, and that the zero-grade ablaut variant was generalised throughout IE, giving *pḱun. Later, the *p- would have dropped everywhere except early CS, where vowel insertion in the zero-grade would have resulted in *pĭḱu." The addition of a feminine suffix *-jā could have resulted in a new back formation *pĭs- on the model of boqynja /boq-, druqynja/druq- etc. > *pĭsynja /*pĭs-.

The question is: would this new *pĭs- have been assigned to the *-ŭ-stems or to the *-ŏ-stems? Ekkert 1959: 121 musters a large number of derivatives within Slavic which seem to point to an original *-ŭ-stem: R псовая охота "chase", Cz psovina -"dog's hair", R густопсовый - "thick-haired (of a dog)", P psuj - "a man who spoils everything", Sn psovnica - "abusive person", SC psovati -

"abuse".

In view of these derivatives and the *-y- (< **-ū) in *pĭsynja, it is quite possible that this new back formation entered CS as a *-ŭ-stem.

xiii) podū- - "lower part, floor, (prep) under". As far as I am aware, this derivation is being proposed for the first time. My reasons are as follows:

a) This noun ends in *-dŭ, and could be member of the group referred to above, proposed by Meillet.

b) The attested form spodu - "from under" in Polish may point to an original *-ū-stem. (It may, however, have been formed in the same way that van Wijk suggests for *dolū, *vŭnŭ-, *nizŭ-.)

c) A cognate exists in Germanic: Go fōtus - "foot" is definitely a *-ŭ-stem, though the equivalent forms in North and West Germanic are consonant stems.

Other cognates show an *-ŏ-stem or a consonant stem, so here the evidence is admittedly sketchy:

Lat pēs pēdis - "foot"

Gk πους ποδος - "foot" πεδον - "plain"

πεζος - "infantry"

Skt pādah - "foot" pāt - "foot"[40]

OI eadh (< *pedon) - "space"

Lith pādas - "sole"

I would like to suggest that podŭ - "under" is an original *-ŭ-stem accusative singular. For the relationship

between po and podŭ, see Osten-Saken 1911.

xiv) *sanŭ- - "high rank" is one of the nouns most frequently cited as an original *-ŭ-stem. However, it has two possible etymologies, one of which could cast doubt on its original *-ŭ-stem pedigree. It could, on the one hand, be cognate with Skt sānŭ- -"summit, top". In addition, it appears several times in OCS texts with *-ŭ-stem endings and there are also a number of derivatives, e.g., sanovitŭ- -"endowed with worth". On the other hand, it could just as easily be a borrowing from Turkic (Danube Bulgar), on the evidence of Çagatay san - "a great number". However, there is no reason to reject the possibility that if sanŭ- is a borrowing, it was borrowed straight into the *-ŭ-stems.

xv) *sVldŭ- - "malt". This is proposed as a *-ŭ-stem by Thorndahl 1974: 22, mainly on the basis of the Ukrainian genitive singular солод, солоду , the adjective *sVldŭkŭ- - "sweet", and the Lithuanian saldùs - "sweet".

xvi) *stanŭ- - "camp, position", is usually accepted by many scholars as an original *-ŭ-stem. It is analysed as being from the root *sta - "stand" +nŭ-, and occurs several times in earlier texts with *-ŭ-endings. It also has numerous derivatives : R становиться - "become", P stanowny - "adult", Sn stanovišče - "apartment", Pb staneiste - "camp", U станівний - "constant", and a host of others.

However, there are no nominal cognates outside Slavic.

xvii) *tĭrnŭ- - "thorn" seems to have a fairly good case to be considered an original *-ŭ-stem. It is attested with a *-ū-stem instrumental singular in an OCS text (see Ekkert 1963: 53), which is rare in South Slavic (see III A). Derivatives are plentiful: Cz trnovník - "acacia", Sn ternov - "thorny", R терновник - "blackthorn", U терноватий - "thorny" etc.

In addition to this, it has a clear cognate in Germanic: Go þaúrnus - "thorn." I am rather surprised that Ekkert 1963: 53-4 relegated his discussion of *tĭrnŭ- to a footnote, as its pedigree seems to be as good as many of the forms discussed above.

xviii) *tŭlkŭ- - "sense" seems to have been neglected as a possible original *-ŭ-stem, although there is ample evidence to confirm this reconstruction. In this instance we have *three* separate indications.

a) The existence of fossilised expressions such as R без толку - "without sense."

b) The existence of numerous -u/ov- based derivatives, e.g., R толкование - "interpretation", M толкува - "interpret", M тодковен - "one-language (dictionary) ".

c) A possible cognate is attested from Old Irish: -tluch (ad-tluch - "thank", to-tluch - "ask"). Lithuanian tulkas and related forms are explained as borrowings from

Slavic, see Vasmer 1973.

xix) *tŭrgŭ- - "trade" seems to have more reason to be included as a *-ŭ-stem than is generally believed. It has numerous derivatives within Slavic, e.g., R торговать - "to trade", торговля - "trade" etc. Outside Slavic there are cognates in Baltic: Lith turgus, Latv tirgus - "id". Further support comes from the Finnish place-name Turku < CS *tŭrgŭ, where many other Finnish borrowings from Slavic have -a, e.g., pakana < CS *poganŭ.

xx) *vĕkŭ - "age" has various points of evidence to suggest that it is an original *-ŭ-stem. It is proposed by Spiers 1977: 80 as a possible example. He cites the Lithuanian form veikùs - "swift, fast." Further support comes from within Slavic: R вековой - "ancient", P wiekować - "to spend the rest of one's days", SC vjekovit - "eternal", M вековит - "id." and fixed expressions such as R на своём веку - "in one's lifetime."

xxi) *vidŭ- -"appearance, form, shape, kind, species, aspect," "how a thing is seen or looked at" (see Herman 1975 for parallels in English and Latin).

This form is not usually cited as an original *-ŭ-stem, but has many of the attributes of one, including fossilised expressions such as R на виду - "in view"; из виду - "out of

sight". There are also several derivatives: Bg видов - "aspectual", P widowisko - "spectacle", R видовой - "aspectual".

There also seems to be a cognate: OI fius - "knowledge" < *weid-tus, where the *-ŭ is secondary (as in Latin cornu, see above).

xxii) -*bytŭkŭ- < *-by- - "be", -*čętŭkŭ- <*-čę- - "begin", -*jętŭkŭ- < *-ję- - "take", -*pletŭkŭ- < **plĕt- "pleat", -*statŭkŭ- - < *sta- - "stand", vitŭkŭ- -< *-vi- - "wind".

These forms seem to be derived from verbal roots with a *-tŭ - extension, and then a subsequent *-kŏ- extension. They seem to be related to the supine forms attested in OCS and in modern literary Slovenian. There are cognate forms in Sanskrit (-tum, e.g., kartum) and Latin (difficile dictu est - "it is difficult to say").

Within Slavic there are several derivatives, mostly from prefixation. Indeed, *-vitŭkŭ- is not attested without a prefix, but is inferred by Ekkert on the grounds of the attestation of OCS svitŭkŭ < *sŭ-vitŭ+kŭ- "roll, book". Examples include: R недостаток - "lack, insufficiency", P początek - "beginning", R избыток - "abundance".

For a complete discussion, see Ekkert 1963: 68-74.

Conclusion.

It is not the main topic of this thesis to decide exactly for or against the *-ŭ-stem pedigree of a given noun. We will never know the history in many of the cases cited above. However, the evidence and references to further evidence presented in this section shows that the CS *-ŭ-stems were far more widespread than might appear at first glance. It is true that less than ninety substantives have been listed above, and it is far from clear that *all* of them were indeed original *-ŭ-stems. It is quite probable, however, that many of the above forms were of fairly high frequency (possibly, e.g., *domŭ - "house", *synŭ - "son", *pĭsŭ - "dog" etc.[41]), and that this could have lent some impetus to the remodelling proposed in I A, II B, II C, II D.

In other IE languages, however, the *-ŭ-stems retreated, and in some places they vanished, leaving only a few traces.

4) The *-ŭ-stem adjectives in Slavic.

The *-ŭ-stem adjectives do not form as important a part of this dissertation as do the nouns. There are no Slavic *-ŭ-stem adjectives as such, even in the earliest attested texts, but several can be reconstructed by stripping away the derivational suffixes, notably *-k-. Many of them have cognates in other IE languages, especially Lithuanian.

Several original *-ŭ-stem adjectives with a *-k- suffix lose this suffix in the comparative. These will be indicated below. It should be noted that not all original *-ŭ-stem adjectives have this *-k- suffix, e.g., *mVldŭ- below.

Trubetzkoy 1924: 130 points out that there seem to have been *two* classes of adjectives with *-ŭ- formants in IE: deverbative adjectives and non-deverbative adjectives. He lists several examples of both types (the deverbatives below will be accompanied by their verb). He also points out that adjectives in CS were all assigned to the *-(j)ŏ- and *-(j)ā-stems.

According to Trubetzkoy 1924: 132, many of the original *-ŭ-stem adjectives with the *-k- enlargement can be construed as having a diminutive force, e.g., *ǫzŭkŭ- - "narrow", *tĭnŭkŭ- - "thin". These forms in *-ŭkŏ-- could have been extended to include the deverbative adjectives also:

> "En slave commun, ces adjectifs déverbatifs en *-u- ont reçu un sens spécial. Ils signifiaient 'apte, habile à produire telle ou telle action, produisant facilement, aisément telle ou telle action'. Cette signification pouvait parfois adopter une nuance méprisante ou moqueuse. On conçoit aisément que le sens des adjectifs en question permettait d'en former des diminutifs en *-ŭkŏ-, sans beaucoup modifier leur signification primitive." (1924: 135)

One drawback to Trubetzkoy's theory is the word for "young" in CS: R молодой - P młody, Cz mladý SC mlad etc. Ekkert 1963: 122-124 assembles a considerable amount of evidence to show that this, too, is an original *-ŭ-stem:

a) fossilised expressions such as R смолоду, Cz z mladu etc.

b) a host of cognates in other IE languages: OPr maldūni, Skt mṛdú, Lat mollis - "soft" < *moldu+is.

This form would seem to be rather a serious objection to Trubetzkoy's theory.

Below is given a list of possible original *-ŭ-stem adjectives, with cognates.

	ADJECTIVES	MEANING	POSSIBLE COGNATES(or verbal roots)
1	*bŭrzŭ-	quick	Lith burzdùs
2	*cělŭ-	whole	OE hælu OPr kailustiskan
3	*dĭrzŭ-kŭ-	impertinent	Gk θρασυσ Skt *dhṛšnuḥ
4	*edŭ-kŭ-	caustic	(<*ed- eat)
5	*emŭ-kŭ-	capacious	(<*em-take)
6	*gadŭ-kŭ-	nasty	*gadŭ- - "reptile"
7	*gVldŭ-kŭ-	smooth	Lith glodùs
8	*gludŭ-kŭ-	smoothly fitting	Lith glaudùs
9	*gybŭ-kŭ-	supple	(< *gub - bend)
10	*zalŭ-kŭ-	unpleasant	Lith gėlùs
11	*kolŭ-kŭ-	easily split	(<*kol- pierce); Lith kalùs
12	*kVrtŭ-kŭ-	short	Lith kartùs
13	*krŭšĭ-kŭ-	tenacious	Lith krušùs
14	*lepŭ-kŭ-	good at climbing	Lith laipùs
15	*lĭgŭ-kŭ-	light	Lat levis Gk ἐλαχυσ
16	*lipŭ-kŭ-	sticky	(<*lip-)
17	*lovŭ-kŭ-	nimble	Lith lavùs
18	*lupŭ-kŭ-	easily split	Lith lupùs
19	*metŭ-kŭ-	well-aimed	Lith metùs
20	*mVldŭ-	young	Lith mildùs Skt mṛdúḥ

21	*mŭrzŭ-kŭ-	nasty	
22	*nosŭ-kŭ-	productive (of a hen)	Lith našùs
23	*ostrŭ--	sharp	Lith aštrùs
24	*ǫzŭ-kŭ-	narrow	Go aggwus Skt amhuh
25	*padŭ-kŭ-	having a weakness for	(< *padŭ-kù)
26	*pŭlzŭ-kŭ	creeping	(< *pŭlz-)
27	*pylŭ-kŭ	arduous	(< *pyl-)
28	*rědŭ-kŭ-	rare	Lith ef̌dvas
29	*rězŭ-kŭ-	sharp	Lith raiž̀us
30	*robŭ-kŭ-	shy	(<*rob-)
31	*sVldŭ-kŭ-	sweet	Lith saldùs
32	*stoji-kŭ-	staunch	(<*stoj-)
33	*tĭnŭ-kŭ-	thin	Lat tenuis Skt tanuh
34	*tęži-kŭ-	heavy	Lith tinqùs
35	*vVrtŭ-kŭ-	flighty	(<*vert-)
36	*xodŭ-kŭ-	saleable	(<*xod-)
37	*zorŭ-kŭ-	sharp-eyed	(<*zĭr-)

The adjectives which lose the *-k- suffix in the comparative are as follows: *dĭrzŭ-kŭ, *gadŭkŭ-, *gladŭ-kŭ-, *kVrtŭ-kŭ-, *mŭrzŭ-kŭ, *ǫzŭ-kŭ-, *rědŭ-kŭ-, *sVldŭ-kŭ-.

For further discussion see Trubetzkoy 1924, Arumaa 1948, Ekkert 1963.

5) Conclusion.

There were possibly eighty or ninety *-ŭ-stem nouns in CS. They seem to have been far more widespread than many scholars allow. In addition, one can reconstruct nearly forty original *-ŭ-stem adjectives. Several of the nouns were of high frequency.

Since there appear to have been so many *-u-stems, it is not surprising that they seem to have exerted such a great influence on the rest of the CS nominal declensional system. In II it will be argued that this influence extends further than has previously been supposed.

II. The reconstruction of Auslautgesetze in Slavic

A. A morphological framework

1) Introduction - the special problems of final syllables.

In I A it was stated that an attempt would be made to reconstruct a part of the morphology of CS without proposing Auslautgesetze. It is now time to justify this proposal, and to suggest an alternative to handle the material.

In IE languages, especially those of the earlier, heavily inflected type, the final syllable is often crucial to the comprehension of the word. Much syntactic and semantic information is contained in the various nominal and verbal endings. Consider the following sentences in OCS:

Petrŭ ljubitŭ Ioana	Peter loves John
Ioana ljubitŭ Petrŭ	
Petra ljubitŭ Ioanŭ	John loves Peter
Ioanŭ ljubitŭ Petra	

If we were to delete the declensional and conjugational endings, we would have two possible meanings to choose from:

Petr- ljub- Ioan-

The only information conveyed in that instance would be that the act of *loving* is going on, and we could not deduce who the agent and patient are respectively, except by the context, and in theory, by word order.[42]

In other IE languages the meaning is often shown by the order of elements: Subject-Verb-Object (e.g., English), Verb-Subject-Object (e.g., Gaelic), Subject-Object-Verb (e.g., Hindi). These often have meagre inflectional systems. CS, on the other hand, preserved the greater part of the nominal inflectional system inherited from Late Northern IE. This inflectional system, however, has undergone a great deal of change in the course of time.

There are two types of changes which we need to consider here - *phonological* and *morphological*.[43] Both types are abundantly attested in the history of the known IE languages, and therefore it seems fairly plausible that both types should be reconstructed for the respective prehistoric periods.

The problems, however, begin here: do we assign greater weight to the phonological or morphological type of explanation? Zuravlev 1974: 32 points out that *every one* of the plural endings of the Russian *-ŏ-stem declension is the result of a *morphological*, not a *phonological* change, e.g.,

	Modern Russian		Old Russian [44]
N	рабы	as opposed to	раби
A	рабов		рабы
G	рабов		рабъ
D	рабам		рабомъ
I	рабами		рабы
L	рабах		рабѣхъ

However, to show what we are faced with, we can cull a counter-example from Modern Russian: the plural declension of the feminine *-ā-stems, where *every one* of the endings is

the direct, lineal phonological descendant of its Old Russian equivalent, with no visible interference from morphological factors.

	Modern Russian		Old Russian
N	головы	as opposed to	головы
A	головы		головы
G	голов		головъ
D	головам		головамъ
I	головами		головами
L	головах		головахъ

At the time of writing no adequate solutions have been proposed to this very serious question in historical reconstruction: how can we accurately weigh the merits of a *purely phonological* or a *morphological* development?

2) The case *for* Auslautgesetze.

i) Introduction.

First we will examine the pros and cons of proposing a purely phonological development. This sort of proposal normally involves the reconstruction of one or more Auslautgesetze. Many scholars have sought to explain phenomena in Slavic morphology by means of Auslautgesetze (e.g., Leskien 1963, Fortunatov 1957 (posthumous), Hirt 1892, 1904-5, Agrell 1913, Meillet 1916, Milewski 1932, Ferrell 1965a, Lüdtke 1966, Georgiev 1969, Gă[illegible]3, Prinz 1977, Schelesniker 1964, Feinberg 1978, [illegible]1980 etc. The idea of Auslautgesetze seems to have been carried

further in Slavic than elsewhere.

ii) A Definition of Auslautgesetze.

As pointed out by Lüdtke (1966: 117), there seem to be *two* sorts of Auslautgesetze: *quantitative* and *qualitative*. Lüdtke further pointed out that in Germanic and Baltic (he might have added Celtic), Auslautgesetze invariably include quantitative changes, e.g.,

CG *dagō(m) OIc daga (reduction of ō and the loss of *m in final position).

CG *stainam > Runic staina (loss of *m in final position).

Early Goidelic *uiros > OIr fer(loss of final short syllable).

Latin amat > Spanish ama (loss of final dental).

East Baltic *dievōi > Lith dievui (shortening of final long syllable).

Slavic shows similar *quantitative* sound changes throughout its history.

CS *ulkōd > OCS vlŭka (loss of final dental stop).

CS *rankān > *rǫkǭ > P ręke (shortening of the final long nasal vowel).

CS *gVluā > OCz hlava (shortening of the final long vowel).

OR *vŭlkŭ > R волк (loss of final weak jer).

In most reconstructions, however, exclusively *qualitative* Auslautgesetze are proposed for Slavic. They are

never proposed for word-initial or word-internal syllables, e.g., PIE *mātē(r) > OCS mati

(The *ē reconstructed on the basis of evidence from other IE languages is raised, *without loss of length*, to *-ī. (see II H). PIE *ākmō(n) > OCS kamy.

(The *ō reconstructed on the basis of evidence from other IE languages is raised, *without loss of length*, to *-ū (> y) (see II F). PIE *uḷqōns > OCS vlūky (< *-ū).

The *ŏ reconstructed on the basis of evidence from other IE languages is raised before the following nasal, which is then dropped, causing compensatory lengthening in the *-ū- (< *-ŏ-). (Later on the *-s is dropped and the *-ū is delabialised to -y- (see II D).

If the above developments are accepted, they seem to show direct *phonological* correspondences. Thus the simple Auslautgesetz can be made to account for the following :

(Cretan) Gk λυκονσ	(Attic) λυκουσ
Go wulfans	
Skt vṛkan	(sandhi variant) vṛkams

which the majority of scholars relate to OCS vlũky(see II D).

At this stage it should be emphasised that the loss of final obstruents in CS is *not* an Auslautgesetz: it is part of the law of the open syllable, whereby every syllable must end in a vowel (see Žuravlev 1961). This sound change applies word-internally and word-initially, as well as word-finally.

iii) The Auslautgesetze traditionally proposed for Slavic.

There has already been much written on Slavic Auslautgesetze, either as a section in a larger work devoted to the entire phonology of (O)CS, or as a study in its own right. As has been pointed out above, Auslautgesetze are closely bound up with inflectional morphology, and so very often the boundaries between the subjects are not altogether clear.

Basically, the Auslautgesetze proposed for CS can be summed up thus:

a) A tendency to raise mid back-vowels in final syllables before a nasal sonant,

e.g.,	A.S.(II C)	*-ŏm >	*-ŭm
	N.S.(II F)	*-on >	*-un
	A.PL.(II D)	*-ŏns >	*-ŭns

Several scholars (e.g., Fortunatov 1957, Ferrell 1965a) would extend this proposed raising to final *-s also:

e.g.,	N.S.(II B)	*-ŏs >	*-ŭs
	G.S.(II B)	*-os >	*-us

b) Whereas most *-V̆NC# combinations develop to *-V̆C#, *-ŭN# combinations simply drop the final nasal sonant and develop to *-ŭ#.

c) The combination *-ŏns# develops thus: *-ŏns > *-ŭns# > *-ūn# > *-ū# > -y#.[45]

iv) Forms explained by Auslautgesetze.

Several forms in Slavic languages seem to support the reconstruction of a development PIE *-ŏm(s) > CS *-ŭ, and this is one of the main reasons for proposing special Auslautgesetze. At first sight the evidence looks extremely impressive, viz.:

a) The nominative singular masculine of *-n-stems : kamy < *kamŏn(kamŏns)) (see II F).

b) The accusative plural *-ŏ- and *-ā-stem ending (see II D).

c) The accusative singular *-ŏ-stem ending: vlŭkŭ < *vlqkŏm (see II C).

d) The genitive plural of *-ŏ-stems, *-ā-stems etc. vlŭkŭ < *vlqkŏm (see II D).

e) The nominative singular masculine/neuter of the present participle active: nesy < *nekŏn(t)s (see II E).

f) The first person singular aorist : mogŭ < *mogŏm (see II F).

This proposal receives apparent support from the developments proposed for the *-ŭ- and *-ĭ-stems, e.g.,

A.PL.(II C)	*-ŭns >	*-ū >	-y
A.S.(II D)	*-ŭm >	*-ŭ	
A.PL.	*-ĭns >	*-ĭ	
A.S.	*-ĭm >	*-ĭ	

g) The accusative singular *-ŭ-stem ending : synŭ < *sūnŭm (see II C).

h) The accusative plural *-ŭ-stem ending : symy < *sūnŭns (see II D).

i) The accusative singular *-ĭ-stem ending : gostĭ < *gostĭm (see II C).

j) The accusative plural *-ĭ-stem ending : gosti < *gostĭns (see II D).

This is a formidable list, and it would seem to indicate that not all *-VN- combinations in CS developed into *-ỵ. According to the traditional hypothesis, some of them would not have been nasalised. We can sketch the order thus:

1) Raising of *ŏ to *ŭ before -N# or Ns#:

*ulqŏm > *ulqŭm

*kamŏn > *kamŭn

*ulqŏns > *ulqŭns

2) Loss of *-m# after short high vowels in a final syllable:

*ulqŭm > *ulqŭ

*gŏstĭm > *gostĭ

3) Loss of *-s and compensatory lengthening of a preceding *-ŭn-(*-ĭn-), followed by the loss of the resulting final *-n:

*sŭnŭns > *sŭnŭn > syny

*nesŭns > *nesŭn > nesy

*gostĭns > *gostĭn > gosti

v) Concluding remarks

So far, this all looks very neat and plausible, at least for the material under discussion. Slavic is attested

as denasalising its nasal vowels over a wide area in the historically attested period. The proposal above can be bolstered by referring to recent work on nasalisation, which has shown that during a period of loss of nasalisation in vowels, high vowels tend to lose it earlier than other vowels (Ruhlen 1978: 227-8).

3) The Case *against* Auslautgesetze.

i) Fixed stress v. mobile stress.

At the beginning it should be emphasised that CS was a different type of language from CC and CG in one important respect. Both the latter languages had one thing in common - the fixing of stress on the initial syllable of a word, accompanied by a massive reduction and syncope of final *and internal* unstressed syllables (but see d'Alquen, forthcoming).[46] CS, on the other hand, seems to have preserved a *mobile stress* pattern: final and internal syllables, whether long or short, could bear the ictus. The earliest attested Slavic (OCS) still shows *nearly all the syllables* reconstructed for its IE ancestor. Long syllables can occur anywhere (e.g., rǭkā ; znājǭštī etc.) and final short vowels can still bear the stress (e.g., perǒ), in contrast to Italic, Celtic, and Germanic. These languages may well have had genuine Auslautgesetze because their final syllables were unstressed, and these Auslautgesetze may have

corresponded to similar changes in internal syllables[47]. Slavic preserved final syllables because they were stressable, like any other syllables. In Slavic, therefore, we should be reluctant to propose special developments for vowels in final syllables (see Kuryłowicz 1968: 248 and Georgiev 1969: 37).

Certain scholars, proposing *qualitative* Auslautgesetze have taken stress into account, e.g., Hirt 1892, 1904-5, Agrell 1913, Prinz 1977. These proposals will be discussed in detail with reference to the relevant Auslautgesetz (see especially II B).

ii) Forms not explained satisfactorily by the traditional Auslautgesetze.

a) The third person plural aorist ending, e.g., mogǫ < *mogŏnt.

This ending is normally explained by pointing to the influence of a final dental stop, which is said to have blocked the raising and denasalisation postulated for *-ŏns (see, e.g., Shevelov 1964: 333).

Parallel to the proposed development of *-ŏns, however, *mogŏnt should have developed thus: *mogŏnt > *mogŭnt > *mogūn > *mogy. This would have fitted in with the development in the present participle active (see II G).

It seems extremely odd that the *-ŏ- in *-ŏns should have undergone raising while the *-ŏ- in *-ŏnt should not. Relative chronology complicates the situation yet further:

*-t# is thought to have been have been lost *before* *-s#.

By the time that Slavic is first attested, it has lost *all* the final consonants reconstructed from cognate forms elsewhere in IE. Therefore if we wish to hypothesise the *order* in which the different types of consonants were lost, we have to rely on evidence from related languages (see I A). There does not seem to have been much study undertaken on this problem, and any conclusions reached here are of a tentative nature.

The comparative evidence is inconclusive. Romance and Germanic seem to point to the following order: 1) nasal sonants 2) *-t 3) *-s,[48] whereas Baltic seems to point to the reverse order: 1)*-t 2) nasal sonants 3) *-s (Stang 1966: 114).

Greek preserves nasal sonants and *-s in final position, but not *-t. The comparative evidence points to the loss of *-t before the earliest attestations.

It should be born in mind, however, that sound change is not a rigidly delineated process. It is frequently blocked or diverted by certain factors, and often fails to affect particular words (see Schmalstieg 1980: 29). Therefore it is possible that one sound change could be operative before, during, and after another.[49]

Relative chronology should therefore be used with caution. Taken in conjunction with the other pieces of evidence used in this section, however, it presents a problem for the advocates of special Auslautgesetze.

b) The nominative singular neuter of the pr.p.a.

Another problem is the *-ŏn(t)s combination reconstructed for the nominative singular neuter of the pr.p.a. (see II G). Aside from the oft-discussed dialectal differences, these forms present several problems.

Let us consider the standard proposals for the forms containing a nasal sonant or a *-t in a final syllable, i.e.,

A.S.	*-ŏm >	*-ŭm >	*-ŭ	*-ŭ
A.PL.	*-ŏns >	*-ŭns >	*-ūn >	*-y
(aorist)	*-ŏnt >	*-ŭnt >	*-ǫ >	*-ǫ
(pr.p.a.)	*-ŏnt(s)	*-ŭnt(s) >	*-un(-ŭ)>	*-y

Phonologically, the *neuter* pr.p.a. n/a. s. would have been identical to the aorist form quoted above, so we would expect to see an *-ŏnt > *-ǫ here also (see II G).[50]

c) The nominative singular masculine/neuter present participle active of the *-ĭ- conjugation, e.g., OCS <u>molę</u> < <u>*modlĭns</u>. This form is usually explained as analogical: a generalisation of the nasal that appears in the oblique cases (thus in non-final position), e.g., <u>molę</u>/<u>molęšta</u> etc., < <u>*moli</u>/<u>molęšta</u>. I propose that, in fact, <u>molę</u> is the *regular* development of <u>*modlĭns</u> (see II G).

d) The reflexes of *-V̆N combinations in <u>Inlaut</u> and <u>Anlaut</u>.

The hypotheses discussed above apply only to the final syllable of a word. This gives grounds for grave concern on two counts.

α) It is now generally accepted that *ĭn/*ŭn, *ĭm/*ŭm occurred in medial position in Slavic. It is normally proposed that these *-V̆N- combinations developed to nasal vowels before consonants like any other *-V̆N- combinations. Why should it have been any different in Auslaut?

β) Other *-V̆# combinations develop to nasal vowels in Slavic,

e.g., OCS n/a. s. vrěmę < *uert-mĕn

It is far more reasonable to reconstruct the final syllable of this form with a short vowel, than with the often-posited *-mēn. Neuter consonant stems in PIE do not seem to have had a lengthened grade in the n./a. singular, whereas masculine (and later feminine) consonant stems do. This seems to hold for Slavic also. In the neuter *-s-stem n./a.s. slovo, for example, the final -o can only go back to a short vowel in PIE.

Such a reconstruction (a short vowel in the final syllable) is much more plausible than certain forms which have been proposed.[51]

In vrěmę, therefore, we have a clear example of a *V̆N# combination developing to *Ṿ.

e) The accusative plural ending of the masculine/feminine *-jŏ/jā-stems, e.g., OCS možę < *mongjŏns (see II D). This example is normally used to *support* the standard theory of Auslautgesetze, because it shows the *y/ję alternation (see Ferrell 1965a: 102). However, such a proposal causes two problems which have never been properly

discussed: an ordering problem, and a problem in phonological likelihood.

The standard theory states that CS *jŏ > *jě *before* the raising of CS *-ŏ- to *-ŭ- preceding a nasal sonant in final position. This change (CS *jŏ > *jě) would therefore have had to take place in Slavic before the proposed merger of PIE *ă and *ŏ.

Since the merger of PIE *ă and *ŏ is very ancient (it is shared with Baltic, Germanic, Albanian, Indo-Iranian), it follows that *jŏ > *jě should be more ancient still. And yet it is unique to Slavic.[52]

According to the theory the changes should have proceeded thus:

(unique to Slavic) α) *jŏ > *jě

(unique to Slavic) β) *-ŏNs# > *-ŭNs#

(shared with other IE) γ) *ŏ/*ă > *ă(merger)

Shevelov 1964: 156-7 rightly hints at some of the difficulties involved. Kortland (1978,1979) attempts to push the change *-ŏNs# > *- ŭNs# back to the period of Balto-Slavic unity.[53]

One might attempt to save the situation by reversing the order of elements thus:

from

I	1) *jŏ >*jě			*mǫnǫjŏ- >	*mǫnǫjě-
	2) *-ŏ > *-ŭ/-Ns#			*ųlǫ̆m	*ųlǫ̆m
	3) *ŏ/*ă >	*ă (merger)		*dolŭ- >	*dalŭ-

to

II	1) *-ŏ > *-ŭ/-Ns#			*ųlǫ̆m >	*ųlǫ̆m
	2) *ŏ/*ă >	*ă (merger)		*dolŭ >	*dalŭ
	3) *jŭ > *jĭ			*mǫnǫjŭns >	*mǫnǫjĭns
	*jŏ > *jě				

All of these developments would have taken place *before* the loss of final *-s, whichever order is reconstructed.

If we were to follow II) above, we could postulate a development for the accusative plural thus:

Stems

	*-ŏ-	*-jŏ
1)	*ųlǫ̆ns	*mǫnǫjŭns
2)	*ųlǫun	*mǫnǫjin
3)	vlŭky	možę

In this instance the problem is one of phonetic plausibility: why should "j" in syllable-initial position preserve the nasality of the consonant in syllable-final position? There are admittedly instances of "j" preserving the following syllable where without "j" it would have been dropped,[54] but, as far as I know, none (apart from the standard reconstruction of CS) where a "j" would preserve nasalisation. It seems very implausible.

iii) Problems of typology.

Finally, there is one other major problem with the proposed Auslautgesetze in CS: it seems that they directly

contradict general tendencies which have been proposed as putative phonological universals.

This in itself is no obstacle to their acceptance. One should, however, at least attempt to explain *why* they should be exceptions. Schmalstieg 1980: 17-8 urges caution in the use of typological arguments in linguistic reconstruction. When typological evidence is used in conjunction with other types of evidence, however, they can provide a strong support for the hypothesis under discussion (see Bomhard 1981: 468). Analyses which do not make typological exceptions of the Slavic Auslautgesetze should at least be given far more attention than has previously been the case.

Ruhlen 1978: 225-6 proposes that, during any given period of vowel denasalisation, there is a chronological hierarchy of environments in which nasal consonants are lost, as follows:

1) before fricative + vowel[55]

2) before any other consonant + vowel

3) before any other consonant + pause

4) before pause (see 3 ii a).[56]

In Slavic, however, a different order can be reconstructed according to the standard theory: nasal consonants before a pause would have been lost *earlier* than many nasal consonants before a fricative in both internal and final syllables, e.g.,

*sūnŭm > *sūnŭ

before

*gǎnsĭs > OCS gǫsĭ

*jěnsŭ > OCS jęsŭ

*zěmljěns > OCS zemlje.[57]

Ruhlen further suggests that the *height* of the vowel in question is important. He proposes that high vowels (į and ų in this instance) tend to be the first to denasalise during a period of denasalisation. One way to bring the Slavic evidence in line with these typological tendencies would be to propose that Slavic was attested *after* į and ų had been denasalised, but *before* the lower vowels had.

This approach runs into difficulties, however. Shevelov 1964: 325-6, while accepting the standard theory of Auslautgesetze, draws attention to earlier theories which state that *-ĭn- and *-ŭn- developed to *-ĭ- and ŭ- (> -y) in internal syllables in CS. Discussing the evidence, he rejects this theory and declares:

> "...It is to be inferred from these data that į,ų were not denasalised, but acquired a broader articulation so that į, coalesced with ę and ų with ǫ... The existence of į and ų in CS was probably transitory."

I suggest that we should make this proposal of Shevelov's apply to word final position in CS also, thus producing only one reflex for any given *-VN- combination, regardless of its position in the word.

iv) The question of long diphthongs (see also II C 2).

Another problem, referred to in greater detail in II C, is the fate of *-V̄N# as opposed to *-V̆N# combinations. According to the standard theory, *-V̄N# > *-V̄# long before the rise of nasal vowels in CS, which in final position mostly derive from *-V̆N#.

One would expect *-V̄N# combinations to undergo some sort of shortening or truncation if *-V̄N# combinations lose their nasal, and they do not, according to the usual reconstruction: it is often proposed that *V̄N# combinations preserve their length in final position when other long diphthongs lose theirs.

v) Summary of the case against.

It is argued that the traditional theory of Auslautgesetze was inadequate to handle the following problems:

a) Certain forms referred to in ii) above.

b) It seems that the traditional concept of qualitative Auslautgesetze utilised for the reconstruction of CS is typologically unusual.

c) Other elements in the phonological system do not fit in well with the traditional Auslautgesetze:

α) Long diphthongs

β) The free stress pattern reconstructed for CS in contrast to CI, CC, CG.

For a discussion of sandhi, see II C 3.

5) Towards a new approach.

i) Introduction.

A theory without Auslautgesetze has several advantages:

a) All the difficulties referred to can be side-stepped.

b) More attention has to be paid to the relatively neglected area of morphological factors.

c) We can fit in the development of nasal vowels in Slavic more easily with the typological tendencies referred to above, and so there is less need to say why CS is an exception to these typological tendencies.

However, the mere denying of Auslautgesetze is not sufficient. What can one offer in its place?

In the following sections specific instances where Auslautgesetze are traditionally proposed will be discussed in some detail. In the remainder of this section a general framework of morphological change will be discussed. It is hoped that this framework will be adequate to handle the problems.

Attempts have been made before to propose a framework to handle the morphological evolution of the Slavic nominal declensional system (e.g., Mareš 1962,1967,1968; Lüdtke 1966, Georgiev 1969, Feinberg 1978), but these have not been complete. These proposals still incorporate Auslautgesetze, despite attempts to restrict their application.

ii) Slavic among other EIE languages.

From the evidence of OCS, OR and OCz, we can deduce that CS had the following characteristics in its nominal system:

a) Preservation of the greater part of the nominal inflectional system reconstructed for late NIE.

b) Preservation of a three-number system: singular-dual-plural (reduced over much of later Slavic)

c) Preservation of a three-gender system: masculine-feminine-neuter (maintained and extended over most of Slavic).

d) Preservation of a seven-case system: nominative - vocative - accusative - genitive - dative - instrumental - locative (generally preserved over most of Slavic: retained in some places, lost in others, and elaborated in others).

Slavic therefore stands in stark contrast to other EIE language groups (Celtic, Romance, Germanic etc.) Baltic is another exception, although despite its generally archaic nature it has gone further than Slavic in simplifying gender, from masculine-feminine-neuter to masculine-feminine (Old Prussian retained the neuter). Other EIE languages have gone much further along the road from synthetic to analytic, and for several of them this evolution can be followed from the actual observation of texts.

iii) Problems connected with Analogy.

Once we have decided to seek a morphological solution, we have to decide which analysis should be allotted greater weight. A great deal still has to be done before we can evaluate competing morphological analyses.

In this section an attempt will be made to set up a system for handling analogical change (see 1 above). Analogy is extremely hard to define rigorously, however, and repeated attempts to do so have not been crowned with success (Kuryłowicz 1973, Mańczak 1958, Kiparsky 1974).[58]

Many scholars are pessimistic about our ability to formulate an all-encompassing theory of analogy and morphological change: Lehmann 1962: 190: "...it has become quite clear that languages are too complex to permit simple generalisations ", Andersen 1980: 1: "Linguists concerned with historical morphology know that the various attempts that have been made to explain morphological change by means of half-a-dozen 'laws of analogy' have met with very little success mainly because of the immense variety of kinds of change that need to be explained". Leed 1970 points out that *phonological* features also can provide the impetus for change - his example of P mnich vs. mnisi being a case in point. Leed further draws attention to the vast number of factors that have to be considered, and to the impossibility of determining whether every pertinent fact has been included. Žuravlev 1974: 33 produces evidence from Modern Russian to show that morphological change tends to proceed by trial and error (in the same way as children attempt to

systematise the forms that they hear into some sort of pattern, see Hooper 1980). Schmalstieg 1980 loc. cit. gives voice to the same sort of caution on overly rigid frameworks for morphological change as he does for typology (see above).

I agree with the above scholars, especially Lehmannn 1962, Andersen 1980, and Schmalstieg 1980. Zuravlev 1974 has highlighted a major aspect of the problem, but his proposal still begs the question - how can we determine *which* alternants will be chosen for *which* functions? At the moment we are still very far from answering that question satisfactorily.

If, however, we compare the evolution of the nominal declensional systems in the EIE languages, we can see a common pattern emerging, albeit with exceptions. The pattern is based on Kuryłowicz's principle no V (1949: 80): "Pour rétablir une différence d'ordre central, la langue abandonne une différence d'ordre marginal." Kuryłowicz gives the loss of case distinctions in Romance languages, while number distinctions have been preserved, as an example.

As Mańczak points out, this begs the question: "il faut que l'auteur établisse préalablement la hiérarchie des catégories linguistiques." Which distinctions are marginal and which distinctions are central? Schmalstieg 1980: 14 states that the answers may vary from language to language: "One could perhaps consider singular/plural dichotomy semantic and the case endings as syntactic markers, although

it seems quite possible to imagine languages in which relational morphemes can be considered more important than morphemes denoting number."[59]

In this dissertation a proposal will be made which attempts to answer partially Mańczak's objection, at least for the EIE languages.

At the present time all the EIE languages have preserved distinctive *number* in their nominal declensional system. There is no EIE language where the singular/plural opposition has been completely lost, although in certain noun-classes within certain languages the distinction is lacking:

e.g.,	Eng sheep/sheep	(OE sċeap/sċeap)
	Ger Bogen/Bogen	
	Far ord/ord	n/a. pl.
	Cz ulice/ulice	n/a. pl.
	Por lápis/lápis	

In all of the above, except for English, the distinction is usually shown in an accompanying definite article or adjective, if present:

e.g.,
Ger der Bogen/die Bogen
Far ordið/ordin
Cz dlouhá ulice/dlouhé ulice
Po o lápis/os lápis

In all of the above, including English, verbal concord can indicate the number when all else fails, e.g., the sheep bleats/the sheep bleat.

Therefore I propose that in EIE, the category of *number* is fundamental - in Kuryłowicz's words "une différence d'ordre central". Following this, I propose that there is a

tendency (subject to exception) to preserve the singular/plural distinction (sometimes also the dual, though that tends to be lost over most of EIE, where other distinctions are preserved).

This proposal is strengthened by the fact that the singular/plural distinction is far more widespread than other distinctions: it is present in most finite forms of EIE verbs and most personal and demonstrative pronouns. Stankiewicz 1977: 169 proposes: "The expression of number governs the expression of the categories of gender and case in the sense that an increase of markedness in the expression of the former reduces the possibility of rendering the marked categories of the latter." This has been proposed as a linguistic universal (Greenberg 1961: 95) and can be supported by data from several languages: (IE), e.g., German; (non-IE), e.g., Tamil.

The category of *grammatical gender*[60] is also widespread in EIE languages. Only English and Afrikaans have actually lost it, although in its last days Manx showed signs of the category breaking down, as did Polabian.

As we have seen above, a *three-gender system* can be reconstructed for late IE: masculine vs. feminine vs. neuter. In the attested development of many EIE languages, however, we can see a trend towards a *two-gender* system: masculine vs. feminine, or over a more restricted area, common vs. neuter. In other EIE languages the three-gender system is preserved.

Examples are given below: English : loss of grammatical gender; Du, Swe : common vs. neuter; Ger : masculine vs. feminine vs. neuter; Fr, Ru, ScG, We, Lith : masculine vs. feminine; OPr, Gk : masculine vs. feminine vs. neuter; Al: masculine vs. feminine (vs.neuter).

All the modern standard Slavic languages preserve the masculine vs. feminine vs. neuter distinction, with various elaborations.

Gender distinctions can also be found in some verbal and pronominal forms, though they are not as prevalent as number distinctions. In personal pronouns they tend to be restricted to the third person in EIE,[81] and in verbs they are not nearly as prevalent as number distinctions.

I further propose, therefore, that in EIE the category of *gender*, albeit simplified in some instances, was also a fundamental category, though below number in the hierarchy, because number seems to be far more widespread, both within any one linguistic system, and typologically (see below).

The third category to be considered is *case*. During the attested period of EIE, nearly all the languages show widespread loss of case distinctions. Some (e.g., Welsh, Cornish) are first attested without any case distinctions at all. Others have preserved a limited case system (e.g., Rumanian). Others have preserved most of their earliest attested case system (e.g., Icelandic, Russian).

If we compare degrees of preservation of the three categories, we can propose a framework:

Retention of Slavic languages	Number	Gender	Case
Ger	+	+	+
Ru	+	+	+
ScG	+	+	+
Lith	+	+	+
OPr	+	+	+
Gk	+	+	+
Al	+	+	+
Du	+	+	+
Swe	+	+	-
Fr	+	+	-
We	+	+	-
Eng	+	-	-

It seems that we can discern here a definite trend for the EIE languages: *number* will be preserved before *gender* which will be preserved before *case*. This is by no means a linguistic universal - many languages show no trace of some or any of these categories. Others show them in a different order (e.g., Turkish shows *number* and *case*, but no *gender*.)

There seems to be little doubt about the primacy of *number*. Firstly, languages which do not distinguish number in the noun *can* do so in the pronoun. Some evidence from child language can be cited. Although the acquisition of the actual plural *forms* of nouns seems to be later than the acquisition of gender forms, children seem to grasp the *concept* of plurality very early on, using words such as "many" etc. (Rūķe-Draviņa 1959: 209, Berko 1958: 160-4).

To establish the primacy between *gender* and *case* seems to be much more difficult. If we confine our remarks to Slavic (although similar examples could be cited from other EIE languages), we can see that marking in *gender* and *case* sometimes seem to cancel each other out. Thus, according to

Stankiewicz 1977: 170 the accusative is the maximally unmarked case in the singular in many Slavic languages in that it allows a masculine animate/masculine inanimate/feminine/neuter distinction - *case* is subordinated to *gender*. The genitive plural provides an example of the opposite process in some Slavic languages - *gender* is subordinated to *case*. Such instances can be multiplied, and reveal a complex maze of interlocking hierarchies. One must take historical factors into consideration also.[62]

However, by expressing the proposal more exactly, we can still extract a fruitful generalisation. The proposal will be expressed thus: *all case distinctions will be lost before all gender distinctions*. This would explain several things, e.g., the loss of the neuter in Lithuanian and Latvian against the retention of the case system; a similar phenomenon in Goidelic, etc..

This formulation finds support from current theories in child language children acquiring a first language tend to master *gender agreement* before *case* (Rūķe-Draviņa 1959: 214, "Die formelle Genusunterschied erschien etwas früher als die Scheidung der Kasusendungen".)[63]

There are instances, however, where this framework breaks down. In many of modern Slavic languages, for instance, the dative, instrumental, and locative plural forms retain their distinctive *number* and *case*, but have lost their distinctive gender, e.g.,

Stems

	*-ŏ-	OCS/OR *-ŭ-	*-ā
dat.pl.	-omŭ	-ŭmŭ	-amŭ
instr.pl.	-y	-ŭmi	-ami
loc.pl.	-exŭ	-ŭxŭ	-axŭ

	R (all genders)	P (all genders)	Cz (m.,n.)	Cz (f.)	
dat.pl.	-aм	-om	-ům	-ám	(-ím)
instr.pl.	-ами	-ami	-y	-ami	(-i, -emi)
loc.pl.	-ax	-ach	-ech (-ich)	-ách	

However, this would seem to fit in very well with Stankiewicz 1977: 169's proposal, that marking in number overrides marking in gender and case. Serbo-Croatian has arranged the distinctions in these forms in a different way: here gender *does* seem to be more important than case, e.g.,

	(m.n.)	(f.)
dat., instr., loc., pl.	-ima	-ama.

At this stage we should examine these categories more closely: *which* gender(s) and *which* case(s) can we expect to see preserved? And which mergers can we expect?

Throughout much of EIE the tendency seems to be to reduce the original three-gender system to a two-gender system. Slavic, Greek, German, Faroese, and Icelandic, however, have preserved the three-gender system down to the present.[64] Many of the morphological restructurings proposed in subsequent sections can be seen in the drive to preserve gender distinctions in Slavic, especially the neuter (see II B and II F).

This tendency to preserve the neuter in Slavic has been pointed to by many scholars (Leskien 1963, Mareš 1962, Feinberg 1978). Neuter nouns seem to have two distinctive endings: -o/(-e) and -ę, e.g., město, (polje), telę etc. It is also interesting to note the *stability* of the neuter - whenever there is a danger of the masculine and neuter merging, the neuter will preserve the *old* ending, whereas the masculine will introduce a *new* ending to preserve its distinctiveness (see II B and II F).

The most likely mergers of cases can be observed by citing the dual, which has only three distinctive forms:

nominative-accusative(vocative)

genitive-locative

dative-instrumental

Georgiev 1969: 22 proposes a system whereby one can predict which cases will *not* fall together, based chiefly on data from the historical evolution of the attested Slavic languages:

accusative cannot merge with *dative*

genitive cannot merge with *nominative, instrumental*

dative cannot merge with *nominative*

instrumental cannot merge with *locative*

locative cannot merge with *nominative.*[65]

While this formulation fits the Slavic facts fairly well, there is one factor that has been left out: *cross-number* mergers. It is very common in EIE languages , including Slavic, for the *genitive singular* to have the same

ending as the *nominative* (and, by extension the *accusative*) *plural*,

e.g.,	Lat	g.s./n.pl.	domini
	OI	g.s./n.pl.	cla(i)dib
	Gk	g.s./a.pl.	κουρασ
	Go	g.s./n/a.pl.	qibos
	Latv	g.s./n/a.pl.	masas

Jakobson 1957 draws attention to this fact, but points out that in Russian suprasegmental differences have been utilised to distinguish between the n.pl. and the g.s. (see also Hamm 1966: 41), e.g., годовы g.s. годовы n.pl. This cannot be true for the Latin, Old Irish, and Gothic examples, as they all had fixed stress. In fact, the Old Irish form cited above survives in Irish and Scottish Gaelic to this day, although in Manx it had become severely restricted.

Even within Slavic one can find examples of n.pl./g.s. syncretism with no suprasegmental differences, e.g.,

P	głowy	g.s./n/a pl.
	okna	g.s./n/a pl.
Cz	hlavy	g.s./n/a pl.
	divadla	g.s./n/a pl.
SC	žene	g.s./n/a pl.
	sela	g.s./n/a pl.

Therefore it seems that we can expect this sort of syncretism to arise also (see especially II D).

6) Conclusion.

In this section the postulate of special phonetic laws for the final syllable in CS was discussed and rejected. There was a brief discussion of analogy, with reference to Kuryłowicz's Principle no V. Three important morphological categories in the noun were discussed, and a tentative hierarchy was drawn up. In subsequent sections, especially II B, II C, and II D, an attempt will be made to apply this hierarchy to the reconstruction of part of the CS nominal system.

B. The Problem of the Nominative Singular Masculine/Neuter *-ŏ-stem ending.

1) Introduction: the IE background.

i) General introduction.

The first problem that will be examined in this section is the one posed by the masculine nominative singular *-ŏ-stem ending in the earliest attested Slavic: is it a purely phonological development or is it the result of some sort of morphological reanalysis? This question has been discussed for nearly a century and has not yet been conclusively answered. Taken in conjunction with the topic discussed in the following section, it forms a major part of one of the most important problems in the evolution of the CS nominal system.

For the sake of clarity, I will use traditional reconstructions in this and subsequent sections, although my own proposal for the reconstruction of PIE vocalism differs from these.

ii) The IE evidence.

The external evidence to help us interpret the Slavic facts is as follows:

In Sanskrit the equivalent ending is -ah (e.g., devah), which goes back to either PIE *-ăs or *-ŏs. Lithuanian has -as (e.g., vaŕdas), which has the same possible sources. The earliest attested Germanic evidence points to the same PIE reconstruction, e.g., Runic stainaR. Early Germanic borrowings into Finnish show forms closer to the PIE reconstruction, e.g., Finnish rengas <CG *hrengaz (*hrengas). Old Irish, too, points to a similar reconstruction: the root vocalism of the nominative singular of many *-ŏ-stems points to the presence of *-ă- or *-ŏ- in the following syllable, e.g., fer < *uirŏs.

Evidence from Hittite, Tocharian, Albanian, and Armenian does not directly contradict this.

Latin and Greek occupy a special position in this sort of reconstruction, because they have preserved most of their final syllables and distinguished between PIE *-ă- and *-ŏ-. In Greek and the oldest Latin we find the masculine nominative singular ending in *-ŏs , e.g., Old Latin amikos, Classical amicus, Greek ἀνθρωποσ.

Therefore we can say with a high degree of probability that the IE ending was *-ŏs.

iii) The neuter ending.

In OCS the neuter nominative/accusative singular *-ŏ-stem ending is -o. Most of the IE cognates can be traced back to *-ŏm.

Traditionally, scholars have seen the Slavic neuter *-ŏ-stem ending *-ŏ as derived from the pronoun tŏ < *tŏd. (See especially Schelesniker 1964: 56). Some scholars are unhappy with this proposal (e.g., Nandriş 1969: 76).

2) The Slavic evidence: Fortunatov's theory.

i) Introduction

The earliest recorded Slavic shows an ending -ŭ, e.g., gradŭ, which some scholars trace back to a previous *-ŭs, and others to *-ŏs.

The problem of whether to attribute a phonological or morphological origin to the Slavic *-ŏ-stem nominative singular masculine was discussed by Fortunatov (1957: II: 182-5) and Leskien (1963: 1 passim). The former argued for a purely *phonological* development, comparing the Slavic to the Latin, whereas the latter argued for a *morphological* one (see II B 3 below).

ii) Fortunatov.

Fortunatov believed that the reconstructed change *-ŏs > *-ŭ was a regular phonological development. Briefly, his theory can be outlined as follows:

a) Loss of final dental stops (shared with Baltic and partially Germanic).

b) *-ŏ- > *-ŭ in *final closed syllables*.

c) Loss of final consonants.

According to this formulation, among the predecessors of OCS *-ŭ could be IE *-ŏs or *-ŏm. For the latter, see II C.

The evidence in favour of Fortunatov's theory is outlined here:

a) The dative plural inflection -mŭ < *-mŏs.

b) The verbal first person plural -mŭ < *-mŏs.

c) The preposition otŭ, supposed cognate of Skt atah (< *-ŏs).

d) The widespread forms tamŭ, kamŭ, amŭ, supposed cognates of Greek *ἐτημοσ*, *πτημοσ*.

e) A corresponding development with long *-ōs > *-ūs > *-y.

3) A morphological approach.

i) Difficulties with Fortunatov's theory.

The equation IE *-ŏs > Slavic *-ŭ was called into question by many scholars (e.g., Jagić 1906: 118, Hujer 1920). The pieces of evidence adduced above involve certain difficulties.

a) The dative plural ending will be discussed in detail in II H 4. As is argued there, it is not umambiguous enough to support a Slavic development *-ŏs > *-ŭ.

b) Like a) above, this ending will be discussed more fully below. It, too, presents a variety of difficulties which make it of less value as a support for Fortunatov's theory.

c) This etymology is not accepted by most scholars (see Vasmer 1973, Andersen 1969).

d) This instance is not clear either (see II H 6 below).

e) Again, there is very little evidence to suggest such a development - the examples normally cited are the genitive singular/nominative-accusative plural of the *-ā-stems, e.g., ręka g.s./n.a.pl. ręky < *rānkō/ *rānkōs. This hypothesis fails to explain the presence of a nasal in the *-jā-stems: zemlja g.s. zemlję (see II D for a discussion).

Finally, there is indeed a superficial resemblance between the Slavic and Latin developments; they are, however, not in fact parallel. In CS *-ŏs > *-ŭs would be restricted to the final syllable, whereas the Latin developments are part of a general tendency to shorten and raise vowels in unstressed syllables, and not only "o" is affected.

In Slavic the change is far more restricted than in Latin; it only applies to "o" (<PIE *ŏ/ă), and it only takes place in the final syllable. There are no parallel developments in the interior of the word.

Furthermore, the range of unstressed "o" in Latin was severely restricted by this change - Latin went through a

period where it was impossible to have words containing an "o" in the final syllable.[66]

Slavic has numerous words containing "o" in the final syllable, no matter how far from the stress.

e.g., OCS slóvo SC zaborávimo
prazdĭnĭstvo
Cz závazadlo U веретенечко

From the above it can be seen that there are no good examples to support the reconstruction of a change *-ŏs > *-ŭ.

ii) A morphological approach.

Leskien 1963: 3-5, 1907 proposed a development *-ŏs > *-ŏ, while accepting a development *-ŏm > *-ŭ. His main example is the n./a. s. neuter *-s-stem ending -o < *-ŏs e.g., OCS slovo, Gk κλεος, Skt śravaḥ, Lat genus etc. This seems a very solid piece of evidence that the suggested development *-ŏs > *-ŭ did not in fact take place. He proposed that the neuter *-s-stem ending -o was generalised to the neuter *-ŏ-stems. He further suggested that the masculine *-ŏ-stem accusative singular -ŭ was generalised to the masculine nominative singular also, thus creating a nominative-accusative syncretism.

iii) Some criticism of Leskien.

Some scholars (Agrell 1926, Ferrell 1965a: 100) have proposed that the *-s-stems were the ones affected by the morphological reanalysis. They believe that the -o in the

*-s-stems is not original. Agrell op.cit. points to compounds such as Dobroslovŭ, which, according to him, show the development *-ŏs > *-ŭ.

The difficulties with this proposal, however, are as follows:

a) It seems rather odd that the neuter *-s-stems did not simply transfer into the masculine class, as did so many other neuters, if indeed they underwent a period with the ending *-ŭ.

b) -slovŭ in compounds such as Dobroslovŭ need not be an exact phonological reflex of IE *ḱleuos, as forms appearing in compounds are frequently different from their equivalents appearing as words in their own right. The Greek cognate of slovo furnishes a good example of this: Σοφοκλησ is a compound of σοφοσ and κλεοσ. Furthermore, there is a similar example from Slavic: slava -"fame" appears in compounds as -slavŭ, e.g., P Władysław, Bolesław, Cz Václav.

iv) Summary.

Both Fortunatov and Leskien accept the Auslautgesetz *-ŏm > -ŭ. However, they differ with regard to the development *-ŏs. Fortunatov proposes a change *-ŏs > -ŭ in final position, while Leskien proposes *-ŏs > -o.

3) Subsequent theories utilising Auslautgesetze.

i) Hirt.

Hirt (1892: 348-9 and 1904: 291-2) proposed that accentuation played a vital role. Adducing evidence from Lithuanian accentuation, he made the following hypotheses:

a) stressed *-ŏs/*-ŏm> *-ŭ

b) unstressed *-ŏs/*-ŏm > *-ŭ

He pointed out that many nouns which are neuter *-ŏ-stems elsewhere in IE turn up as masculine *-ŏ-stems in Slavic, e.g., dvorŭ cognate with Lat forum, Gk θυρον, Skt dvaram. From this he proposed that only *oxytone* (*stem*-stressed) neuters survived as neuters in CS. Since the *-s-stems were *barytone* (*root*-stressed), they should have gone through a period of ending in *-ŭs (*-ŭ), and their *-ŏ would have been added later.

A table will make this clear.

Stems

		(m.) *ᵗ/-ŏ-	(n.) *ᵗ/-ŏ-	(n.) *-/-ŏ-	(n.) *ᶠ/-s
IE	N	*ᵗ/-ŏs	*ᵗ/-ŏm	*-/-ŏm	*ᵗ/-ŏs
	A	*ᵗ/-ŏm	*ᵗ/-ŏm	*-/-ŏm	*ᵗ/-ŏs
CS	N	*-ŭ	*-ŭ	*-ŏ	*-ŭ
	A	*-ŭ	*-ŭ	*-ŏ	*-ŭ
gender shift	N	*-ŭ		*-ŏ	
	A	*-ŭ		*-ŏ	

The difficulty here is the *-s-stems: why should they not have shifted over to the masculine *-ŏ-stems as well?

In a later article Hirt admitted that there were many difficulties with his theory, but claimed that there were fewer with his than with Fortunatov's (1904-5: 291-2).

ii) Agrell.

Another scholar to propose an explanation was Agrell(1913: 47 passim). He suggested that the normal reflex of PIE *-ŏs, *-ŏm in Slavic was *-ŭ, but that if the previous syllable bore a *rising pitch*, then the development was *-ŏ. He later retracted this view due to the difficulties of positing a plausible analogical development

which would explain the gender demarcation found in the earliest attestations of Slavic.

iii) Meillet.

Meillet (1914-16) proposed a new way of tackling the problem, positing two reflexes each for *-ŏs and *-ŏm, depending on the relative prominence of the word: in clitics and words likely to be contracted in rapid speech the reflex would be *-ŭ and in other words the reflex would be *-ŏ. This theory still fails to account for the following problems.

a) Which nouns (and adjectives!) would be likely to be slurred in rapid speech?

b) Why are there no clear examples of this in the interior of the word?

iv) Mańczak.

Mańczak 1969 proposed a theory similar to Meillet's within his general framework of *irregular sound change due to frequency of occurrence* to explain the developments of PIE *-ŏs and *-ŏm. According to the regular development, they would have both evolved into *-ŏ, which is in fact what we find as the *neuter* n./a.s.. One may counter, however, that masculine nouns in Slavic were certainly more frequent than neuters, however, and hence it is the masculine endings that would have been "shortened" to *-ŭ - the "irregular" development of final *-ŏ.

v) Gălăbov.

Gălăbov (1973: 11-17) proposes an interesting theory that subsumes three seemingly unconnected problems in CS historical phonology. He suggests that in late CS the following forms all ended in *-s.

a) The masculine nominative singular *-ŏ-stem.

b) The masculine nominative plural *-ŏ-stem (see II H 1).

c) The second person singular of the imperative (see II H 2).

He proposed that a final *-s in late CS caused a preceding vowel to raise. The difficulties with this theory are twofold.

α) he has to propose a complicated morphological contamination for an *-s to be added to the masculine n.pl., e.g., *toi vlkŏs > *tois vlkois (not *toi vlkoi as is normally proposed) > *tĕs vlkĕs (raising before final *-s) > *tis vlkis > *ti vlci.

β) Far more serious for his theory is the lack of raising in any other vowels before final *-s,

e.g., g.s.n. *-s-stem *kleueses > slovese - *no raising.*

second p.s. aorist *rekes > reče - *no raising.*

Other problems with these forms will be discussed in II D. It is simply not enough for Gălăbov to dismiss the problems associated with final *-es (and the *-s-stem n/a singular *-ŏs > *-ŏ) by saying: "Dieses besondere Verhalten der e-Vokale im Auslaut verdient weiter erhöhte

Aufmerksamkeit" (1973: 16).

v) Prinz.

Prinz 1977: 259-74, like Hirt and Agrell, uses accentuation as a means of solving the problem. His proposal can be summed up as follows: final *stressed* syllables were never reduced, whereas final syllables which were never stressed were weakened. He accepts (261-2) that a final *-s could raise a preceding *-ŏ to *-ŭ.

vi) Conclusions.

All of the above proposals rely to a greater or lesser degree on Auslautgesetze, and none of them has proved entirely satisfactory. In the following section two analyses which place more emphasis on morphological factors will be outlined.

5) Lüdtke and Georgiev.

i) An attempt at a morphological solution

In the 1960's two separate studies were published which both advocated severely restricting the use of Auslautgesetze to explain certain thorny problems in historical Slavic nominal morphology: Lüdtke (1966) and Georgiev (1969). They both deny the existence of *qualitative* Auslautgesetze (where, e.g., *ŏ > *ŭ), while admitting

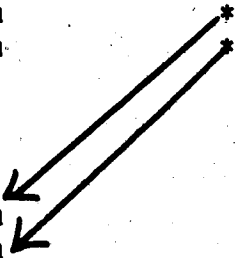
quantitative Auslautgesetze (the shortening of long syllables in final position, comparable to similar developments in Celtic, Germanic, Baltic, and Italic).

Following Leskien, they propose that *-s > ø/V̆-#. In addition, they propose that *N > ø /V̆-#.

One table will suffice for the representation of the views of both scholars; the first and third stages concerned are NIE and CS, respectively.

Stems

	*-ŭ-(m.)	*-ŏ-(m.)	*-ŏ-(n.)
N	*-ŭs	*-ăs(*-ŏs)	*-ăm(*-ŏm)
A	*-ŭm	*-ăm(*-ŏm)	*-ăm(*-ŏm)
N	*-ŭ	*-ă	*-ă
A	*-ŭ	*-ă	*-ă
N	*-ŭ		*-ă
A	*-ŭ		*-ă



ii) Gains.

The above analysis has several advantages over the more traditional ones discussed earlier in the section, because it manages to dispense with the troublesome sound change *-ŏs > *-ŭ.

In addition, it manages to include two otherwise unrelated issues:

a) It manages to avoid altogether the problem of whether *-ŏ > *-ŭ/-N# happened prior to the merger of *ŏ and *ă (see II C).

b) It explains plausibly why the *-ŭ of the m. n./a.s. did not prevent the third palatalisation from taking place (see Vaillant 1958: I: 54).

iii) Difficulties.

The question remains: why do the combinations *V̆+N# simply lose the nasal in final position? As we have seen above (II A) there are numerous instances where CS *V̆+N# has *V̄(or a further development thereof) as a reflex. What has happened to the final nasals usually reconstructed for the masculine accusative/neuter nominative-accusative singular?

6) Feinberg.

Although an *-m is often reconstructed as the desinence for the IE neuter *-ŏ-stems, it was pointed out by Agrell 1926 that only in Celtic, Italic, Greek, and Indo-Iranian do we actually find a nasal. Following Mareš 1962, Feinberg 1978 proposes that the reconstructions involve far fewer problems if one starts from a bare stem neuter *-ŏ-stem, i.e., without a nasal.

Feinberg adheres to the conventional hypotheses about Auslautgesetze: *ŏ > *ŭ / -N#, but does not accept *ŏ > ŭ/ -s#. Although his proposals work very well for several knotty problems in the reconstruction of CS nominal morphology, they fall short in certain other respects.

To begin with, as we saw in II A, the Auslautgesetze on which Feinberg's reconstructions are based are phonologically implausible and contradictory. In addition, he does not mention the genitive singular of feminine *-jā-stems, which should be taken into account if the whole development is to be understood (see II D).

Despite these shortcomings, Feinberg's analysis is probably the best of the ones which use the traditional hypotheses of Auslautgesetze. His main advantage over Leskien is his acceptance of the bare-stem neuter in the *-ŏ-stems.

7) A new approach.

My own hypothesis is outlined in the table accompanying I A. It will be now discussed in more detail, in its relation to the issues discussed here.

i) The neuter *-ŏ-stem ending

I follow Agrell 1926, Mareš 1962, and Feinberg 1978 in proposing a bare stem for the neuter n/a singular *-ŏ-stems.[87]

In Lithuanian - which has lost the neuter gender in nouns - there are adjectival forms used as impersonals, e.g., gerà - "it is good" (gẽras - "good"), which seem to show an original bare stem.

Hittite also has forms pointing at a bare stem, and final dental stops do *not* drop in Hittite as they do in Baltic, and so it would be extremely unlikely if these forms were to be reconstructed with a pronominal ending.

As a cautionary note, it should be remembered that Old Prussian does show some endings with a final nasal sonant, e.g., assaran; OCS jezero.

ii) The masculine *-ŏ-stem ending.

As for the masculine nominative singular, it seems to me that the most likely hypothesis is that it is taken from the *-ŭ-stems, as has already been proposed by many scholars (see above, e.g., Leskien, Lüdtke, etc.). There are simply too many problems associated with the assumption of a sound change *-ŏs > *-ŭ in CS. As has been argued above, the *-ŭ-stem declension had probably *both* enough nouns in its class *and* a group of nouns of sufficiently high frequency to make such a remodelling as proposed in I A likely.

iii) A morphological remodelling based on differentiation of gender.

We will now discuss the following questions: why should *-ŭ have been chosen as the *masculine* marker? Why was *-ŏ

not generalised as a masculine ending, with the neuter either being generalised as *-ŭ or perishing as a separate class?

We might not know at this stage why Slavic should have preserved the neuter gender when the tendency in most of IE was to eliminate it, but we can make a fairly accurate proposal as to *why* *-ŏ was selected as the neuter marker and *-ŭ as the masculine marker.

In the *nominative*, the masculine and neuter were about to fall together, and in the *accusative* the masculine and feminine were about to fall together (see II C).

As the *-ŭ-stem declension was predominantly masculine, an *obviously masculine* ending (*-ŭ) would seem the prime choice for rescuing the vanishing gender distinction. Through the loss of final consonants, *-ŏ had become a predominantly neuter ending in three different classes:

a) The neuter *-ŏ-stems

b) The pronoun <u>to</u> < <u>*tod</u>

c) The neuter *-s-stems (*-o < *-ŏs)[88]

All these forms now ended in -o in the n/a singular. The system would have undergone far too much disruption if the reanalysis had been masculine *-ŏ vs. neuter *-ŭ.

Vital to an understanding of this morphological reanalysis is the fate of the accusative. As this is affected by another <u>Auslautgesetz</u>, it will be dealt with in II C. Briefly, it is proposed that the masculine a.s. *-ŏ-stem is also taken from the *-ŭ-stems.

In conclusion, I propose that the nominative singular masculine *-ŏ-stem can be explained better by reconstructing a morphological analysis rather than a special Auslautgesetz. This has been accepted by many scholars.

8) Summary of II B.

In this section the question of the origin of the masculine nominative singular *-ŏ-stem ending was discussed. Several earlier theories which utilised Auslautgesetze were examined. It was claimed that these fail to account convincingly for the facts; this depends in some instances on arguments to be advanced later in the dissertation. Earlier proposals for reconstructive morphological analyses were also discussed; these, too, had some recourse to Auslautgesetze. A new approach, with no appeal whatever to Auslautgesetze, was suggested.

The following tentative proposals were made:

i) The masculine nominative singular *-ŏ-stem ending *-ŭ was taken from the *-ŭ-stems.

ii) The neuter nominative/accusative singular *-ŏ-stem ending -o is in origin a bare stem ending, and the *-m normally reconstructed here was not in fact present at any stage.

iii) The sound change *-ŏs > *-ŭ, proposed by many scholars did not in fact take place in CS.

C. The problem of the accusative singular masculine/feminine *-ŏ/ā-stem and masculine *-ŭ-stem.

1) Introduction.

In earlier sections it was stated that the proposed Auslautgesetz PIE *-ŏm > CS *-ŭ never actually took place in Slavic. It is now time to suggest a plausible alternative using a reconstructive morphological analysis.

i) The *-ā-stems.

The *-ā-stem ending seems to present few problems. It is fairly safe to reconstruct *-ām from the evidence that we have available. Sanskrit, Greek, Latin, Gothic, and [illegible]anian all seem to point to this ending.[69] Most [illegible]rities take it for granted that PIE *-ām > CS *-ǫ.

ii) The *-ŏ-stems.

The *-ŏ-stem accusative singular *masculine* ending in [illegible]anskrit is -am (e.g., devam), which continues either PIE *-ŏm or *-ăm. The earliest attested Germanic has -a (e.g., Runic staina), which can also be traced back to PIE *-ŏm or *-ăm. Old Irish points to a similar reconstruction, (e.g., fer n-) as does Lithuanian (e.g., diẽva). Latin and Greek confirm the choice of *-ŏm (e.g., amikom, ἀνθρωπον), and Hittite, Albanian, Armenian and Tocharian do not seem to contradict it.

Slavic, on the other hand, has an unexpected reflex here: *-ŭ, which should go back to PIE *-ŭ(C), e.g., dymŭ.

Normally this form is explained by referring to the Auslautgesetz *-ŏm > *-ŭ, which would help us to reconstruct an exact phonological correspondence between the Slavic and the other IE forms. Most authorities, indeed (Leskien 1963: 3, Hujer 1920: 35, Fortunatov 1957: II: 182-5, Milewski 1932: 255, Kuznecov 1958: 51, Shevelov 1964: 156-7, Ferrell 1965a: 97, Rudnyćkyj 1966: 656, Feinberg 1978: 109, Schmalstieg 1980: 39 etc.), accept this proposed Auslautgesetz without apparent question. It is usually treated together with the *-ŏ-stem nominative singular masculine, and is accorded far less space and discussion than that form.

Many discussions of this topic also derive the *neuter* n./a.s. *-ŏ-stem from this ending, but in this dissertation a different analysis is proposed (see I B and II B).

In I B it was argued that the *-m usually reconstructed for the accusative singular of non-neuter substantives in PIE might not have extended across the whole paradigm in CS. However, it was also argued that this *-m from pronominal origins spread *first* to the masculine *-ŏ- and *-jŏ-stems, *then* to the feminine *-ā- and *-jā-stems, and then stopped. (In some IE languages it would have spread even further, to the neuters).

From this it follows that *at some stage* the CS masculine accusative singular *-ŏ-stem ending was *-ŏm. But

it does not follow from this that we should automatically accept the proposed Auslautgesetz *-ŏm > *-ŭ.

iii) The *-ŭ-stems.

The *-ŭ-stem accusative singular masculine is also well attested in IE languages. Sanskrit, Greek, Latin, Germanic, Old Irish, Lithuanian, and Hittite all point to the reconstruction *-ŭm.

The corresponding forms in Slavic have *-ŭ (e.g., synŭ), which has fallen together, by either a phonological or a morphological route, with the *-ŏ-stem ending cited above.

One Auslautgesetz often proposed for Slavic is *-ŭm > *-ŭ. It is used to explain the *-ŭ-stem ending. According to the authorities who make use of Auslautgesetze, the developments would have proceeded thus:

*-ŏ-stem: *-ŏm > *-ŭm > *-ŭ

*-ŭ-stem: *-ŭm > *-ŭm > *-ŭ

In this way, so the argument goes, the two endings merged, and consequently the end of the *-ŭ-stems as an independent class was hastened.

2) Difficulties with the traditional reconstruction.

i) Final nasals.

In initial syllables an original *-VN- combination is attested in Slavic as a nasal vowel (e.g., ǫgŭlŭ < ŏngŭl-), and also in internal syllables (e.g., pǫtĭ < *pŏntĭ-). There does not seem to be any good reason why the development in final syllables should have been different.

ii) Long diphthongs.

There is another, more serious problem: the question of long diphthongs (in this instance long vowel + nasal sonant combinations) and their status in CS. According to the standard theory *-V̄N# sequences (e.g., *-ōm in *berōm > berǫ) *does* develop into a nasalised vowel, whereas the sequence *-V̆N# sometimes develops into a nasalised vowel and sometimes not. But the very status of *-V̄N# is open to question. Schmalstieg repeatedly states that long diphthongs were shortened in both Baltic and Slavic, and is quite adamant on this point.[70]

Nevertheless, I should like to propose that certain long diphthongs were preserved in Slavic later than Schmalstieg maintains. One must imagine a constant interplay of morphological analogy, cf. Žuravlev 1974 referred to above. It is quite possible that *some* long diphthongs were preserved longer than others due to analogical pressure exerted by other parts of the paradigm. In the *-ā-stems a long vowel would have been maintained in the nominative and genitive singular, and the nominative, dative, instrumental and locative plural. Also, the maintenance of the long

diphthong in this instance would have saved the gender distinction between masculine and femininein the accusative singular. Since the masculine *-ŏ-stems already had a short vowel in this position, the feminine *-ā-stems would have fallen together with the former paradigm in the accusative singular if the long diphthong in this instance had undergone shortening. Therefore it is quite possible that in this instance the long diphthong was retained (see below).

Some possible corroborating evidence from Greek will be adduced below.

Meanwhile, let us consider another contradiction into which one can be led if one accepts the proposed Auslautgesetz IE *-ŏm > CS *-ŭ. The status of long diphthongs should be taken into account here, as it will help to place *-ŏ > *-ŭ in perspective. The development proposed in Shevelov 1964 will be considered.

After stating that most of the reconstructed IE long diphthongs were shortened in early CS, Shevelov goes on to say:

"...in word final position (in endings) long nasal diphthongs were spared," (1964: 24-5).

Meanwhile he declares that the development proceeded thus:

a) Loss of final nasals after short vowels (e.g.,*-ŭm# > *-ŭ#, *-ĭm# > *-ĭ#)

b) Shortening of final long diphthongs, (e.g.,*-āi# > *-ăi)

It can be assumed, therefore, that while a) above was taking place, long diphthongs were present in the language.

A few lines further on, while presenting his views on historical Slavic accentuation,[71] he declares:

> "...A slight weakening of articulation in the word final position may be more convincingly expected for a period when final syllables, except in monosyllabic words, were thoroughly unstressed.[72] Such a time was posited [...] after the abolition of IE stress and before Fortunatov's law started operating. This is the most plausible period for final nasal consonants preceded by a short vowel to have been dropped. Long vowels precluded such a slackening of word-end articulations, a circumstance which fits in quite well with the supposed pattern of CS of that time," (1964: 225).

This is all highly improbable. Why should long nasal diphthongs (-V̄N-) retain their length in final position when everything else, including other long diphthongs in final position, is subject to shortening? In other IE languages with large scale reductions in final position (e.g., Celtic, Germanic) such sequences are not immune to shortening - quite the reverse, in fact, e.g., OHG salbōm > German salben; Goidelic *maqōm > Old Irish (Ogam) maqa (see 5 below for a new approach to this problem).

It is by no means clear, however, that the stem vowel was long in the first place. According to Lehmann 1958: 192 the length of the stem vowel in the nominative singular is the reflex of a lost laryngeal, e.g., *-aH > *-ā, and the accusative can be traced back to *-ăm, not *-ām. (Where length does occur, it is seen as having been introduced into the paradigm by analogy with the nominative, and by

extension, the length could have been maintained under the influence of the nominative.)

The paradigm would therefore have been:

n. *-aH > *-ā

v. *-a > *-ă

a. *-am > *-ăm

In most IE languages length seems to have been generalised, although the Latin evidence is ambiguous and Greek has variant forms, possibly pointing to a period of their co-existence at one stage, e.g., δοξα - δοξαν (< *-ăm); τιμη - τιμην (< *-ām).

For Slavic, I suggest that in the *-ā-stem accusative singular, both long and short forms could have co-existed at an early stage: *-ăm and *-ām. I would suppose that *-ām would have been generalised, as the early merger of *-ă and *-ŏ would have made it impossible to distinguish gender in the accusative singular, whereas the maintenance of *-ā in this form would have served very well to distinguish it.

iii) Problems of chronology.

The merger of *ă and *ŏ has serious implications for this part of the topic. According to the standard theory, the change *-ŏm# > *-ŭm# must have taken place *before* this merger (see II A 3), as *-ăm seems to be immune to it.

This merger seems to have taken place very early in Slavic - there is no evidence that Slavic ever had a separate "ŏ" (see Schmalstieg 1980: 27). Baltic and Germanic

show a similar development with the IE short low and mid-vowels.[73]

Many scholars have proposed that the shift *-ŏ > *-u̯ took place *before* the merger of PIE *-ă/ŏ. In fact, Kortlandt (1978, 1979) is forced to push it back to the Balto-Slavic period. Shevelov, while not mentioning the Balto-Slavic period in this context, is forced to propose something similar (1964: 156-7).

This dating, however, meets with a serious obstacle from the Lithuanian *-ŏ-stem masculine accusative singular: -ą < *-ŏm. Kortlandt proposes an alternative, morphological analysis for this ending (1978: 287).

Another, potentially much more serious, objection to the standard theory is the relative chronology of the loss of final dentals and final *-s. For discussion, see II A and II D.

iv) Summary.

Having previously proposed above that the reconstructed sound change *-ŏm > *-ŭ did not actually take place in Slavic, I discussed one problem in this section: the problem of the development of long diphthongs, and their relevance to *-ŏm > *-ŭ. It seems to me that the two developments are incompatible within the framework generally reconstructed for CS.

3) Schmalstieg's theory.

Schmalstieg, in keeping with his theory of IE sandhi variants created by monophthongisation (1973, 1980, also see Shields 1976), sees the long vowel in the *-ā-stems as being the original preconsonantal variant of IE *-ay- (*-ā-). He also sees some mergers as having taken place between older *-ă-stems and newer *-ā-stems (e.g., Gk γεφυρα , OCS glavo), and says that the *-ăm form from these *-ă-stems is probably the older form.

Schmalstieg 1971, 1976 further proposed that *-ă- and *-ŏ- did indeed merge in final position before nasal sonants, as everywhere else. He also proposed that all final long diphthongs were shortened in the Balto-Slavic period.

Schmalstieg's theory can be outlined thus:

1) Shortening of final *-V̄N combinations (*-āN > *-aN);

2) Development of final *-aN to *-uN;

3) Development of sandhi variants: *-uN# C > *-ŭ and *-uN# V > *-ǫ[74].

Later on, this alternation would have been reanalysed morphologically, with *-ǫ being generalised for the *-ā-stems and *-ŭ for the *-ŏ- and *-ŭ-stems.

Schmalstieg links this with his proposal that there is a universal tendency for word final *-aN to pass to *-uN (1980: 39). It can be connected to the weakening of the articulation proposed for word-final position by Lass 1971.

This suggestion is ingenious, and seems to explain the data far better than any of the other theories outlined so

far. Nevertheless, it falls short on one count: sandhi usually does not affect vowel *quality*: the raising of *ă (*ŏ) in word-final position, if not part of a general weakening of final syllables, is phonologically implausible. We would expect to find instances of *-V̆NC > *-ŭC in medial position. Apart from the doubtful case of *ḱm̥tom > OCS sŭto, *there are none*.[75]

Galton 1956 argues that the early tendency, still apparent in some of the modern Slavic languages, to develop prothetic glides "militates against the assumption of sandhi in Old Slav." Galton further points out that in Sanskrit, where most of the examples of sandhi are drawn from, words such as tat can appear as tad or tal depending on the quality of the initial consonant of the following word, while no such examples (apart from a few preposition+noun phrases, e.g., OCS iżnjego, see also II H 8) are attested from Slavic. I suggest that Galton is right to reject Holger Pedersen's proposal for explaining the length in OCS azŭ as the result of the generalisation of a sandhi variant.

4) Lüdtke and Georgiev.

Georgiev 1969: 54 does not seem to believe that the feminine *-ā-stem accusative singular poses any sort of problem, but for the masculine *-ŏ-stems he proposes a development similar to the one for the neuter nominative/accusative singular *-ŏm > *-ŏ. To avoid

confusion with the neuter ending, however, it was replaced by the *-ŭ-stem accusative singular ending *-ŭ.

Lüdtke proposes a very similar development, while deriving the feminine *-ā-stem accusative singular from *-ām (1966: 125, 133-4).

One table will be used for the views of both scholars.

Stems

	*-ŭ-(m.)	*-ŏ-(m.)	*-ŏ-(n.)	*-ā-(f.)
N	*-ŭs	*-ŏs	*-ŏm	*-ā
A	*-ŭm	*-ŏm	*-ŏm	*-ām
N	*-ŭ	*-ŏ	*-ŏ	*-ā
A	*-ŭ	*-ŏ	*-ŏ	*-ǫ
N	-ŭ	-ŭ	-o	-a
A	-ŭ	-ŭ	-o	-ǫ

(see also II B 5).

While this is one of the better analyses currently available, there is one rather serious problem. Why should the masculine *accusative* singular *-ŏ-stem have changed at all? In many IE languages, the masculine accusative singular *-ŏ-stem is identical to the neuter nominative/accusative singular *-ŏ-stem, e.g.,

Gk ἀνθρωπον/ἐργον (m.n.s. ἀνθρωποσ)

Skt aśvam/phalam (m.n.s. aśvaḥ)

Lat dominum/bellum (m.n.s. dominus)

Go dag/haurn (m.n.s. dags)

OI fer n-/cenél n- (m.n.s. fer)

This is not surprising, considering that these two endings have the same origin, i.e., the PIE absolutive. According to this theory the masculine accusative singular *-ŏ-stem had the same ending as the neuter nominative/accusative singular *-ŏ-stem before the loss of final *-m as well as after. In this instance it would seem that a morphological reanalysis is not necessary.

5) A new approach.

I will now present my own hypothesis of the way in which the evolution proceeded. A table was given in I A, and it is now time to elaborate on the framework shown therein. The plural endings will not be discussed here, although they are absolutely vital to a proper understanding of the tendencies at work during the time of the proposed reanalysis .[78]

i) Reconstructions.

I accept the reconstruction of the masculine *-ŏ-stem accusative singular as *-ŏm, for reasons given above (see I A, I B).

I accept that the feminine *-ā-stem accusative singular should be reconstructed as *-ām, also for reasons given above. I propose that the *-ŭ-stem accusative singular ending should be *-ŭ (see I B for further details).

ii) The evolution of the forms.

The starting point for this reconstruction is after the rise of the *-ŏ/ā-stems, carrying with it the new gender distinction. This stage would be reconstructed thus:

a)

Stems	*-ŭ-(m.)	*-ŏ-(m.)	*-ā-(f.)
N	*-ŭ-s	*-ŏ-s	*-ā-ø
A	*-ŭ-ø	*-ŏ-m	*-ā-m

Then, with the rise of nasal vowels and the loss of final *-s, several new syncretisms would have arisen which could have been potentially disastrous for the paradigm.

b)

N	*-ŭ-ø	*-o-ø	*-a-ø
A	*-ŭ-ø	*-ǫ-ø	*-ǫ-ø

When we consider that the accusative singular and plural of masculine and feminine nouns would have fallen together here, it becomes clear that if the inflectional system with its distinctions of number, gender, and case is to be preserved, a reshuffling of endings must take place.

The mergers shown in b) above would have been averted by generalising the *-ŭ-stem endings in the nominative and

accusative singular as exclusively *masculine* endings. The reasons for the nominative ending have been discussed in II B. The *-ŭ-stem accusative singular ending was also taken over into the *-ŏ-stems to preserve the distinction between the masculine and feminine accusative singular.

Thus we have the system attested in OCS:

c)

Stems	*-ŏ-(m.)	*-ā-(f.)
N	-ŭ	-a
A	-ŭ	-ǫ

iii) Advantages of the new approach.

The above analysis has the following merits:

a) As with other proposals, it eliminates the need for postulating complicated, implausible Auslautgesetze;

b) It provides a convincing hypothesis to explain the endings which are actually attested;

c) It can be tied in nicely with trends which are apparent in the later Slavic languages.

Here we have an example of the primacy of *gender* over *case*. That gender should be marked in the accusative singular should come as no surprise: Stankiewicz 1977: 170 proposes that the accusative singular in Slavic languages is the least marked case in that it allows the maximum differentiation of *gender* (see also II A), e.g., Russian

masc.anim	masc.inan	neuter	feminine
[illegible]	чемодан	окно	комнату

[illegible] every other case including the nominative the di[illegible]on between masculine animate and inanimate is obl[illegible]ated. Stankiewicz does not suggest how far back this tr[illegible] can be traced. Studies of the frequency of case in S[illegible]ic languages have shown that the accusative singular is [illegible]rly as frequent as the nominative singular in some [illegible]aces, and more so in others, cf. Gerd et al. 1974, 1976.

6) Summary of II C.

In this section the accusative singular of *-ŏ-, *-ā--, and [illegible]ŭ-stems was treated. The following proposals were made:

i) The alleged sound change *-ŏm > *-ŭ did not actually take place in CS, and the accusative singular of the masculine *-ŏ-stems was taken from the *-ŭ-stems.

ii) The status of long diphthongs in CS was discussed, and it was suggested that morphological factors might have preserved them in certain positions for a longer period than is usually believed. In this instance particular reference was made to the accusative singular ending of feminine *-ā-stems.

iii) As in II B, it was proposed that the need to

differentiate gender played a vital role. Following Stankiewicz 1977, it was proposed that there was a tendency to distinguish masculine and feminine in the accusative singular. According to the framework outlined above, the masculine *-ŏ-stem and feminine *-ā-stem accusative singular endings would have fallen together when *-VN- combinations were nasalised. This merger was averted by generalising the *-ŭ-stem ending *-ŭ to the masculine *-ŏ-stems, thus rescuing the gender distinction.

D. The problem of the *-ŏ/jŏ- and *-ā/jā-stems accusative plural.

1) Introduction.

i) Related forms.

In this section the *-ŏ/jŏ- and *-ā/jā-stems will be discussed in detail. Two other endings will not be discussed at length, although some scholars would treat them as part of the problem herein outlined.

a) The *-ā/jā-stem genitive singular. Following Vaillant 1958: 1: 150, I assume that the ending here is taken from the nominative/accusative plural. This supposition can be fitted in quite nicely (see II A and Jakobson 1957[77]) and will be taken for granted here.

b) The endings of the nominative singular masculine of the present participle active. These will be given a section to themselves (see II G).

ii) Dialect differences.

One major problem involved in this topic is that dialectal differences appear within Slavic itself. It is in the *-jŏ- and *-jā-stems that these differences are found.

For the *-ŏ- and *-ā-stems both North (East and West) and South Slavic have -y in the accusative plural. For the *-jŏ- and *-jā-stems, however, North Slavic has -ě (termed

-ě3 in much of the literature), whereas South Slavic has -ę. Many scholars have attempted to explain this phenomenon purely phonologically (with complex sound changes peculiar only to the final syllable). An entirely satisfactory answer has not yet been found, although I maintain that this problem, too, can be explained without reference to Auslautgesetze. For discussion, see 6 below.

iii) The IE evidence and the early CS developments.

Here forms for only the *-ŏ- and *-ā-stems will be given, as in many IE languages the *-jŏ- and *-jā-stem paradigms are almost identical.

The accusative plural in IE languages seems to have been formed by the addition of the plural marker *-s *either* to the dual (collective) ending *-V̄ (lengthened theme vowel) *or* to the accusative singular form in *-m (thus giving *-ns). The ending *-ns arose later than *-V̄s, usurping its function in many instances. The *-V̄s was as a result often confined to the nominative.

In the *-ŏ/jŏ-stems and the *-ā/jā-stems in Slavic the ending *-ns has taken over the accusative function in the plural, although in the other stem classes the *-V̄s ending is still used for the accusative. In other IE languages one can see *either* the *-ns or the *-V̄s ending in the accusative plural.

*-ns	*-V̄s
Go wulfans	Lat lupos
OPr deiwans	Lith dievùs
Gk (Cretan) λυκονσ	Gk (Homeric) γενυσ
Skt aśvān (< *-ān̥s)	Skt dhenūh

Examples of the restriction of *-V̄s to the nominative plural can be seen in Go wulfōs, gasteis, Skt devah, and Lith naktys.

In Old Irish the old *-ō-stem plural ending *-ōs has been restricted to the vocative plural, e.g.,

n.s. fer	n.pl. fir
v.s. fir	v.pl. firu
	a.pl. firu < (*-ōns),

As we have seen above (II A) it is possible to reconstruct the accusative singular ending as *-ø, except for the *-ŏ-stems and *-ā-stems, where it would be *-m.

iv) The evolution of the forms to early CS.

The proposed development (adapted slightly from Schmalstieg 1980: 81) is summarised below. For the development in its wider context, see the table in I A.

Stage I: PIE absolutive/ergative - no plural marking.

*ulqă- - abs (*ulqăs - erg)

*sūnŭ- - abs (*sūnŭs - erg)

Stage II: dialectal IE (rise of the n./a. opposition).

n. *u̯lquŏs a. *u̯lquŏm (abs + *-m) *u̯lquŏ - collective (connected with the rise of the feminine gender)

n. *sūnŭs a. *sūnŭ (abs) *sūnŭ - collective (see I B).

Stage III: late dialectal IE.

*u̯lquŏ- collective > dual (*u̯lquŏs new plural)

No case distinctions in plural (see Stankiewicz 1977 and II A).

Stage IV: Rise of case distinctions in plural.

New nominative plural in *-i (see II H).

New accusative plural in *-ns.

The old *-V̄s ending is restricted in scope.

Stage V: early CS (Partial Paradigms).

Stems

		*-ŏ- (m.)			*-ā- (f.)	
	S	D	Pl	S	D	Pl
N	*u̯lkōs	*u̯lkō	*u̯lkŏs	*genā		*genās
A	*u̯lkŏm		*u̯lkŏns	*genam		*genāns
		*-ū- (m.)				
N	*sūnŭs					
A	*sunŭ		*sūnŭs			

Note the absence of *-m in the accusative singular *-ŭ-stem.

v) The reconstruction of the *-jŏ/jā-stems.

One of the reasons for reconstructing an *-m in the *-ŏ-stems is the *-jŏ-stem accusative plural in OCS: *-ję < *-jěns. According to the reconstructions outlined above, there must have been an *-m in the accusative singular at some stage, so that a plural in *-ns could have been formed (see I B).

According to the theories outlined in II A, an ending *-ns should have nasalised the preceding vowel. The only trace of an original nasal vowel in the accusative plural is with the *-jŏ-stems and the *-jā-stems. And, as we shall see below, there is the related problem of -ě3 in North Slavic.

As the *-jŏ- and *-jā-stems are closely related to the *-ŏ- and *-ā-stems, it would seem reasonable to assume that their accusative plural endings can be traced back to the one morpheme. But at first sight this does not seem to be the case, e.g.,

Stems

OCS	*-ŏ-	*-jŏ-	*-ā-	*-jā
NS	vlŭkŭ	mǫžĭ	žena	zemlja
APL	vlŭky	mǫže	ženy	zemlję

See II D 5 below for more detail.

vi) The *-y/-ję alternation.

Although "y" and "ję"appear as apparent alternants elsewhere in the language (see II G), it does not seem probable that phonological factors alone are at work (see II A). Considering the vast amount of morphological rebuilding which CS underwent in the course of its long and varied

history, one ought not to dismiss the possibility that the -y ending and the -ję ending had different origins.

vii) Summary.

IE seems to have had two endings for the accusative plural: *-V̄s and *-ns. The latter is the newer ending. From the evidence of the *-jŏ- and *-jā-stems it seems that we must reconstruct the nasal for at least this part of the paradigm. However, the *-y/ję alternation that we find here cannot be explained phonologically. An alternative solution will be proposed below.

2) The traditional reconstruction of the evolution of the *-(j)ŏ- and -(j)ā-stems in the accusative.

i) Introduction.

The traditional explanation is as follows. The *-ŏ-stem ending goes back to PIE *-ŏns, which alternates with the *-jŏ-stem ending -ję, derived from PIE *-jŏns. The *-ā-stem ending goes back to PIE *-ā̆ns, which alternates with *-jā̆ns. The developments will be outlined in ii) below, with comments (slightly adapted from Shevelov 1964: 333).

ii) The traditional reconstructions.

At this point we will briefly discuss the traditional reconstructions. Some comments will be appended for each

stage.

a) *-jŏ- > *-jě

*ulkŏns	*mŏngjŏns	*genãns	*zemljãns
*ulkŏns	*mŏngjęns	*genąns	*zemljęns

Comments on a)

The change *-jŏ > *-jě should have taken place *before* the change *-ŏ- > *-ŭ- to account for the y/ję alternation (Ferrell 1965a: 102[78]).

Now this exposes a glaring contradiction in the standard theory. The next development should have been as follows:

b) *-ŏ > *-ŭ

*ulkŏns	*mŏngjęns	*genąns	*zemljęns
*ulkŭns	*mŏngjęns	*genųns	*zemljęns

Comments on b)

α) The change *-ŏ > *-ŭ/-N(C)# is reconstructed as being a very early development, even pushed back to the Balto-Slavic period by some scholars (Kortlandt 1979: 262). Therefore one might expect to find *-jŏ > *-jě as a Balto-Slavic development also. There is, however, no trace of such a development, nor is one postulated. The change of *-ãns > *-ũns is generally included as part of the standard theory, although some scholars (e.g., Schelesniker 1964: 35-36) have expressed differing opinions.

β) Another problem is caused by the *-ā- and *-jā-stems. In the accusative singular ending the *-ã does not behave like *-ŏ, which seems to point to the proposed

sound change *ǫ̊> *ų̊/-N# taking place before the merger of *-ǫ̊ and *-ą̊. In the plural, however, *-ą̊ does seem to behave like *-ǫ̆, thus pointing to the merger taking place *before* *-ǫ̊ > *-ų̊/-N#. Surely in an instance such as this we should look for a morphological solution.

c) Loss of final *-s

*ulkŭns	*mǫ̆ngjĕns	*genŭns	*zemljĕns
*ulkun	*mǫ̆ngjen	*genun	*zemljen

Comments on c)

The compensatory lengthening presumably caused by the loss of *-s (*-ŭns > *-ūn) has no parallel elsewhere in Slavic.[79] Shevelov believes that it is the result of nasalisation. It is difficult to understand what exactly he means by this, as it would be a unique development in Slavic, directly contradicted by phenomena elsewhere in the language (if the *-s is not responsible for the compensatory lengthening, but the nasal sonant is, then it follows that there should be no difference between the developments of *-ǫ̆ns and *-ǫ̆m. But the first develops into -y(< *-ū), according to the standard theory, and the second develops into -ŭ. There seems to be an inconsistency here also, cf.Shevelov 1964: 333).

We then move to d), which should give us the forms we find in OCS.

d) Denasalisation and derounding of *-ų̊

*ulkūn	*mǭngjēn	*genūn	*zemljēn
vlȕky[80]	mǫ̀žę	ženy	zemlje

Comments on d)

Here we have the traditional theory. Many scholars accept the proposed development *-ŏns > -y without question, and dissenting voices are fewer here than with other items (see II A).

iii) General remarks on the traditional reconstruction.

The phonological implausibility of the above has already been discussed (see II A). There are also various inconsistencies and ordering paradoxes. Perhaps the only merit of the above analysis is the derivation of the *-ŏ and *-ā-stems on the one hand and the *-jŏ- and *-jā-stems on the other from a single source.[81]

3) Implications of the loss of final *-s.

i) General remarks.

Although many of the articles and relevant sections in the handbooks mention that final *-s was lost in Slavic, very few of them actually attempt to explain what the consequences for the plural nominal declension would have been.[82] As has been proposed above (see I B), many of the plural case-forms in IE languages were formed simply by adding *-s to the relevant singular form. The subsequent

loss of this *-s would therefore have had serious consequences for the singular/plural distinction. The distinction of number is fundamental (see II A). Thus we should expect to find that a morphological reanalysis can be plausibly reconstructed.

ii) Some specific implications.

It has been suggested above that the traditionally reconstructed developments *-ŏm > -ŭ and *-ŏns, -ăns > -y never actually took place in Slavic, but that after the loss of *-s, they would have fallen together as *-ǫ. This merger, if it had been followed through, would probably have gone a long way towards the obliteration of the singular/plural contrast in CS. Furthermore, the proposed change *-ŏm > *-ǫ would have fallen together with the *-ăm > *-ǫ change (see II C).

A table will show the proposed development:

Stems

	*-ā-		*-ŏ-		*-ŭ	
	A.S.	A.PL.	A.S.	A.PL.	A.S.	A.PL.
a)	*ženăm	ženăns	*vlŭkŏm	*vlŭkŏns	*sūnŭ	*sūnŭs
b)	*ženǫ	*ženǫ	*vlŭkǫ	*vlŭkǫ	*synŭ	*syny

4) An new approach for the reconstruction of the *-ŏ- and *-ā-stem endings.

i) Introduction.

In the above sections we have discussed various difficulties connected with the tradítional reconstruction of the accusative plural ending of the *-ŏ- and *-ā-stems. In this section we will attempt to lay out a new solution, utilising the framework from II A 5. The *-jŏ- and *-jā-stems will be discussed in 5) below.

ii) The *-ŭ-stem ending.

At this stage let us consider the *-ŭ-stem development in the accusative plural:

a) *sūnūs

The above form has the same ending as Skt dhenùh < *-ūs. It is often reconstructed as deriving from *-ŭns, but this would run up against the same difficulties as the alleged development *-ŏns > -y after it passes the stage *-ŭns. As there is fairly solid evidence for the existence of a PIE ending *-ūs (*-V̄s), it does not seem too daring to derive OCS -y from it.

b) syny

Here we have a simple,straightforward development, with no problems the loss of final *-s in CS. I propose that the *-ŭ-stem accusative plural ending is traceable directly to PIE *-ūs, and not *-ŭns (see I B and II B for the lack of *-m in the accusative singular).

iii) The morphological remodelling.

We have already seen what all the various losses and mergers in the final syllable lead to: the obliteration of many number and gender distinctions. In the masculine *-ŏ-stems and feminine *-ā-stems the singular/plural distinction would have been in danger of vanishing. An interesting result (which would indeed have been bizarre if the situation had remained that way!) is that under such a system the *dual* would have been opposed to the singular and plural.

*žęnǫ -(accusative) singular and plural vs. *žęně - dual.

*vlŭkǫ - (accusative) singular and plural vs. *vlŭka - dual.

In the *-ŭ-stem paradigm the dual (PIE *sūnū) would have merged with the plural after the loss of *-s. This would not have had such serious consequences, however, and is probably connected with the loss of the dual in other IE languages, a process well documented for Greek, Germanic, and Celtic besides later stages of Slavic.

The obvious way out of the difficulty here would be to generalise the -y of the *-ŭ-stems as a sort of universal accusative plural marker on the stems that needed it. Gender distinctions are, as a rule, less important in the plural than in the singular (see II A and the references cited therein). Thus there would have been no fundamental objection to extending the -y ending to the feminine *-ā-stems. In the *-ā-stems the *-y was further extended to

the nominative plural, as the loss of final *-s had obliterated the singular/plural distinction there. For the masculine nominative plural, see II H 1.

As far as I am aware, the only scholar to propose a solution of this kind is Georgiev 1969: 58. This explanation, however, falls short when he attempts to account for the *-jŏ- and *-jā-stem forms (see below).

iv) Concluding remarks.

Once again, we have traced a plausible development which has no appeal to Auslautgesetze whatever. As we have seen above, the traditional proposal runs into too many contradictions. The alternative approach outlined above runs into none of these difficulties.

5) The *-jŏ- and *-jā-stems.

i) Introduction (see also 1 v above).

There are two basic questions that we must ask when dealing with the *-jŏ- and *-jā-stem paradigms. Why should they have preserved the nasalisation when their *-ō-and *-ā-stem counterparts have lost it?

As shown above, positing a purely phonological development runs into too many difficulties. The second question that should be asked is: why did the proposed [illegible]ogical analysis not touch the *-jŏ- and *-jā-stems?

The standard theory has already been outlined above.

ii) The question of length.

At this stage we should decide whether the stem formant vowel in the ending hitherto written as *-V̄ns was long or short.

In I A it was assumed that "*j" did not cause the fronting of a following "*ā", but that it did cause the fronting of a following "*ă". Thus, the question of vowel length in the reconstruction is vital to the reconstruction of the development: *-jāns would develop to *-jǫ, whereas *-jăns would develop to *-ję.

In II C it was proposed that although long diphthongs were generally subject to shortening in Baltic and Slavic, some of them could have been preserved by analogical pressures and the need to keep certain categories distinct. As has been pointed out above, gender distinctions are much less important in the plural than in the singular, and so the merger of *-ōns and *-āns would not have had too great an affect on the paradigm. Therefore we can reconstruct an ending *-jăns for both *-jā-stems and *-jŏ-stems: there would have been no need to preserve *-jāns.

Now *-jăns would have developed to *-ję in the proposed reconstruction. In the singular *-jā-stems, length would probably have been preserved (see II C). Such a proposal would explain the accusative singular form -jǫ from *-jām. The ending *-ję would not have been ambiguous in this

instance, and would therefore have been preserved. It would have even extended its range, in this instance to the nominative plural and genitive singular.

In the *-jŏ-stem paradigm, on the other hand, the loss of final *-s would have obliterated the singular/plural distinction, e.g., a.s. *-jŏm > *-jĕm > -ję /a.pl. *-jŏns > *-jĕns > -ję. Therefore, under pressure from the *-ŏ-stems, which had already opted for this alternative, the *-jŏ-stems adopted the *-ŭ-stem accusative singular ending -ŭ, while retaining the *-ję ending for the plural, possibly under the influence of the feminine *-jā-stems.

iii) Summary and table.

A table will clarify these proposals:

Stems

	*-jŏ-	*-jā-
A.S.	*mǫž-jŏm	*zeml-jām
A.PL.	*mǫž-jŏns	*zeml-jāns
A.S.	mǫžĭ (<*mǫžę)	zemljǫ
A.PL.	mǫžę	zemlję

The singular/plural distinction has not been lost in the *-jā-stem paradigm; it has merely been reshaped. However, it was nearly obliterated in the *-jŏ-stems. A morphological reanalysis would have been needed to preserve the necessary distinctions, and so the *-ŭ-stem accusative

singular ending has been generalised via the *-ò-stems.

Thus, we have yet another development which may be explained quite plausibly without recourse to Auslautgesetze.

6) The problem of è3 and dialectal differentiation.

i) Introduction.

There are some further difficulties involved. For this is where Slavic shows one of its major morphological isoglosses: -ję in the South, -jě in the North (East and West Slavic).

ii) Some previous theories.

There have been numerous attempts to explain this dialectal differentiation.

a) Van Wijk proposed that CS originally had *two* front nasal vowels, which merged in South Slavic, but were distinguished in the north (1916: 461; also see II G). The problem with this theory is that it, like many other theories under discussion in this thesis, is forced to rely on Auslautgesetze: this sort of differentiation only appears in the final syllable, nowhere else in the word.

b) Georgiev proposes that *-ę and *-ě3 result from the generalisation of two different sandhi variants: a) PIE *-yòs (preconsonantal) > CS *-(j)ě, generalised in North

Slavic, and b) PIE *-yōns (prevocalic) > CS *-(j)ę, generalised in South Slavic (1969: 66-7). The possibility of sandhi variants in Slavic has already been discussed and rejected above (II A, II C).

c) Ludtke (1966: 140-1), following several other authors, suggests that North Slavic might have had certain reductions in syllable-final position (loss of nasal element), whereas South Slavic would have preserved the nasal. He links this to the participial development (see II G).

d) Schelesniker proposes a morphological restructuring which seems to take care of many of the difficulties. For South Slavic he sees a transfer of the *-ō and *-jō-stem accusative plural onto the *-ā-and *-jā-stems, which is similar to the development proposed above, except that the -y of the hard stems is taken as deriving from *-ōns by a special Auslautgesetz.

He proposes that the original *-ā-stem accusative plural ending was PIE *-ās, and that there existed an opposition *-a/ė between the hard and soft stems (e.g., n.s. ręka, but zemlję) and with the loss of final *-s the paradigm sorted itself out with *-ā as the nominative singular form and *-ė as the nominative/accusative plural-genitive singular form. He sees the *-ā-stem ending -y as being taken from the *-ō-stem ending.

e) Schmalstieg 1968 proposes a solution which has parallels in Baltic developments. According to his

hypothesis, two variants *-ăns and *-ās coexisted (due to a proposed early denasalisation before *-s in final position, and then the rise of new *-āns endings from *-ān(t)s). He further suggests that the *-ĕ/ę and *-a/y alternations (see II G) are the results of different treatment of the many possible reflexes arising from contaminations of the two original alternants (e.g., genitive singular feminine of the pronominal declension of adjectives *-(j)ās + *-jăńś > *jęję > *jē-). jē > *jęję: these alternations would later spread to the rest of the paradigm.

iii) The case for a morphological approach.

This dialectal differentiation should be due to morphological, rather than phonological factors, as several authors (e.g., Shevelov 1964: 335, Schelesniker 1964: 37 passim) have pointed out. To have *-ję in final position is quite *possible* in North Slavic languages, and it appears in the following categories:

a) The accusative singular of the personal pronouns, e.g., *mę, *tę, *sę, P mię, cię, się. These could be explained away as special developments in monosyllables.[83]

b) The n./a.s. of the neuter *-n-stems (see II F), ending in *-mĕn > CS *-mę, e.g., OCS imę, P imię, R имя.

c) The n./a.s. m/n. of the present active participle, e.g., OCS znaję, OP szukaję, OR идья .

iv) Newman's theory.

Newman 1971 points out that for most Northern Slavic languages texts are not attested until *after* the denasalisation of these reconstructed nasal vowels had taken place (except in Polish, where another potentially serious merger took place in that both nasal vowels merged.) He proposed that *-ĕ3 was introduced to prevent syncretism between the nominative singular on one hand and the nominative plural and accusative singular on the other. In Polish the merger of nasal vowels would have threatened a similar syncretism, between the accusative singular and the accusative/nominative plural, and so *-ĕ3 was generalised as the nearest non-nasal phoneme in the plural,[88] while the nasal was kept for the singular.

A table will make this clear:

	OR, OCz	OP
N.S.	*zem(l)jă	A.S. *zem(l)jV (< *-jǫ)
N/A.PL.	*zem(l)ja < *-ăns	*zem(l)jy (< *-ję)
N.S.	*zem(l)ja	A.S. *zemjV

v) Conclusion to II D 6.

Newman's theory is the one that seems to fit the data the best out of the various proposals discussed above. It has no appeal to Auslautgesetze, and it takes into account the fact that the North Slavic languages (with the exception of Polish, for which another, related explanation is

offered) are attested only *after* the nasal vowels have lost their nasalisation. He adopts the same sort of framework used in this dissertation: the reconstruction of morphological reanalyses to preserve distinctions which would otherwise have been lost. It is important to note that it does not appeal to Auslautgesetze.

Incorporating Newman's proposal into my own hypotheses expressed earlier in this section, I suggest that a convincing alternative framework to the traditional Auslautgesetze has been outlined here, too.

7) General conclusion to II D.

The following proposals were made in this section:

i) The *-ŏ- and *-ā-stem accusative plural ending *-y was taken from the *-ŭ-stems.

ii) The *-jŏ- and *-jā-stem ending *-ję is the result of a normal phonological development.

iii) The North Slavic -ě3 arose through morphological, not phonological processes.

E. The problem of the genitive plural ending

1) Introduction: the IE background.

i) Preliminaries.

Nearly all the authorities seem to be in agreement about the origin of this ending: according to the generally accepted opinion, it is the expected reflex of either PIE *-ōm# or *-ŏm#. As far as I am aware, only Lüdtke and Georgiev (see below) dissent from this view, while still accepting that the early Proto-Slavic form contained a nasal sonant in final position.

The seemingly exact correspondence between the Slavic ending -ŭ and other IE endings (see below) is the biggest single piece of evidence for the existence of Auslautgesetze in CS. According to the hypothesis outlined above, however, PIE *-ōm# and *-ŏm# should both have developed into *-ǫ#. There is, however, no trace of such an ending in the attested forms of Slavic in the genitive plural form.

ii) The IE evidence.

With one or two exceptions the IE evidence is overwhelmingly in favour of reconstructing a nasal sonant in this ending.

Sanskrit, Greek, and Lithuanian all have forms which seem to point to PIE *-ōm, e.g., Skt devānām, Gk ἀνθρωπων,

Lith dievų. However, there is a large body of evidence which seems to point to the reconstruction of a *short* vowel in this form.

Old Irish has forms which could point to either a long vowel or a short vowel, both plus nasal (e.g., (Ogam) tria maqa).[85] The one-time presence of the nasal is still attested in Modern Irish by the eclipsis of the following consonant, e.g., na mbó.

Early Latin has an ending -om (later > -um, see II B), e.g., divom (Classical deum). Old Prussian, insofar as the evidence thereof is reliable, seems to show a short vowel also, e.g., grikan (< *-ŏm). For discussion, see Schmalstieg 1976a: 150.

We have here an impressive array of evidence to justify a reconstruction of *-ōm or *-ŏm for PIE. According to the standard theory of Auslautgesetze, discussed in the above sections, it is a matter of course simply to derive the Slavic ending -ŭ from PIE *-ŏm < *-ōm.

iii) Divergent IE forms.

The reflexes of the usually proposed PIE genitive plural *-ŏm do, however, have some problems associated with them.

The first problem is the fact that the forms in the attested IE languages are by no means uniform. Gothic, Hittite, Armenian, and Tocharian all have forms that cannot be directly traced back to PIE *-ŏm.

Gothic has an ending -ē (e.g., dagē), the origin of which is one of the greatest problems in historical Germanic linguistics. Several authorities (e.g., Möller, quoted by Must 1952) have proposed that this -ē is simply an ablaut variant (e-grade) of *ō (< *-ōm). Some stems in Gothic do have the reflex of the *-ōm ending (e.g., tuggōnō) and the rest of Germanic also shows evidence for this ending, e.g., OE stāna (< *-ōm), OIc daga(< *-ōm). For a brief review of the literature and an interesting proposal, see Must 1952.

Hittite does not distinguish between the genitive singular and plural - in the later language at least. Thus antuhšaš can be the genitive singular or genitive plural of antuhšaš - "man". In the older language the genitive plural ends in -an, which could derive from PIE *-ōm. This ending is also used for the genitive singular, e.g., Labarnan g.s. of Labarnaš. Schelesniker 1964: 30-4 proposes something similar for the Proto-Slavic genitive plural. This will have important consequences for the theory outlined below, when other factors are taken into consideration.

Tocharian has a genitive plural ending -mts, e.g., pikul g.pl. pikwalamts. Schmalstieg 1980: 72 sees these endings as a combination of *-n and *-s.

There are several unique features of the genitive plural, which could point to the need for an alternative analysis to explain the Slavic form.

Hirt 1927: III: 60 (writing before the discovery and interpretation of the Hittite and Tocharian material)

pointed out that the genitive was the only case in the plural where an *-s was not attested. As we have seen above (see II D), many of the plural endings attested in the modern IE languages seem to have been formed by suffixing an *-s to the relevant singular form. Ivanov and Toporov suggest that the genitive plural was not subject to the singular/plural contrast.[86] The evolution of the Latin forms in the first (*-ā-stem), second (*-ŏ-stem), and the fifth (*-ē-stem) declensions is interesting here - the old -um (< *-ŏm) has been suffixed to the old n./a. plural ending, e.g.,

(Old Latin) divom (deum) > Classical deorum.[87]

Certain stems (e.g., regum, see above) keep the older ending.

Another interesting feature of the IE genitive plural is its surprising uniformity, cutting right across gender distinctions and stem-classes, e.g., Gk πολιτης - πολιτων, τιμη - τιμων, ἀνθρωποσ - ἀνθρωπων, κηρυξ - κηρυκων; Skt aśvah - aśvānām, phalam - phalānām, āryā - āryānām, nādīh - nādīnām, mṛduh - mṛdūnām, godhuk - goduhām; Lith dievas - dievų, galva - galvų, sūnus - sūnų, akmuō - akmenų.

Similar examples can be culled from all over IE, especially Slavic (see below). This apparent uniformity is noteworthy considering the diversity observable in other case forms, and it will be discussed in greater detail below.

2) The reconstruction of the Slavic genitive plural ending.

i) *-ŏm or *-ōm?

Nearly all the authorities propose that the Slavic genitive plural ending -ŭ should be traced back to PIE *-ōm or *-ŏm. Which of these endings should be chosen is a moot point. The authorities who have chosen *-ŏm have a much more plausible case than those who have chosen *-ōm:

a) The reconstruction *-ŏm is supported by evidence from Latin, Old Prussian, and possibly Old Irish.

b) It agrees with alleged Auslautgesetze elsewhere in the language, e.g., the accusative singular of the *-ŏ-stems (see II C), the first person singular of the aorist (see II H).

ii) Problems in the reconstruction of *-ōm.

The reconstruction *-ōm has to contend with several difficulties.

The proposed development *-ōm > -ŭ has no support from other reconstructions in CS. According to the standard theory:

a) In the nominative singular of masculine *-n-stem nouns *-ōn > -y, e.g., *kāmōn > kamy.

b) In the accusative singular of the *-ā-stems *-ōm (*-ām) > -ǫ, e.g., rǫkǫ < *rankām.[88]

iii) Some proposals.

Various proposals have been put forward to try and save the reconstruction *-ōm > *-ū.

a) Streitberg 1891 proposed a common, albeit independent shortening of long diphthongs in Baltic and Slavic, with a loss of nasalisation by nasal diphthongs bearing a circumflex (schleifende Ton). This is thrown into question by the form *kamy cited above, which preserves length on the syllable under discussion.

b) Most scholars nowadays would follow Meillet (1934: 397-8) in deriving the Slavic genitive plural ending -ū from *-ōm.

c) Schmalstieg 1980: 72 proposes that *-ŏm is the original form and that *-ōm is a later development. He sees *-ŏm and *-ō as being original sandhi variants in IE, and has amassed a considerable body of evidence to support this claim (1973, 1974a, 1980, etc., see also II C). According to this theory, *-ōm represents a later contamination of *-ō and *-ŏm, following Kuryłowicz's claim that in analogical change a bipartite morpheme replaces a single one (1949: 70).

d) Kortlandt 1979: 281-300 shows that *-ŏm was probably the original PIE ending, and that the various developments of *-ōm in Greek, Sanskrit, etc. are chronologically younger.

e) Lüdtke declares that the normal reflex of PIE *-ōm would be *-y in Slavic, and proposes that -ū replaced *-y

because of a threatened merger with the accusative plural. He suggests that the genitive plural generalised the short vowel for the following reason: "Dass die Wahl auf den Kurzvokal fiel, mag mit den häufigen Gebrauch des G.Pl., z.B. nach "Mengenwörtern", wie Zahlen, Verneinungspartikeln u.a. zusammenhängen,"(1966: 128-9). This proposal seems to recall Mańczak's theory of irregular sound change due to high frequency (see II A). In early attested Slavic, however, it seems that the *accusative* plural is more frequent than the genitive (Gerd et al. 1974: 198), although there is some evidence from Modern Czech to show the opposite (Jelínek et al. 1961: 86).

e) Hamm 1966: 39-51 proposes a new definition of "entropy" - "the turning of sound features into distinctive morphological units", and utilises this concept to explain, among other things, the Slavic genitive plural ending -ŭ. He believes that the vowel before the *-m in the genitive plural was shortened as the result of a stress shift (1966: 48).

g) Georgiev 1969: 58-9 proposes a development PIE *-m̥ > CS *-ŭ, arguing that this ending originated in the consonant stems and then spread to the rest of the system. The problem with this is that such a development is unattested anywhere else in Slavic: PIE *-m̥ normally develops to *-ĭm/*-ŭm and then develops into a nasal vowel. The only clear case where PIE *-m̥ corresponds to Slavic *ŭ is in the doubtful equation *kṃtom - *sŭto, and *sŭto is normally explained as an

instance of borrowing from another dialect of IE, or as a case of dissimilation (Shevelov 1964: 91).

iv) Conclusion.

Every one of the above theories reconstructs the one-time presence of a nasal sonant. According to the theory expounded above, such reconstructed forms should have developed automatically into a nasal vowel. As pointed out above, there is no nasal vowel attested in Slavic in this position.

The genitive plural ending is the clearest example used to justify special Auslautgesetze. As the comparative evidence seems so strong here, we should possibly seek outside the normally accepted range of possible genitive plural endings for an alternative hypothesis.

3) Towards an alternative proposal.

i) Some typological characteristics of the genitive

As shown above, one of the unique features of the genitive plural ending in IE languages is its uniformity. Slavic is no exception: the ending -ŭ is used for *all* genders and stems (apart from its frontal variant -ĭ, which appears only after -j), e.g.,

*-ŏ-	gradŭ	*-jŏ-	mǫžĭ
*-ā-	ženů	*-jā-	zemljĭ
*-ŭ-	synovŭ	*-ĭ-	kostiji
*-ū-	svekrŭvŭ		

Con. stems

*-n-	kamenŭ	imenŭ	dĭnŭ
*-s-	slovesŭ		
*-nt-	telętŭ		
*-r-	materŭ		

The case systems in IE languages have very many strata, and often it is difficult to decide on the origin of a particular ending. What is an emphatic particle in one language turns up as a suffixed case ending in another, e.g., Skt gha - OCS (to)go (see Hirt 1927: III: 118-9). Sometimes pronominal endings have invaded the nominal system (e.g., Latin domini (n.pl./g.s.)), and it is believed by several authorities that that certain case endings are originally suffixed pronouns.

In this context it is interesting to note that there is typologically a very close connection between the genitive case and *adjectives*. Examples are numerous.

French lacks certain adjectives denoting materials and so often uses the construction with de, e.g., le cheval de bois - "the wooden horse", which is formally identical to le cheval de Jean - "John's horse".

Goidelic Celtic, which has preserved the genitive in most areas, shows an even clearer example. Before Manx died out, it had lost the genitive case as such, and the genitives that survived were construed as adjectives

(Goodwin and Thomson 1966: 50), e.g., fliaghey - "rain" ushtey-fliaghee - "rain-water" (water of rain).

A parallel can be adduced from early attested Slavic. Attributive adjective + noun constructions were used to translate genitives in many instances, e.g., synŭ božiji translates Greek *υιοσ του θεου*; grŏby proročiskyje translates Greek *τουσ ταφουσ των προφητων*.

Similar examples can be found in other IE languages, e.g., Armenian noyean tapan - "Noah's Ark"(cf. R Ноев ковчег): see Meillet 1934: 346, Vaillant 1935: 9, Schelesniker 1964: 11 passim. Vaillant, following Wackernagel, also points out that the genitive singular ending *-ī, found in Italic and Celtic, can be traced back to PIE *-ijŏ, hypothesised for forms such as božiji, quoted above. Lehmann 1981: 179-188 suggests a connection between the reconstructed *-ŏ-stem genitive singular *-ŏsjŏ and the relative pronoun jŏ-, which provides further typological support (see also Lehmann 1978: 17).

Shields 1981: 271 proposes that an *-i particle with genitive meaning existed in PIE, and that this particle was combined with the thematic vowel (*-oi),[89] or with both the thematic vowel and the genitive *-s (*-osjo).[90]

ii) Deictic particles.

The genitive ending *-i proposed by Shields 1981 is in origin a deictic particle, which co-existed with another deictic particle *-ŭ, which appears in forms such as Gk

πανυ, Go sau, Skt kantesu etc. In IE languages both particles are attested sometimes in the same form, e.g., Gk (Homeric) τοιοι, OCS těxŭ[91]; Skt bharati, OCS beretu. Sometimes this cuts across the boundary of language groups within IE, e.g., OCS beretŭ OR беретъ .[92] This *-ŭ particle appears in Slavic with genitive forms, e.g., OCS g./l.du. gradu < *-o-u; těxŭ < *to-i-s-u, g./l./acc.pl. nasŭ < *-u. Several scholars (Vaillant 1935, Schelesniker 1964) would probably derive this *-u from *-ŏm, but this seems an unnecessary complication.

In view of the fact that this *-u particle seems to have had a fairly wide extension in CS, and that it was evidently still productive up to a fairly late period, I propose that it also had an influence on the formation of the genitive plural of nouns, and that -ŭ is to be derived from IE *-ŭ.

4) Conclusion to II E.

In this section it is suggested that the genitive plural ending in Slavic should be reconstructed as *-ŭ, and not as *-ŏm. This proposal is offered as an alternative to the standard reconstruction.

It is interesting that analyses of the evolution of the Slavic declension system which deny appeal to Auslautgesetze (Lüdtke, Georgiev), utilise Auslautgesetze for this troublesome form. This analysis may claim to be the first

ever which includes the genitive plural under the heading of forms for which Auslautgesetze need not be reconstructed. It was shown above that not all IE genitive plural endings should be reconstructed with a final nasal sonant. It is proposed that Slavic should be included in that number.

Finally, it should be noted that a similar solution has been proposed for the troublesome Gothic genitive plural ending -ē, in Shields 1981. This solution has never been proposed before; it parallels other developments in IE and is worthy of consideration.

The tentative nature of this solution for the problem of the genitive plural ending in Slavic must be emphasised. A great deal of work still remains to be done here, and this proposal will doubtless have to be modified in the future.

F. The problem of the masculine/neuter nominative singular *-n-stems

1) The IE background.

i) Some IE forms.

IE languages have numerous substantives which can be traced back to either *bare root* stems or stems consisting of *root + suffix ending in a consonant*. Some of the latter are productive until a fairly late stage, e.g., *-os and *-mēn, *-mōn. Both these classes are sometimes called *athematic* (lacking a theme vowel) as opposed to the *-ō-, *-ā-stems etc., which are called *thematic*.

Bare root stems are numerous on Sanskrit (e.g., vāk - g.s. vācah), Greek (e.g., ῥιϛ - g.s. ῥινοϛ), Hittite (e.g., haraš - g.s. haranaš), Latin (e.g., sol - g.s.solis). They are rarer elsewhere in IE, e.g., Old Irish rí - g.s. ríg.

Certain of the consonant suffixes are more common than others. An *-n- suffix is widespread in most IE languages. Sometimes it is part of another suffix (e.g., *-mēn-, *-mōn-, *-tjōn-) and sometimes it is a suffix in its own right. Usually the *-n- is preceded by an ablauting vowel (*-ēn-/ōn-/n̥-).

Several examples can be culled from all over IE, e.g., Lat sermō - sermōnis - masculine; nomen - nominis - neuter; flamen - flaminis - masculine; bufō - bufōnis - masculine;

Gk ἡγεμων -; ἡγεμονοσ - masculine; δογμα δογματοσ - neuter; ποιμην - ποιμενοσ - masculine; Skt aśmā - aśmanah - masculine; karma - karmanah - neuter; brahmā - brahmanah - masculine; Go hana - hanins - masculine; tuggō - tuggōns - feminine; hairtō - hairtōns - neuter; OI brithem - britheman - masculine; escung - escongan - feminine; Hitt šahhan - šahhanaš - neuter; tekan - taqnaš - common; SAL-n - SAL-naš - common; Balt (Lith) akmuõ - akmeñs - masculine; vanduõ - vandeñs - masculine; (OPr) kērmens - kermenes - masculine.

ii) The Slavic forms.

The earliest attested Slavic shows very few *-n-stems, indeed, very few consonant stems at all. The cognates of IE consonant stems are frequently found in early Slavic extended by various suffixes, e.g., OCS sŭlnĭce, see Lat sol above. For further discussion, see Birnbaum 1972.

There is a small, persistent group of neuter *-n-stems which have survived in Slavic. They do not present many problems: their nominative/accusative singular ends in -ę < *-en, e.g., e.g., imę < *i̯men.

In theory, -ę could also derive from *-ēn, but this possibility is unlikely for neuter nouns (see II A).

There are no feminine *-n-stems reconstructed for Slavic.

The masculine nominative singular shows a bewildering number of forms. The one on which most attention will be focussed is -y, e.g., kamy, plāmy.

2) The reconstruction of the masculine ending.

i) Introduction.

The origin of the ending -y is normally explained as PIE *-ōn, *-ō or *-ōns. All three reconstructions are, however, problematic.

ii) *-ōn > -y.

The development PIE *-ōn > CS *-y has not been discussed in this thesis in its own right. According to theories accepted hitherto, the raising of *-ō to *-ū before the final nasal would take place first, followed by the loss of the final nasal. Shevelov 1964: 333 attempts to apply a strict chronology here, but is forced to depart from his proposed *-ōn > *-ūn > -y development and to derive -y from *-ōns. The evolution of the first person singular present in the verbal conjugation is left unexplained here: it is usually reconstructed as *-ōm (*-ōN), which has the reflex -ǫ, e.g., *berōm > berǫ. He seems to have difficulty fitting the development of kamy into his framework, as he reconstructs its ending as *-Ns in his own terminology, differing only from *-N in *berōm in its final *-s. Therefore one might expect that he sees the *-s as the cause of the raising of the *-ō- to *-ū-. And yet he himself clearly precludes such a solution by his statement (1964: 156) "...narrowing before -s would have no phonetic justification," although he quotes kamy as an example of

*-ō> *-ū /-N# in the same discussion.

Clearly, there is a contradiction here.

iii) *-ō > -y.

The various attempts to derive CS *-y from PIE *-ō need further comment here. Several IE languages show the following pattern in the masculine (and feminine) patterns of the *-n-stems:

n.s. *-V̄, e.g., Skt aśmā; rest of declension *-V̄n-#, e.g., Skt aśmanah.

Often (this cannot be ascertained on the Sanskrit evidence alone) the vowel in the nominative is of a different ablaut grade, e.g., Lith akmuõ (< *-ō) - akmeñs. This pattern can be generalised to the *-r-stems also, e.g., Skt mātā - mātaram; Lith motė - moteres, which contrasts with the pattern observed in Latin, Greek, Germanic, and Celtic, where the *-r- has been preserved throughout the paradigm, e.g., Lat mater - matris; Go brōþar - brōþrs; OI athir - athar; Gk ποιμην - ποιμενος; μητηρ - μητροσ.

In view of the OCS form kamy, and the presence of other similar forms throughout Slavic (see below), it has been proposed that PIE *-ō# > *-ū# in CS (Otrębski 1954: 27-42). One difficult problem with this proposal is the number "two" - dŭva < *dŭ(u)ō (and, by extension, the form oba - "both", and the *-ŏ-stem n./a. du. masculine, e.g., vlŭka < *u̯lqō). Otrębski explains these apparent exceptions by proposing a

spread from monosyllabic pronominal forms, which would have been immune to the suggested development. Duridanov 1968: 17-25 proposed that the said raising should be extended to cover PIE *-ē# in order to explain OCS mati < *mātē. He further argued that this development would be the earliest purely Slavic (separate from Baltic) development, to account for the regular developments found in Lith akmuõ < *ākmō and mótė < *matē. The form mati will be discussed in II G. At the moment attention will be focussed on kamy.

iv) *-ōns > -y.

Some scholars (Brückner, Mareš, Ferrell 1965a) have sought to derive -y from PIE *-ŏns. As has been shown above, the development PIE *-ŏns > CS *-y is highly improbable, given what we know of relative chronology and phonological plausibility (see II A and II D).

3) The case for *-ēn.

i) The IE forms.

At this point we should consider another factor: the possibility of nouns with *-ēn or *-ē as a stem formant. Greek and Sanskrit both have forms which point to such a reconstruction: Gk λιμην λιμενοσ (ἡγεμων ἡγεμονοσ); Skt rājā - rājānam.

ii) The Slavic evidence: masculines and neuters.

Were there any Slavic forms in *-ēn? Vaillant (1930/31: 490-6) proposes that there were, but that in Balto-Slavic they were confused with forms in *-ōn.[93] He draws attention, without developing this idea too much further, to the fact that: "En slave, le nominatif-accusatif en *-y n'apparaît qu'après *-m-." There were no feminine *-n-stems in Slavic. All *-n-stems with the nominative singular ending in -y are masculine. Vaillant does not comment on the fact that they contrast with neuter *-men-stems in the nominative-accusative singular; the masculine nouns would end in *-my and the neuters in *-mę from PIE *-men (see II A). Many of these neuters were formed by adding *-mèn to a verbal root, e.g., Lat sēmen - "seed" < *sē- (sow) + men, Gk *πραγμα* - "act" < *πραγ- (do) + men (zero-grade), OCS brěmę - "burden" < *ber (take) + mę < *men sěmę - see Latin above. The modern Slavic languages preserve this fairly well, e.g., R бремя, время, имя, знамя, стремя, семя, темя, племя, пламя вымя; P imię, znamię, ramię, ciemię, siemię, plemię wymię; Sn ime, vime, teme, seme, rame, breme, pleme, sleme, streme, vreme.

The neuters are fairly homogenous within Slavic. The masculines, on the other hand, show a great variety of forms: *-my is not the only possible ending, and forms which do not show it will also be discussed below.

3) Some examples of masculine *-n-stems.

(The accompanying glosses are reconstructed unless otherwise stated):

i) *gVlm- - "bare-topped hill". This form is attested as R голомень and голомя, and as Bg глама (see below).

ii) *grud-m- - "heap, lump". This form is related to the widespread gruda (attested in R, P, Cz, SC, etc.), and grudĭ. It turns up in Russian as грум - "block, clod", in Serbocroatian as grumẽn - id., which has a diminutive grumičak (< Old SC *grumičačak).

iii) *kam- -"stone". The Germanic and Sanskrit evidence show that this is an original *-n/r-stem,[94] and that it therefore belongs to the oldest strata of the Slavic vocabulary. It has numerous cognates in the modern Slavic languages, e.g., (OCS kamy), R камень, U камінь, SC kamẽn, Cz kámen. In the dialects there is a great variety of forms: South SC kami < *kamy, R (Tver') кама, Ka kam. Derivative forms are also widespread, e.g., OR камыкъ, Bg камъкъ.

iv) *ječĭm- - "barley" is attested in OCS as ječĭmy and ječĭmenĭ. Most of the modern Slavic languages have the *-menĭ ending, though forms such as *-my, *-mykŭ do exist, e.g., Bg (dial.) ечмик, P jęczmyk etc. It is related to Cz ječný - "barley" (adj.), and Bernštejn proposes this as an

item of proof that *-men-stems were still productive in CS (1974: 177).

v) *kosm- - "hair (coll.) " is related to the root *čes-/*kos- - "cut", and the noun kosa - "scythe". It has numerous cognates in the modern Slavic languages, e.g., U ко-сом - "roll of wool", R (dial) космынья - "lock of hair".

vi) krem- - "flint". Most of the forms continue CS *-menĭ-: SC kremēn - "flint", R кремень, LS kšemjeń, etc.. A few forms continue CS *-my (+ kŭ), e.g., Bg кремик (dial) and CS *-nŭ, e.g., US křem.

vii) *pVlm- - "flame", has a multitude of derivatives, and gender vacillations between masculine and neuter are attested. OCS has plamy (m.), whereas OR has поломя (n.), and, as a Church Slavonicism, пламя. R пламя continues the latter form. Derivatives in *-menĭ- are also widespread, e.g., SC plamēn, Cz plamen, as are derivatives in *-mykŭ and *-mŭ, e.g., Ka płom, Bg пламик.

viii) *pVrm- - "wool prepared on a loom" is derived from the verbal root *por- - "rip". It is attested mainly with the *-menĭ ending, e.g., P promień - "ray", SC pramen - "tuft, lock". Bernštejn 1974: 176 proposes that it is not CS, as it is not clearly attested in East Slavic (U промінь being a borrowing from P). A few forms in *-my are attested

also : earlier SC had a form prami (< *-my), and Bg has forms such as прамик and прамък. The US form promjo is neuter (see below).

ix) *Vrm- - "ploughed area" is derived from the root *or- - "plough". There is a Lithuanian cognate armuõ, and the Latin form armentum - "large horned cattle" is also related. Most of the Slavic forms end in *-menĭ, e.g., OR рамение (*rameni + je).

There is also a feminine form: R рама - "field".

x) *rem- - "strap", is also mostly attested with *-menĭ endings, e.g., R ремень - "strap", м ремен - id. Some forms have the *-k- extension, e.g., P rzemyk.

xi) *stam- - "upright", is derived from the verb *sta- - "stand", and has cognates in Lithuanian (stuomuõ "height") and Greek (στημων "base of a loom"). Some Russian dialects have forms such as стам, стамик, стамиком etc., which seem to point to this reconstruction. For a fuller discussion, see Bernštejn 1974: 180.

xii) *strem- - "stirrup". Besides the more common neuter forms, e.g., R стремя, masculine forms also exist in Slavic, sometimes side by side with the neuters, e.g., P strzemię and strzemień (dialectal). Bernštejn 1974: 179 proposes that there was a difference in meaning between the masculine and neuter forms.

xiii) *strum- - "flow" is derived from the root *stru- - "flow", and is cognate with German Strom. Forms in *-menĭ and *-my(kŭ) are attested, e.g., SC strmēn - "steep slope" and P strumyk - "brook". (The Czech form strmý - "steep" is also related).

4) The gender of the *-n-stems

These forms can be categorised as follows:

a) *-my, e.g., kámy plamy

b) *-menĭ, e.g., kameni plameni

c) *-my(kŭ), e.g., kamykŭ plamykŭ

d) *-ma, e.g., kama

e) *-mŭ, e.g., Ka kam.

A few vacillations of gender are attested in this class. With *pVlm- we have a neuter form in Russian and a masculine form in OCS. The derivatives have masculines and neuters co-existing. The normally masculine *pVrm- has a neuter cognate in Upper Sorbian (promjo).

There also some feminines, e.g., R кама, Bg глама, Cz kosma, and these deserve more discussion than they have hitherto been accorded. Above it was stated that in some branches of IE, the *-n- and *-r-stems had the following pattern: *-V̄(n.sg.)/*-V̄N-(rest of declension), e.g., Lith akmuõ - akmeñs. The evidence from Slavic is slightly ambiguous here: we do not know whether the nominative/accusative singular of the non-neuter *-n-stems

was of the pattern *-V̄N- or *-V̄. In this case we have to rely on evidence from Baltic and Indo-Iranian.

Bernštejn 1974: 190 explains forms in *-mŭ as being traceable to forms ending in *-mŏn with a short stem vowel. As has been shown above (see II A and II C) this sound change (*-mŏn > *-mŭ) is improbable within the framework of the CS sound system. I prefer to see them as transfers to the *-ŏ(ŭ)-stems in order to preserve them as masculine nouns.

I propose that *both* *-V̄N- and *-V̄- were possible in CS, or to put it another way, that the final *-N in the nominative singular was optional for a lengthy period, with the *-N- gradually extending its range. A further factor was that *-ē and *-ō were probably *both* possible in the nominative singular. In theory, therefore, there could have been as many as *four* competing endings, e.g., *kāmō; *kāmōn; *kāmē[95]; *kāmēn.

The situation could have been complicated yet further if *-s had been added in the nominative singular.

I propose that forms such as R кама etc. are the direct phonological descendants of forms such as *kāmō.[96]

I further propose that forms such as kāmēn gradually extended their range, and, shortly before the rise of nasal vowels, had become the most widespread of the masculine *-n-stems.[97]

If we reconstruct *-mēn as the most widespread nominative singular form for the masculine *-men-stems, we

can account for several problems, and link the proposed development with others discussed above (see II A and II B). A non-neuter/neuter opposition would very likely have existed here, as in other parts of the system, with *-mĕn as a neuter ending and *-mēn as a non-neuter ending. With the rise of nasal vowels and the concomitant obliterations of length distinctions proposed in I A, this gender distinction would have been lost, with transfers from one gender to another in the resulting confusion, e.g.,

1) *kāmēn > 2) *kāmę > 3) *kamy

1) *sēmĕn > 2) *sēmę > 3) *sĕmę

5) The origin of -y.

Where did the *-y in kamy originate? It has been shown above that it cannot be a direct phonological descendant of either *-ōns/*-ōns, *-ōn, or *-ō. It is therefore quite probable that a morphological development did take place.

In II A it was proposed that one of the primary features of the CS gender system was a strong tendency to preserve the neuter, contrasting with many other IE languages. In II B it was shown that in one instance where the masculine and neuters seemed to be on the verge of merging, the neuter would preserve the *old* ending, whereas the masculine would introduce a *new* ending from elsewhere in the system. I propose that this is what happened here: the neuter has preserved *-mę < *-mĕn, whereas the masculine has

introduced *-my.

The "older" declensional classes (*-ĭ-stems, *-ŭ-stems, and consonants stems) seem to have neuter/non-neuter as their primary gender distinction. This can be seen in Slavic in the *-ĭ-stems, yet numerous corroborating examples can be taken from Latin, Greek, Sanskrit, Old Irish, and Gothic etc.[98] As there were no feminine *-men-stems in Slavic, there was no need to distinguish between masculine and feminine in this instance. Therefore one probable origin for the *-ȳ in kamy is the nominative singular feminine *-ū-stem ending *-y. At first sight this solution seems implausible, but within the framework proposed here and in II A it can fit fairly well. It is supported by at least one masculine *-ū-stem - *języ < *enzū- (OPr insuwis), which is attested with a *-k- suffix, e.g., R язык, P język, SC jezik etc., parallel to forms such as OR камыкъ, P jęczmyk etc.

This however, was not the only way in which the threatened merger was averted. Another solution was the transfer of the masculine *-men-stems to the *-jŏ-stems, e.g., R камень, ремень. Some were transferred to the *-ŏ-stems, e.g., Cz kosm. The large number of variant forms suggests that this morphological restructuring was not carried through as thoroughly as those proposed in II B, II C, II D.

Another argument for this morphological reanalysis is an apparent tendency to merge the nominative and accusative cases. Georgiev 1969: 121 points out that kamy and plamy are

attested as *accusative* singular forms more often than as nominative ones. As all *-men-stems are inanimate, it should not be surprising that they are encountered more often in the accusative than in the nominative. I propose that the use of *-my endings in the accusative has taken place under the influence of the merger of the nominative and accusative singular of masculine nouns in other stem classes (e.g., kamŭ).

6) Conclusion to II F.

In this section it is proposed that the -y which appears as one possible nominative singular ending for the masculine *-n-stems is the direct phonological descendant of neither *-ōn, *-ŏn nor *-ŏns, but the result of a morphological reanalysis designed to prevent the threatened merger of the nominative singular of masculine and neuter *-men-stems, similar to the development proposed in II B. Here the originally *feminine* ending -y < *-ŭ has been transferred to the masculine to prevent a threatened merger between masculine and neuter.

It is interesting to note a parallel between the two developments (see also II B): in both instances the neuter keeps the old ending and the masculine innovates.

G. The problem of the masculine/neuter nominative singular of the present participle active.

1) Introduction - the IE background.

Like the issues discussed in II D, the topic investigated in this section is complicated by early dialectal divisions within Slavic itself.

The IE evidence points to the early appearance of a participial form in *-nt-, possibly related to the third person plural desinence, also *-nt-. In Hittite it had *perfect* and *passive* meaning, whereas in other IE languages it has *active* meaning alone, e.g., Hitt appant- - "captured". Greek and Sanskrit have *-nt- participles with *perfect active* meaning, e.g., φυγοντ- - "having fled", krant- - "having done".

They also have *-nt- participles with *present* meaning, which are of more recent origin: φευγοντ- - "fleeing", krnvánt- - "doing".

Germanic, Italic, and Baltic use the *-nt- formation exclusively in the present tense, e.g., Lat ferent- - "carrying", Go qimand- - "coming", Lith nešant- - "carrying".

Celtic does not seem to have any participial *-nt- forms, in keeping with its archaic state of development in the field of participles and infinitives generally.[88]

Certain IE languages have forms with the *-nt- extended by a *-j-, mainly in the feminine paradigm, e.g., Gk φερουσα (< *-ont-ja); Lith vẽdanti; Skt nayantī; Go qimandei.

2) The Slavic evidence.

In Slavic the *-j- extension referred to above extends throughout the paradigm, apart from the masculine/neuter nominative singular, of which the form varies: OCS has -y, whereas OR and OCz have -a. OP has a short back nasal (here written -ǫ̆).[100] All of these forms have the oblique cases formed on the respective reflex of CS *-tj-: OR несa - g.s.m. несуча; OCS nesy - g.s.m. nesǫšta; OCz nesa - g.s.m. nesúca; OP niosǫ̆ - g.s.m. niosǫ̆ca.

3) Some proposals regarding the pr.p.a.

In the absence of these alternations elsewhere in Slavic, we should first of all seek a *morphological* explanation here, as in so many other instances that have been explained by Auslautgesetze in the traditional formulation.

At this stage we will briefly run through some of the attempts to explain this phenomenon in the traditional way. Most of the interested scholars concentrate on the *-y/a alternation.

i) Zubatý 1893 invoked sandhi as a sort of deus ex machina to explain the differences between the North and South

Slavic forms. He proposed, combining the Greek evidence with the Slavic, that there were three IE forms for the masculine nominative singular: *-ōn (before vowels) and *-ō (before consonants) together with *-onts for monosyllabic stems. The *-ōn variant (developing to *-y) would have been generalised for South Slavic and the *-ō variant for North Slavic. However, the evidence for IE *-ōn comes only from Greek, and Brugmann 1911: II: 131 suggested that this ending is due to analogy with the *-n-stems.

ii) Van Wijk 1925 tried to elucidate the matter by proposing that IE *ŏnts had *-a as an reflex in North Slavic, whereas IE *-ŏns developed into *-y everywhere. He attempted bolster this by stating that kamy, which he derived from *kōmŏns, never had a variant *kama. However, as was shown in II F, a variant кама *is* attested up to the present day in certain Russian dialects (Bernštejn 1974: 172). The problem here is that, as with so many proposed Auslautgesetze, there is no parallel development elsewhere. It is not clear how CS *t could have had a lowering effect on a preceding vowel. Another difficulty is that *t elsewhere in CS has the effect of *preserving* nasal quality. Why should that have been lost here? In fact, it was in this context that van Wijk declared: "Der slavische Auslaut hat viele unlösbare Probleme dieser Art"(1925: 285).

iii) Schmalstieg 1968, 1976: 142-3 proposed that in final

syllables in CS, *-ās and *-ăns (*-ŏns) were variants, and that North Slavic generalised *-a < *-ās and South Slavic *-y < *-ăns (*-ŏns) (see also II D).

iv) Georgiev 1969: 148 suggested that the explanation was to be found by reconstructing sandhi variants: *-ăns before a vowel which would be generalised in South Slavic (and later replaced, see below), and *-ās before a consonant, which would develop into CS *-a and be generalised for North Slavic (see also II D). Although his proposal of sandhi variants in Slavic is on rather shaky ground (see II A), his further analysis (for which see below) seems to be one of the best so far.

v) Ferrell 1971 has amassed a considerable body of evidence for his proposal that simplification of the soft alternants of CS *-y from three (*-ě, *-ę, *-i) to two (*-ę, *-i) or (*-ě, *-i), but he is hampered by his prior acceptance of the sound change *-ŏns > *-y (see II D).

vi) Summary.

All the above solutions, with the exception of Georgiev's, are based on acceptance of the Auslautgesetz *-ŏns > *-y. It has been argued above (see II A and II D), however, that this sound change did not operate in CS. Therefore an alternative solution will be proposed here also.

4) The case for a morphological approach.

i) The reconstruction of the pronominal forms of the pr.p.a. n.s.m..

The pr.p.a. is one instance where we have hard evidence that morphological factors were at work.

At this stage let us determine which reconstructions of the masculine nominative singular nominal form we will be using.

a) *sēkōn (*sēkŏn),

b) *sēkōnts (*sēkŏnts),

c) *sēkōnt (*sēkŏnt),

d) *sēkŏns (*sēkŏns).

Within CS, it is quite possible that d) is a later reflex of b) and that a) is a later reflex of c). Precise dating is unfortunately impossible at this stage.

According to the hypotheses advanced in this dissertation (see II A and II D), *all* the above reconstructions should have developed to *sěkǫ. However, according to the standard theory, we should expect *three* possible forms: *sěkŭ < *sēkŏn, *sēky < *sēkōnts, *sēkŏnts, *sēkōns, *sēkŏns, *sēkōn(?); *sěkǫ < *sēkōnt, *sēkŏnt, *sēkōn(?).

We should now direct our attention to the pronominal forms of the pr.p.a. in OCS. At this stage we will only consider verb classes I (-e-), II (-ne-), V (athematic), which have -y as the nominative singular masculine nominal

form.[101] Examples such as the following are found: mogy-ji(Ass.), živǫ-ji(Mar.), živę-ji(Sav).

The forms containing a nasal are extremely interesting. They are attested from C 11th. Mirčev 1965: 214 proposes that they arose from the Middle Bulgarian mixing of nasals. The -ę ending attested for verbs of class III (-je-) and IV (-i-) shows a tendency to extend its range to classes I, II, and V, e.g., nesę (Zogr.), vedę (Supr.), R неся, пройдя (see below). According to Mirčev, forms containing an *-ǫ can actually be traced back to an earlier *-ę, and the appearance of -ǫ is attributable to the Middle Bulgarian mixing of nasals. The opposite process is also attested, e.g., poboreštaago (Supr.), where -ę has replaced -jǫ.

However, the Middle Bulgarian mixing of nasals is too late a phenomenon to account for the appearance of forms containing *-ǫ. It seems likely that the latter are, in fact, original (see Georgiev 1969: 144).

How should the co-existence of forms in *-ǫ-ji and *-y-ji be accounted for? We can see a parallel development in the adjective declension.

In the formation of pronominal adjectives in Slavic a great deal of morphological remodelling seems to have taken place.[102] In Lithuanian we have a form baltasis, formed by compounding baltas and jis; one can imagine a CS form *bělos(j)is formed in the same way. After the remodelling proposed in II B, one could reconstruct a form *bělŭji arising under pressure from the nominal forms.

One can imagine something similar happening in the pr.p.a.. Let us trace some of the possible lines of evolution for the pronominal forms of the masculine nominative singular pr.p.a.. We will take the basic reconstruction as *sēkõns, although we will also consider *sēkõn (see II C for a discussion of *-ṍN# combinations).

I			
*sēkõns- (*sekõnt-)		*sēkõn- (*sekõnt-)	
nom. *sẽkõns	pron. *sēkõnsjis	nom. *sēkõn	pron. *sēkõnjis
	nasalisation and loss of final *-s		
II			
*sěkǫ	*sěkǫšĭ	*sěkǫ	*sěkonji, (*sěkanji *a < *õ).

In the masculine nominative singular, neither *sěkǫšĭ nor *sěkonji are attested in any Slavic language.[103] However, if we propose a morphological restructuring similar to the one proposed for bělŭji (Lith baltasis), we can formulate a plausible hypothesis. Forms such as sěkǫji seem to point to this sort of restructuring - the remodelling of the pronominal form to accommodate developments in the nominal form. However, they are less numerous than forms such as mogyji, formed by adding *-ji directly to the nominative singular masculine ending -ъ, which will be discussed below.

If the pronominal *-ji- was added to the new form of the masculine nominative singular as a result of this proposed remodelling, then it follows that at *some stage* this ending was *-ǫ. Therefore we seem to have a clear case

(insofar as the reconstruction of prehistoric forms is clear) of final *-ŏns in CS developing to *-ǫ.

ii) Gender in the pr.p.a.

There is one other interesting feature of the pr.p.a.: it does not distinguish masculine and neuter in the nominative singular, whereas it does in the accusative singular, e.g.,

	m	m.pron.	n.	n.pron.
n.	nesy	nesyji	nesy	nesǫšteje
a.	nesǫšti	nesǫšte	nesǫšte	nesǫšteje

For early attested Slavic, this is very odd (see II A and II B). Furthermore, in the neuter nominal form, *even according to the standard Auslautgesetze*, the ending *-y *cannot* be the result of a purely phonological development.[10*]

The neuter nominative singular of the pr.p.a. can be reconstructed as PIE *-ŏnt or *-ŏh; in CS the former should develop into *-ǫ, the latter into *-ŭ according to the standard theory. According to the theory outlined in this dissertation, however, they should both develop into *-ǫ. To reconstruct the neuter with an *-s ending would create too many problems: it is true that such a form is attested in Latin (e.g., ferens m.f.n. - see above), but Latin has merged all three genders in the nominative singular of the pr.p.a.. Slavic, however, still has a distinctive form for the feminine.

In II A and II B it was proposed that a fundamental feature of the CS nominal system was the maintenance of a distinctive neuter gender. The reasons were discussed in some detail. The question must arise then: why did the masculine and neuter merge in this position, when the tendency in Slavic was to keep them apart? I believe that the answer lies in the nature of the pr.p.a.: it is not a *noun*, but an *adjective*. In many languages with gender systems (IE and non-IE), the *noun* tends to carry the gender and accompanying adjectives must adapt themselves to their noun. *Pronouns* also carry their own gender.

It is significant in this context that there is much more syncretism in the adjective in Slavic than in the noun.[105] There are far fewer stem types in adjective declension than in noun declension throughout IE.

As an adjective, the neuter form nesy would have had to take automatically the gender of the accompanying noun or pronoun - it had no inherent gender in itself. This would explain why there was less need to distinguish gender in the pr.p.a. than in the noun.

The evolution of this form in Russian can shed an interesting light on the subject. It has developed into the present gerund (adverbial participle), e.g., читая, etc.. See Ferrell 1965b.

5) Towards a new proposal.

The next question is this: why should the *-ǫ, reconstructed for one stage of the masculine (and neuter) nominative singular of the pr.p.a., have been replaced at all? All of Slavic apart from Old Polish has replaced it with a different ending. We must briefly examine the verbal morphology of CS in order to formulate a suitable proposal.

i) The threat of syncretism in the verb.

It has been pointed out by Otrębski 1954: 29 and Georgiev 1969: 149 that in verbal forms as well as in nominal forms nasalisation and the loss of final consonants threatened a merger of the first person singular of the present tense of verbs and the masculine and neuter of the nominative singular of the pr.p.a., thus:

1st.sg.	*sēkōm	>	*sēkǫ		> sěkǫ
m/n.s. pr.p.a.	*sēkōn(t)s	>	*sēkǫ	(morphological)	> sěky
n.n.s. pr.p.a.	*sēkōn(t)	>	*sēkǫ	(reanalysis)	> sěky

The distinction between the participial form and the first person singular, which was vital for the verb, was preserved by introducing *-y into the masculine and neuter nominative singular of the pr.p.a.. This *-y could have had the same origin as the *-y in *kamy (see II F); a similar explanation might account for the *-a attested in forms such as OR неса (cf. кама).

ii) A tentative solution for the problem of the origin of *-y

Trubetzkoy 1924: 134 showed that many original *-ŭ-stem adjectives in CS (see I C) were derived from verbal roots and had *active* meaning, albeit slightly modified.

Now in Slavic the ending *-ŭs is used for the *past* participle active, and is declined as a consonant stem, e.g., nesŭ g.s. nesŭša.

Georgiev 1969: 153-6 agrees that the pr.p.a. ending *-y may have arisen by analogy to the *past* participle ending just mentioned, as their definite forms are very often completely homophonous (e.g., nesy-ji < *nesŭ + jĭ(s)). He also draws attention to the fact that there seems to be a close connection between the two types in Baltic, and points to a form nešûs in dialectal Lithuanian, which he proposes is a direct cognate of OCS nesŭ: (...в балтийските езици има тясно взаимодействие между сегашното и миналото действително причастие ," (1969: 152).

However, the Lithuanian form quoted by Georgiev has a *long* vowel as a stem formant, making it closer to OCS nesy.

W.R. Schmalstieg (personal communication) sees nešûs as a "dialectal lengthening of an originally short -u-."

My own proposal is based on a fact noticed by Brugmann 1911 and Schwyzer 1939, quoted by Schmalstieg 1980: 56. Relying mainly on Greek data, they point to many vacillations between *-ŭ- and *-ū- as stem formants, e.g., Gk νεκυσ/νεκῦσ χελυσ/χελῦσ.

I suggest that possibly the *long* variant (*-ū-) could have always existed as a possible alternative and was generalised in OCS to maintain the distinction between *present* and *past* participle in the masculine and neuter nominative singular. For a cautionary view see Vaillant 1958: II: 270.

iii) Summary.

Two reasons are being proposed for a morphological reanalysis here:

a) threatened homonymy between the first person singular of the present tense of verbs and the pr.p.a. forms;

b) threatened loss of tense distinctions in the participles: the *present* and *past* tenses should be differentiated.

It is significant to note that this morphological reanalysis has taken place mainly with verbs where i) above seemed imminent, e.g., (class I) nesy - nesǫ, (class II) dvigny - dvignǫ; and the athematic verbs have undergone the restructuring also (e.g., dady (damĭ)).

6) The development in verbs of class III.

Verbs of classes III (znaję - znajǫ) and IV (molę - moljǫ) have retained the nasal reconstructed for verbs of classes I, II, and V; molę being the lineal phonological

descendant of *mo(d)lĭnt(s).

The form znaję presents a problem, however. In its declension the oblique endings are based on a stem znajǫšt-, showing an *-ę/ǫ- alternation.[106] One thing is certain, however: it should be the result of a morphological restructuring. For an alternation such as *-ė̆- (n.s.m.) /*-ŏ- (rest of declension) is attested nowhere else (Streitberg 1891).

Once again, I propose here a multi-stage morphological restructuring, bearing in mind the need to distinguish certain categories.

The first stage would be the obliteration of *all* paradigm-internal vocalic alternations in the pr.p.a., on the model of the third person plural of the respective verbs thus:[107]

(I) *nesŏnt- (IV) *molĭnt-

(II) dvignŏnt- (V) *dadŏnt-

(III) *znajŏnt-

The next steps can be illustrated thus:

	1st. sg.	pr.p.a.(m.)	pr.p.a.(n.)	(3rd. pl.)
i)	*znajŏm	*znajŏnt(s)	*znajŏnt	*znajŏntŭ
	fronting of	short	vowels	after "j"
ii)	*znajŏm	*znajŏnt(s) *znajėnt(s)	*znajĕnt	*znajõntŭ
loss	of final	consonants	and	nasalisation
iii)	*znajǫ	*znajǫ(ę)	*znaję	*znajǫtŭ

I suggest that *-ę was generalised as a *participial ending* (masculine and neuter) to save the distinction

between the first person singular and the pr.p.a. in the nominative singular. It is quite possible that variant forms *znajǫ̑nt(s) and *znajěnt(s) existed as alternatives for the masculine nominative singular at some stage, with the loss of final *-s serving as a catalyst for the generalisation of *znajěnts > *znaje. In other instances the pr.p.a. endings were unique, on account of their *-tj- formant, and thus there was no need for a morphological reanalysis.

At the present I have no proposal regarding the apparent preservation of length attested for the third person plural of class III verbs. Possibly the *-ǫ̑nt- ending was preserved there through pressure from the verbs of classes I and II, both of which preserved third person plural endings in *-ǫ̑nt- also.[108]

In view of the large number of variant forms that we find in OCS texts, it seems as though the restructuring was never properly carried through, and that it was later muddled by the mixing of nasals attested for later Bulgarian texts.

7) Conclusion to II G.

In this section the following conclusions were reached:

i) The ending *-y attested for the n.s.m. pr.p.a. in OCS is *not* a phonological reflex of *-ǫ̑n(t)(s), but the result of a morphological restructuring.

ii) The ending *-ę attested in classes III and IV is of different origins for each class:

a) For class IV it is the result of a direct phonological development.

b) For class III there were at one stage variant forms, and the loss of word-final *-s in CS caused the short-vowel variant (*-ę) to be generalised with *participial* meaning.

This section treats only the OCS developments. The OCz, OP and OR texts, however, show different forms (see above).

At present I have no original proposal to offer on these forms, except that I maintain that they should be handled using morphological analyses.

H. Residual problems concerning postulated Slavic Auslautgesetze.

Finally, there are certain other problematic forms for which Auslautgesetze have been proposed. These will be treated briefly here. They are as follows:

1) The nominative plural of masculine *-ŏ-stems.
2) The singular form of the imperative.
3) The OCS forms mati and dŭšti.
4) The dative plural desinences for all substantives.
5) The first person plural ending of verbs.
6) The forms tamŭ/tamo/tamu.
7) The first person singular of the aorist.
8) Various prepositions.

1) The nominative plural of masculine *-ŏ-stems.

i) Introduction: some proposals.

This problem has attracted the attention of numerous scholars, and many different, even diametrically opposed, solutions have been proposed. For a brief review of some of the relevant literature, see Mathiassen 1971.

CS *-ai# (< PIE *-ai/oi-) seems to have had a twofold development in final position in later Slavic: either to *ĕ (*-ĕ) or to *-i. There does not seem to be any clearcut rule

that will adequately explain the data. Recourse has been had to accentuation (Streitberg 1891, Hujer 1920), differences in original length (Mikkola 1908), stress (Hirt 1911), morphology (Shevelov 1964: 287-8, Vaillant 1958: II: 33), raising caused by final *-s (Gălăbov 1973: 13-5), different (from *-ă and *-ŏ) back vowels as the first component of the original diphthong: schwa (Lüdtke 1966: 123), *ŭ (Feinberg 1978: 116)[109], the presence of a morpheme boundary between the *-a- and the *-i, or the lack thereof (Mathiassen 1971: 29), irregular or incomplete sound change (Mańczak 1969, Schmalstieg 1980: 34).[110] As the discussion of this question is a dissertation topic in itself, these theories will not be examined here.

I propose that Shevelov is correct in seeking a morphological solution, but that he does not offer a convincing motivation for it. He sees the replacement of *-ě in the masculine nominative plural *-ŏ-stem by -i in the fact that *-ě would have been "completely isolated" in the system of marking the masculine nominative plural, whereas *-i could have been supported by the *-jŏ-stem ending (*-i by a regular development *-joi > *-jei > *-ji), and the *-ĭ-stem pronominal ending.

However, in North Slavic *-ě would have been supported by the presence of this form as a nominative/accusative plural ending for the *-jā-stems (see II D).

Vaillant also suggests a transfer from the *-jŏ-stems.

Georgiev 1969: 57 seems to have the most suitable proposal. He sees one of the main reasons for the introduction of the ending -i as the need to keep the masculine nominative plural as a distinctive category from the nominative /accusative dual of the neuter *-ŏ-stems. This proposal works fairly well for the masculine/neuter *-ŏ-stems, but runs into a rather serious difficulty when we compare the relevant *-jŏ-stem endings, e.g.,

ŏ-	n./a. du. n.	městě	n.pl.m.	vlŭci
jŏ-	n./a. du. n.	polji	n.pl.m.	vlŭci (voždi)

ii) An alternative proposal.

My own proposal is as follows. Georgiev is definitely on the right track in seeking the motive force for the introduction of the -i ending in the drive to keep masculine and neuter as distinct categories in the nominative plural.

Besides the (originally pronominal) ending *-oi for the masculine *-ŏ-stem nominative plural, IE also seems to have had an ending *-ōs, formed by adding *-s to the form which is later attested as a dual in several IE languages (e.g., Gk ἀνθρωπω, OCS grada (-a < *-ō) (see also II D). This is fairly well attested, e.g., Go wulfōs < *-ōs; Skt aśvāh < *-ōs.

The paradigm attested in OCS and ØR could have evolved thus:

	n.pl.m.	n./a.du.m.	n./a.pl.n.
1)	*vl̥kās loss of final *-s	*vl̥kā	*mĕstā
2)	*vl̥kā	*vl̥kā	*mĕstā

In stage 2) a situation is shown where the three categories mentioned above have merged. The merger between masculine and neuter in the nominative plural was averted by generalising the originally pronominal ending *-ī (< *-ei) as a nominative plural *-ŏ-stem masculine ending, thus preserving the a vital distinction. An ending *-ei in this position as an ablaut variant of *-oi is attested in Latin (e.g., servei), see Mažiulis 1970: 174.

Why should the *-ŭ-stem ending not have been generalised here? The relevant form -ove was distinctive as a nominative plural ending, after all. In some instances it actually does appear as a nominative plural ending for what seems to be an original *-ŭ-stem noun, e.g., adove (ÔCS) - "hells"; singular adŭ, borrowed from Gk ἄδης.

Within the framework of this hypothesis, I believe that the answer, or part of the answer, lies in the realm of thematic vowel distinctions. Feinberg 1978: 110, pass. points out that thematic vowel alternations lasted longer in Slavic than is commonly believed. With the large-scale loss of final consonants, length distinctions in diphthongs, and various other changes, certain *thematic vowel + desinence* combinations could well have been reinterpreted as distinctive markers of number, gender, and case, e.g.,

Stems

	theme vowel + desinence	distinctive n.g.,c. marker
*-ā- a.s.	*-ā- + *-m >	*-o
*-ā- l.s.	*-ā- + *-i >	*-ě
*-ŭ- a.pl.	*-ū- + *-s >	*-y
*-ŭ- n.s.	*-ŭ- + *-s >	*-ŭ
	etc.	

The thematic vowel + desinence combination *-ove < *eu + es was still reanalysable as such - the two elements had *not* fused. It could have been perceived as parallel to consonant stems, e.g., n.pl. *kam-en-e(s) ; n.pl. *svekr-ŭv-e(s) ; n.pl. *slov-es-a; n.pl. *mat-er-e(s) ; n.pl. *syn-ov-e(s) .

Possibly for this reason the *-ove ending, still perceived as a thematic vowel + desinence combination, was not generalised. Later on, of course, -ove did extend its range: possibly after it had become thought of as an indivisible whole rather than a theme+desinence combination. Instead, the pronominal *-i was generalised, and as the second palatalisation was in full swing at this stage, this would have caused it to appear in nouns with stems ending a velar consonant.

2) The singular forms of the imperative mood.

Here we have another *-i which seems to be traceable back to PIE *-oi(C). The endings seem to be cognate with the Greek optative, e.g.,

	OCS	Greek
2nd.sg.	beri	φεροισ
1st.pl.	berěmŭ	φεροιμεν
2nd.pl.	berěte	φεροιτε

Here it is very difficult to suggest a convincing morphological reconstruction: we do seem to have a form here where PIE *-oi changes to CS *-i in a final syllable, and nowhere else. (The normal development is shown in the first person plural and second person plural, where the *-oi is not in a final syllable).

But it must be born in mind here that the imperative is in a special category in several instances it could be argued that it is an *interjection*, rather than a verb Stang 1966: 424 takes this view:

> "Der Imperativ nimmt wegen seines interjektionalen Charakters eine Sonderstellung ein. Ebenso wie der Vokativ im Nominalsystem, ist er sowohl besonderen Kürzungen als besonderen Verlängerungen ausgesetzt."

Shevelov 1964: 288 takes a similar view:

> "The explanation is rather to be sought in the special character of the imp(erative) as a category ... in CS the affective nature of the category resulted in a particular emphasis on the last component of the singular form."

I must admit that at this stage I have no proposal to offer regarding the pinning down of this elusive "affective character".[111]

3) The OCS forms mati and dŭšti.

Various Auslautgesetze have been proposed for handling these forms. According to one theory, *-r caused the raising of preceding vowels in a final syllable (*-ē > *-ī) and then dropped (e.g., Milewski 1932: 255). Another theory, which has been proposed since the early years of this century, suggests that all non-neuter consonant stems in Slavic had *-s as their nominative singular marker, e.g., *kōmons > kamy and therefore mōters > mati. Ferrell 1965: 106 points to the existence of a form muoters in dialectal Lithuanian that would parallel this reconstruction.

The forms cited above could also be reconstructed without a final *-r. Sanskrit and Lithuanian point to its absence in the nominative singular, e.g.,Skt mātā mātarah (< PIE *-ē) Lith mótė moteres; whereas Latin, Greek, Germanic, and Celtic point to its presence, e.g., Lat mater matris; Gk μητηρ μητροσ; OIc móðir móður[112]; OI máthir máthar. These forms parallel the *-n-stem reconstructions in II F. Duridanov 1968: 17-25 proposes that *-r less forms did exist in CS, and that in final position IE *-ē and *-ō were raised to *-ī and *-ū, thus explaining kamy as from *kōmō and mati as from mōtē.

Many scholars (e.g.,Shevelov 1964: 224, Lüdtke 1966: 129, Georgiev 1969: 129) have sought a morphological explanation for this ending: they all derive the -i from the -i seen in rabyńi, bogyńi etc., i.e., feminine *-ī-stems, cognate with Skt nadīh etc.

I accept the proposal put forward by the latter scholars.

4) The dative plural desinences for all substantives.

The closest comparisons with the Slavic here are Baltic and Germanic, both of which have desinence-initial *-m-, as opposed to Indo-Iranian, Italic, and Celtic, which have desinence-initial *-bh-, e.g., Go dagam; Lith dievams; OCS vlŭkomŭ, which contrast with, e.g., Skt aśvebhyaḥ; OI feraib; Lat reqibus.

The *-bh- forms should not be used for the reconstruction here. The moot point is what follows the *-m-. Slavic shows *-mŭ throughout, and Germanic *-mz. Baltic has a variety of endings,[113]

e.g., Lith -ms - dievàms; Latv -m - cilvẽkiem; OPr -mans - noumans.

It has often been proposed (e.g., Fortunatov 1957: II: 182-5, Ferrell 1965: 98), that a Balto-Slavic ending *-mas/-mos can be reconstructed, and that this is evidence for a CS Auslautgesetz *-os# > *-ŭ. The earliest Old Prussian shows the ending -mas (<*-mos), e.g., ioūmas, and Old Lithuanian shows the ending -mus, which Ferrell 1965 and Kazlauskas 1970: 88 would trace back to an earlier *-mas.[114] Kazlauskas suggests that mus is a scribal rendition of the sequence *-m-reduced vowel-s(which could be a reflex of *mas in Auslaut); later the reduced vowel would fall, giving us

the -ms we see in the modern literary language. Endzelins 1971: 132 proposes that the Balto-Slavic ending was *-mus. Stang 1966: 185-6 points to the heterogeneity of the Baltic forms and proposes that *-mas and *-mus coexisted in Baltic:

> "Man findet somit im Balt. zwei Endungen des Dat.Pl.: -mus (lit.) und -mas (preuss.). Man sieht keine Möglichkeit, die beide historisch zu identifizieren."

I accept Stang's proposal and do not regard it as too surprising that Baltic should show this sort of split. I reconstruct *-mus as the dative plural desinence for CS, and propose that this is possibly another isogloss separating Lithuanian and CS on the one hand, and Old Prussian on the other (see also II B).

5) The first person plural ending of verbs.

Slavic itself shows a variety of reflexes here, most of which seem to have some correspondences elsewhere in IE. e.g., -m (<*mŭ): R читаем ; -mo: SC čitamo U читаємо ; -me: Cz děláme; -my: P czytamy.

The form *-mŭ is often traced back to *-mŏs. This leaves open the question of the origin of *-mo, which is also usually derived from *-mos: Lat amamus, Skt bharamah (both < *-mos). The form *-me could be an ablaut variant of *-mo, and a similar variant appears in Doric Greek, e.g., φερομεσ. The form *-my may be formed by analogy with my "we", or it could possibly be a sandhi variant (although it

has been proposed above that it is unlikely that sandhi operated in CS), cf. Ferrell 1965: 99.

On the basis of Attic Greek -μεν, e.g., φερομεν, Hujer 1910: 92, followed by Feinberg 1978: 109) proposed an ablaut variant *-mon, which would explain the ending *-mŭ according to the standard Auslautgesetze. This reconstruction is attested nowhere else.

Baltic, too, has a great variety of endings, e.g., Lith -me sùkame (sukam with the loss of e) ; Latv -m ejam; OPr -mai giwammai.

At this stage we cannot say for sure that the ending *-mŭ, attested in early Slavic, is a phonological reflex of PIE *-mos. There are simply too many variants to choose from, in Slavic alone and in the rest of IE.

6) The forms tamŭ/tamo/tamú.

Here again, Slavic shows a variety of endings, yet these forms are also cited as evidence for a sound change in final position *-os > *-ŭ.

e.g., OCS tamo

e.g., R там (< *tamŭ)

e.g., M tamu

Kozlovskij 1888: 657 proposed that the forms ending in *-ŭ originally had final *-os, and he cited the Greek forms ἠμοσ, τημοσ, πημοσ, to provide support for this hypothesis. He further proposed that the forms ending in -mo were formed by analogy to prepositions such as mimo, prĕmo.

Agrell 1926: 37 pointed to other Greek forms such as ταμον, and suggested that tamŭ were related to them.

As with 5) above, there are too many variant forms to here, and we cannot say for sure which of them reflects the direct phonological development.

7) The first person singular of the aorist.

i) The traditional reconstruction.

This ending is nearly always accepted without question as an instance of PIE *-ŏm > CS *-ŭ (Shevelov 1964: 157). It appears in both asigmatic (moqŭ), and sigmatic (vĕsŭ) aorists, and is also found in the imperfect (neseaxŭ).

This reconstruction is proposed primarily through the support of the Greek, which has numerous "strong" (asigmatic) aorists ending in *-om (>-on) in the first person singular, e.g., ἐλαβον (λαμβανω), ἐφυγον (φευγω), etc.. In Sanskrit the evidence is ambiguous, although there is nothing to hinder the reconstruction of *-om (> -am), e.g., abhūvam. Evidence from other IE languages in this case is scanty.

However, it is by no means clear that the Slavic ending is to be linked with the Greek and Sanskrit forms shown above. The Greek sigmatic aorists have the first person singular ending -α(< *-m̥), e.g., ἐγραψα (*-grabh-s-), and the Sanskrit -am forms mentioned above could also be of that origin. It was proposed by Lüdtke 1966: 132 that Slavic *-ŭ

is in fact the reflex of PIE *-m̥. The development would run thus: *mogm̥ > *mogŭm > *mogŭ.

According to the hypotheses advanced in this dissertation, however, this solution does not meet all the requirements. Early CS *-ŭm should have developed to *-ǫ, which we find only as a *third person plural* ending. We should try looking elsewhere.

ii) A new reconstruction.

There is another ending which deserves closer scrutiny than it has been accorded. This is the particle *-u, which seems to have been attached to verbal forms with different functions from the earliest times (see also II E).

Erhart 1970: 17 points to several cases where PIE *m alternates with PIE *u, and proposes that these be subsumed under one phoneme, "M2". The *origins* of this alternation are buried too far back in time for us to reconstruct them plausibly. It is attested in the first person pronouns and verbal desinences. We can find it without even going outside Slavic material, e.g.,

OCS	n.a.du. vě (*-u-)	n.pl. my (*-m-)
	1st. du.	nesevě(*-u-) pl. nesemŭ (*-m-)

The particle *-u, which may be a relic of this early alternation in IE, is fairly common as first person singular ending *chiefly with a non-present meaning*, e.g., Skt tasthāú[115] - "I have stood"; Lith buvaũ - "I was"; Ly

kantoru - "I entrust"; Go nimau - "I take" (subjunctive); Toch lakau - "I see"; Hitt u-uh-hu-u-u(n) - "I saw".

Many perfect forms in Latin have a -v- (*-u-) throughout the conjugation, e.g., amavī - "I loved"; cognovī - "I recognised"; audīvī - "I heard".

Van Windekens 1975: 431 attempts to link this with the Luwian first person singular ending *-ui, arguing that PIE could have had *-ui and *-mi alternating in the first person singular.

Schmalstieg 1975: 173 refers to this *-u- form and says:

> "It is usually accepted without question that the Slavic 1st. sing. aorist ending *-ŭ derives from *-oN, but in practice there is no reason why it could not come directly from IE *-u, and indeed, be compared with the Hittite preterite ending *-u-n. If this is the case, then in Slavic the contrast between the Ist sing. pres. ending *-oN (> *-ǫ), and the first singular preterite ending *-u has existed since IE times."

As far as I am aware, no other scholar has drawn attention to this possibility. I would go further than Schmalstieg, however, and suggest that this reconstruction is to be preferred.

Therefore I derive OCS mogŭ from *mogŭ and nesoxŭ from *nesoxŭ, and I further propose that this ending also appears in the imperfect, e.g., neseaxŭ.

Here, too, the earlier forms can be reconstructed without recourse to Auslautgesetze.

8) The prepositions *vŭ-n-, *sŭ-n-, *kŭ-n-

The forms given above, which originally ended in an *-n that has come to be prefixed with varying degrees of generalisation to pronouns of the third person singular, e.g., R в нём, P z nieją, are often cited as examples of the development *-ŏm > *-ŭ in final position.

Originally only three prepositions, all of which can be reconstructed with a nasal in final position, had this alternation, but in many Slavic languages it has been extended to all prepositions. The three original prepositions are:

i) *vŭ-n- - "in", cognate with Lat in; Go in; Gk ἐν; Ir i(eclipsis); Lith į; The Slavic form is an original zero-grade of *en/*on/*n̥ (Shevelov 1964: 230).

ii) *sŭ-n- - "with", possibly a contamination of IE *som/*sem/*sm̥, e.g., Lat semel, OIc sam-, Gk ὁμοσ; and IE ḱom(ḱem? ḱm̥?), Lat cum, OI com.

iii) *kŭ-n- - "to", cognate with Skt kam.

This mobile *-n-, and the vowels which precede it, constitute one of the main proofs for an Auslautgesetz *-om > *-ŭ, with sandhi variants as follows,

e.g., *-omC- > *-ŭC-

e.g., *-omV- > *-ŭnV-

Because the third person pronouns would invariably begin with vowels, they would tend to keep the *-n- longer than other forms, and when the palatalisation of consonants by front vowels began, the *-n- became interpreted as part of the following word. In some cases, where vŭ- and sŭ- act as prefixes rather than prepositions, the *-n- is preserved and the following forms arose: R в нём, ей - с ней; P z nim, ją - z nią; Cz vendu, (OCS vŭniti) but R войти; OCS vŭnušiti R внушить ; U з ними.

Sometimes nouns have -n- alternatives, e.g., SC ugao - nugao.[116]

If the *-n- in such cases had been interpreted as *part of the following word*, then we might expect the following situation to arise: *vŭn - emĭ > *vŭ-n-emĭ > *vŭ - nemĭ.

It is quite possible that the *vŭ (without the original final *-n-) was *reinterpreted as the basic alternant*, and was later generalised as such.[117] Forms such as OCS sosědŭ < *sŭnsēdos can be explained as arising before this development took place.

9) Conclusion to II H.

In this section certain problems connected with the hypothesis of Slavic Auslautgesetze have been cursorily treated. It is to be hoped that they will be studied more fully at a later stage. I believe that I have shown, however, that they cannot be used as evidence for the

operation of Auslautgesetze in Slavic.

For 4), 5), and 6) especially, there seem to be far too many competing pieces of evidence to state dogmatically the origins of these endings. At this point I cannot give a definitive proposal regarding any of them.

III. The *-ŭ-stems in the modern Slavic languages

A. Introduction

In this part of the dissertation we will be examining selected *attested* Slavic languages, and we will not be adducing evidence from the rest of IE. In many of the modern Slavic languages the endings of the original *-ŭ-stem declension have extended their range and taken on new semantic functions, and these will be briefly outlined below.

By the time that the earliest texts in a Slavic language appear (OCS c.950, OR 1056-7), there is no longer an autonomous *-ŭ-stem declension. It might even be more accurate to speak of the *-ŏ/ŭ-stems. That the *-ŭ-stems exerted *some* influence on the *-ŏ-stems is beyond all reasonable doubt.[118] Two endings about which all scholars are agreed with regard to *origin* are as follows:

i) The vocative singular ending of the *-jŏ-stems is consistently rendered as -u from the earliest texts, and this ending is of *-ŭ-stem origin, e.g., synŭ - synu, mǫžĭ - mǫžu, zmiji - zmiju. The *age* of this phenomenon has been subject to some discussion, however, and for a review of the various theories, and the proposal which seems to offer the best solution, see Ferrell 1965.

ii) In North Slavic (East and West Slavic) the *-ŭ-stem instrumental singular ending *-ŭmĭ has extended its range to the *-ŏ-stems, e.g., stolŭ - stolŭmĭ. This is sometimes obscured by the development of original strong *ŭ to "o" in East Slavic. It is clearer in West Slavic, e.g., P sen, and is reflected in the relevant ending thus, e.g., R столом, P stołem.

In South Slavic, however, the reverse has happened - the *-ŏ-stem ending has penetrated the *-ŭ-stems, e.g., synŭ synomĭ from the earliest texts. The isolated dialect of Banat Serbian, spoken in Krašovani, uses the *-ŭ-stem ending although it is spoken in the South Slavic area.

As far as I am aware, no scholar has ever questioned the *-ŭ-stem pedigree of these endings. These are the only ones, however, whose development seems so clearcut.

Many of the other developments are still hotly disputed. In the earlier part of this dissertation numerous controversial topics were discussed, with solutions based on morphological restructurings, which often utilised *-ŭ-stem endings to preserve distinctions of number, gender, and case. These would otherwise have been obliterated by far-reaching phonological changes. It was proposed above that in the nominative and accusative singular masculine *-ŏ-stems, and in the accusative plural of all non-neuter hard stems, *-ŭ-stem endings were introduced to preserve the distinctions between number and gender. Many scholars (e.g., van Wijk 1931: 170, Vondrák 1928: II: 41, Leskien 1969: 77)

have seen the merger of the *-ŏ- and *-ŭ-stems in the nominative and accusative singular as the driving force behind the eventual total merger of the two stem classes. Thorndahl 1974: 868, however, proposes that the source of the merger is to be sought in the *marked* character of the *-ŭ-stem endings (especially the genitive and the locative singular) and the fact that the monosyllabic pattern of the old *-ŭ-stems (after the fall of the weak jers) could have attracted several monosyllabic *-ŏ-stems. Thorndahl's proposal about the marked character of the *-ŭ-stem endings ties in very well with the framework outlined in II A, which builds on the proposals found in Stankiewicz 1977. As the masculine gender is *unmarked* against the feminine and the neuter genders, there is more room for marking *within* the masculine gender *animate* vs. *inanimate*. The *-ŭ-stem endings are utilised partly tc show this distinction, although they were by no means restricted to either one of these sub-genders.

In the discussion of the nominative and accusative singular of the *-ŏ-stems, and the accusative plural of all non-neuter hard stems, it was proposed that the *-ŭ-stem endings *totally* ousted the original *-ŏ-stem endings. Such a viewpoint is lent support by:

i) The vocative singular of the *-jŏ-stems,

ii) The instrumental singular of the *-ŏ-stems in North Slavic.

In both these case-forms the *-ŭ-stem endings have all but ousted the former *-ŏ-stem endings. With the exception of ii) above, these extensions of the *-ŭ-stem endings involved the avoidance of a threatened homonymy: masculine and neuter nominative/accusative singular *-ŏ-stem (see II B); masculine *-ŏ-stem and feminine*-ā-stem accusative singular (see II C); the accusative singular and plural of the non-neuter hard stems (see II D), caused by the phonological losses and sound changes which took place in CS.

But what of the endings which would not have lost their distinctive markers through such sound changes? In several places there would have been no need for a reanalysis, e.g., the genitive singular of the masculine *-ŏ-stems, e.g., grada and the neuter *-ŏ-stems, e.g., města were already syncretic - there was no need to introduce another ending to preserve distinctions. Instead, the *-ŭ-stem ending was utilised to show a *new* distinction - in this instance *animacy/partitivity*. Here both endings co-exist, with new semantic functions, which bear little or no resemblance to the original semantic categories of the old *-ŏ- and *-ŭ-stems.

One example of this will be given here. In I C it was stated that nearly all the possible *-ŭ-stems in CS had non-personal meaning. However, in several instances (see III B and III C below) the *-ŭ-stem endings are used to refer to masculine persons.

The following such case endings will be briefly discussed in the remaining sections of this dissertation: in the singular the *genitive*, *dative*, and *locative* (see III B), and in the plural the *nominative* and *genitive* (see III C). Also included in III C will be a discussion of the *-ov- formant which has arisen in the plural declension of Serbocroatian and Slovenian, and in some forms in Russian.

In the following sections it will be shown briefly how the *-ŭ-stem endings have been utilised to create new grammatical categories in the modern Slavic languages. The impetus for this was probably given by the morphological restructurings proposed in II B, II C, and II D.

The precise relationships between the prehistoric and historic developments is a subject for further study. It should be borne in mind, however, that in both the reconstructed and the attested developments a complex web of hierarchies and degrees of markedness is revealed. Part III is included primarily for the sake of completeness, but also provides support for some of the proposals advanced in II.

"А ты пош(л)и Григорию ѡ не θ имова, чтоб...добиш..
ат...е θома."

There does not seem to be any alternative to accepting this as a genuine genitive-accusative in -u. In fact, the authoritative commentary on the birchbarks states that: "Судя по контексту, форма Григорию не дательный падеж, а винительный ," (Arcixovskij 1958: 61).

An example of a genitive-accusative singular in -u can also be culled from Slovenian - in Trubar (C 16th) the phrase "preiell ie suyga gosstu" - "he received his guest."

There are hardly any other examples of a genitive-accusative singular in -u. Elsewhere the genitive-accusative singular of masculine nouns is consistently rendered as -a, right up until the present.

ii) South Slavic.

The wholesale loss of most of the CS declensional system in Bulgarian and Macedonian has carried with it the loss of the genitive,[119] and so we need not treat these languages here. In Bulgarian, however, a new distinction has arisen - the distinction between *definite* and *indefinite* objects, e.g., град - "city"; градът - "the city"; виждам град - "I see *a* city"; виждам града - "I see *the* city".

This probably has a connection with the evolution of the -a and -u genitive singular endings (see iii, e.g., Mareš 1967, Kottum 1981, in particular Kottum's discussion of "individualisation").

danger of being lost (*Ioannŭ viditŭ Petrŭ/*Petrŭ viditŭ Ioannŭ). For inanimate masculine nouns this would not have mattered too much, as they do not tend to function as agents (see I C), but it could have had serious consequences for animate nouns, which naturally function as agents.

From the beginning, the tendency was to utilise the *-ŏ-stem genitive singular ending -a to maintain the distinction of nominative and accusative for *animate* masculine nouns. From this source come the animate genders in the modern Slavic languages. For an interesting theory on the rise of -a as an animate ending, see Newman 1982.

From the earliest attested texts, -a is far more common than -u as an animate genitive-accusative ending. Out of the six *-ŭ-stems agreed upon by almost everybody (see I C), only one denotes an animate human (synŭ) and one an animate non-human (volŭ). The vast majority (over 70) of those which are less sure, however, are inanimate (see I C). A far greater proportion of original *-ŏ-stems were animate, which possibly helps to explain the generalisation of -a with this function.

Synŭ is nearly always attested with -a in the genitive-accusative singular. Volŭ has a genitive-accusative singular in -u (wołu) in Polish. Polish also has the forms skopu (skop - "wether"), sarnu (sarn - "roedeer"), smoku (smok - "dragon(draco volans)").

A genitive-accusative in -u is attested from Novgorod C 10th:

B. The singular Cases

Within the singular we can see three different motivations at work in the genitive, dative, and locative singular of nouns: the drive to distinguish *individuation* and *partitivity*, see Kottum 1981: 179-86, discussed below in further detail; the drive to show *animacy* (dative); and the drive to restrict K/C alternations in the singular to the *feminine* gender(locative). The net effect has been to complicate the Slavic nominal system considerably, in a manner unparallelled in other IE languages.

1) The Genitive singular.

i) Introduction: the concept of animacy.

Both the *-ŏ-stem ending -a and the *-ŭ-stem ending -u are attested with masculine nouns from the earliest texts, and later, their respective roles develop.

This case is closely bound up with the concept of *animacy*, which can be seen to evolve from the earliest attestations of Slavic. In the nominal declension, animacy seems to have begun in the masculine *-ŏ/ŭ-stems, and thence to have spread, in varying degrees, in the different modern Slavic languages.

The merger of the nominative and accusative of the *-ŏ/ŭ-stems (see II B and II C) caused by the loss of final *-s meant that the freedom of word order would have been in

In Serbocroatian the old *-ŭ-stem ending -u in the genitive singular has not survived as well as in other Slavic languages. Belić 1965: 6-16 does not seem to think it worthy of mention. Gerd et al. 1974: 164 state that "В о-основах м.р. флексия -у из: -у-основ отмечена во всех памятниках, кроме сербских XII в. ..." Svane 1958a: 25-6 states that in the material he discusses there are only two forms in -u: домоу and разбою.

Slovenian has a few masculine nouns which take -u as their genitive singular ending (for a complete list see Toporišič 1976). Of these the following were proposed as *possible* former *-ŭ-stems: dar, glas, led, med, mir, plod, rod, sad, stan, val. All of these can have alternative genitive singular endings in -a apart from dar. The -u ending has spread to nouns which were probably not original *-ŭ-stems, e.g., tast, (*-ĭ-stem, see above). See Ramovš 1952: 38 for dialectal and historical information.

iii) West Slavic.

In West Slavic we find the greatest concentration of *-ŭ-stem endings with inanimate masculine nouns. In Polish and Czech we have -u attested as a genitive singular ending with inanimate nouns from the earliest times, e.g., P ludu (Psałterz Florjański 104.24), Cz, e.g., stromu.

This is carried through to modern times, e.g., P cukier - cukru - "sugar"; Cz papír - papíru - "paper"; Sk vosk - vosku - "wax".

The semantic differences which have evolved between the -a and -u endings in Polish is an extremely vexed question. Several scholars have attempted to categorise strictly the type of nouns which take -a in the genitive singular and those which take -ú. The latter (apart from the exceptions quoted above) are all inanimate.

Westfal 1956: 337-69 has an interesting proposal for this problem. After sifting through mountains of material, he suggests that -u is used with nouns denoting either *abstractness* or *concrete inanimate objects larger than a human being*: , e.g.,wułkan - wułkanu - "volcano". For critiques of Westfal's approach, see Safarewicz 1956 and Schenker 1957.

For several nouns the question of the correct genitive singular ending has not been properly fixed. Westfal 1956: VII recalls that for trójkąt - "triangle", either trójkąta or trójkątu is acceptable. In other instances the different endings are used to distinguish meaning, e.g., geniusz - g.s. geniusza (a *man* of genius) - g.s. geniuszu (the *concept* of genius); baryton - g.s. barytona (a barytone singer) - g.s. barytonu (the *tone* barytone); strach - g.s. stracha (a bogeyman) - g.s. strachu (the concept of fear).

Kottum 1981: 185-6 proposes that the ending -a is used to denote "individualisation":

> "Only -a can be used in forceful expressions to evoke lifelike images; only -a is capable of making the fear palpable by treating it on a par with physical objects."

In this context he discusses the phrases:

napędzić komuś strachu - "to give someone a fright"

napędzić komuś stracha - "to frighten the life out of someone".

The second of those phrases seems to have a more "emphatic", ("individualised" meaning): it is stronger than the first. Kottum concludes by saying:

> "...one might say that the genitive in -a, as opposed to -u, emphasises the spatial form of physical objects and contributes tangibility and objectivity to abstractions."

This would fit in well with the examples geniusz, baryton, and strach given above.

Grappin 1956: 14 passim shows the lines along which the spread of the -u ending proceeded: at first it affected *abstract* nouns, then nouns denoting *materials*. Nouns ending in -unek (-unk-) < German -ung also tended to acquire this desinence, and this trend becomes clear from C 17th. Mareš 1968: 38 points out that *nowhere* in Slavic has the -u ending extended itself to all inanimate nouns, and sees the drive to distinguish case (-u is a possible *dative* and *locative* ending also) as a contributory tendency.

Although Czech has also both -a and -u as possible genitive singular endings, with roughly the same distribution as in Polish, usage in one language is no sure guide to usage in the other, e.g.,

Czech				Polish	
nos	nosu	BUT	nos	nosa	- "nose"
zub	zubu	BUT	ząb	zęba	- "tooth"
les	lesa	BUT	las	lasu	- "forest"
oběd	oběda	BUT	obiad	obiadu	- "lunch"

As far as I am aware, the problem does not seem to have received as much attention in Czech as in Polish.

For Lower Sorbian, Mucke 1896(1965): 306 lists several nouns which have their genitive singular ending in -u and declares that:

> "Alle die hieher gehörigen einsilbigen Substantiven inanimata haben in der Hauptsache eine collectivische bz. abstrakte Bedeutung und nehmen die Endung -u an, wenn sie im partitiven Sinne gedacht sind."

He accompanies this by naming nouns with this ending, and a list is given here of the ones which rank as *possible* former *-ŭ-stems: gad, gród, lód, płód, rěd, rod, sàd, grěch, dar.

iv) East Slavic.

East Slavic also has -u as a genitive singular ending, but not to the same extent as West Slavic.

In Russian the *-ŭ-stem ending became fixed in *partitive* usage by CC 15-17, and apart from a few fossilised expressions (e.g. из лесу, ни слуху ни духу, без толку etc.), this is still the case today. This does not mean, of course, that *all* masculine nouns used in partitive meaning take this ending: in OR хльбъ and овьсъ are never attested

with it. The picture is complicated by the question of foreign influence - the -u ending is much more frequent in texts written under Polish influence, e.g., Peresvetov (c.1600) than in texts written under Church Slavonic influence (the letters of Ivan the Terrible (c. 1560-1584)).

In modern standard Russian the genitive ending in -u is receding, and one can now hear, e.g., стакан чая beside стакан чаю(see Vahros 1959, quoted in Kiparsky 1967: 29). Kiparsky cites examples such as берег, дух, год , and закон, which have lost -u genitives since C 19th. and gained new -a genitives.[120] The situation in modern Ukrainian approaches that in Polish and Czech, with several nouns taking the -u ending, e.g., дим - диму - "smoke".[121]

2) The Dative singular.

i) Introduction.

The semantic differences between the *-ŏ-stem ending -u and the *-ŭ-stem ending -ovi are less apparent then the ones between the genitive singular endings. Although the dative singular *-ŭ-stem ending -ovi, like the genitive singular ending, is attested from the earliest texts, its range is more restricted, both in these and in the modern languages.

From the earliest times the -ovi ending shows a tendency to be used with *proper* nouns, e.g., Danilŭ - Danilovi. Meillet, quoted in Mareš 1967: 487, proposed that

an embryonic category of definiteness can be seen in OCS texts, with the -ovi ending used for *definite* nouns and the -u ending for *indefinites*, e.g.,

rabovi	Gk	τῳ δουλῳ	"the slave"
rabu	Gk	δουλῳ	"slave" [122]

It should be emphasised at this point that, whereas in the genitive the *-ŭ-stem ending denotes *inanimacy*, in the dative the *-ŭ-stem ending tends to denote *animacy*, although it has extended to inanimates in a few instances.

ii) South Slavic.

The *-ŭ-stem dative singular ending -ovi has not survived well in South Slavic. Serbocroatian and Slovenian have very few examples from their earliest attestations (e.g., SC отрокови (C 14th), Sn boguvi - C 17th), and in the modern languages both have -u as the masculine dative singular ending, even for animate and personal masculine nouns, e.g., SC putnik - putniku; dar - daru; Sn mož - možu; prst prstu.

iii) West Slavic.

The *-ŭ-stem ending -ovi has spread its range to a much greater extent in West Slavic than in South or East Slavic. In Polish it is the normal dative singular ending for masculine nouns to the extent that the *-ŏ-stem ending is felt to be the exception, as it is used only with a few nouns (Bóg, brat, chłop, chłopiec, diabeł, ksiądz, kot,

ojciec, pan, pies, świat). With a smaller group, both endings are possible (człek, dech, kat, łeb, lew, osioł, sen). Many of these denote animates. This stands in contradiction to the normal tendencies within Slavic, according to which -ovi is used with *animates* and -u with *inanimates*. The vast majority of animates in Polish, of course, take -ovi (-owi) as a dative singular ending.

As in OCS, the -ovi ending is closely associated with proper names in the earliest texts, e.g., Dawidowi (Ps.F. 88.4). Many animate nouns also have this ending, e.g., królowi (Ps.F. 44.1), jenorożcowi (Biblia królowej Zofii 24.8). By C 15th the difference seems to have resolved itself into *animate* -ovi/*inanimate*-u, with the exceptions listed above.

But the development did not stop there. The genitive and locative singulars of many masculine nouns had already taken the ending -u (see above for the genitive and below for the locative), and if the dative singular had kept the *-ŏ-stem ending -u, this would have led to an undesirable merger. Thus, by C 16th, -owi had spread to inanimate masculine nouns. It is therefore not surprising that none of the nouns listed above as taking -u as the dative singular ending takes -u as the genitive or locative singular ending.

Turning to Czech, we find that the extension of the *-ŭ-stem ending -ovi has taken a similar course. From the earliest texts -ovi is attested with masculine animate nouns, e.g., král'ovi (Rukopis Hradecký) and sometimes with

inanimates, e.g., bojovi (Žaltář Wittenberský).

In the modern language, -ovi can only be used with inanimates if personification is implied (Trávníček 1935: 297). In groups of nouns occurring together, only the *last* one takes the -ovi ending, e.g., pánu Janu Novakovi, where the older language would have had -ovi in all three nouns: nebožtíkovi Jiříkovi Holárkovi (examples taken from Vážný 1964: 26). See also under locative.

Upper Sorbian has generalised the soft ending *-evi, which regularly develops to -ej, e.g., ptačk ptačkej. Boh - "God", however, has only dative, singular Bohu, and there are a few nouns which allow both endings, e.g., duch - duchu/duchej. The ending -ej has also spread to many neuters, e.g., słowo - słowej.

Lower Sorbian has taken *-oj from *-ovi and added the *-ŏ-stem dative singular ending -u to form a new ending -oju, e.g., nan - nanoju for both animates and inanimates. It seems that -oju is used to mark the dative when either the genitive or locative singular ends in -u. For examples see Mucke 1896: 309.

iv) East Slavic.

East Slavic once again shows a clear division between Russian and Ukrainian, similar to what we have seen with the genitive singular, with the *-ŭ-stem ending being more plentiful in Ukrainian. The -ovi ending seems never to have extended itself in Russian. It is even possible that the

-ovi was preserved in Russian only as a Church Slavonicism in OR (Kiparsky 1967: 30); anyway after C 14th it disappears rapidly, with the *-ŏ-stem ending reigning almost supreme. As early as 1130 we find a form сыноу, an almost certain original *-ŭ-stem, with an *-ŏ-stem dative singular ending.

In modern Russian we have the fossilised expressions, probably not even thought of as datives nowadays, which are the sole survivors of the *-ŭ-stem dative singular ending: домой- "home (direction) " and долой - "down with" , both attested from C 14th on.

Ukrainian, on the other hand, has a system very similar to the one we discussed above for Czech. The ending -ovi is used for the dative singular, e.g., плуг - плугові (animate) муляр - мулярові (animate). As in Upper Sorbian, -ovi has spread to some neuters, e.g., серцеві.

3) The locative singular.

i) Introduction.

Another factor enters the picture here: the influence of the phonology of the particular language. For the *-ŏ-stems, the ending here is *-ě, which causes the second palatalisation, thus creating a K/C alternation. In several Slavic languages, there seems to be a tendency to restrict K/C alternation to *feminine* nouns in the singular, although it has by no means been carried through in all the Slavic

languages. An additional factor is that it is quite probable that the second palatalisation did not cover the whole of Slavic - according to Birnbaum 1978 it did not reach the Novgorod area.

ii) South Slavic.

The locative singular *-ŭ-stem ending has survived better in South Slavic than either the genitive or the dative singular endings.

Slovenian has generalised -u to all masculine and neuter nouns in the locative singular, e.g., prst - prstu; leto - letu. Dialectally, however, the *ŏ-stem ending is flourishing: in the Central dialects *-ei < *-ě- < *-oi- is the locative singular ending for falling tone monosyllables, e.g., duh - duhei. For details see Ramovš 1952: 40-1. Also a few forms are attested in -ovi(see below for parallels in Czech, Slovak, and Ukrainian.)

Serbocroatian has generalised the *-ŭ-stem ending for masculines and the neuters in the locative singular, e.g., grad - gradu, polje - polju. This was not established until C 14th, and as in Slovenian, some dialects still maintain the older system: Čakavian Serbocroatian still has -u and -ě (>-e,-i) co-existing. Svane 1958: 36-40 proposes that the *-ŭ-stem locative singular ending started to extend itself first in *monosyllables*, and thence by the following route:

First of all the -u ending spread to non-feminine nouns with stems ending in -k, which restricted the occurrence of

the K/C alternation in the singular to feminine nouns. Later it spread to all feminine and neuter nouns, and merged with the locative singular in most instances.[123] Thus we have:

N.S.	žena	grad	stvar	selo
D.L.S.	ženi	gradu	stvari	selu

iii) West Slavic.

West Slavic seems to have generalised the *-ŭ-stem locative singular in a similar way to Serbocroatian and Slovenian, though not as extensively. The tendency to eliminate the K/C alternation in the non-feminine singular paradigm is even more apparent here, as the two endings (-ě and -u) co-exist in most West Slavic languages.

As with the South Slavic languages above, there is an early tendency to introduce the *-ŭ-stem ending -u into masculine and neuter nouns with stems ending in a velar, to restrict the range of the K/C alternation.

To a much greater degree than Serbocroatian, Slovenian, and Russian, the difference between the original hard and soft paradigms is generally still evident. One way of maintaining the difference is the utilisation in Polish, Czech, and Sorbian (but not Slovak) of the *-ŭ-stem ending -u in the *soft* paradigm, while keeping the *-ŏ-stem ending -ě in the *hard* paradigm.

This system appears from the earliest attestations of texts in the above languages, e.g., Cz pokoj - pokoju (C

14th), LS hogeń - hognju. Mareš 1968: 41 is unable to find a reason for it, while Feinberg 1978: 119 seeks a solution in "an early tendency to sharpen the new soft vs. hard dichotomy by means of a non-automatic suffixal variation."

For Polish, Grappin 1956: 53 points out that some *vocalic* alternations would also have been avoided, and gives the examples w czesie/ w czasu, na zjeździe/na zjazdu, po wietrze/na wiatru, which show fluctuation. The forms with -e (< *-ě) have prevailed in the modern language, however, and several of the vocalic alternations have been eliminated, e.g., żelazo - żelazie.

As in Polish, Czech shows a tendency for -u to be used with masculine and neuter nouns which have stems in velars, e.g., při břěhu (C 14th), although other forms exist which show the K/C alternation: o jazycě (C 14th). In modern Czech the *tendency* is still for such nouns to take the -u ending; there are some yet which take the -ě ending, e.g., potok -- v potoce/potoku.

There is one phenomenon in Czech (which it shares with Slovak and Ukrainian) which has no parallel with Polish. That is the extension of the -ovi ending to the *locative singular* of *animates*. This is possibly under the influence of the syncretism of *dative* and *locative* in feminine nouns in the singular, which is attested from the earliest Slavic. In the earlier language this phenomenon is attested with both animates and inanimates (e.g., po břěhovi - Zlomek Dobrovský C 14th), but in the modern language it has been

restricted to animates. Masculine personal *-ā-stems have also taken over this ending for the dative/locative singular, e.g., předseda dat/loc. předsedovi.

Slovak deviates here in that the *-ŭ-stem ending -u has not spread to the soft stems, although it has spread to nouns with velar stems, e.g., vlak - vlaku.

N.	meč	hrad	sväzok	pole	vojsko	znamenie
L.	meči	hrade	sväzku	poli	vojsku	znamení

This matter is worth further investigation, as it isolates Slovak from the neighbouring Slavic languages. Possibly it is connected with the fact that Slovak eliminates the K/C alternation in the singular of nouns altogether, e.g.,

N	ruka	kniha	mucha
D/L	ruke	knihe	muche

which gives it a look very similar to Russian.

Sorbian has an interesting development here: nouns with a stem ending in -k or -ch take -u, whereas nouns ending in -g take -e, e.g., (LS) jěyzk - jězyku, duch - duchu, but brjog - brjoze. There are exceptions and variations between Upper and Lower Sorbian: (Upper) w Bozy (-y < -e), (Lower) w Bogu; also w běgu, but bok - boce.

iv) East Slavic.

East Slavic also has the *-ŭ-stem ending , though it is less widespread than in West Slavic and Serbocroatian and Slovenian. The tendency to use -u as a locative singular

ending with the *-jŏ-stems does not seem to have been too strong here, and the tendency to avoid the K/C alternation seems to have been weaker still. Forms which point to the latter do exist, e.g., на воскў (Rjazań C 13th).

However, the *-ŭ-stem locative singular ending has extended itself in in Russian, after co-existing with the *-ŏ-stem ending. As in the genitive singular, the two are always differentiated in meaning, with the -u-stem ending indicating *concrete location*,

e.g., я стою на берегу - "on the riverbank"

я говорю о береге - "about the riverbank"

The -u forms can only be used with the prepositions в and на ("in" and "on"). They are nowadays less common than they were in C 16th and C 17th. Several foreign borrowings have acquired them , e.g., шкаф - в шкафу. These forms are always stressed on the -u; see Kiparsky 1967: 34-9 and Unbegaun 1935: 78-135.

Ukrainian has more -u endings than Russian; the criterion of monosyllabicity plays some role here: according to Meduševs'kyj & Zyatkovska 1963: 42 monosyllables tend to take -u as their locative singular ending, e.g.,край,у краю, лижко - у лижку. Another tendency, operating in Ukrainian, is that suffixless nouns take the ending -i(< *-ĕ), e.g., берег - на березі. Several nouns have alternative endings, e.g., робітник. - робітнику/ робітникові.

C. The plural cases

In this chapter the nominative plural and the genitive plural of the *-ŭ-stems, and their range in various Slavic languages will be discussed. In the plural the separation of the various functions of the original *-ū-stem endings is much simpler - we do not have to consider *individualisation* or *partitivity* as contributory factors - only the categories of *masculine personal* and *masculine animate* need be discussed here. We will examine the *nominative plural* and the *genitive plural*, together with the new stem formant -ov-.

1) The nominative plural.

i) Introduction.

The *-ŏ-stem nominative plural ending is -i, which causes the *second palatalisation* (see III B), and the *-ŭ-stem nominative plural ending is -ove. In this instance *both* endings show the tendency to be associated with one particular category - that of *masculine animate* or *masculine personal*.

ii) South Slavic.

We can find several -ove forms in Bulgarian, e.g., вол - воловe, all of which are monosyllables. They are used as invariable forms - Bulgarian has no case distinctions whatever in the plural declension of nouns. Macedonian also has some -ove endings in Eastern dialects, e.g., глас - гласове although -ovi is much more common, e.g., зет - зетови. The -ovi forms are regarded as standard. The ending -ovi is often reduced to -oi, e.g., зетои. As in Bulgarian, this ending is used as an invariable plural form.

Serbocroatian, Slovenian, and Russian will be discussed in 3 below with respect to this ending. Certain Slovenian dialects, however, preserve -ove as a nominative plural ending.[12a]

iii) West Slavic.

The descendants of the ending -ove seem to be most numerous in the West Slavic languages. In Polish they are numerous from the earliest times for both inanimate and animate nouns. We can find językowie, wężowie etc. in the Ps. F. (C 14th), and śladowie, czasowie etc. in the Ps. Pu.. By C 15th the trend seems to be the restriction of the -owie ending to the animate, although some inanimates linger on until C 16th. The use of -owie with *non-personal* animates, however, is now mainly used in poetic language. There are numerous examples from C 19th, e.g., orłowie (Mickiewicz).

In many Polish masculine personal nouns there are *two* possible plurals - either the old *-ŏ-stem nominative plural

-i or the old *-ŭ-stem nominative plural -ove. For masculine non-personal nouns, the old *-ŏ-stem (*-ŭ-stem) accusative plural has been extended to the nominative, e.g., stoły.

Most of the masculine personal nouns take the *-ŏ-stem ending -i(-y). Some take -owie, and a few take both, e.g., Polak - Polacy (-cy < *-ci), syn - synowie, anioł - anieli/aniołowie, doktor - doktorzy/doktorowie,

Czech also has numerous examples of *-ŭ-stem nominative plural endings from the earliest times, e.g., zubové (C 14th).[125] This ending develops parallel to the Polish one: nowadays it is used exclusively with personal nouns.[126] As with the dative (dative/locative) singular, masculine personal nouns ending in -a also take this ending, e.g., předseda - předsedové. Slovak has adopted a solution similar to Russian: the combination of the endings -ove and -ja (originally a feminine collective), which is found in Russian as an ending in its own right, e.g., брат - братья, and in Upper Sorbian, e.g., (bratr - bratřa), e.g., Sl -ovia (chlap - chlapovia)

From C 16th on, -ove endings are common in Sorbian (> -ojo) , e.g., mužowje - bratrowje. More recent examples: nan - nanojo, duch - duchojo.

iv) East Slavic.

The -ove endings are far less numerous in East Slavic. Within Russian, the ending begins to extend itself from C 14th, only for animate nouns, e.g., татарове, бояре, воробьеве, but it retreats after C 16th. Endings such as -ови/-еви

reminiscent of those in Serbocroatian, Slovenian, and Macedonian discussed above are also attested, e.g., голубеви - 1426. Nowadays in standard Russian only two nouns with a similar plural (-ov'ja, see above) are preserved, although more are attested in dialects, e.g., зять - зятевья.

2) The genitive plural.

i) Introduction.

The *-ŭ-stem genitive plural ending -ovŭ- is the most successful of any *-ŭ-stem ending, as it has been generalised over most masculine nouns in many Slavic languages, and even to feminines and neuters in others (Belorussian, Sorbian). The reason for this is not hard to find. The fall of the jers in final position would have given the genitive plural a zero-ending in most stems.

Now a zero-ending is by no means unusual as a marker (see I B). The zero-ending still persists in feminine *-ā-stems and neuter *-ŏ-stems over much of Slavic today. It is sufficiently marked, being the only such ending in these paradigms.

But this is not the case for the masculine *-ŏ-stems, which were also acquiring the zero-ending in the genitive plural. Mareš 1968: 40 considers that the zero-ending would have been an "undesirable irregularity", and that other,

more salient endings were introduced to mark the genitive plural. The prime candidate was the *-ŭ-stem ending -ovŭ, and its penetration into the *-ŏ-stems can be seen in OCS texts, e.g., bĕsovŭ (Supr. 40,16). The ending ovŭ can also have a soft variant -evŭ, e.g., vračevŭ (Supr.), but in many cases this loses ground to the *-ĭ-stem genitive plural ending -ijĭ (> R -ей).[127]

ii) South Slavic.

In Serbocroatian we find forms such as гробовь, законовь from C 14th, although the newer ending -ā (also attested in Slovenian and of uncertain origin) has ousted -ovŭ from its former range by C 16th, although -ovŭ lingers on in Čakavian. For a review of the literature on -ā, see Svane 1968: 73-80 (see also 3 iii).

iii) West Slavic.

Polish has several early attestations of -ovŭ (> P -ów), also, e.g., tysiącow (C 14th). Its soft equivalent is also attested, e.g., krolew (C 14th). The ending -ów, however, found itself in competition with the *-ĭ-stem genitive plural ending -i, and right up to the present, several nouns can have both endings, e.g., mąż - mężów/męży. As a general rule, nouns with a nominative plural in -owie will have a genitive plural ending in -ów.

The ending -ovŭ is also seen to extend its range in Czech. From the earliest examples of Czech texts we can find

several such forms, e.g., měcóv (C 14th), měsiecov (C 13th). As in Polish, there was competition with the *-ĭ-stem ending -ĭjĭ > -í, e.g., muží (C 15th). The -í ending was undoubtedly extended by the sound change ů > ĭ/C'-, which would have made -í the obligatory ending for all formerly soft consonants, but the situation has been altered to make -óv (> ů in modern Czech) the normal genitive plural ending for both hard and soft stems, e.g., hrad hradů, muž - mužů, although such forms as muží linger on in literary Czech.

Slovak has generalised -ovŭ (> -ov) for all masculine nouns, hard and soft,, e.g., smysel - smyslov. Certain nouns have an alternative zero genitive plural ending, e.g., čas - čias (compensatory lengthening) and some (all soft stems) have -í (< *-ĭjĭ), e.g., host - host'ov/hostí.

Sorbian has generalised the -ovŭ ending to neuters and feminines, e.g., ptačk - ptačkow, polo - polow, žona - žonow. Only a few nouns have other endings, e.g., swinja - swini. In contrast to the rest of Slavic, the -ovŭ ending has even penetrated the *-ĭ-stems, e.g., kość - kośćow.

The earliest attestations of Sorbian (esp. Jakubica 1648) show neuter and feminine nouns still with zero-endings in the genitive plural, e.g., lato - lat.

In contrast to Russian, in Polish, Czech, Slovak and Sorbian masculine personal nouns ending in -a in the nominative singular take -ovŭ in the genitive plural, e.g., P poeta - poetów ; Cz předseda; -předsedů; Sl sluha - sluhow ; US ćěsła - ćěsłow, cf. R слуга - слуг.

Belorussian has -aў /-oў as the reflex of -ovŭ, and this ending co-exists with zero, e.g., акно - акон / вокнаў .

3) The use of the formant -ov-.

i) Introduction.

In certain Slavic languages the -ov- which appears in certain original *-ŭ-stem cases (dative singular, nominative plural, genitive plural, genitive/locative dual) has been extended to many other cases, usually with monosyllabic nouns. It is generalised through the plural in several instances and in Slovenian it has invaded the singular in a few forms.

ii) The use of -ov- with the nominative plural of nouns The -ov- element often combines with other endings to form a new nominative plural marker.[128] Bulgarian, Polish, and Sorbian have the lineal phonological reflexes of -ove as a masculine nominative plural ending: Bg бряг - брегове P syn - synowie; U.S.nan - nanojo; whereas Macedonian, Serbocroatian, Slovenian, Czech, Slovak, and Russian have combined -ove with other endings: M вол - волови (-ov- treated as a stem formant, -i substituted for -e as a plural ending); note the contrast with Bulgarian, which has preserved -ove; SC nož - noževi(see M); Sn svet - svetovi.

iv) East Slavic.

In East Slavic the -ovŭ ending has also gained a great deal of ground. From C 13th on, the ending -ovŭ becomes normal, although some zero-endings have lingered on until the present day, e.g., R глаз - глаз, U чобіт - чобіт.

In Russian the soft equivalent of -ovŭ, -evŭ, also extends its range in tandem, e.g., коневь (occurring from 1262 - c.1460). Later -evŭ (> -ев /-ёв (stressed)) is ousted by -ей (< -ĭjĭ) - коней (c. 1600 - present). The ending -evŭ lingers on after ž, č, š, and šč until C 16th, and is replaced then by -ей , e.g., нож - ножей. It is still in use with nouns ending in j and c, e.g., месяц - месяцев.

The ending -ovŭ has also spread sporadically to the neuters. In colloquial speech neuter nouns with hard stems can have -ов as a genitive plural ending, e.g., нет местов, recorded in 1916. One form, облаков, has become established in the literary language. The -evŭ ending has had more success with the neuters, e.g., верховье - верховьев, крыло - крыльев (see Kiparsky 1967: 73 for a more complete list). The -ovŭ ending might have become as well established in Russian as it has in Sorbian, if there had not been an effort to banish it from C 18th onwards.[128]

Ukrainian generally has -ів (< -ovŭ/evŭ, where Russian has -ов etc. As in Russian, there are a few zero endings (see above). In contrast to Russian, some *-ā-stems have acquired the ending -ів, e.g., хата - хатів.

In all of the above, -ov- is used as a stem formant *throughout the plural* (and dual in Slovenian) *paradigm*, e.g.,

	SC	Sn	
N.S.	nož	svet	
N.PL.	noževi	svetovi	N/A DU svetova
A.PL.	noževe	svetove	
G.PL.	noževa	svetov	
D.PL.	nožema	svetovom	D/I DU.svetovoma
I.PL.	nožema	svetovi	
L.PL.	nožema	svetovih	

This contrasts with other Slavic languages such as Polish (syn, - synowie - synów - synów -synom - synami - synach) or Slovak (vrah - vrahovia - vrahov - vrahov - vrahom - vrahmi - vrahoch), where the -ov- has not spread beyond its original range.

Czech and Slovak have introduced new endings into the nominative plural by combining -ov- with another ending: in Czech with -é and in Slovak with -ia, e.g., Cz pán - pánové; Sl vrah - vrahovia.

Russian here agrees with South Slavic in that the -ov- element appears throughout the plural, but it is only attached to two forms, e.g., сын - сыновья etc., кум - кумовья etc.

Texts are attested containing -ove plurals from the earliest times, e.g., послове (R 1294), zubové (Cz early C 14th), duxove (OCS Supr.).

ii) Slovenian.

In one noun in standard Slovenian, the -ov- formant has become generalised in the oblique cases in the singular: dan - dan - dneva - dnevu - dnevom - dnevu.[130]

It appears in dialects in other singular forms, e.g., sin g.s. snova (Medvode). In the earlier language -ovu (< +ov+ *ŏ-stem dative singular -u) is attested, e.g., svetuvu (C 16th).

It is used throughout the plural and dual with many monosyllables (see above for examples) although not all monosyllables take it (e.g., trg - trgi) and there are many instances of competing forms (, e.g., dar - darovi/dari).

iii) Serbocroatian.

Serbocroatian has nót extended the -ov- formant in the singular, but utilises it in the plural in the same way as Slovenian. The use of -ov- is early; that it predates the generalisation of -ma in the dative, instrumental, and locative plural is shown by forms such as синовомь (C 14th), градовьх (C 14th).

Certain Serbocroatian forms use -ov- in the plural where Slovenian does not, e.g.,SC trg - trgovi but Sn trg - trgi.

The genitive plural in Serbocroatian and Slovenian is worth a few remarks here. Both languages show an early extension of the original *ŭ-stem ending, e.g., SC градовь

(C 14th). In Slovenian the -ov < -ovŭ has been generalised in the masculine, whereas in Serbocroatian the forms with -ov- were doubtless analysed as *root + stem formant + desinence* and this could have helped the spread of the -ā ending to monosyllables utilising -ov-, e.g., grad - gradovi - gradovā, in contrast to Slovenian grad - gradovi - gradov.

iv) Russian.

The -ov- formant has not been as successful in Russian as in South Slavic. Unlike South Slavic, however, where -i has been generalised as the nominative plural desinence, a variety of endings have been utilised for the nominative plural in combination with -ov-, e.g.,

a) годубеви - 1426 (-ov- + -i)

b) сыновья (see above)

c) жидова - 1489 (-ov- + -a).[131]

A form related to жидова, хозяева, - still survives in the modern literary language. Kiparsky 1967: 46 states that хозяева is "an der Grenze zwischen Kollektivum und richtigen Plural," as it is already built on an earlier collective formation хозяя < Chuvash хоźа. It has хозяев as a genitive plural.

As the -ov- formant has not spread so far in Russian, the -ов ending in the genitive plural is more salient as a distinctive [illegible]an it would have been as a stem formant.

4) Summary.

At this point we should briefly summarise the conclusions reached in this section the use of the various original *-ŭ-stem endings.[132]

i) Genitive singular -u. Used overwhelmingly with inanimates and to denote partitivity. There are very few examples with animates (see III B 1).

ii) Dative singular -ovi. Generally denotes animates, although it has spread to inanimates in certain instances. With personal nouns it has spread to the locative in certain instances (see III B 2).

iii) Locative singular -u. Has spread mainly to masculines and neuters with stems ending in a velar to restrict the K: C alternation in the singular to feminines. Animacy is not relevant here (see III B 3).

iv) Nominative plural -ove. Used almost exclusively for animate or personal nouns, sometimes co-existing with -i (from the *-ŏ-stems) (see III C 1).

v) Genitive plural -ovŭ. The most successful of the original *-ŭ-stem endings - it has spread to nearly all masculine nouns and to feminines and neuters in some instances (see III B 2).

A new stem formant in -ov- has also arisen. It is exclusively used with monosyllabic nouns, and mostly appears in the plural. It is widespread in West South Slavic, and is rarer elsewhere.

5) Conclusions.

The developments discussed in III lend support to the reconstructions outlined in II, for the following reasons:

i) The expansion of the *-ŭ-stems in the modern Slavic languages is unparallelled in other IE languages, where the *-ŭ-stems have tended to retreat. This lends weight to all the proposals involving analogical extensions of the *-ŭ-stems.

ii) In II B, II C, and II D it was proposed that the *-ŭ-stem endings were used to differentiate number, gender, and case. Some of the attested developments in III provide support for hypotheses outlined in II, as follows:

a) In the singular, the *-ŭ-stem endings contributed to the rise of the new sub-genders[133] in the modern Slavic languages, chiefly within the masculine gender. I suggest that this development may be interpreted as a recurrence of the use of the *-ŭ-stem endings as gender markers in the masculine nominative and accusative singular in the preliterate period of CS. That the differentiation of gender continued to be of importance is indicated by the strong tendency to restrict the K/C alternation in the singular to the feminine.

b) In the masculine plural declensions of the modern

languages, the *-ŭ-stem ending *-ovŭ ousted the *-ŏ-stem genitive plural ending *-ŭ, except in a very few instances. In some instances it spread to the feminine and neuter also. Again, I suggest that this development is typologically similar to the one reconstructed for the accusative plural in II D, and hence supports this reconstruction.

IV. Conclusion

In the foregoing study an attempt was made to trace one part of the CS nominal declensional system, and the following conclusions were reached.

1) It is very probable that an absolutive/ergative opposition can be reconstructed for PIE, in contrast to the nominative/accusative opposition attested in the earliest Hittite, Sanskrit, Greek, etc. It was suggested in I B that the CS accusative is descended from the PIE accusative (absolutive), which was marked originally with a zero desinence. This zero desinence was preserved in all the CS accusative singulars except the *-ŏ- and *-ā-stems, which had an accusative singular ending *-m. The *-ŭ-stem accusative singular should therefore be reconstructed and analysed as *-ŭ-ø, instead of the more usual *-ŭ-m.

In I C it was shown that the *-ū-stems were more numerous than is usually supposed.

2) In II CS morphological developments were considered which are often explained by Auslautgesetze. There are theories which seek to explain all the forms discussed in the thesis by Auslautgesetze, and there are theories which utilise a combination of Auslautgesetze and and morphological explanations. It is proposed in this thesis that there were no Auslautgesetze in CS, nor were there any special sandhi rules - every instance where either has been proposed can be explained by *morphological analogy*, utilising the following hierarchy of categories:

number-gender-case.

The following alleged Auslautgesetze were accorded special attention:

i) *-ŏs > *-ŭ (see II B).

ii) *-ŏm > *-ŭ (see II C).

iii) *-ōns > *-y> (see II D).

All the above were discussed in sections II A and II H.

3) After the various changes and mergers that did take place in the phonological system, the CS nominal system underwent a great number of changes. In many of those changes (the *-ŏ-stem masculine nominative and accusative singular (see II B and II C), the accusative plural of the *-ā-stems and masculine *-ŏ-stems (see II D)), a role was played by the *-ŭ-stem endings, which were utilised in the nominative and accusative singular to mark the masculine gender, and in the accusative plural as a marker of number.

Of the hypotheses discussed in II, I rank II B as extemely likely, II C, II D, II E, II F and II H less so, and II G less still.

4) In III the developments in attested Slavic languages were discussed, and possible parallels between the preliterate and historic trends were suggested.

5) This study has been proposed as an alternative framework to the traditional theories on the subject. It does not claim to be the last word by any means. Several questions have been left unanswered, and would be possible fruitful topics for further study:

i) *Why* did CS preserve the neuter gender?

ii) How natural are Auslautgesetze?

iii) Would the framework developed in II A work as well for other EIE languages? What modifications would have to be made? Would Stankiewicz's proposals on marking be equally applicable?

iv) What are the precise relationships between the reconstructed development and the attested development? How would the proposals made in this dissertation have to be modified?

It is hoped that these questions will be pursued in the near future.

Footnotes

[1] Sometimes more distantly related languages can provide vital clues, e.g., a final dental stop can be reconstructed for the ancestor of R <u>to</u> on the evidence of Sanskrit and Germanic: it cannot be reconstructed on the Slavic evidence alone.

[2] The full text of the rhyme can be found in Lockwood, 1961: 61.

[3] An early example of this was Bopp's equating of r-passives in Latin with aorist s-forms on the basis of rhotacism. Later on it was discovered that Celtic and Hittite also have r-passives, and as these languages do not show rhotacism, this equation had to be abandoned.

[4] See, e.g., Hirt 1927: III: 38, Lehmann 1958, Schmalstieg 1980: 46-7 etc.

[5] In contrast to Gothic, Old English and Old High German have an instrumental case in addition to the others.

[6] Nowhere in the plural does the ablative have a distinctive ending.

[7] See, e.g., Josselson 1953: 18-19, Gerd et al. 1974: 178 passim, Stankiewicz 1977, Jelínek et al. 1961: 86-9.

[8] The suffix <u>*-jānīnŭ-</u> was partially merged with another, originally distinct suffix <u>*-ĕnīnŭ-</u>; see Shevelov 1964: 259

[9] Previous to this development the feminine *-ā-stems would have taken the accusative plural ending -y from the *-ŭ-stem ending via the *-ŏ-stems.

[10] The ending *-i is pronominal in origin. For details, see II H.

[11] See, e.g., Szemerényi 1970a: 124-5, Schmalstieg 1980: 47.

[12] In fact, it was the seeming irregularity of vocalic alternation in roots such as *sta- which led de Saussure to posit his famous "coefficients sonantiques".

[13] A parallel *ĭ/ei alternation is attested in the *-ĭ-stems, e.g., OCS gostĭ g.s. gosti < *-eis.

[14] See Brosman 1976 and 1978. For the view that Hittite lost its feminine gender, see Marstrander 1919: 28.

[15] Different terminology has sometimes been used, e.g., Agent/Patient (Uhlenbeck 1901); Active/Passive (Savčenko 1968).

[16] It is proposed that the *-s which is reconstructed for the ergative is the same "s" which appears in the earliest attestations of IE languages as a nominative singular. An ergative-to-nominative change is attested in the history of Persian.

[17] In Hittite the same form is often used for singular and plural, e.g., genitive antuhšaš, and this probably reflects the earlier state of affairs.

[18] Greenberg formulates the Universal thus: "Where there is a case system, the only case which ever has zero allomorphs is the one which includes among its meanings that of the subject of the intransitive verb". Comrie cites a few counterexamples (1981: 119).

[19] It is generally proposed that "m" and "n" merged in final position early in CS. The result of this reconstructed merger is normally written "N". However, the affixing of "m" in the accusative singular would probably antedate this merger.

[20] For examples see Schmalstieg 1976: 98-100.

[21] See, e.g., Savčenko 1968, Shields 1976, 1978, Uhlenbeck 1901.

[22] Dixon 1979: 77, referring to the system attested in Runic, states that such a system is unstable. However, the Faroese system attested here is descended from Runic. It should be pointed out, however, that the systems in Faroese (and Icelandic) only constitute a partial exception to Dixon's proposal, as many paradigms (cf. horn) do have zeroes as a marker of the nominative. An additional example of a non-nominative case marked with a zero is furnished by several genitive plural endings in the modern Slavic languages (see III C).

[23] As opposed to nominative-*marked*/accusative-*unmarked* systems, I know of no attested system with ergative-*unmarked*.

[24] For examples of "animate agents", see Shields 1978: 192.

[25] The participial and comparative forms of the adjectives do show different stem formants.

[26] There were a few original *-ū-stems in CS, mostly feminine. Their number was later augmented by borrowings from Germanic.

[27] E.g., Lithuanian seems to have gained new case inflections in recent times, e.g., the illative, adessive, and allative; see Stang 1966: 175-6.

[28] Cf. the evolution of the future paradigm in French and Spanish quoted in Schmalstieg 1980: 4-5.

[29] One must exercise great care when dealing with Hittite data, as the system does not lend itself to phonetic precision.

[30] The close similarity between the Sanskrit and OCS *-ŭ-stems was used by Burrow 1973: 19 as one of the proofs for a close relationship between Slavic and Indo-Iranian.

[31] In Celtic also the *-ŭ-stems have been extended. In Scottish Gaelic foreign borrowings have been taken into the *-ŭ-stem class, e.g., pìob g.s. pìoba (< *-ous). In Welsh and Cornish the former nominative plural *-ŭ-stem ending is now the commonest plural ending, e.g., We tad

- tadau; Co tavas - tavosow (< *-oues).

[32] Unbegaun (quoted by Ekkert) illustrates the extent of the problem when he points out that that there as many lists of *-ŭ-stems as there are scholars.

[33] Old Prussian has a few neuter *-ŭ-stems, e.g., meddo. Lithuanian has a few feminine pluralia tantum, e.g., pẽlūs. OIc hǫnd and OI mucc are probably original feminine *-ŭ-stems.

[34] Some Carinthian Slovenian dialects have forms such as mow "homeward" etc. For further information see Hafner and Prunč 1980: 148.

[35] It is possible that this form is related to μεδοσ, see Kmietowicz 1976: 127.

[36] Trubačev 1974 refers to his unfinished etymological dictionary of CS, which at present (1982) has only reached T VIII.

[37] At a much earlier stage synŭ I probably belonged to this group.

[38] The form *podŭ can possibly also be assigned to this group.

[39] Stang 1972: 19 doubts the equation dolŭ - θολοσ.

[40] A form pādu is attested in the Rig-Veda, see Mayrhofer 1931: 54.

[41] Bernštejn 1974: 253 quotes unfavourably Bulaxovskij's (1936) theory that the frequency of the forms medŭ and solodŭ could have contributed to the spread of the *-ŭ-stem endings.

[42] Schmalstieg 1980: 167-8, following Li 1976, points out that in certain languages (e.g., Lisu) it is often ambiguous which is the agent and which is the patient.

[43] I use *morphological* here to mean "opposed to purely *phonological*", i.e., I do not restrict its meaning to, e.g., "dependent on specific boundaries and/or morphological boundaries." Elsewhere in the dissertation the term "analogical" is used.

[44] The OR paradigm is taken from Kiparsky 1967: 262, 264.

[45] An alternative route of development, favoured by Schmalstieg 1976: 78, is as follows: *-ō(ā)ns > *-ūns > *-ūs > *-ū > -y.

[46] D'Alquen suggests that the evolution of accent in Germanic was actually much more complicated than is generally supposed, and that the fixing of stress on the first syllable is later than previously believed.

[47] W.R. Schmalstieg (personal communication) has drawn my attention to Lithuanian data which seem to lend support to the traditional theory. He has drawn my attention to such Lithuanian dialectal forms as baltùńcus, which seem to provide strong typological support for the traditional Slavic Auslautgesetze. Nevertheless, I feel that in this instance stress could be the reason for the loss of the nasal in the final syllable: as far as I am aware, there are no such forms where the nasal would have been lost if the final syllable had borne the stress.

[48] Some data from Romance lend support to the hypothesis that final nasal sonants are lost earlier than final dental stops. An example from Romance shows the opposite ordering from that of Greek. In Sardinian final Latin "t" is still preserved, whereas all the final "m"'s have been lost.

[49] For examples of persistent sound change, see Chafe 1968.

[50] It is quite possible that the -t does not have to be reconstructed in the aorist form. See, e.g., Schmalstieg 1975, Feinberg 1978. This would then be a case of *-ōn > *-ǫ.

[51] Cf. Trubetzkoy's *bhermnt; see Ferrell 1965: 106.

[52] Ferrell 1965: 102 agrees that *-jō > *-jē must have been earlier than *-ō > *-ū.

[53] The use of the term Balto-Slavic unity in this context does not imply that I reconstruct such a situation distinct from IE unity.

[54] In Old Irish a final syllable with initial "j" was preserved (e.g. guide < *-jos), whereas the same without "j" would have been lost (e.g. fer < *-os).

[55] It seems that we can subdivide fricatives: according to Ruhlen loc.cit. nasal sonants are lost before "χ", and then before "s". This is possibly connected with homorganicity: "s" and "n" form a homorganic cluster and it is possible that this would help to preserve *-Ns- clusters longer than *-Nχ- clusters during a period of loss of nasal sonants. One can find good examples of this sequence in the history of the Germanic languages.

[56] For word-final nasal sonants to be lost at a different time from other types of nasal sonants is, admittedly, a type of Auslautgesetz.

[57] The history of the denasalisation of certain nasal vowels is actually attested in Polish. See Stieber 1973: 11, 32, 39-42, 79-82, 92-95, 104-105, 129-130. The Polish evidence does not provide much support for the traditional Auslautgesetze. Firstly, Polish has a fixed stress, thus differentiating it typologically from CS. Secondly, different types of nasal vowels are involved in the Polish developments: the original front nasal vowel tends to denasalise in final position (and in other positions in the word), whereas the original back nasal has mainly preserved its original nasal quality.

[58] For a comprehensive treatment of analogy, including a discussion of various theories, see Anttila 1977.

[59] E.g., Japanese has no number marking in nouns, but distinguishes case through postposed particles, e.g., hebi ga, hebi o, hebi ni etc.

[60] These remarks apply only to nominal gender unless otherwise stated.

[61] This is not proposed as a linguistic universal - in Semitic the second person pronoun shows gender distinction, e.g., Akkadian 'atta m. 'attí f.

[62] In the dual and plural of the personal pronouns Slovenian also distinguishes masculine and feminine, e.g., mí - "we"(m.); mé - "we"(f.). At first sight it may seem that a contradiction is involved here: it is proposed that number was morphologically unimportant in PIE (see I B 2 and note 17), whereas for later IE it is proposed that number assumed paramount importance. I suggest that the best method of handling this apparent contradiction is to suggest that PIE probably resembled Japanese (see note 59) in its lack of morphological number, and that the evolution of morphological number is a later development. I would further suggest that such a shift would be similar in scope to the ergative/absolutive-to-nominative/accusative shift discussed in I B.

[63] Slobin's Universal 10.1 (1978) states the opposite of Rūķe-Draviņa 1959: 214.

[64] Possibly the preservation of the neuter in these languages is connected with the maintenance of a distinctive neuter ending in the pronoun and adjectives, e.g., Ger es, Gk *to*, R то, Icelandic það.

[65] T.M.S. Priestly (personal communication) has informed me that Georgiev's proposal is contradicted by developments in the Sele Fara dialect of Slovenian.

[66] In the Latin developments not only "o" is affected, e.g., aurifex < *auri+fak+s, fēcit < *fēced, dominus < dominos. In other forms the the change can go the other way: the sequence *-uŭ-develops to *-uo- in Classical Latin.

This is accompanied by changes conditioned by a following consonant,

e.g., *o > *u/ - l,m,n,r, + C

stultus < stoltus (stolidus).

Forms such as praecox, attested in Horace, arose after these changes had ceased to operate.

[67] Schmalstieg 1976: 70 seems to be keeping his options open here.

[68] Ferrell 1965: 106 describes the *-s-stems as "an unproductive and dying class", and yet there is a fair amount of evidence (see Bernštejn 1974: 162-3) to show that the *-s-stems did go through bursts of productivity.

[69] The Old Irish evidence is ambiguous here, see Thurneysen 1946: 187-8.

[70] See Schmalstieg 1965, 1968a, 1976, etc.

[71] These have found little favour, cf. Van Campen 1966: 58-64.

[72] Often consonants in final position do not undergo the same changes in monosyllables as they do in polysyllables, e.g., OE <u>pæt</u> < IE <u>*tod</u>; the final dental stop would have been lost if the word contained more than one syllable.

[73] Baltic has separate reflexes for PIE *ā and *ō. Prinz 1977 proposes that Slavic did also.

[74] Schmalstieg's own reconstruction system is used here.

[75] See Jacobsson 1974 and Shevelov 1964: 90-91.

[76] As far as I am aware the <u>effects</u> of the loss of final *-s on the morphological system of CS have not been studied, although they have caused serious disruption in both nominal and verbal systems (see II D 3).

[77] For a cautionary note, see Hamm 1966 loc. cit., quoted in I.I A.

[78] See note 52 above.

[79] Sanskrit actually does have *-ān as a possible reflex of *-āns.

[80] See note 45 above.

[81] See also Schelesniker 1976.

[82] E.g., Schelesniker 1964, Ferrell 1965a, Georgiev 1969, Feinberg 1978 .

[83] See note 72 above.

[84] In Polish *-ě would have been indistinguishable from *-e in word-final position at the stage of the evolution of Slavic for when this development is proposed. The term *-ě3 is taken from its use in the Cyrillic. In Russian *-ě3 was probably chosen as "the nearest non-nasal phoneme" to the original front nasal because of the closeness in pronunciation of "ja" (< *-ę) and *-ě.

[85] See Thurneysen 1946: 181 for discussion, and also Kortlandt 1979: 290-1.

[86] Quoted by Schmalstieg 1980: 72.

[87] Also the *-ā-stem ending in mensarum and the *-ē-stem ending in rerum; cf. Skt aśvanam etc.

[88] It should be born in mind that oppositions between nasal sonants in syllable final position were probably not phonemic in Early CS.

[89] In Celtic and Italic this particle is attested in the genitive singular of the *-ŏ-stems.

[90] The ending *-osjo is attested in Greek and Indo-Iranian, e.g., Gk (Homeric) γαμβροιο, Skt aśvasya.

[91] As a cautionary note it should be pointed out that the Greek form has dative meaning, whereas the OCS form has locative meaning.

[92] Modern Russian has here -t < *tŭ of uncertain origin.

[93] Szemerényi 1970b: 159-164 offers a fairly strong case for denying forms in *-ēn to IE, but he ignores the Indo-Iranian forms presented in support of this

hypothesis and his explanation of *korę as being influenced by sěmę is admittedly possible, but unlikely for various reasons.

[94] E.g. OIc hamarr - "rock", Eng hammer; Skt aśmā - aśmanah aśmarah - "stony".

[95] A form such as *kāmē has never been attested; it is included here for balance.

[96] The equation Lith vanduō - OCS voda possibly offers another example of this.

[97] Examples parallel to OPr kērmens - "body".

[98]

Lat	civis m	BUT	navis f
Go	gasts m	BUT	ansts f
OI	cnáim m	BUT	súil f
Skt	dhvanih m	BUT	raji f

[99] For an interesting hypothesis on the origin of the *-nt- formant, pushing it back beyond IE, see Schmalstieg 1980: 76.

[100] With certain forms ending in -a, see Ferrell 1971.

[101] The classification is Leskien's 1969: 12.1-2.

[102] Schmalstieg 1976: 142-4 gives numerous examples of the possible morphological remodelling in these forms.

[103] Masculine accusative singular nominal forms such as OCS berǫšti etc. are not analogous. The "j" reconstructed in these forms is not pronominal.

[104] See Diels 1932: 232-4 for some examples of the neuter pr.p.a. n.s..

[105] E.g., in Russian there is one plural adjective declension for all genders, whereas in the noun declension endings vary in the plural from gender to gender.

[106] Numerous forms of this class are attested with -ę-throughout, e.g., borę - poboręštaago.

[107] There is often a close connection between the third person plural and the pr.p.a., see Schmalstieg 1980: 107.

[108] Verbs of classes I, II, and III all have *-e/o- as the theme vowel except in the first singular and third plural, and perhaps this helped the *-ō in the third person to survive.

[109] Both these reconstructed diphthongs would have developed to *-i.

[110] Hirt and Mikkola are both quoted from Mathiassen 1971.

[111] Indeed, in Russian several meanings of these forms can be classified as optative rather than imperative, e.g., хоть уоей, не скажу - "even if you kill (me), I shall not tell."

[112] Old Icelandic is cited here for Germanic because Gothic has lost the IE root *mātēr.

[113] In the light of this discussion, it is interesting to note that the *-bh-forms also have a variety of vowels in their endings.

[114] For a discussion of the OPr ending *-mans see Stang 1966: 185.

[115] This form in Sanskrit can also have third person meaning.

[116] Possibly this is an instance of "local marking". It is probable that for nouns denoting a location, or for place-names, the locative is unmarked. See Tiersma 1982.

[117] This is possibly an instance of abductive change, discussed in Andersen 1973.

[118] The neuters tend to use the old *-ŏ-stem endings to a much greater extent than the masculines do.

[119] For the history of the loss of declension in Bulgarian and Macedonian, see Koneski 1965: 130-42 and Mirčev 1965.

[120] For further information see Graudina et al. eds. 1968: 121-5, 134 -7; Krysin ed. 1974: 165-79.

[121] See, e.g., Meduševśkyj and Zjatkovśka 1963: 41-2.

[122] It is interesting in this context that proper names in Greek frequently are accompanied by the definite article, e.g., ὁ Σοφοκλης.

[123] In certain instances accentuation can be used to differentiate the two case endings, e.g., n.s. gláva - d.s. glâvi - l.s. glávi.

[124] E.g. the Kraški dijalekti, see Ramovš 1952: 54.

[125] For an explanation of the length, see Trávníček 1935: 297 fn.

[126] It can be used for personification, see Mareš 1968: 38.

[127] The evolution of the paradigm of R конь is a good example of this trend, see Kiparsky 1967: 50.

[128] Lomonosov was prominent in this effort; see Kiparsky 1967: 93.

[129] This is possibly an example of Kuryłowicz's principle that a bipartite morpheme tends to replace a single one.

[130] There are alternative forms for this paradigm; see Lenček 1982: 200.

[131] This -a is the probably the same -a which appears in forms such as <u>города</u>, <u>берега</u>.

[132] Only the *-ŭ-stem endings accepted as such by the scholarly consensus are treated here, and not the ones proposed in II B, II C, and II D of this dissertation.

[133] The term "sub-gender" is taken from Stankiewicz 1968.

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Appendix

The *-ŏ-stem paradigms are as follows:

OCS

	Sg.	Du.	Pl.
N	gradŭ	grada	gradi
V	grade	grada	gradi
A	gradŭ	grada	grady
G	grada	gradu	gradŭ
D	gradu	gradoma	gradomŭ
I	gradomĭ	gradoma	grady
L	gradě	gradu	graděxŭ

Latin

N	dominus?		domini
V	domine		domini
A	dominum?		dominos?
G	domini		dominorum
D	domino		dominis
Ab	domino		dominis

Gothic

N	dags?		dagōs
V	dag?		dagōs
A	dag?		dagans?
G	dagis		dagē
D	daga		dagam

Sanskrit

N	kāntaḥ?	kāntau	kāntāḥ
V	kānta	kāntau	kāntāḥ
A	kāntam?	kāntau	kāntān?
G	kāntasya	kāntayoḥ	kāntānām
D	kāntāya	kāntābhyām	kāntebhyaḥ
I	kāntena	kāntābhyām	kāntebhyaḥ
L	kānte	kāntayoḥ	kānteṣu
Ab	kāntāt	kāntābhyām	kāntebhyaḥ

Lithuanian

N	dievas?	dievù	dievai
V	dieve		
A	dievą?	dievù	dievus?
G	dievo		dievų?
D	dievui	dievám	
		dievams?	
I	dievù	dievaṁ	dievais
L	dievè?	dievám	dievuosè

Greek

N	ἀνθρωποσ?	ἀνθρωπω	ἀνθρωποι?
V	ἀνθρωπε	ἀνθρωπω	ἀνθρωποι?
A	ἀνθρωπον?	ἀνθρωπω	ἀνθρωπουσ?
G	ἀνθρωπου	ἀνθρωποιν	ἀνθρωπων
D	ἀνθρωπῳ	ἀνθρωποιν	ἀνθρωποισ

Hittite

N	antuhšaš?		antuhšeš
A	antuhšan?		antuhšuš?
G	antuhšaš		antuhšaš
D	antuhši		antuhšaš
I			
L	antuhši		antuhšaš
Ab	antuhšaz		

The *-ŭ-stem paradigms are as follows:

OCS

N.	synŭ	syny	synove
V	synu	syny	synove
A	synŭ	syny	syny
G	synu	synovu	synovŭ
D	synovi	synŭma	synŭmŭ
I	synŭmĭ	synŭma	synŭmi
L	synu	synovu	synŭxŭ

Latin

N	exercitus		exercitūs?
V	exercitus		exercitūs?
A	exercitum?		exercitūs?
G	exercitūs		exercituum?
D	exercitui		exercitibus
Ab	exercitu		exercitibus

Gothic

N	sunus		sunjus
V	sunu		sunjus
A	sunu?		sununs?
G	sunaus		suniwē
D	sunau		sunum

Sanskrit

N	mṛduḥ	mṛdū	mṛdavaḥ
V	mṛdo	mṛdu	mṛdavaḥ
A	mṛdum?	mṛdu	mṛdūn?
G	mṛdoḥ	mṛdvoḥ	mṛdūām
D	mṛdave	mṛdubhyām	mṛdubhyaḥ
I	mṛduna	mṛdubhyām	mṛdubhiḥ
L	mṛdau	mṛdvoḥ	mṛdusu
Ab	mṛdoḥ	mṛdubhyām	mṛdubhyaḥ

Lithuanian

N	sūnus	sūnu	sūnūs?
V	sūnau	sūnu	sūnūs?
A	sūnų?	sūnu	sunus
G	sūnaũs	sūnu	sūnų̃
D	sūnui	sūnùm	sūnùms
I	sūnumi	sūnum	sūumis
L	sūnujè	sūnu	sūnuosè

Greek

N	πηχυσ	πηχει	πηχεισ
V	πηχυ	πηχει	πηχεισ
A	πηχυν?	πηχει	πηχεισ
G	πηχεωσ	πηχεοιν	πηχεων
D	πηχει	πηχεοιν	πηχεσι

Old Irish

N	mug_	mug_	mog(a)e
V	mug?	mug_	mugu
A	mug n-?	mug_	mugu?
G	mogo(a)	mogō(a)	mog(a)e
D	mug	mog(a)ib	mog(a)ïb

Hittite

N	harnauš		(heuēš)
V	harnauš		(heueš)
A	harnaun?		(heuš?)
G	harnauaš		
D	harnaui		
I	(heauit)		
L	harnaui		
Ab	(uelluuaz)		