Remarks on Kurzová's Model of Indo-European Structural Change, from D-F to P-F, Part II

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Remarks on Kurzová's Model of Indo-European Structural Change, from D-F to P-F, Part 2*

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2. PIE Sentence Structure and Nominal System

This section surveys the arguments in Kurzová (1993: Part II, pp. 47-104), where proposals on the PIE nominal system and its development are offered. My major concern is, as mentioned above, to see if Kurzová's theory makes any contribution to elucidation of the historical development of the Germanic verbal system, and thus, those portions that may be relevant to my future arguments are discussed below, whilst topics that are irrelevant to my interest are by and large omitted. More specifically, her arguments on the PIE sentence structure and nominal system is not to be neglected insomuch as the original PIE grammar as a whole must be identified in considering how the verbal system, a subsystem of grammar, developed into the attested system in the Germanic languages. On the other hand, those details concerning the developed Latin or Greek nominal system are not suitable for us to go into here, since they are largely irrelevant to our purpose.

2.1 PIE Sentence Structure and Subject

We have touched upon Kurzová's assumption that the IE sentence structure is LINEAR and NON-FORMALIZED and shows an `appositional` relationship between the constituting words or WORD AUTONOMY (see §1.4 above). This section observes related aspects of the IE sentence structure.

Kurzová (1993: 66) claims that the IE agreement between noun and adjective evidences the word autonomy and non-formalized syntax. As attested in Latin, the IE "adjective can precede or follow the nouns and it can be in non-contact position with the noun". Thus, she comes to the conclusion that "[t]he syntactic function of agreement which serves to identify the constituents showing the same categorial distinction as part of the same noun phrase ... is a

secondary consequence of the primary semantic/referential function of agreement." (For a related discussion, see also Kurzová 1993: 42ff., Sec. 1.3.6.1). The non-formalized character of the PIE sentence structure is, according to her, to be illustrated by the characteristics that it lacked a formalized word order and that nominals (nouns and adjectives) could be predicates or constitute a sentence without recourse to a copula[15], cf. *op. cit.*, p. 44.

As discussed in 1.2 above, the comparatively reconstructed PIE can be regarded as a nominative language rather than an ergative or an active language. If this is so, it may be enquired how the nominative subject came to be regularized in the assumed linear, non-formalized sentence structure. Kurzová (1993: 84) considers that this is related to the `unipersonal` character of the PIE verbs, in the sense that a PIE verb "is marked for only one of the possible participants involved in its relational frame," which "provides a precondition for the establishment of its relation to the privileged participant". Her conclusion is thus that "the unipersonal marking of the [P]IE verb, being solidified with the nominative marking, constitutes a contribution to the establishment of the subject-verb relation from the verb side". As we shall see in the next subsection, PIE (animate) nominative is assumed to have had the features +autonomous/individual and +independent (cf. *op. cit.*, p. 81) as its referential or semantic content (but not as a relational feature), which serves to indicate that it is a privileged participant of the sentence.

Furthermore, Kurzová (1993: 84ff., Sec.2.4.3.2) distinguishes two types of statement, THETIC and CATEGORICAL STATEMENT, in dependence on Sasse's (1987) argument. The difference between these two types of statements lies in "the relationship between the referential act of the noun and the predicational act as the sentence-constituting act" (*op. cit.*, 84f.). More concretely, a thetic statement is concerned with the situation where "the reference of the noun is completed together with the reference of the whole sentence, i.e. with the accomplishment of the predicational act." A categorical statement is made possible in the

situation where the nouns "refer to the elements of the actual knowledge shared by the speaker and the hearer" (*op. cit.*, p.85). In this connection, Kurzová (1993: 86) concludes that "the original prototypical [P]IE subject is 1) semantically defined by the nominative marking with the features +animate, +autonomous, etc. and 2) limited to categorical statements. In later stages, it is assumed, the development of the grammaticalized subject makes the following three innovations possible: 1) "the allomorphization of inanimate absolutive which is semantically identified with animate nominative and accusative respectively", 2) "the development of agreement in inactive verbs", 3) "the rise of the passive", etc. (*op. cit.*, p.86)

2.2 PIE Nominal System

Kurzová (1993: Part II) strives to elucidate the PIE nominal system by means of the notion, d-f structure, which is supposed to have been pertinent to PIE. Among various topics, we shall see below those aspects concerning the gender category and case suffixes.

2.2.1 Gender Category

Kurzová (1993: 61) states that "the opposition animate vs. inanimate is older than the opposition masculine vs. feminine" and that "only the opposition animate vs. inanimate has morphosyntactic relevance with respect to fundamental nominal categories and relations". The inanimate class or neuter nouns are characterized as not distinguishing nominative and accusative cases and thus having an undifferentiated case which may be called `absolutive`. (This is, of course, of a different status from the same term used for such ergative languages as Georgian and Basque. Note that PIE is assumed to be a nominative language).

In considering the IE gender category, it is the suffix *-ā/-ă* that is especially important. This suffix is attested as a plural formant for neuters and also as a formant to create feminine nouns. Its original meaning is supposed,

however, to be of collectivity but not of plurality. Two pieces of evidence are raised to vindicate this view (*op. cit.*, p.63). One is the fact that when the subject is neuter plural, the verb takes a third person singular ending in Greek, Old Indic, Avestan, Hittite. The other is that some of the masculine nouns, say, in Latin have a plural form in *-a* besides the normal *-ī* form. The noun *locus* `place`, for instance, have two plural forms, *loca* and *locī*. There is a semantic difference between these two forms. The former "expresses the non-individualized notion of space, region", whilst the latter "expresses single places, e.g. topics or passages in a book".

What remains rather vague in Kurzová's argument is how animate and inanimate (and further, masculine and feminine) were distinguished at the primitive stage of PIE. Kurzová (1993: 66) ascribes the relevant motivation to religious or mythological conceptualization:

> In the original derivative-flectional structure the categorization based on the features `animate vs. inanimate, masculine vs. feminine` is motivated by actual conceptual structure from the realms of religion and mythology. In the further development of IE languages these distinctions are grammaticalized, i.e. morphologized in the sense that they lose their conceptual meaning and remain semantically relevant in a very restricted domain only[16].

Except the *-ā/-ă* formant with the collective meaning, no other formants that must have something to do with the gender category are mentioned, cf. *op. cit.*, pp.63f.

2.2. Case Suffixes

Kurzová (1993: 77ff., Sec. 2.4) considers that there were three basic case suffixes in PIE that contributed to creation of cases. It is assumed that these "case suffixes behave[d] like derivative suffixes" (*op. cit.*, p.77). The suffixes, having an apophonic character, are identified as ***-(e/o)s***, ***-(o)m***, and ***-(e)i***. As the following examples

(from animate nouns) show, six case-number realizations are related to them (*op. cit.*, p.78):

(19) the PIE case system of animate nouns

FG + *-s*	RG + *-Vs*	nom.sg.	gen.sg.	**dént-s*	**dn̥t-ós*
FG + *-m*	RG + *-Vm*	acc.sg.	gen.pl.	**dént-m̥*	**dn̥t-óm*
FG + *-i*	RG + *-Vi*	loc.sg.	dat.sg.	**matér-i*	**matr-éi*

where FG and RG stand for the full/reduced grade of the stem. Below we shall review the original functions these three suffixes are assumed to have had.

The features of the *-(V)s* suffix are assumed to have been +autonomous/individual and +independent. It seems natural that an animate noun with this suffix should have the nominative function, to the extent that "the nominative represents a participant who has independent and privileged role in the designated situation, forming the centre to which the situation is oriented" (*op., cit.*, p. 81). The fact that genitive singular is also marked by this marker, on the other hand, requires an explanation. Kurzová (1993: 82) observes that the possessivity, one of the function the IE genitive expressed, was prevailingly associated with an autonomous animate participant and also with singularity, consider *domus patris* `father's house`. Genitive plural, on the other hand, was more frequently used to express partitivity, in which a non-autonomous participant is involved, consider *ūnus mīlítum* `one of the soldiers`. For this reason, the genitive plural was not marked by *-Vs*. (Kurzová remarks in this connection that "the possessor has an independent and privileged position with respect to the possessum so that a close connection between nominative subject and genitive possessor is understandable (*op. cit.*, p.82)".)

There are other case-number realizations by means of the *-(V)s* suffix (e.g., nominative and accusative plurals of the Latin third declension, etc.). The exposition of their development is omitted here, see Kurzová (1993: pp.71ff., Sec. 2.3.2).

Features -autonomous, +dependent, +affected are attributed to the *-(V)m* suffix. This explains its primary realization as the accusative singular. As mentioned above, partitivity with a non-autonomous participant is ascribed to the primary function of genitive plural and thus the marker *-om* was attached to it.

The suffix *-Vi* is assumed to express `location`. The fundamental form *-i* (locative) represents the pure and actual location, marked -dynamic, while the derived form *-ei* (dative) expresses "the virtual location, marked +directed, +dynamic" (*op. cit.*, p.89). They are considered to have originally been vague as to number (cf. *op. cit.*, p.93, Sec. 2.4.7.1.3). According to Kurzová (1993: 89), moreover, "the opposition locative vs. dative (-dynamic vs. +dynamic) ... is not so commonly grammaticalized in the IE languages as the oppositions nominative vs. accusative vs. genitive". For instance, Latin and Greek do not integrate locative and dative "in the case paradigm as distinct and regular oppositional forms" (*ibid.*).

Obviously, the case-number distinction illustrated in (19) above is at least partly realized by apophony of the stem or the suffix. This indicates, according to Kurzová, "the integral modification of the word" rather than "a simple (agglutination-like) addition of the case suffix", and therefore the flectional structure is evidenced in PIE (*op. cit.*, p. 56).

There are other more or less marginal case suffixes. *-0* suffix (CASUS INDEFINITUS or PRIMITIVUS) is used to express the vocative function with regard to the animate declension, the `absolutive` with reference to the declension of neuters/inanimates except for *-o-* stem neuters, which employs the *-m-* suffix for the `absolutive` (*op. cit.*, p.90). Vocalic suffix *-e/-h1* is employed to express instrumental. According to Kurzová (1993: 91), "the instrumental originally represented (together with the absolutive) a case form of inanimate nouns". Four other suffixes are raised as `marked postinflectional` suffixes, which "are used as signs of marginal cases": a dental suffix *-t/-d* for the ablative singular (*op. cit.*, p.91),

-si/-su with concrete local meaning in plural (*op. cit.*, p.93), *-bhi/-bho* or *-mi/ -mo* for plural dative-ablative.

2.3 Summary

The d-f structure ascribed to the PIE language is characterized as the typological type where "the lexical and derivational categorization has a dominant position in morphosyntactic structure" (*op. cit.*, p.21). This amounts to saying that the semantic character of the relevant lexeme should determine its derivational type, and therefore, as far as nouns are concerned, the inherent characteristics of a noun, which may in fact be determined at a social level superordinate to language or grammar (i.e., religion or mythology), must have selected the derivation-like processes. Some of these aspects are spelt out in Kurzová (1993: Part II) (e.g., part of the case-number system for animate and inanimate nouns), but others remain unexemplified. It is particularly regrettable that many pages are consumed to provide (and repeat) abstract arguments and that very little is given concerning the actual reconstruction of PIE sentences. Two classes for nouns (i.e., animate and inanimate) and two classes for verbs (i.e., active/agentive vs. inactive/non-agentive) are assumed in her reconstruction, but how they are interrelated in the actual PIE sentence constructions is not intelligibly illustrated.

3. Reconstruction of the PIE Verbal System and Its Development into Dialects

The aim of this section is twofold. One is to make a detailed examination of Kurzová's (1993: Part III) proposals on the structure of PIE verbs, its origin and development. The other is to make it clear to what extent Kurzová's model holds up in treating Germanic data.

3.1 Kurzová's (1993: Part III, pp.131-156) Proposals

This subsection gives an examination of Kurzová's arguments on the PIE verbal system, the change in status of

IE perfects when dialects developed, and the endings for the inactive class.

3.1.1 Reconstruction of PIE verbal system

The following chart describes the basic classification of PIE verbs under Kurzová's (1993) model (cf. [5] in 1.3 above).

(20)

active		inactive	
(agentive)		(non-agentive)	
imperfective	perfective	process	state
(durative)	(non-durative)	(progressive)	(non-progressive)
present	aorist	medium	perfect

We have already seen in 1.3 above that the active class of verbs constituted what is traditionally called the present-aorist system, whose endings are *-m(i), -s(i), -t(i),* and the inactive class what is called the perfect-middle system with the endings, *-h2e, -th2e, -e.*

Kurzová (1993: Sec. 3.2.3, 131ff.) spells out some more details on the PIE verbal system she has roughly sketched in terms of the two classes. Concerning the endings of active verbs or of the traditional present-aorist series, much the same argument as the traditional one is raised and no especially new proposal is made (*op. cit.*, Sec. 3.2.3.1 & 3.2.3.2). As the following diagram (from *op. cit.*, p. 131) shows, the secondary endings (SE, hereafter), peculiar to IE aorists, are not followed by the hic et nunc particle, **-i-*, whereas it attaches to the primary endings (PE, henceforth), which are pertinent to IE presents.

(21)

	SE	PE
1sg.	-m	-m-i
2sg.	-s	-s-i
3sg.	-t	-t-i
3pl.	-nt	-nt-i

As is often claimed by other scholars as well, SE is qualified as an original form and PE is a rather new one, as

opposed to their naming (*op. cit.*, p. 132; cf. Meid 1971, 10). Kurzová claims that the basic verb form in the PIE period was `injunctive` (i.e., root + SE, without an augment or the suffix **-i*, cf. Bammesberger 1986: 19). In this connection, she makes the following remarks (*op. cit.*, p.132):

> [W]e must assume for [P]IE that the basic verb form which can be labelled `injunctive` expressed non-actual/ideal action (process or state), whereas by means of the post-inflectional suffix/particle *-i* the action was related to the hic-et-nunc situation. ... We can assume that the *-i* element was probably only optional in its original application, serving as an actualizing particle.

Evidently, no particular dispute over these assumptions is needed here.

The endings in (21) are naturally the ones for `athematic` conjugation. Thematic conjugations are also ascribed to PIE. As we shall canvass in 3.1.2 below, Kurzová considers that the rise of the thematic conjugation in PIE has something to do with later modifications of the original two-class verbal system, which are attested by various IE dialects. Before moving on to this topic, we must inspect the picture of the PIE thematic conjugation provided by Kurzová.

To give an intelligible instance, the type of conjugation given in (22) is called thematic conjugation, which is characterized as having a thematic vowel **-e/o-* between the root/stem and the personal suffix, as opposed to the type given in (23) and (24), where the conjugated forms do not show the corresponding vowel (Kurzová 1993, 133):

(22) imperfect 1sg. **e-bher-om* (OInd. *abharam*, Gk. *ἔφερον*)
3sg. **e-bher-et* (OInd. *abharat*, Gk. *ἔφερε*)

(23) Gk. imperfect 1sg. *ἔφην* vs. present 1sg. *φημί* `say`

(24) OInd. root aorist 1sg. *a-dhā-m* vs. reduplicated present 1sg. *da-dhā-mi* `put`

A full paradigm of the thematic conjugation in IE **bher-* `bear, carry` can be reconstructed in the following fashion (note that the augment was originally an optional element), Kurzová (1993: 134):

(25)

1sg. *(e)-bher-om	1pl. *(e)-bher-ome
2sg. *(e)-bher-es	2pl. *(e)-bher-ete
3sg. *(e)-bher-et	3pl. *(e)-bher-ont

As for the alternation between *e* and *o*, it is observed that **o* appears before a nasal element of the personal suffix and **e* elsewhere (cf. Szemerényi 1989, 266). It can also be perceived that no FG (full-grade) - RG (reduced grade) alternation occurs in thematic conjugation. The verb **(e)-bher-e/o-* shows FG throughout the paradigm (25), but there are also verbs that hold a RG stem for both singular and plural, e.g., OInd 3sg. present *tud-a-ti*, 3sg. imperfect *atudat* `strike`, Gk. 1sg. aorist *ἔλιπον* `leave` (Kurzová 1993, 133).

Concerning the rise of the thematic conjugation, Kurzová concedes that "the thematic vowel can be considered as a vocalic suffix with certain vague and no longer reconstructible meaning" (*op. cit.*, p.133) but presents the hypothesis, without any argument, that "the *-e/o-* suffix was originally used in the active verb only, whereas in the inactive verbs the long vocalic suffixes *-ā-* and *-ē-* occupied its place, occurring in parallel functions" (*op. cit.*, p.134). She assumes that the relevant conjugation, originally restricted to the active class such as **bher-*, later spread into the inactive class to create `thematic presents` as a formation common to active and inactive classes. It is known that the thematic present endings are characterized by its 1sg. ending **-ō*, apart from the athematic present 1sg ending **-mi* (cf. Bammesberger 1986, 28; etc.). Concerning the rise of this difference, she infers that "the thematic present endings can be explained

by analogical contamination of the active and inactive verb endings", providing the following reconstruction (*op. cit.*, p. 135):

(26) thematic present

	reconstruction	Latin	Greek
1sg.	-oh$_2$(i)	linqu-o < -oh$_2$	λείπ-ω < -oh$_2$
2sg.	-e-s(i)/-ei-s	linqu-is < -esi	λείπ-εις < -ei-s
3sg.	-e-t(i)/-ei-t	lingu-it < -eti	λείπ-ει < -ei-(t)

(Note that a verb from IE **leik^w-* `let, leave` is assumed to be inactive, especially due to its CEIC form, the final C not counting as a determinative but as a root element, cf. *op. cit.*, p. 130 and [11] in 1.5 above) The process of the alleged contamination is spelt out in the following paragraph (*op. cit.*, p. 135):

> The starting point of this common formation was probably the identification of the 3sg. inactive *-e* with the thematic vowel *-e-*. The correlation *-e/(-o)* vs. *-e-t(i)* has led to the formation of the contaminated 1 sg. ending *-o-h$_2$(i)* with thematic vowel *-o-* followed not by the active ending *-m(i)* but by the inactive ending *-h$_2$(i)*. As for the 2 sg., its identity with the 3sg. should be presupposed, which can be reconstructed as an archaic feature of IE verb ... In both 2 and 3 sg. the active consonantal endings were added to the underlying vocalic ending.

This `explanation` sounds odd, according to which the 3sg. thematic ending **-e-t(i)*, i.e., a sequence of a thematic vowel + the 3sg. active ending, was reanalysed as the 3sg. inactive ending + the 3sg. active ending. How could this kind of reanalysis take place? Or was there any motivation for this sort of contamination, where two different endings are collocated? Even if this had occurred, moreover, the result would have been ***-h$_2$e-m* for 1sg., ***-th$_2$e-s(i)* for 2sg. and the appropriate **e-t(i)* for 3sg. What is tricky in her exposition is the allegation of the result in which the

second element of the sequence, a thematic vowel plus an active personal ending, was replaced by an inactive ending, although her presupposition is that the *first* element of the string, **-e* plus **-t(i)*, was identified with the 3sg inactive ending. Furthermore, there remains one more problem. No cogent, reasonable motivation is demonstrated to posit the reanalysis only for the 1sg ending. In this connection, Kurzová (1993: Note 110 on p. 206) says that "the preference for the inactive ending in the 1 sg. is to be understood with respect to the internal relationship between person and verbal process in the case of the inactive verb vs. external relationship between agentive person and verbal action in the case of the active verb" (underlines added: T.T.). It is least intelligible why the ending for the internal relationship is preferred for 1 sg. (and not for 2 and 3 sg.). Last but not least, the problem of why in the Greek forms the element *-i-* is inserted between a thematic vowel and an active personal ending (see [26] above again), remains unapproached in the relevant sections.

Thus, we should say that Kurzová's proposal for the mechanism of the spread of thematic presents into the active class is far from successful. No definite ground is provided to assume that thematic conjugation was originally confined to the active class. (Note that she only presents this assumption and gives no evidence or no argument in its support.) However, let us concede for the moment and go on assuming this is so and that thematic presents *somehow* spread from the active class into the inactive class at some period before PIE disintegrated into dialects. (A number of more problematic contentions on PIE verbal endings are given in *op. cit.*, §§3.2.3.5.ff. We shall criticise them later in 3.1.3)

After these arguments, Kurzová (1993: 135) concludes that "the explanation of thematic present endings by contamination of two sets of attested personal endings ... is in correspondence with its function as a basic present formation common to the active and inactive verb" and adds that "functionally the new present (with thematic present as

basic form) included a part of the non-actual value of the original injunctive, i.e., the part which is -preterital and -modal (generic, non-deictic present)". As we shall review in the following subsection, one of the central theses by Kurzová is that "the transformation of the two-class system into the integral verbal system was ... connected with the transformation of the injunctive-based system into the system with central position of the present, i.e., present-based system", a decisive step for which "was the formation of the thematic present as a common formation of both classes" (*op. cit.*, p.119; cf. §1.4 above). In other words, the original d-f stage is represented by the injunctive-based system, in which the lexical aspect is predominantly expressed by a verb and other categories such as temporality is expressed secondarily by the augment or a (post-inflectional) suffix, and this changes into the present-based, integral verbal system, where a verb has acquired various conjugations besides the basic present conjugation, which is qualified as the p-f stage.

3.1.2 Later Developments of IE Perfect

Now we are entitled to review Kurzová's arguments on how the IE perfect developed in dialects. They are directly relevant to our own concern (e.g., the genesis of Germanic preterite-presents and strong preterites) to the extent that they may provide a theoretical basis for the analysis of Germanic verbs.

As has been traditionally assumed, it is undebatable that Latin has formed its perfect system partly from the IE perfect and partly from the IE aorist (cf. Buck 1933, p.291, §410 says that "the Latin perfect is a blend of the IE perfect and aorist both in form and in function"; see also Brugmann 1895, 414f., §867). Kurzová (1933: 145ff.) sheds a new light on the issue of how this amalgamation took place in Latin.

Kurzová (1993: 145) posits for PIE three devices whereby marked imperfective/durative (i.e., present) formations were realized with respect to inactive verbs. One is the thematisation of the verbal stem by **-e/o-*, whose

spread into the inactive class has already been discussed in the previous subsection. Another contrivance is nasal infixation. The other is long vocalic present (something of this has also been touched on in the previous subsection). The following three derivatives in Latin exemplify them:

(27)

state	imperfective/durative[17]		
perfect	present		
	pure thematic	nasal	long vocalic
liquī		linquō	
vertī	vertō		
vīdī			videō

(Note that as the 2 sg. *vidēs*, etc. show, *videō* comes from **wid-ē-ō*, cf. Lindsay 1894, 473; Buck 1933, 269f.; etc.) These three verbs are assumed to have originally been inactive, since the root forms, **leik^{w}-* `let, leave`, **wert-* `turn`, **weid-* `see`, are CEI/RC (cf. *op. cit.*, 129f.), and it is observed in (27) that Latin has developed the present forms from the original perfect. Now consider the following diagram (*op. cit.*, p. 146):

(28)

imperfective	perfective	process	state
(present)	aorist	(medium)	perfect
	thematic present		
	dīxī	dīcō	
		videō	vīdī

(Note that **dei-k-* `show` (> *dixi/dico*) is classified as an active verb, cf. *op. cit.*, 128f. and [12] in 1.5 above, where Kurzová stipulates that a CEI/U root is changed into the active type if followed by a determinative -C.) Kurzová (1993: 145f.) motivates the equation of perfect with aorist in Latin by means of this diagram, by claiming that "the relationship of the perfect *vidi* to the present *video* was structurally identified with the relationship of the aorist *dixi* to the present *dico*." More precisely, she makes the following remarks (*op. cit.*, p. 146):

> All these presents [i.e., the pure thematic present, the long vocalic injunctives and the nasal present: T.T.] could express the process which had its terminal point in the state expressed by the corresponding perfect and this was decisive for the identification of the perfect with the aorist of the active verb, which had a similar relationship to its respective present. Here the completed action expressed by the aorist represents the terminal point of the action in progress expressed by the present. Both forms became functionally equivalent, forming components of a single category of the preterite. This holds not only for Latin, but also for other IE languages not participating in the Greek/Aryan innovation, i.e., in the formation of the aorist from the inactive roots and the perfects from the active ones and in the development of aorist and perfect into two distinct inflectional categories.

This may be understood as propounding the view that new presents represented by the thematic present is the pivot for the Latin innovation, other formations in opposition to which (except for the original present and middle) are reinterpreted and integrated into the single category of `preterite`.

The last sentence in the passage cited above is directly relevant to our analysis of Germanic data, performed later in 3.2. Leaving aside for the moment the issue of what exactly are the similarity or difference between Latin and Germanic, it must be illustrated what is the crucial difference between the Latin type innovation and the Greco-Aryan innovation in the verbal system.

Kurzová (1993: 147) gives the following chart to illustrate the difference between Latin and Greek:

(29)

active			inactive	
imperfective	perfective		process	state
present	aorist		(medium)	perfect
	thematic present			
δείκνυμι[18]	ἔδειξα			+ δέδειχα
	dixi	dico		
	+ ἔλιπον	λείπω		λέλοιπα
		linquo		liqui

where innovative forms peculiar to Greek are marked by the preceding +. (29) compares the Latin and Greek verbs of the same origin. As for the verbs from PIE **dei-k-* `show`, originally active (and perfective), Latin and Greek are in harmony with each other to the extent that both of them have a sigmatic aorist form (i.e., **dei-k-s-*) which reflects the original status of the verb. However, the difference lies in the fact that Greek developed not only a new present, δείκνυμι, by means of nasal infixation but also a new prefect, δέδειχα (aspirated perfect, cf. Buck 1933, 288), whereas Latin only created a new thematic present, *dico,* and did not develop a new form which reflects IE perfect. A similar situation is observed with regard to the verbs from PIE **leik^{w}-* `let, leave`, originally inactive. The perfect forms, λέλοιπα and *liqui,* are of the primary formation, and the thematic presents, λείπω (without nasal infixation) and *linquo* (with a nasal element), are innovation common to Greek and Latin. It is Greek and not Latin that could develop a new aorist form, ἔλιπον, by means of an augment and a thematic vowel + SE (thematic aorist). Thus, as the passage cited above from Kurzová (1993: 146) goes, the Greek (and Aryan) characteristic that active verbs could develop new perfects and inactive verbs new aorists led to a different verbal system from the one in Latin, where both active and inactive classes could only develop new presents but not new perfects or aorists. Kurzová (1993: 152ff., Sec. 3.3.5) enumerates various differences between Latin and Greek verbal systems. Briefly, they are summed up as the opposition between a relative-tense-based system in Latin

and an aspect-based system in Greek. Compare (30) and (31) below:

(30) Latin absolute and relative tense oppositions

past	present	future
imperfect	present	future
vidēbam	*video*	*vidēbo*

pro-past	pro-present/past	pro-future
pluperfect	perfect	futurum exactum (anterior future)
videram	*vidi*	*videro*

(31) Greek system

	past	non-past	
imperfective	imperfect	present	future
perfective non-progressive	aorist pluperfect	------- perfect	perfect future

The opposition between perfect and present in (30) is ascribed to the difference between anteriority and non-anteriority, and thus the Latin system exhibits an opposition in terms of relative tense. Greek on the other hand is somewhat different. It is understood that the contrast between present and perfect in (31) is of an aspectual difference, i.e., imperfective vs. non-progressive.

On the strength of these arguments, Kurzová (1993: 143) criticises the traditional view, by stating that "languages such as Greek and O[ld] I[ndic], where the aorist and perfect form two semantically opposed inflectional categories, and languages such as Latin, where this does not hold, are now to be considered as a result of alternative developments from the original two-class system, whereas in the traditional treatment the Latin system was regarded as a result of a secondary modification of the original system which was reconstructed after the model of Greek and O[ld] I[ndic]". Insomuch as the Hittite evidence contradicts the identification of the Brugmannian, Greco-Aryan model of

reconstruction with the proto-language from which every IE dialect descended (cf. *op. cit.*, p.110 and §1.3 above), Kurzová's proposal must have a positive value.

Before moving on to the next subsection, we should like to review Kurzová's (1993: 149ff., Sec. 3.3.4) exposition of five types of Latin perfects, i.e., sigmatic perfects, perfects in *-vi/-ui*, reduplicated perfects, perfects with lengthened stems, and unmarked perfects, since they are somehow related to our later discussion on the Germanic verb system.

Concerning Latin sigmatic perfects, Kurzová (1993: 150) ascribes them unanimously to the sigmatic aorist/preterite of the active verbs. In other words, she asserts that the extension of this form to inactive class did not occur in Latin, in sharp contrast with Greek and Old Indic, by presenting such evidence as Gk. aor. ἔπλησα vs. Lat. perf. *plēvi*. As evidence for the claim that sigmatic aorist was originally confined to the active class, Kurzová (1993: p.150 and p.208, Note 128) adduces the fact that in Rigveda, the most archaic Old Indic material, sigmatic aorist occurs only in the roots of the CV and CEC type and is unattested in the CEIC, CEUC, CERC roots. Typical Latin examples are *vexi*, *texi* and *rexi*, all reflecting the CEC roots. *Duxi*, *dixi* and *iussi* go back to CEIC or CIC root, but these are also of the active type (cf. *op. cit.*, p.128; C does not belong to the root, but is a determinative.)

As Buck (1933: 294) observes, perfects in *-vi/-ui* are peculiar to Latin (not even to Italic). Kurzová does not try to identify the origin of this formation (*op. cit.*, p.150), but provides a view that the relevant perfects "probably were formed from inactive verbs" (*op. cit.*, p.130). Latin productive long vowel classes are relevant to this formation: *amāvi, delēvi, audīvi.* These do not show sigmatic aorist forms. But in Greek the corresponding verbs show not only kappa-perfect forms but also sigmatic aorist forms, e.g., πεφίληκα vs. ἐφίλησα.

As for reduplicated perfects, Kurzová (1993: 151) claims that not all of them return to the PIE inactive class. In harmony with her view that "reduplication was not

a formal characteristic of the original perfect/state category" (*op. cit.*, p.151), reduplicated aorists are attested in, say, Greek transitive/causative verbs. Thus, *tetigi* (cf. Hom. Gk. aorist part. τετάγων) is ascribed to the active class due to its root shape, CEC. Other stems such as CERC, CENC are also likely for this formation since lengthening was not applicable to them, e.g., *tutuli, tetendi, peperci.*

Perfects with lengthened stems employ either *-ē-, -ā-* or *-ō-*. Kurzová (1993: 151) distinguishes them into two groups:

(32)

a. The perfects with alternating long *-ē-, -ā-* vs. *-ă-* are the original inactive verbs: *feci* vs. *facio, cepi* vs. *capio, fregi* vs. *frango, pegi* vs. *pango.*
b. The perfects with *-ē-* vs. *-ĕ-* (*-ō-* vs, *-ŏ-*) alternation probably goes back to active verbs: *lēgi* vs. *lego, sēdi* vs. *sedeo, fōdi* vs. *fodio.*

Kurzová (1993: 151) states that "[b]oth types of the Latin long vowel perfects [i.e., 32a and 32b: T.T.] have correspondences in the Germanic preterites" and adduces Gothic instances, *sētum* `sat`, *qēmum* `came`, *brēkum* `broke`. In addition to (32a, b), there are Latin perfects with a long *-ī-* or *-ū-*. These come from the diphthongs, *-o/ei-*, and refer to the CEI/UC roots, which are typical of the original inactive class. Examples are *vīdi* vs. *video, līqui* vs. *linquo, rūpi* vs. *rumpo, fūdi* vs. *fundo,* etc. These examples show, according to Kurzová, that nasal presents are characteristic of inactive transitive verbs (*op. cit.*, p.152).

Unmarked perfects are perfects marked by none of *-s-, -v/ui,* reduplication and a long vowel. The examples are *verti, defendi,* which go back to the CERC roots. The origin of this type of perfects remains unapproached, and she only states that "probably they are a remainder of a larger group which was reduced by the extension of the formal markers of perfect or present stems" (*ibid.*).

After the survey of these Latin perfects, she concludes that "the long vowel perfects together with the reduplicated perfects, both going to inactive as well as to active verbs, could play a certain role in the process of fusion of the perfect and aorist into one category" (*ibid.*).

3.1.3 Equation of Perfect Endings with Middle Endings Revisited

It may be controversial whether IE perfect and middle endings (and also Hittite *hi*-conjugation endings) are genetically related[19]. Apart from Kurylowicz's (1964: Chap. II) exposition of their relationship, Kurzová (1993: pp.136ff., §§3.2.3.5.ff.) presents something of her own analysis on the relevant topic. This subsection critically examines her arguments on the endings at issue.

Kurzová proposes the following reconstruction of the personal endings for inactive verbs (*op. cit.*, p.136):

(33) 1sg. -a < -h$_2$e
2sg. -tha < -th$_2$e
3sg. -e/o
3pl.indef. -r
(For the 1 and 2pl. no common IE forms can be reconstructed.)

Except the adoption of the laryngeal interpretation and the admission of *-o* into 3sg. ending, this reconstruction is identical with the IE perfect endings reconstructed by Szemerényi (1989: 259). However, she wants to derive not only the perfect endings but also the attested middle endings from those in (33). The major data that require an illumination of the historical derivational process are shown below (only singular endings are taken into consideration hereafter) (*op. cit.*, p.136):

(34)	Greek perfect		Latin perfect	
-a	*οἶδ-α*		-a-i	vid-i
-tha	*οἶσ-θα*		-is-ta-i	vid-is-ti
-e	*οἶδ-ε*		-ei-t	vid-it (> -ĭt)

Hitt. med.pres. `sit`		OInd med.pres. `say`	
-ha	eš-ha-hari	-ai	bruv-e
-ta	eš-ta-ri	-sai	brū-se
-a	eš-a(-ri)	-(t)ai	bruv-e, brū-te

The Greek perfect endings in (34) cause no problem, since they simply correspond to those in (33). Concerning Latin perfect, the endings are obviously more complicated than those in Greek. The original elements, *-a, -t(h)a, -e,* may be perceived there, but other elements are also recognized. Kurzová makes no mention of the origin of the *-i-* element (see also *op. cit.,* 147ff.). What she briefly mentions is the element, *-is-,* which precedes *-ta-i* in the 2sg ending. However, no explanatory account of this element is given. She only avers that this is not an `aoristic element`, in stating that "[i]t is rather implausible that the marker characterizing a derived stem would be transferred to the basic perfect stem, and at that to some personal endings only" (*op. cit.,* p.148).

Concerning the Old Indic endings in (34), Kurzová (1993: 136) repeats the ready-made view. She observes that the 2sg *-sai* is a `mixed` ending, but emphasizes that "in the 3rd person the vocalic ending is attested by some Vedic forms such as *bruve, śaye* ..., etc. and by the middle of perfect, type *cakr-e* `make`" (*ibid.*). In considering that Old Indic *-e* comes form **-ai* < PIE **-ei,* the final element **-i* still remains unexplained.

As for Hittite middle present endings, the elements by and large corresponding to the reconstructed forms in (33) are observed: *-ha-, -ta-, -a.* However, we may still wonder what underlying vowel the 3sg. *-a* reflects (cf. IE **a, *o* and **ə* > Hitt. *a;* Kurzová would probably regard the 3sg. *-a* as from IE **-o*) and where the final elements, *-hari and -ri,* come from. These queries are not even raised in the relevant passages.

Nevertheless, Kurzová (1993: 138ff.) endeavours to make a radical progress in understanding the three personal endings given in (33). In other words, she attempts a new, very radical internal reconstruction with regard to the

inactive endings. She proposes to view the 1sg. and 3sg. endings, reconstructed as *-*h*2*e* and *-*h*1*e* (not simply *-*e*), as the original basic suffixes that characterised the inactive forms, because by this the form, a laryngeal + a vowel, is generalised for the inactive ending. She makes a special stipulation for the 2sg. inactive ending: "[T]he 2nd person has a consonantal element in all formations which are supposed to go back to the inactive endings, *th*- in the perfect, *s*- in the middle and the thematic present. In the perfect system, the vocalism of the 2nd person follows the vocalism of the 1st person [i.e., *t + h*2*e:* T.T.], whereas in the thematic present it follows that of the 3rd person [i.e., *h*1*e + s* ?: T.T.]". This argument is not plausible at all. There is no evidence and no cogent reason to posit *-*h*1*e,* instead of *-*e,* for the 3sg. ending. The only reason would be to obtain the generalized form, a laryngeal + *e,* for 1sg. and 3sg. Moreover, the equation of the 2sg. perfect ending *-tha* with the 2sg. thematic present ending *-es* is unreasonable. There is no account at all of why the linear order, a consonantal inactive element + a laryngeal and vocalic element of 1sg/3sg, is reversed for the thematic present. Kurzová does not cease to make her irrational stipulations: "We can further stipulate that these suffixes *-a* vs. *-e* (*-h*2*e* vs. *-h*1*e*) are ablauting variants of the same formants which are represented by the long vocalic suffixes *-ā-* and *-ē-* (*-eh*2*, -eh*1*)". What kind of laryngeal theory admits an ablauting variation between *-He* and *-eH* ? This cannot be an ablauting variation, but rather a metathesis. She does not provide a rationale for the laryngeal metathesis in forming long vocalic suffixes.

Thus, we may say that Kurzová's argument does not make a substantial progress in elucidating the related personal endings at all.

3.1.4 Summary

We have reviewed Kurzová's (1993: Part III, pp.131-156) arguments. Her analysis of personal endings is unsatisfactory (the origin of 1sg. thematic ending, *-ō,* the interrelationships of various inactive endings, etc.).

However, those arguments reviewed in 3.1.2 above are reasonable and sounds fairly plausible. Thus, we should like to consider something of the issue to what extent her theory works in dealing with the Germanic verbal system.

3.2 Germanic Verbal System

In approaching the Germanic verbal system, one of the most important issues is how it developed from the PIE system. This is briefly dealt with in 3.2.1 below. Another significant point is what kind of new interpretation is obtained concerning each type of verbs, i.e., strong, weak, preterite-present, anomalous. As far as preterite-presents are concerned, Kurzová's model does not seem to be crucially refuted by the relevant data. We should like to show this in 3.2.2. Detailed analysis of each type of Germanic verbs is naturally beyond the scope of this paper, and therefore only a check-list, in testing the validity of Kurzová's model, for strong, weak and anomalous verbs is concisely drawn up in 3.2.3.

3.2.1 Amalgamation of perfects and aorists

As we have seen in 3.1.2 above, mainly two sources are posited for Latin perfects, i.e., active *-si* perfect/aorist (< IE sigmatic aorist) and inactive *-vi/-ui* perfect (cf. *op. cit.*, p. 149). Apart from Greek and Aryan, where perfects and aorists constitute distinctive categories by innovating new perfects for active verbs and new aorists for inactive verbs, Latin integrated IE perfects and aorists into its perfect system. A similar situation may be observed with Germanic. It is known that Germanic inherited IE perfects and aorist to constitute its strong preterite system (cf. Prokosch 1939, 164; Meillet 1970, 74ff. etc.). In this subsection we are to see if Kurzová's theory works in dealing with the Germanic data.

Whether or not perfects and aorists amalgamate depends, according to Kurzová's theory, on whether or not inactive verbs obtain new aorist forms and active verbs new perfect forms. Concerning Latin, the lack of *s*-aorist forms in inactive verbs and the lack of productive *-vi* perfects in

active verbs are pertinent to the conflation of perfects and aorists. Concerning Germanic, her theory would predict that original inactive verbs did not develop new aorist forms and that original active verbs did not acquire new perfect (later preterite) forms in Germanic. This seems to be the case.

First of all, it is often pointed out that Germanic somehow systematically lacks the IE *s*-aorist, which is a typical, productive new aorist formation in the other IE languages (cf. Meid 1975, etc.). We can surmise that this made it nearly impossible for inactive verbs to acquire new aorist forms. A productive device in Germanic by which perfects (later preterites) are newly created and which is comparable to Latin *-ví* and Greek *-k-*, on the other hand, is the so-called dental preterites, cf. Szemerényi (1989: 317). However, they were obviously applied only to weak and preterite-present verbs. Thus, we may conjecture that active verbs could not develop new perfect forms (as we shall see in 3.2.2 below, preterite-presents are regarded as of inactive origin.). It goes without saying that Germanic as well as Latin has developed new thematic presents to a large extent, irrespective of the class (i.e., active or inactive) of verbs. Thus, it appears that Kurzová's theory makes a correct prediction concerning the conflation of IE perfect and aorist in Germanic. As compared with the Latin system, based on relative-tense and absolute-tense, in (30) and the Greek system, based on aspect and absolute tense, in (31), Germanic presents a far simpler system, which consists of the only opposition, past vs. non-past:

(35)

past	non-past
perfect/aorist	present
	aorist (= aorist present)
(dental preterites for preterite-presents and weak verbs)	

As (35) suggests, however, we are still to examine the distribution of the so-called `aorist-present` verbs, in

which IE aorist is reinterpreted as present, cf. Meid (1971, 17). If the group of Germanic aorist-presents contain typical PIE inactive verbs, it will show that inactive verbs attained new aorist forms during the course of the history from PIE to Germanic. If, on the contrary, original active verbs monopoly the group of aorist-presents, it may be claimed that inactive verbs were surely unable to develop new aorists in Germanic. This point is left open in this paper, but we should like to carry it out in near future.

3.2.2 Preterite-Presents

Naturally, Kurzová's theory implies that Germanic preterite-presents retain archaic characteristics of inactive verbs. It is not that they lost the basic, *e*-grade presents but that simply they did not develop such forms. Below let us briefly examine whether preterite-presents are safely interpreted as going back to the PIE inactive class.

There are fourteen members which belong to the group of preterite-presents, cf. Tanaka (MSa: Chap.1, Sec.2.1). Class I **wait-* `know` and **aih* `own, possess`, both transitive, seem to be pertinent to the inactive class in the light both of meaning and form. The PIE root **weid-* and **Heik-* (cf. Bammesberger 1986, 73) are of CEIC type, and insomuch as they are not decomposed into **wei-* + **-d-* and **Hei-* + **-k-* (cf. Pokorny 1994, 298f. & 1124ff.), according to Kurzová's version of root theory (cf. § 1.5 above), they indicate the inactive class. Class II intransitive **daug* `suffice, avail` has a typical inactive meaning, and the root **dheugh-* points to CEUC. The last consonantal element is not detachable from the preceding sequence (cf. Pokorny 1994, 271), and thus it is regarded as inactive from the morphological point of view as well.

There are four Class III preterite-presents: **kann* `know`, **ann* `grant, love`, **þarf* `need` and **dars* `have courage, be bold`. Their root shape is CERC, and this shape is pertinent to inactive class (Kurzová 1993: 127ff.). Except for **ann,* the meaning of the three verbs are undoubtedly inactive. But the etymological meaning of **ann* is unclear (Meid 1971, 30), and a careful treatment is

required concerning this verb. This section cannot afford to present a detailed examination of this point, but it should suffice here to present Puhvel's (1984: 189) view that the original meaning of this verb must have been `be favoured, be deer, be good`. Moreover, it is often argued that **kann* is a new formation in Germanic from the IE root **gnō-* (Specht 1935, 69ff.; Meid 1971, 23f; Bammesberger 1984, 87ff.; etc.), and if this is true, our test on **kann* here is meaningless.

Class IV preterite-presents are **skal* `owe, be in debt` and **man* `remember`. The meanings are unequivocally of the inactive class. Kurzová (1993: 127ff.) does not refer to the CER root in classifying CEC, CEI/U-C- into the active class and CEI/UC, CERC, CEHC into the inactive class (she considers CEH roots can be either active and inactive). In combination with the analysis of Strong IV verbs in Germanic, it should be determined what class a CER root refers to.

Class V **nah* `be enough` and **mag* `have power` have the meanings which are clearly inactive. The morphology of these verbs appears somewhat problematic since the CEC root is expected. However, the root forms are not clearly determined. In respect of **nah,* Lehmann (1986: 71) gives three forms, *enek̂-, nek̂- enk̂-*. With regard to **mag,* on the other hand, two forms **māgh-* and **magh-* are raised by Lehmann (1986: 239).

Class IV **ōg* `fear` and **mōt* `have space, be allowed` are semantically inactive. Although the root form is not definitely determined, a laryngeal interpretation would expect (H)EHC and CEHC, which are pertinent to the inactive class (if the initial H in HEHC can be reckoned as equal with C). Concerning this class, the problem remains why the pl. forms contain long vowels (cf. OE *mōton,* OS *mōtun,* OHG *muozum*) and do not show zero-grade (i.e., **∂*).

A number of problems still remain, but we can see that Kurzová's theory is not crucially refuted but rather by and large confirmed by analysing Germanic preterite-presents[20].

3.2.3 Checklist for Other Types of Verbs

As we have touched upon in 1.6.4 above, it is crucial, in analysing the strong verbs, to examine whether Kurzová's root theory matches the actual data. In keeping with the forms of the Germanic strong verbs, the essence of Kurzová's root theory can be represented in the following chart:

(36)

Class I ~ III:	CEIC	CEI-C
	CEUC	CEU-C
	CERC	CER-C
	inactive	active

Class IV: CER: no suggestion of the distinction

Class V: CEC = active

Class VI and VII: in a mess?

As far as the Class I, II, III strong verbs are concerned, Kurzová's root theory should make a clear prediction: If the final C of the form *CEI/U/RC is interpreted as a determinative or an extra-radical element, it will indicate an original inactive verb; otherwise, a given verb must go back to an active verb. Concerning the Class V strong verbs, a similar prediction will hold: If the form of a given verb really goes back to the PIE *CEC shape, it must have been an active verb. It seems empirically testable whether these predictions hold up, which will be approached on another occasion.

Concerning the weak verbs, the point will be whether Kurzová's theory can make a new interpretation of their origins, perhaps in combination with the issue of preterite-presents, for dental preterite is characteristic of only these types of verbs. With regard to anomalous verbs, one important point should be how the suppletion in the copula (i.e., Go. *ist* vs. *was*, OE *is* vs. *wæs*, etc.) can be explained, cf. Tanaka (MSb). All of these points must be significant in attempting to make a new, non-Brugmannian approach to the Germanic verbal system.

3.3 Summary

Besides other flaws, such as typologically less motivated assumption of PIE verbal system (cf. §1.3 above), a vague picture of the PIE sentence construction (cf. §2.3 above), etc., Kurzová is less successful in presenting an analysis of the new thematic endings and the original inactive endings (cf. §3.1.1 and §3.1.3 above). However, it may be claimed that the merits of her new theory converge on the fairly explicit assumption concerning the PIE verbal system (cf. §1.3 and §3.1.1 above) and on the exposition of its developments into Latin and Greek (cf. §3.1.2 above). Our concern is to see if her model contributes to a new elucidation of the Germanic verbal system. Our future task is to make a detailed analysis of the Germanic verbal system by means of those strong points of her theory, presumably in combination with other good theories.

4. Developments of Middle-Passive, Thematic and Long Vocalic Suffixes, and Sigmatic and *-dh-* Suffixes

The aim of this section is to examine Kurzová's (1993: Part III) view on the developments of middle-passive and such PIE suffixes as **-e/o-*, **-ā/ē-*, **-s-* and **-dh-* in dialects (especially in Latin and Greek), and also to try to survey again the extent to which her theory holds up in dealing with the Germanic data.

4.1 From Inactive to Middle-Passive

4.1.1 Kurzová's Proposals

This subsection scrutinises Kurzová's (1993) arguments on the developments of middle-passive in IE dialects (*op. cit.*, pp. 157-171, Sec. 3.4, "Inactive and Middle-Passive: The Latin deponent/passive"). Her primary contention is that IE middle-passives are based on the process-denoting PIE inactive verbs (cf. §1.3 above). A common diagram for the developments of the original process-denoting inactives in dialects is the following (*op. cit.*, p.160):

(37)

	inactive process	
thematic present	medium tantum	middle-passive

It is perceived here that the original category develops or is differentiated into three kinds of verbs in dialects. The transmutation into thematic (active) presents is exemplified by φοβέω `terrify`, cf. (38) below. Kurzová states that "[t]he verbal stem φεβ-, **bhegh-* also had the primary inactive form φέβομαι `I flee`, to which the derived verb with *o*-grade φοβέω and secondary middle-passive form φοβέομαι were added" (*op. cit.*, p.162). (According to her assumption presented on *op. cit.*, p.127, the CEC roots are active roots. I am not sure how she can claim **bhegh-* was an inactive root.) Media tantum (i.e., middles without the corresponding presents and actives, see *op. cit.*, p.116) should be regarded as the most conservative forms which retain archaic characteristics of the original inactive, process-denoting or progressive verbs. Latin deponents, such as *amplecto(r)* `I embrace`, *misereo(r)* `feel pity`, may be typical instances for this category (cf. *op. cit.*, p.164). Or else, Hittite *eš-a(-ri)*, Greek ἧσται, OInd. *aste* `he sits` are the examples which Kurzová (1993: 116f.) herself provides for the relevant category.

Kurzová (1993: Sec. 3.4.) tries to elaborate upon how middle-passive or the counterpart developed in different ways in IE dialects, and at the same time to present a view substantially different from the traditional explanation. She starts her argument by observing the difference between Latin and Greek(/Aryan) middle-passives. She claims that Latin morphological diathesis should be defined as syntactic diathesis, whereas Greek diathesis must be characterised as semantic version (though syntactic diathesis can be observed with Greek middle-passive, this is attributed to its secondary function) (*op. cit.*, 160f.). The following examples are provided in order to illustrate the character of semantically defined diathesis in Greek middle-passive (*op. cit.*, p.161):

(38) active vs. middle as semantic version

γαμέω `marry` (of a man)	γαμέομαι `marry` (of a woman)
φοβέω `terrify`	φοβέομαι `fear`

πορεύω `make to go, carry` *πορεύομαι* `go`
συμβουλεύω `counsel, advise` *συμβουλεύομαι* `consult, ask advice`
παρασκευάζω τι `prepare something` *παρασκευάζομαί τι* `get ready, prepare something for oneself`

Kurzová states that "the active and middle forms express two semantic variants (versions) of the same basic meaning and that "the semantic difference between these variants has diathetic character, subject = agent in the active, subject ≠ agent in the middle-passive" (*op. cit.*, p. 161). In other words, she considers it inadequate to regard the middle forms as syntactically derived via agent demotion and patient promotion. This is partly born out by the fact that some middles are transitive, i.e., take an accusative object. The fifth example in (38) illustrates this. Furthermore, *γαμέομαι* `marry` (of a woman) can be interpreted as `I am taken to wife` (passive) and `I give myself to wife` (direct-reflexive), but as *γαμέομαί τινα* `I marry someone` shows, it takes an accusative object.

As opposed to this semantic character of the Greek diathesis, the functions of Latin middle-passive are restricted to passive and direct-reflexive (*op. cit.*, pp. 160 & 164). Kurzová maintains that both of these usages are involved with syntactic derivation (*op. cit.*, p.160). Passive (e.g., *Socrates damnatur (ab aliquo)*) is realised by demotion of the agent from the subject position and promotion of the patient from the position of transitive object to that of subject (from, e.g., *aliquis damnat Socratem*). In case of impersonal passive, demotion of the agent from the subject position is carried out without promotion of the patient to the subject position (e.g., *aliquis it* ==> *itur*). As for direct-reflexive, she assumes that "patient-to-subject promotion occurs without agent-from-subject demotion" (*op. cit.*, p. 160). She argues that the subject of the middle-passive with the direct-reflexive function has "both agent and patient role", and thus this differs from the PIE active verbs which is characterised as

subject = agent (she emphasises that subject = agent + patient does not reflect a characteristic of the original active class, cf. *op. cit.*, p. 209, Note 136). Unfortunately, Kurzová does not illustrate what examples count as Latin direct-reflexive, and this makes the argument less intelligible.

Greek middles are divided into two major groups, those with experiencer role (or non-agentive actor) in subject (*φοβέομαι, γαμέομαι, πορεύομαι*) and those with benefactive role in subject (*συμβουλεύομαι, παρασκευάζομαι*) (*op. cit.*, p. 163). Latin, on the other hand, lacks both of these middles. Such pairs with a secondary factitive/active form and a primary middle/inactive form as exemplified in (38) above are not observed in Latin. Apparent counterparts merely reflect lexical or derivational oppositions: *terreo* `frighten` vs. *timeo* `fear` (a fortuitous, lexical pair), *fugo* `put to flight` vs. *fugio* `flee` (a derivational pair). According to Kurzová (1993: 163), the indirect-reflexive usage, by and large corresponding to the middles with a benefactive subject, is only attested in Greek and Aryan, and thus, this is ascribed to a Greco-Aryan innovation.

As stated above, Latin has impersonal passive, which applies to intransitive verbs (e.g., *it* `he goes` ==> *ītur*). Greek, on the contrary, lacks this type of passive. Kurzová (1993: 164f.) interrelates this divergence with another difference between the two languages. In her view, "the Latin passive is regularly combined with a non-personal subject as in *liber legitur* [`a book is read`: T.T.] *dabitur (alicui)* [`(a thing) will be given (to someone)`: T.T.]" (*op. cit.*, p.164). In Greek, on the other hand, "the passive function with the patient role of subject is only part of the broader middle-passive function with experiencer or benefactive as primary roles of subject" and "[t]he subject of the Greek middle-passive is predominantly a personal subject, as with the subject of the Greek sentence in general." (*op. cit.*, p.165). (In contrasting the difference as to the character of the subject between Latin and Greek, no literature is cited and I am not sure to what extent this in fact holds. But let us tentatively follow

her observation without any argument in this paper.) Based on these variances, she proposes to describe the Latin passive as DEAGENTIVUM or BACKGROUNDING PASSIVE and the Greek passive as FOREGROUNDING PASSIVE (*op. cit.*, 164f.). The former "has the same basic function and character as an impersonal passive, with the effect of demoting or backgrounding the personal actant from the position of subject" (*op. cit.*, p.164), and the latter is foregrounding in the sense that the personal patient is in the position of subject.

In sum, the following differences are observed between Latin and Greek middle-passives:

(39)

a. Greek active vs. middle(-passive): (basically) semantic diathesis
   Middles include direct and indirect reflexives (mainly experiencer and benefactive subjects, respectively).
   Passives are foregrounding (predominantly with a personal subject).

b. Latin active vs. passive: syntactic diathesis
   Passives are backgrounding (primarily with an impersonal subject).

Kurzová criticises the traditional view that ascribes reflexives and passives to the proto-language as the category of middle-passive, but the main reason for this criticism is that the traditional view is not in harmony with her theory, and thus her argument sounds rather tenuous for lack of other cogent evidence. In this connection, she emphasises the aforementioned Greco-Aryan innovation producing the middle of the indirect-reflexive type, and claims that the Greek semantic diathesis recognised in the middle-passive is especially innovative. In sum, she describes the Greek (and Aryan) innovative character of the middle-passive category in this fashion: "The formation of a factitive/active counterpart to the primary inactive verb, partially resulting in a disambiguation of the transitive and intransitive meanings already coexisting in the inactive

verb, was decisive for the development of the Greek and Aryan active vs. middle opposition," (*op. cit.*, p.162)

Kurzová (1993: Sec. 3.4.4, pp. 165ff.) aims to present a new explanation of the difference between the Latin deponent/passive (syntactic diathesis) and the Greek middle-passive (semantic diathesis), by looking to the difference in the relevant endings between the two languages. Latin and Greek are furnished with obviously different middle-passive endings (cf. *op. cit.*, 165f.; see also Szemerényi 1989, 254, where reconstructed Greco-Aryan middle endings are provided):

(40) middle-passive endings

	Latin	Greek		
		primary	secondary	cf. middle-passive pluperfect [T.T.]
1 sg.	-or	*-μαι*	*-μαν, -μην*	*ἐπεπαιδεύμην*
2 sg.	-ris	*-σαι, -σοι*	*-σο*	*ἐπεπαίδευσο*
3 sg.	-tur	*-ται, -τοι*	*-το*	*ἐπεπαίδευτο*

(As for the Greek primary 2 sg. and 3. sg. endings, Ionic-Attic, etc. attest to *-sai* and *-tai*, but Arcado-Cyprian and Mycenaean have *-soi* and *-toi*, cf. *op. cit.*, p.166.) These endings appear diverse from the original inactive endings, **-h2e* (> **a*), **-th2e* (> **-tha*), **-e* (< **-h1e* ?; cf. §3.1.3 above). Kurzová unfolds an argument for ascription of an innovative character to the Greek endings and of a relatively conservative property to the Latin ones.

As for Greek *-mai, -sai, -toi*, a contamination with the active personal endings (i.e., SEs, **-m, *-s, *-t*) is obviously perceived. To confirm this, Kurzová (1993: 166) refers to Hittite and OInd evidence (*op. cit.*, p.136; see also [34] in §3.1.2 above):

(41) Hittite and Old Indic medium endings

Hit.med.pres. `sit`		OInd med.pres. `say`	
-ha	eš-ha-hari	-ai	bruv-e
-ta	eš-ta-ri	-sai	brū-se
-a	eš-a(-ri)	-(t)ai	bruv-e, brū-te

Old Indic archaic 3sg. middle ending *-e* < **-ai* < IE **-oi* (besides newer *-te*) and Hittite *-a* < IE **-o* attest to a former non-contaminated form. The primary ending for the first person, *-μαι*, is analysed as the 1 sg. active SE **-m* plus the 1 sg, inactive **-h2e* plus **i*. (Concerning the Greek 1 sg. secondary ending, *-μαν,-μην*, only the sequence of *-m-* + *-eH* is suggested and no satisfactory exposition is given.) Although details are not spelt out by Kurzová, it is conjectured that the 2sg. ending **-sai* is assumed to derive from the formulation, the active 2 sg. SE **-s* plus the inactive 2sg. **-th2ei/-tai* minus the consonantal element **-t-*. The relevant vocalism (i.e., *a* or *o*) is probably considered as having something to do with analogical changes in dialects. Kurzová refers to Albanian and Baltic as languages that have the mixed/consonantised endings of the type *-mai, -sa(i), -to(i),* and also ascribes Gothic to this group of languages due to its 2 sg. *-za* and 3 sg. *-da* endings.

As we shall see immediately, this type of modification of the endings in Greek, etc. is considered as more marked than the Latin modification. Kurzová refers to "the principle of iconicity (or naturalness)", which purports that "formal markedness develop[s] parallel to semantic markedness", and then she maintains that "[t]he innovative character of the Greek oppositional middle, as a semantic category, suggests that formal characteristics of the Greek middle-passive are also innovative and that they cannot be projected onto common IE" (*op. cit.*, p.165).

Let us go back to (40) again. It is understood that all the Latin endings given there contain the *-r-* element. Kurzová argues that the relevant endings developed from the original indefinite (or 3 pl.) inactive ending. Let us cite again her reconstruction of the original IE inactive endings (*op. cit.*, p.136), which §3.1.3 above has once quoted as [33]:

(42) 1sg. -a < -h2e
2sg. -tha < -th2e

3sg. -e/o
3pl.indef. -r
(For the 1 and 2pl. no common IE forms can be reconstructed.)

Kurzová assumes that originally the element *-r* was not a mere 3 pl. ending but rather "signalled the impersonal/ indefinite deagentivum" (*op. cit.*, p.167). To justify the supposed interrelationship between indefinite deagentivum and 3 pl., she raises a Russian instance where "the 3 pl. *obižayut menja* [lit. `(they) injure me`: T.T.] is a common way of expressing passive, `I am injured`" (*ibid.*). Briefly, we may say that the PIE **-r-* is considered to be an impersonal inactive ending (i.e., the form requires not only a non-agentive subject but, more restrictedly, an impersonal subject). She continues her exposition in the following manner (*op. cit.*, pp.167f.):

> We find the forms *-tor, -ter, -tr̥* in the middle-passive of Hittite and Tocharian and in the deponent/passive of Celtic and Italic; the form *-tor* is also attested in Phrygian. Functionally, this form of the middle-passive was probably characteristic for languages, in which the deagentivum/backgrounding function of the passive was basic. The Celtic passive is of the impersonal type. In Hittite the impersonal backgrounding use is well attested. The backgrounding character of the Italic passive is attested by Osco-Umbrian *-er/-or* deagentivum and by the predominant backgrounding use of the Latin passive, which is especially well represented in Plautus comedies.

Kurzová proposes to view the Latin 3 sg. *-tur* as coming from *-t-r* (i.e., a combination of the 3 sg. active SE with the impersonal/indefinite variant of the inactive ending), not through intermediary of the Greco-Aryan type *-to(i)* (*op. cit.*, p.170). Thus, *dice-tur, seque-tur* are analysed as underlain by **dice-tr̥* and **seque-tr̥*. (Normally, PIE **r̥* changes into Latin *or* before a consonant and *ar* before a

vowel, but there are a few cases to show that PIE *$\underset{\circ}{r}$ changes into Latin *ur*, see Buck 1933, p.105, N.B. b. Thus, Kurzová's argument seems to be possible, though not validated.) Then, she goes on to assume that "[t]he 3 pl. *-ntur* and both 1st person endings *-or* and *-mur* can best be explained as a combination of the active endings with the *-r* element, developed in analogy to the 3sg". Namely, 1 sg. *-or* comes from **-o-* (the vowel element of the thematic 1 sg. ending, *-oh2* ?; cf. *op. cit.*, p.135 and [26] in §3.1.1 above) plus **-r*, 1 pl. *-mur* from **-m-* (the 1 person element of the active SE?) plus **-$\underset{\circ}{r}$-*, and 3 pl. *-ntur* from **-nt* (the 3 pl. active SE; cf. *op. cit.*, p.131 and [21] in §3.1.1 above) plus **-$\underset{\circ}{r}$*.

2 sg. passive ending in Classic Latin is *-ris*, but more archaic Latin shows *-re* for this. Kurzová claims that "this original *-re* ending can have its origin in the deagentivum with *-r* ending combined with the particle *-i* " and ciriticises "the traditional explanation, which sees the origin of this form in [the Greek type] *-so/-se* " (*op. cit.*, p.170):

(43) Latin 2sg. deponent/passive

proposed explanation	traditional explanation
dice-re < **dice-ri*	**dice-so* ?
seque-re < **seque-ri*	**seque-so* ?

(This kind of `traditional explanation` is found in, say, Buck 1933, 251.) Additionally, the archaic 3 pl. perfect ending *-re* is also ascribed to the same **-ri*, e.g., *videre* < **videri*, *dixere* < **dixeri* (Kurzová 1993: 170).

Thus, according to Kurzová's argument, Latin 2sg. and 3sg. deponent/passive endings show forms without contamination by active endings. She adds that "the fact that the impersonal/deagentivum form established itself in the 2sg. is understandable, considering the widely attested generalization use of the 2sg., *ubi maxime gaudebis* [lit. `where will you rejoice in the highest degree`: T.T.], *ibi maxime metues* [lit. `there you will fear in the highest degree`: T.T.] on the one hand, and the indefinite/

impersonal expressions in polite ad[d]ress on the other." (*op. cit.*, p.171). (For an example of `the indefinite/impersonal expressions in polite address`, see *op. cit.*, p.211, Note 153.) Kurzová regards the Latin deponent/passive based on the *-r-* element as more archaic than the Greek thoroughly contaminated middles, and claims that "the impersonal and backgrounding passive/deagentivum ... was part of the original use of the non-oppositional inactivum" (*op. cit.*, p.169).

In conclusion, two different groups are recognised as to the development of the middle-passive: "1) the foregrounding *-to(i)* middle-passive, which developed in Greek/Aryan, and is also attested in Baltic, Albanian and Germanic, and 2) the backgrounding *-r* middle-passive, which developed in Italic, Celtic, Hittite and Tocharian, and is also attested in Armenian, Phrygian and Venetic" (*op. cit.*, p.169). And finally, she gives an answer to the question of why the middle-passive endings appear more different from the original inactive endings than the perfect counterparts: "The innovative formal characteristics of the perfect were achieved by stem marking, whereas the formal characteristics of the middle-passive consisted in marked verbal endings. Therefore, the endings of the perfect are a more direct reflection of the original inactive endings" (*op. cit.*, p.172).

4.1.2 Germanic **aih*, etc.

As reviewed in the preceding subsection, Kurzová ascribes Germanic to the foregrounding *-to(i)* middle-passive group, due to the Gothic 2 sg. *-za* and 3 sg. *-da* endings (but she does not make mention of Gothic 1 sg. ending *-da*). The major characteristic of the foregrounding passive is that personal patient is located in the position of subject (cf. *op. cit.*, p.165). It is testable whether the Gothic middle-passive shows this tendency, but this is not the concern of this subsection. Here we are more concerned with the problem whether Kurzová's theory contributes to a new understanding of the history of Germanic preterite-presents.

It seems that the arguments reviewed above can be applied to the class I preterite-present **aih* `I own, possess`. Among other Germanic preterite-presents (cf. 3.2.2. above), many of which seem to derive from IE perfects or from the original state-denoting inactive verbs, only **aih* appears likely to go back to a process-denoting inactive verb. Old Indic *íśe/íṣṭe* `he owns, possesses` is usually related to this Germanic preterite-present, cf. Pokorny (1994: 298f.), Lehmann (1986: 14), etc. This Old Indic verb may be regarded as reflecting archaism to the extent that it is a medium tantum (cf. Meid 1971, 31f.) and retains the archaic 3 sg. middle ending *-e* (< **-ai* < PIE **-oi*), without a consonantal element *t-* (cf. Kurylowicz 1964, 58). By these archaic morphological properties, in combination with Kurzová's theory, *íśe* and **aih* might be viewed as reflecting an original process-denoting or progressive inactive verb. Namely, it might be surmised that *íśe* did not develop the corresponding active form and **aih* the corresponding *e*-grade (present) form.

This supposition, it seems to me, leaves two problems. One is why Germanic **aih* basically adopted perfect endings (i.e., 1, 3sg. *-0,* 1pl. *-um,* 2pl. *-uþ,* 3pl. *-un;* cf. Braune & Ebbinghaus 1981, 129) rather than the passive endings (i.e., *-da, -za, -nda*) even in Gothic, where the middle-passive system was productive. The crucial point lies in whether or not a better, principled explanation of its transition in category to a preterite-present can be presented than a mere conjecture that Germanic somehow disallowed a medium tantum so that **aih* changed its status into a preterite-present (or *perfectum tantum*), another category of the PIE inactive origin.

The other problem is whether the meaning of the relevant verbs can safely go back to an inactive, process-denoting verb. If `own, possess, have` is assumed to be the original meaning, it will rather point to an inactive, state-denoting verb. If, however, as Burrow (1955: 319) suggests, `rule` is supposed to be the original meaning, it will somehow harmonise with an inactive, process-denoting verb. Consider such related formations as Avestan *ise* `have

power over`, Skt. *iśānás* `ruler`, cf. Lehmann (1986: 14). (It seems to me that in *Queen Elizabeth I ruled England when Shakespeare was born, Queen Elizabeth I* is not necessarily an agentive subject and it seems possible to consider that the meaning of the verb is progressive rather than non-progressive.)

We should like to add some more discussion on Germanic **aih* here. As Tanaka (MSa: Chap.1, 2.2.1) points out, the paradigm of this verb appears exceptional and analogical spread of *o*-grade into present plural and past participle has frequently been assumed for its explanation, cf. Brugmann (1895: p. 436, §888), etc. However, if the form **∂eiḱ-* (or **Heiḱ-*) is reconstructed for Gmc. **aih* and Vedic *íśe* (cf. Bammesberger 1986: 73), the principal parts of **aih* can be considered to reflect the ablaut variation of the regular Class I preterite-present:

(44)	pres.sg.	pres.pl.	p.p./inf.
	aih	aigum	aigan-
underlying:	*∂óiḱ-	*∂iḱ-´	*∂iḱ-óno-
	(*o*-gr.)	(zero-gr.)	(zero-gr.)

(Of course, this requires a distinct explanation of why the **∂/H* before an accented vowel is not vocalised into *a* but disappears, whereas the counterpart before the unaccented *i* develops into *a*. Or, at least several cases that serve as independent motivation must be presented.) Vedic *íśe* could be analysed as reflecting **∂ik-* (a zero-grade stem; > *i-i-ś-*) plus **-o-i* (a 3sg. medium ending; > *ai* > *ē*), since OInd. athematic middles normally show a zero-grade stem (cf. Burrow 1955, 302 & 319). However, the fact still remains unexplained that a number of middle forms including *íśe/íṣṭe* have their accent on the stem/root element, cf. Burrow (1955: 319).

Meid (1971: 32), on the other hand, presents an exposition different from ours here. He proposes to analyse the Vedic verb as a formation via reduplication: *íśe* < **i-iś-ai*. This would clear up the problem of the accent position, considering that the accent falls on the

reduplicated syllable (i.e., the preceding *i-*), and concerning Germanic **aih/g-*, he presents the following observation:

> Das Germanische hat den Diphthong *ai*, der merkwürdigerweise nicht ablautet. Von einer Wurzel der *ei*-Reihe wäre *aih/*igum* zu erwarten. Da *ai* aber der generalle Vokalismus ist, ist dies vielleicht der Vokal, der schon vorgermanisch (vor dem Übergang *oi* > *ai*) vorhanden war. Die Wurzel wurde also als nicht ablautfähig betrachtet; das Verbum unterlag aber der wechselnden idg. Betonung, da es die Wirkung von Verners Gesetz zeigt (*h/g*). Wie immer die Bildung des Verbums im Indo-Iran. und Germ. war: es scheinen verschiedene Ablautstufen generalisiert worden zo sein [falls man nicht indo-iran. *ī* = germ. *ai* und beide < idg. *∂i* betrachten will].
>
> The Germanic counterpart has the diphthong *ai*, which, oddly, does not show ablaut alternation. From a root of *ei*-series, *aih/*igum* would be expected. However, as *ai* is the general vocalism, this is presumably the vowel that existed already in the pre-Germanic period (before the transition *oi* > *ai*). The root was, therefore, not regarded as capable of ablaut alternation; but the verb suffered the alternating IE accent, since it shows the operation of Verner's Law (*h/g*). However the verbs may have been formed in Indo-Iranian and Germanic, different ablaut grades seem to have been generalised [in case one does not wish to consider Indo-Iranian *ī* = Germanic *ai* and both < IE *∂i*.] (my translation: T.T.)

It is taken for granted here that the original IE *ai*-series does not suffer ablaut variation, but it is unclear how Germanic **aih* and Vedic *íśe* are related. The former is furnished with the supposed IE **a*, but the latter lacks this. One may query what is exactly the original common form, and how they were differentiated from it.

A formation via reduplication is reminiscent of a perfect formation. It is suggested by Burrow (1955: 319) that *íše,* etc. are somehow affected by perfects. If the Vedic form is safely assumed to go back to a perfect form, we shall no longer need to derive Germanic **aih* from a medium. We should like to leave it open here which alternative is a better analysis.

Another Germanic candidate for a relic of medium tantum might possibly be reflected by OE *hātte* `is/was called`, cf. Campbell (1959: §727); see also Meid (1971: 39). However, an analysis of this verb is beyond the scope of this subsection.

Last but not least, one more topic is noted here. Although there are several transitive verbs in preterite-presents (e.g., *wait* `know`), none of Gothic preterite-present verbs show medium (or passive) conjugation by *-da, -za, -nda.* Along with the fact that Gothic (as well as other Germanic) preterite-presents are already furnished with the dental preterites, one might surmise that the original perfect forms have already been reinterpreted as new presents in Gothic. Although the preterite tense is immune from the medium morphology in Gothic, medium forms are freely derived form strong/weak presents. Here remains a problem of what the fact tells that all the preterite-presents lack medium conjugation in Gothic.

4.2 Thematic -e/o- suffix and Long Vocalic Suffixes

Kurzová (1993: Sec. 3.5. "Thematic *-e/o-* Suffix and Long Vowel Suffixes", pp.173-180) advances several proposals concerning the vocalic suffixes, which are assumed to have existed since the period of the d-f type proto-language. This section briefly reviews her discussion on them.

The basic assumption on PIE vocalic suffixes provided by Kurzová is repeated below (cf. *op. cit.*, pp.113, 138, 140f. and 176f.; see also §1.4 above again):

(45)

a. PIE had **-e/o-*, **-ē-* and **-ā-* suffixes. Since PIE was a d-f language, these suffixes were derivationally

attached to verbs. Originally, attachment of *-e/o-* was restricted to active verbs and that of long vocalic suffixes to inactive verbs. The verbal forms with these suffixes are regarded as thematic injunctives or long vocalic injunctives.

b. The original meaning of these suffixes was of very vague Aktionsart-semantics, `more extended, more in progress`. Thus, thematic injunctive and long vocalic injunctive were primarily in non-actual use and had modal or temporal/preterital value.

c. With regard to the two long vocalic suffixes, the semantic feature of **-ē-* was personal/dynamic and that of **-ā-* non-personal/static.

Assuming these d-f devices, Kurzová presents a new view of the difference between the Latin and the Greek verbal systems, which is fairly different from the traditional standpoint.

What Kurzová contends is simply that the relevant suffixes were grammaticalised in different ways in the verb systems in Latin, Greek and other IE languages. Instances of the use of each suffix in Greek and Latin can be summarised in the following fashion:

(46)

a. Present

i) Both Greek and Latin make use of the thematic **-e/o-* suffix. Greek thematic verbs, such as λέγω, λέγεις, and Latin verbs of the 3rd conjugation, such as *dīcō, dīcis,* are relevant (cf. Kurzová 1993: 174).

ii) Latin utilises the two long vocalic suffixes for present formations. Verbs of the 1st conjugation (e.g., 2sg. *secās, iuvās*) employs **-ā-* and those of the 2nd conjugation (e.g., 2sg. *vidēs, delēs*) **-ē-* (cf. *ibid.*).

b. Imperfect

Greek and Latin show a sharp contrast in that the former adopts the thematic suffix and the latter the long vocalic suffix. E.g., Gk. ἔ-λεω-ον, ἔλεγ-ες, Lat.

dīcē-bam, dīcēbās < **dīcē-dhā-m, *dīcē-dhā-s* (cf. *op. cit.*, p.173; for the assumed **-dh-* suffix, see §4.4 below) and especially *eram* `I was` < **esām* (cf. *op. cit.*, p.175).

c. Subjunctive

The Greek formation by long vocalic *-ē/ō-* is considered to be "an innovative formation which either accompanies or follows the formation of the thematic present" (*op. cit.*, p.179), e.g., *λέγω, λέγ-η-ς* (cf. *op. cit.*, p.173). Latin employs the **-ā-* suffix for verbs of 2nd - 4th conjugations, e.g., 2sg. *dēleās, dicās, audiās.* (cf. *op. cit.*, pp.173 and 178). (The *-ē-* subjunctive in the 1st conjugation is, meanwhile, considered to come from an optative, *amem* < **amā-iē-m.* Kurzová assumes that the IE optative formant, *-ieH/-iH,* was a combination of a consonantal element with the *-ē-* suffix, see *op. cit.*, p.178.)

d. Future

Greek resorts to a sigmatic suffix (cf. Sec. 4.3 below) rather than a vocalic suffix. Latin adopts the **-ē-* for verbs of 3rd and 4th conjugations, e.g., 2sg. *dīcēs, audiēs* (cf. *op. cit.*, pp.173 and 178).

With the assumptions in (46) and with the distribution of vocalic suffixes, Kurzová criticises the traditional view to ascribe the Latin *-ē-* future to a secondary modification of the alternating *-ē/ō-* subjunctive of the Greek type (*op. cit.*, p.179). It will follow from her argument that Latin *-ā-* subjunctive and *-ē-* future are direct derivatives from the PIE long vocalic injunctives, and the Greek alternating *-ē/ō-* subjunctive is an innovative, secondary product of PIE injunctives.

Various other topics, such as Slavonic *-ā-* and *-ē-* preterital/infinitive stems (*op. cit.*, p.174), Baltic *-ā-* and *-ē-* preterites (*op. cit.*, p.175), Tocharian *-ā-* subjunctive (*op. cit.*, pp.176 and 180), are mentioned, but this section omits a review of them. We are more concerned with applicability of her theory to the history of Germanic verbs. Although Kurzová makes no mention of Germanic verbs

in the section at issue, the presents of all the Germanic strong verbs have, as is well known, suffered thematisation (cf. Braune and Ebbinghaus 1981, 109; etc.), and this is more or less in keeping with the Greek and Latin facts described in (46a) above. A remaining issue is how Germanic grammaticalised the PIE long vocalic suffixes. We shall return to this topic in §4.4.2 below.

4.3 Development of PIE *-s-* Suffix

This section reviews Kurzová's discussion on the PIE *-s-* suffix (Kurzová 1993: Sec. 3.6. "Sigmatic Forms of the Latin Present and Perfect Systems: The Indo-European *-s-* Suffix", pp.181-186).

Concerning the PIE *-s-* (originally derivational) suffix, she ascribes the `perfectivizing value` to its original (vague or implicit) modal meaning (cf. *op. cit.*, p.182). From this meaning, it is claimed, various aorist/preterital and subjunctive/future formations developed in different ways in IE dialects:

> In our conception, the formation with perfectivizing meaning can also account for the modal *-s-* which would represent the modal realization of its `injunctive` value in the case of *-s-* subjunctives. The perfectivizing formation is also a possible source or one of the sources (besides the desiderative ...) of *-s-* futures. In the process of grammaticalization both the aoristic/preterital and modal/future *-s-* formations developed independently and cannot be derived from each other; rather, each of them can be derived from the underlying derivational formation. (*op. cit.*, p.182)

Apart from the aorist/preterital formations with *-s-*, whose original meaning was of `perfectivizing value`, it remains less intelligible how the subjunctive/future meaning could develop in the same forms. What Kurzová advances in this connection is the fact that "[t]he present form of perfective verbs has ... future meaning in the Slav[on]ic languages" (*op. cit.*, p.213, Note 170).

Another important assumption is that "[t]he derived verb stems with consonantal suffix ... could accept the same sets of vocalic `endings`" (*op. cit.*, p.183). Namely, the following type of derivation was available in the d-f (P)IE period;

(47) Root + a consonantal suffix + vocalic suffix
(*-s-, -dh-, -d-, -k-*, etc.) (*-e/o-, -ā-, -ē-, -ieH/iH-*, etc.)

In this connection, she emphasises her contention by stating that "[t]hese derivational possibilities were a source of enrichment and restoration of the morphological systems in later IE", and that "in using the possibilities given by the grammaticalization of suffixal derivations, the individual languages differ, but also show characteristic agreement" (*op. cit.*, p.183).

This argument is followed by an analysis of the Latin forms that are involved with the *-s-* formation (*op. cit.*, pp.184f.). We are not primarily interested in the Latin system, but her exposition of Latin imperfect subjunctive may serve as illustration of her argument, and let us review something of it here. To give an example from the 4th conjugation, Latin imperfect subjunctive conjugates as follows: *audīrem, -ēs, -et, -ēmus, -ētis, -ent.* She analyses the injunctive part of this conjugation as consisting of the following elements, each of which has its own semantic feature(s):

(48) a present stem + the *-s-* suffix + the *-ē-* suffix
(e.g., *audī-*)

+potential	+preterital	+ideal
-real		+real

Thus, the function of imperfect subjunctive is explained in terms of the three elements in (48) above: "the present stem accounts for its non-anteriority, the aspectual (perfectivizing) *-s-* formant for its preterital value and

the *-ē-* injunctive has its modal realization" (*op. cit.*, p.184).

Obviously, Germanic did not grammaticalise the PIE *-s-* suffix in developing its verb system, since no productive formation with this element is attested.

4.4 Development of PIE *-dh-* Suffix

4.4.1 Kurzová's Proposal

What is relevant to the Germanic verb system is the PIE *-dh-* suffix, since this is considered to be involved with the so-called dental preterites. In dealing with this suffix in the last section of her book (Sec. 3.7 "Latin Imperfect in *-bam* and Future in *bō-*: The Indo-European *-dh-* suffix"), Kurzová gives a unique view.

In respect of Latin *-bam* imperfect (for all the four conjugational classes) and *-bō* future (for verbs of 1st and 2nd conjugations), a periphrastic form, i.e., a nominal component plus the auxiliary verb **bhu-* `be, become`, has traditionally been assumed to underlie them. Kurzová decisively rejects this kind of `analytic explanation`: "The assumed development of the auxiliary verb into the suffix lacks any parallel and does not correspond to morphological process characteristic of the evolutional period in question" (Kurzová 1993: 187). Her alternative is a `flectional` or `synthetic` explanation, which identifies the relevant formations with the combination of **-dh-* with a PIE long vocalic suffix.

For the *-bam* imperfect, she starts her exposition by pointing out the parallelism between the Slavonic *-ĕ̆-achъ* imperfect and the Latin counterparts (*op. cit.*, p.188):

(49)

Latin	Old Church Slavonic
monē-bam to *moneō*	*mъnĕ̆-a-chъ* to *mъnĕ̆-ti* (inf.)
dīcē-bam to *dic-ō*	*nesĕ̆-a-chъ* to *nes-ti* (inf.)

Both languages show an **-ē-* stem and the **-ā-* element in the formation of relevant imperfects. The difference is whether or not a consonantal element intervenes between **-ē-* and **-ā-*. From this, it can be seen that Latin has

grammaticalised the form, a consonantal element (*b* < **dh*) plus the PIE long vocalic suffix **-ā-*, whereas Slavonic only makes use of the **-ā-*, in creating an imperfect morphology. A traditional analytic (or compositional) theory would not capture the Latin-Slavonic parallelism in imperfect formation, but her alternative, synthetic theory can explain the similarity illustrated in (49) in a systematic fashion: Slavonic and Latin made use of the common devices belonging to PIE in slightly different ways.

The PIE *-dh-* suffix has already been attested in Greek (mainly as a lexico-derivational formant) and Germanic (as a formant constituting dental preterites), but Kurzová intends to add the Latin *-bam* < **-dhām* preterite to the inventory of the *-dh-* suffix. Referring to the investigations by Benveniste (1935: 188f.) and Lehmann (1942, 1943), Kurzová ascribes the following two characteristics to the PIE *-dh-*: "1) its application to inactive roots; 2) its terminative aspectual (Aktionsart) value (achievement of a state)" (*op. cit.*, p.188). As evidence for the first property, Kurzová observes that "[i]t [i.e., a Greek verb characterised by **-dh-*: T.T.] appears in a rather large group of verbs with clear inactive meaning and form, including media tantum" (*op. cit.*, p.188), by giving such instances as αἰσθάνομαι `perceive`, ἄχθομαι `be aggrieved`, μανθάνω (aor. ἔμαθον) `learn` < **men-*, an inactive root, γηθέω, med. γήθομαι `rejoice`, etc. (*ibid.*).

Concerning the Latin *-bō* (i.e., < **-dhō*) future, Kurzová describes this form as reflecting "the *-dh-* suffix with thematic *-e/o-* endings, which was grammaticalized to express the future of derived verbs already containing the long vowels *-ē-* or *-ā-* in their stems (or having roots with corresponding final vowel: *nebam, plebam, dabam,* etc.)", and concisely concludes that "[t]his type of future probably presupposes the already existing *-bam* < *-dhām* imperfect, and was established on the basis of the systemic analogy with the imperfect" (*op. cit.*, p.189).

4.4.2 Queries and Application to Germanic

The proposal reviewed above invites, first of all, a query of whether PIE **-dh-ā-* > Latin *-bā-* is in fact a possible sound change. It is known that PIE **dh* changes into Latin *b* in the word internal position following *u, r* or followed by *r, l,* e.g., ****ūdher*** `udder` > ***ūber,*** ****werdho-*** `word` > ***verbum,*** ****rudhro-*** `red` > ***ruber,*** ****stəd̑hlo-*** `stable` > ***stabulum*** (Szemerényi 1989, 59f.). Concerning this query, Kurzová only makes the following remarks: "This derivation is possible phonologically as both *-d-* and *-b-* are substitutes of [P]IE word internal *-dh-,* without clear conditions of their distribution." (Kurzová 1993, p.214, Note 180).

Secondly, her contention implies a definite counter-argument against the so-called `composition theory` in treating the Germanic dental preterites. She would by no means succumb to the persuasion by, say, Tops, when he maintains that *do*-periphrasis in Proto-Germanic is a possible assumption because "the tendency to periphrastic formation was always present, in [P]IE, in PGmc., and in the attested daughter languages" and "it rose to the surface at different times and in different places, among others in the dental preterite" (Tops 1978, 353). Kurzová's contention is that during the course of the history from PIE to the earliest stages of attested dialects, a typical d-f structure was changed into p-f structures in various ways and that during this early period an analytic expression such as *do*-periphrasis cannot have existed in PIE or the dialects. Consider the following remarks:

> The synthetic explanation of the Latin imperfect has a broader impact on the conception of the later IE structural development. The slogan `today's morphology is yesterday's syntax` does not yet hold for this stage of development as it does not yet reflect the basic structural tendency. The marked and innovative forms of Latin are also explained within the paradigmatization of derivative-flectional morphology,

> i.e., within the structure, where `today's inflection is yesterday's derivation`. (Kurzová 1993, 192)
>
> Contrary to the prevailing opinion according to which Indo-European flectional morphology had an analytic origin and developed on a compositional basis, the concept of derivative-flectional structure suggests the synthetic origins of the flectional morphology. The development from derivative-flectional to paradigmatic-flectional structure is an evolutional process working on a decompositional basis and proceeding from a non-differentiated, synthetic word structure to a differentiated and more analytic structure. (Kurzová 1993, 194).

Although Kurzová does not present a detailed analysis of Germanic dental preterites, her argument will lead to the view that dental preterites go back to the **-dh-* suffix followed by a long vocalic suffix. This may provide a new, strong basis for the so-called `non-compound *dh*-theory`, originating with Lehmann (1943) (see Tops 1974, 38ff.). There will be no need any longer to refer to Vedic aorist subjunctive, in reconstructing the endings, **-ōm, *-ēs, *-ēt,* following the **-dh-* element. These will simply be analysed as **-dh-* plus long vocalic (thematic) suffix plus personal endings, reflecting one of the possible ways of paradigmatisation by means of the original PIE inventory of derivational suffixes. Moreover, Kurzová's argument will virtually revive the equation of Gmc. dental preterite with Latin *-bam* imperfect, originally proposed by Scherer (1868) (see Tops 1974, 12f.), in a new fashion. However, her slogan `today's inflection is yesterday's derivation`, substituting for Givón's (1971), has not yet been proved to apply unanimously to the prehistoric developments of IE dialects. A more precise argument will be required on what motivated IE dialects to change the synthetic morphological formations to analytic ones (and exactly when), since, say, Germanic shows some kind of periphrastic expression at all the earliest stages of attested dialects.

5. Overall Comments on Kurzová (1993)

We should like to address the following issues/ criticisms to Kurzová's (1993) arguments as a whole:

I) Insomuch as Kurzová's approach is based on the method of linguistic typology, it must be explicitly illustrated what extant human language is similar to the Proto-Indo-European she reconstructs. Or, it must at least be proved that a language is typologically permissible that is furnished with nominative(-accusative) system, a d-f structure, active and inactive classes of verbs, a linear, non-formalised sentence structure, etc. (cf. §§ 1.3 and 2.3 above).

II) Kurzová's diachronic analyses of inactive (or traditionally, perfect-middle) stems/endings and thematic endings are not successful and add very little new knowledge on them to the scholarship (cf. §§ 3.1.1 and 3.1.3 above).

III) The assumption of the original two verb classes is fairly clearly spelt out, according to which verbs compatible with agentive subject (i.e., active verbs) and those collocating with non-agentive subject (i.e., inactive verbs) take different endings, *-m(i), -s(i), -t(i)* for the former and *-h2e, -th2e, -(h1)e* for the latter (cf. §§ 1.3 and 3.1.1 above). However, little is illustrated of how the morphological distinction or differentiation between the subclasses, i.e., present vs. aorist in actives and medium vs. perfect in inactives, proceeded. It can be conjectured that the morphological differentiation between (the original) present and aorist was realised simply by the `actualising` particle **-i* attaching to the former subclass (i.e., the imperfective/durative subclass), to the extent that the athematic, asigmatic/root aorist is assumed to be the oldest IE aorist and to have originally had an *e*-grade stem (cf. Szemerényi 1989, 302f.). However, it is less intelligible how medium and perfect were morphologically differentiated at the

earliest stage. Especially, the mechanism of how *o*-grade arose in perfect is to be illuminated (cf. §1.6.3 above).

IV) Kurzová tries to give a fairly explicit assumption on the root shape determining the class of a verb (cf. §1.5 above). It is not, however, that the assumption presented is all-inclusive. For example, she makes no mention of which class the CER root points to (cf. §3.2.3 above). Furthermore, it will sound theoretically unnatural if she assumes that CERC roots (unanimously?) belong to the inactive class, whereas CEI/UC and CEI/U-C are sharply distinguished so that the former appertains to the inactive class and the latter to the active class (cf. §3.2.2 above). Kurzová does not present a comprehensive analysis of Latin verbs, and thus, a sweeping anatomy of verbs in Latin or other IE dialects may contribute to a better generalisation of the PIE root structure, somehow modifying her assumption (if her theory is on the right track at all). Moreover, her discussion on a determinative remains somewhat vague. Benveniste or Lehmann would take any of the final consonantal element in CECC for a determinative. One may wonder if there is any other criterion to identify a third consonantal element with a determinative than a rule that if the CEC form, besides the CECC shape, is used to derive lexical items, then the final C of CECC is a determinative. And also, it is unclear in her argument whether or not the *-s-* or *-dh-* `suffix` is one of the PIE determinatives.

V) One may wonder, at the present state of the art in comparative linguistics, whether Kurzová's contention is firmly vindicated that there were not any analytic morphological formations (or any periphrastic expressions) at early stages of IE dialects and at the PIE period (cf. §4.4.2 above).

In case we subscribe to Kurzová's model of reconstruction (even with some modifications), it will be our own task to endeavour to solve these problems.

6. Conclusion

Our main concern has been to see if Kurzová's arguments can make any contribution to a new elucidation of the Germanic verb system. As §3.2.1 above illustrates, her theory seems largely feasible in considering the development of Germanic verb system, which is so simple as to be furnished with the single opposition, past vs, non-past. Our next task should be to examine if her assumption on the root shape works in analysing Germanic strong verbs. Despite the vaguenesses pointed out in IV) in the preceding section, the relevant argument appears fairly substantial and at the same time highly empirically refutable. In analysing Germanic strong verbs in the light of her model, we should not need to anticipate a difficulty, owing to the fact that *all* the Germanic strong verbs have suffered thematisation. (Kurzová assumes that thematisation was originally applicable to active verbs and that it spread into inactive verbs.) It is expected that the original relationship between meaning and form must be traceable in Germanic strong verbs as well.

Lastly, one point must be added here. If Kurzová's view is vindicated by our future analysis (even with some modifications), we shall then claim that preterite-presents are of inactive origin and develop our arguments along the line of her contention. However, this will not directly lead to a solution of those major problems of preterite-presents. Problems will still remain unexplained of why Germanic has more preterite-presents than, say, Latin perfect-presents, why Germanic developed its core modals out of preterite-presents whereas Romance languages did not, why Germanic alone had the pair **kann* and **knā-*, etc. Claiming that preterite-presents are of inactive origin and are characterised as, say, `perfecta tantum` is one thing, and approaching the aforementioned problems another.

Postscript

As is pointed out in §1 above, Kurzová depends on Amerindian languages, such as Dakota, in positing two classes of verbs, active and inactive, for PIE. Her examples from Dakota (Kurzová 1993, 19 = [4] in §1.1 above) is a citation from Klimov (1977: 34). Although the linguistic typology in Russia or the former USSR must have its own value, we are more familiar with the Western scholarship, and therefore, the typological argument given by Kurzová may here be reexamined in the context of the Western learning.

Dixon (1994: 70ff., Sec. 4.1) touches on Dakota (a Siouan language) and Guaraní (from Paraguay) and classifies them into the SPLIT-S SYSTEM, apart from the accusative and ergative system. In terms of his three primitive relations, S (intransitive subject), A (transitive subject) and O (transitive object) (*op. cit.*, p. 6), whilst the ergative languages are characterized as S = O ≠ A and accusative languages as S = A ≠ O, the split-S system is furnished with the relationship, /A = Sa/ ≠ /O = So/, where Sa and So represents the subject of an intransitive `active` verbs referring to an activity that is likely to be controlled and the subject of a `neutral` verbs referring to a non-controlled activity or state (cf. *op. cit.*, p. 71).

Thus, we may say that some difference in terminology is recognized between Kurzová (1993) and Dixon (1994). It seems that Kurzová's `inactive` verbs can be paraphrased into Dixon's `neural` verbs and Kurzová's `active` language into Dixon's `split-S` language. As for the contents of the relevant terms, they seem to correspond to each other.

Notes

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15. It seems hardly disputable to consider that at the PIE stage the category of `copula` was not required in constituting a `nominal sentence`, see Benveniste (1971: 131), Lehmann (1974: 115f.), etc.

16. We could not readily deny the view that the distinction `animate vs. inanimate` was to some extent based on such extra-linguistic factors as religion and mythology, but this does not seem to be a new idea which supersedes the traditional explanation for the issue in question. Gender, or rather animateness, attributed to a given noun might be an issue that is to be explained extra-linguistically, but it seems that PIE nouns had a peculiarity that requires a linguistic explanation. As Kurzová (1993: 62) herself illustrates, nouns which seem to have the same lexical content sometimes have different genders; e.g., Latin (and OInd, etc.) masculine *ignis* vs. Greek neuter *πῦρ* for `fire`, and Latin feminine *aqua* vs. Greek neuter *ὕδωρ* for `water`. This type of nominal pairs can be interpreted as reflecting a certain archaic characteristic inherited from pre-PIE. Lehmann (1992, 110f.; 1993, 216) proposes to see that this is the residue of the former active structure of the language.

17. This portion is filled in with the term `process` in Kurzová (1993: 145). In the light of the chart in (20), this wording is highly misleading, and I have replaced it with `imperfective/durative` in presenting (27).

18. This form is a newly created nasal present. This occupies virtually the same position as thematic present in the process of the verbal-system alteration. However, as opposed to Latin, where the nasal present is thematic, the Greek and Aryan nasal presents are somehow athematic, cf. Kurzová (1993: 146).

19. It is not that every scholar today accepts the idea that these are genetically related. Szemerényi (1989: 363ff.), Shields (1992: 90ff.), etc. cast discredit on this supposition.

20. Far more detailed analysis of Germanic preterite-presents is made in Tanaka (MSa: Chap.2).

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