

Remarks on Kurzova's Model of Indo-European Structural Change

Tanaka Toshiya

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Remarks on Kurzová's Model of Indo-European Structural Change, from D-F to P-F, Part 1*

Toshiya Tanaka

One of my recent major concerns in research is to elucidate how the Old English and Germanic verb system emerged from the former language system. In trying to reconstitute the pre-history of the OE or Germanic language system, it is inevitably crucial what reconstruction model of the parent language (i.e., Proto-Indo-European) the analysis is grounded upon. Various kinds of new models, to a greater or lesser degree deviant from the traditional or 'Brugmannian' model, have been propounded in recent years. *From Indo-European to Latin: The Evolution of Morphosyntactic Type* by Helena Kurzová (John Benjamins, 1993) may be considered as one of these approaches. Although the development of the Latin language from PIE is primarily taken into consideration, Kurzová (1993) presents a new, noteworthy theory on the structural change in Indo-European nominal and verbal system. This paper, by examining her theory, arranges preliminaries for the issue what model of PIE should be chosen in considering peculiarities in the OE or Germanic verbal system¹.

Kurzová's book consists of Part I (pp. 1-46), providing an overall

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1. In preparation for Tanaka (MSa,b), I am now working on the historical development of preterite-presents and the suppletion in the OE or Germanic copula.

introduction, Part II (pp. 47-104), dealing with the IE nominal system and its development into the Latin system, and Part III (pp. 105-192), treating the issues concerning the IE verbal morpho-semantics and its later developments. Each section below takes up topics from her book and, by examining her arguments, aims at obtaining a suitable model for pre-stages of the relevant languages.

1. PIE and Its Verbal System

This section deals with the essential assumptions concerning the PIE language and its verbal system, unfolded in Kurzová (1993: pp.1-46 [the whole content of Part I] and pp. 105-132 [a portion of Part III]).

1. 1 Background: Linguistic typology

Linguistic typology provides a very important key to reconstruction of a proto-language, cf. Szemerényi (1985, 31), Lehmann (1992: 39f. & 96ff.), Fox (1995: 247ff.), etc. What is relevant here is the typological distinction between nominative and non-nominative languages². The latter group of languages are subdivided into ergative and active languages:

(1) Nominative languages

Non-nominative languages: Ergative languages

Active languages

The common feature ascribed to both ergative and active languages is the identity of the patient of transitive active verbs (i.e., transitive verbs that require an agentive 'subject') with the non-agentive 'subject' of inactive verbs (i.e., verbs that require a non-agentive 'subject'), cf. Kurzová (1993: 15). However, as the following two diagrams illustrate, there is a

2. Kurzová (1993: p. 197, Note 11) prefers the term nominative to nominative-accusative because nominative "includes the agentive subject in its function and thus is comparable to ergative or active case as cases expressing an agent." This paper follows her terminology.

although both means are well attested in ergative languages, active languages typically adopt verbal person affixes (i.e., active and inactive person affixes) and develop no or limited scale of nominal cases (*ibid.*). As a typical active language, an example is cited from Dakota in Kurzová (1993: 19):

(4) Verbal prefixes in Dakota

Agent intr	wa-t'i	1SG. Act-dwell 'I dwell'
Non-Agent subj	ma-śica	1SG, INACT-be bad 'I am bad'
Patient tr Agent tr	ma-ya-k'te	1SG. INACT-2SG. ACT-kill 'You kill me'

As recognized here, an agentive subject of an intransitive verbs (*wa-* 'I') is different in morphological realization from a non-agentive subject of an intransitive verb and a patient of a transitive verb (*ma-*, 'I' or 'me'). According to Kurzová (1993: 19), moreover, a typical active language is furnished with bipersonal verbs, i.e., verbs which can take two affixes referring to a (agentive or non-agentive) subject and also a patient, see the third example in (4) above.

1. 2 (P)IE as a nominative(-accusative) language

Kurzová (1993: 15ff.) claims that PIE is a nominative language and not an ergative or an active language. A typical counterexample against the ergative hypothesis is the fact that the reconstructed PIE employs an (animate) nominative subject marked by *-s* even for intransitive verbs, such as 'go'. If PIE were an ergative language, this type of subject would necessarily be marked by *-O* or zero (an 'absolutive' case), and this is not the case⁴. Likewise, the fact that the (animate) subject marked by *-s* is

4. This view is in conformity with, say, the recent résumé of the state of the art in IE linguistics by Szemerényi (1985: 26ff.), where the ergative hypothesis in respect of Indo-European is definitely denied.

attested in various IE languages not only for active/agentive verbs, such as 'kill', but also for inactive/non-agentive verbs, such as 'know', militates against the hypothesis that PIE was an active language. (For further details, see Kurzová 1993, pp.18f., Sec. 1.2.1.2.)

We must note that her argument is based solely on the comparatively reconstructed parent language. As far as the PIE at the split-off point (cf. Anttila 1989: 274) is concerned, her argument seems to hold up. However, as we shall point out immediately below, her argument shows some inconsistency, due to the lack of any consideration of the language state that antedates the comparatively reconstructed PIE.

1. 3 Two classes of verbs in PIE

Although she denies the possibility that PIE was an active language (see above), Kurzová (1993: 20f., *et passim*) assumes that PIE verbs were distinguished into two classes, active and inactive classes. The essence of this assumption is illustrated by the following chart (cf. *op. cit.*, p. 118):

(5) diathetic classes:	active	inactive		
	(denoting an action)	(denoting non-action)		
aspectual subclasses:				
	imperfective	perfective	process	state
	present	aorist	medium	perfect

The dichotomy of verbs into active and inactive classes is of a diathetic character, since their difference lies in whether the 'subject' of the verb is agentive or non-agentive (cf. *op. cit.*, p. 120):

(6) active verb:	subject = agent
inactive verb:	subject ≠ agent

The active class of verbs are further subdivided into imperfective (or durative) and perfective (or non-durative) verbs, in terms of the aspectual difference inherent in the verb's lexeme. The inactive class also

has two subclasses, process (or progressive) and state (or non-progressive) subclasses. According to Kurzová (p. 118, *et passim*), these two classes are assumed to be LEXICAL, NON-OPPOSITIONAL classes. Namely, this distinction is based on the lexical meaning of a verb (or possibly of a root) and is characterised as “not forming morphological opposition within the same lexeme” (*op. cit.*, p. 204, Note 85).

Kurzová gives virtually two grounds to posit this system for PIE. One is that the reconstructed PIE verbal endings are divided into two types, i.e., into the present-aorist type (i.e., $-m(i)$, $-s(i)$, $-t(i)$) and the perfect-middle type (i.e., $-h_2e$, $-th_2e$, $-e$)⁵. As the other argument for her dichotomy, she claims that the classification of verbs in terms of the agentivity of the subject is “‘typologically’ well founded, i.e., it has its support in the verb classes attested by the general comparative research especially in the American languages” (*op. cit.*, p. 117).

Concerning the first point, no objection is to be addressed here, inasmuch as we seek a new, reasonable model which does justice to the Hittite fact and which is deviant from the Brugmannian, Greco-Aryan-based model. As for the second argument, however, her claim seems rather tenuous in that she only gives evidence from an inactive language, which (by definition) distinguishes active and inactive verbs, i.e., Dakota, see (4) above. ‘Active’ languages do distinguish active and inactive verbs, but she flatly denies that PIE was ever an active language. A really ‘typologically well-founded’ argument would call for the evidence that there is actually (at least) one nominative language in the world that was never an active language and that adopts active/inactive classification as to the verbal system. What lacks in her argument is the perspective of ‘pre-*proto-language*’ obtained by internal reconstruction, cf. Fox (1995:

5. This view of PIE verbal system, typically non-Brugmannian, originates with Kurylowicz (1932) and Stang (1932) (cf. Kurzová 1993: p. 204, Note 89) and is recently reinforced by the reconstruction model given by Neu (1968, 1976), Meid (1975, 1979), Tischler (1982), Gamkrelidze and Ivanov (1984). etc. (cf. Kurzová 1993: 115). It is Hittite, unknown to neogrammarians, that attests to an analogous system (i.e., *mi-* and *hi-* conjugations).

153). It is in fact possible that (pre-)PIE was actually an active language. In consideration of a number of peculiarities attributed to the comparatively reconstructed PIE, which have so far puzzled Indo-Europeanists, Active-Hypothesis of (pre-)PIE is fairly convincing, see Lehmann (1992: 107ff.; 1993: 208ff.), Tanaka (MSa: Chapter 2).

1. 4 From d-f to p-f structure

Kurzová (1993: 3 *et passim*) claims that the development from PIE to historically attested IE dialects, such as Latin, must be considered as the change in language structure from the DERIVATIVE-FLECTIONAL (d-f, henceforth) to PARADIGMATIC-FLECTIONAL (p-f, hereafter) type.

An essential property of the d-f structure is "the principle of primary grammatical relevance of lexico-derivative categories; i.e., the lexical stem should determine the morphological processes to be applied and the morphosyntactic characteristics of the word form" (Kurzová 1993: 23). Concerning the p-f structure, on the other hand, "the flectional ending is only formally determined by the inflectional stem" (*op. cit.*, p.31). In other words, "the application of formants is semantically motivated by the lexico-derivative stem in d-f structure and only formally motivated by the inflectional stem in p-f structure" (*ibid.*). She considers that only the d-f structure can be original as concerns the history of the IE dialects and that paradigmaticity is acquired, or paradigmaticization takes place, during the transition from the d-f to the p-f stage (*ibid.*). The following description may highlight the contrast between the two stages (*ibid.*):

In the d-f stage, the derivations of the same base do not constitute any regular system of oppositions whatsoever. The derivatives formed by the same process (by the application of the same suffix) are mutually correlated on the basis of certain common semantic characteristics. These correlations are, however, of unsystematic and irregular character. In the p-f structure, the derivational pairs are integrated into the paradigm. We speak about a paradigm of developed flection in two different ways and at two different levels: the

obligatory system of morphological categories and distinctions expressed in a given word category (morphological paradigm); and the system of inflectional forms displaying the same morphological processes (inflectional paradigm).

One of the reasons to contrive such new terminology as d-f and p-f seems to be that Kurzová wants to deny "the traditional theory of prehistoric change of IE structure from isolation to flection via agglutination, the original isolating structure being considered as a structure with analytic expressions of grammatical categories and with fixed word order" (*op. cit.*, p.3). In other words, she considers that there never was a stage, during the course of the history from PIE to dialects, where affixes attached to stems agglutinatively or additively, or that IE always had a FLECTIONAL structure. Being flectional is the common feature to the d-f and p-f structures.

Kurzová (1993: 8) defines "flectional expression of grammatical categories as integral modification of the word (or of the word structure)". IE flectional morphology is, furthermore, regarded as CUMULATIVE/FUSIONAL (in the sense that various categories are "never marked separately" but "expressed only by markers united in only relatively decomposable units") (*op. cit.*, 27f.) and also as COMPLEX (in the sense that complex semantics or sets of categorial distinctions are associated with the form of the flectional word, e.g., stem + ending.) (*op. cit.*, p.28). In support of this view, she points out that "the separability of morphemes is relative and gradual in IE" and that "there are categorial distinctions to which no separate morpheme can be ascribed" (*op. cit.*, 31f.). For instance, *-is* in *pedis*, *-ī* in *dominī* and *-ōrum* in *dominōrum* in Latin all indicate the category of 'genitive' but at the same time express the number (i.e., singular or plural) (cf. *op. cit.*, p. 32). Similarly, a personal ending of a verb is "a sequence of two complex morphemes, tense-mood and person-diathesis," in Latin, consider *dic-i-t* as pres-ind., 3sg-active, *dic-i-tur* as pres-ind., 3sg-passive (*ibid.*). The prefixation by the augment **e-* with the preterital meaning or the suffixation by the *hic et nunc*

particle **-i* might appear to be of an agglutinative or additive character, but these were marginal in that they were originally optional and ungrammaticalized (cf. *op. cit.*, p.24 and p.132).

PIE had a d-f structure furnished with two classes of verbs, and this changed into a p-f structure furnished with the integral verbal system. This change was accompanied by "the transformation of the injunctive-based system into ... the present-based system." (*op. cit.*, p. 119). The formation of the thematic present in both active and inactive class was, according to Kurzová, a decisive step in this transformation (*ibid.*).

Kurzová (1993: 42) claims that "hierarchically structured word complexes have their counterpart in the LINEAR, NON-FORMALIZED sentence structure". This is essential to the original d-f structure in PIE, and the development into the p-f structure does not directly affect this sentence structure. In the sentence structure thus defined, the word order is free, and the relationship between words (e.g., the subject and the verb) is 'appositional'. Greek attests to a large extent to this characteristic, see Kurzová (1993: 43f.).

1. 5 Criteria for the distinction between the two classes

As representative examples of PIE active and inactive verbs, Kurzová (1993: 116) provides the following ones:

(7) active verbs — aorist-present — actions

		OInd aorist	OInd present
		'go' (< *g ^w ā-)	'strike, kill' (< *g ^w hen-)
1sg.	-m	a-gā-m	han-m-i
2sg.	-s	a-gā-ḥ < -s	haṃ > -s-i
3sg.	-t	a-gā-t	han-t-i

(8) inactive verbs — perfecto-medium — state, processes

	Gk perfect	Hitt middle	Lat perfect
	(< *woid-) 'sit' (< *ās-) (< *woid-)		
1sg. -a < -h ₂ e	οἶδα	eš -ha-hari	vīd-ī < -h ₂ e-i
2sg. -tha < -th ₂ e	οἶσθα	eš -ta-ri	vīd-is-tī < -th ₂ e-i
3sg. -e/-o	οἶδε	eš -a-(ri)	vīd-i-t < -e-i-t

It is assumed that the PIE root *g^wā- 'go' has an active-perfective meaning, and *g^when- 'strike, kill' an active-imperfective meaning. PIE *woid- 'see, know' and *ās- 'sit', on the other hand, are considered to have expressed inactive-state and inactive-process meanings, respectively.

Interestingly, two of the examples in (8), i.e., Gk. *oid-* and Hittite *eš-* lacks the corresponding present or active forms, and they are traditionally classified into the categories of perfect-presents and *media tantum* (i.e., middles without the corresponding actives, see *op. cit.*, p. 116). Kurzová (1993: 117) observes that "these verbs representing perfects and media tantum are relics of the originally lexical inactive class and not isolated members of inflectional opposition perfect vs. present, middle vs. active". To vindicate this view, she adduces two kinds of grounds. One is the fact that "they exhibit archaic semantic and formal features not shared by the representatives of the developed inflectional categories of perfect and middle" (*ibid.*). The perfect-present *woid- 'know', widely attested in various IE dialects, in fact shows archaic morphological properties, such as lack of reduplication, etc., cf. Kurylowicz (1964: p. 62, Note 6 and p. 70)⁶. Such media tantum as Hittite *eša(ri)* 'he sits' (cf. Gk. ἧσται, OInd. *aste*) and Old Indic *saye* 'he lies' (cf. a newer

6. Besides its non-reduplicated perfect forms attested in various dialects, there are other archaic characteristics. Only the corresponding verb in Greek retains the original 2 sg. ending, -tha: οἶσθα < *woid-tha, see Szemerényi (1989: 312). Furthermore, even in West Germanic, where the 2 sg. strong preterites show aorist forms, i.e., a zero-grade stem and a vocalic ending, cf. OE *ride*, the 2 sg. present for preterite-present shows an *o*-grade stem and the original perfect ending: OE *wāst* > *wait-st; cf. *seal-t*.

form $\hat{\eta}\sigma\alpha$, Gk. $\kappa\epsilon\acute{\iota}\tau\alpha\iota$, Hitt. $kitta(ri)$) "attest the original vocalic ending $-o$ in 3rd sg." (*op. cit.*, p. 117). The other ground is that "the inflectional categories of perfect vs. aorist-present and middle-passive vs. active, if developed, are of so varied a character in the individual IE languages that it is impossible to reduce them to an inflectional opposition with common (and allegedly original) semantic definition and formal expression" (*ibid.*).

Apart from those representative examples reviewed above, it is not always facile to distinguish the (sub)class to which a given IE verb/root belongs. There are, according to Kurzová (1993: 127), "verb pairs with the same basic lexical content but different semantics, which can be classified as active vs. inactive". For instance, $*sed-$ 'sit' is for some reason regarded as an active verb, beside inactive $*\acute{a}s-$ ($>$ Hitt $e\check{s}a(ri)$ 'he sits'). Similarly, $*legh-$ 'lie, (tr) put' is active while $*\acute{k}ei-$ (Old Indic $\acute{s}aye$ 'he lies') is inactive. Kurzová (1993: pp. 127ff., Sec. 3.2.2.) strives to present two sorts of criteria to facilitate the identification of the (sub)class of a given verb/root. They are semantic and morphological criteria.

Two semantic criteria are attributed to the inactive class (*op. cit.*, p. 130). A verb with the meaning of "the psychosensory states/processes ascribed to the personal experiencer" (*ibid.*) is inactive, e.g., $*weid-$ 'see', $*welh_1-$ 'will'. "The diathetically vague verbs allowing both transitive actor-oriented and intransitive undergoer-oriented interpretation" (*ibid.*) are inactives. For ease of understanding, English *break*, *change*, *bend*, *turn*, etc. may be invoked here (cf. *op. cit.*, p. 122). They can be used either as an intransitive or as a transitive verb, *The window broke*, *I broke the window*. Kurzová (1993: 122) cites a relevant instance from Hittite:

- (9) NINDA har-š̄i-in pā [r-a] š̄ -ha-ri
 bread thick-ACC break-MED 1SG
 'I broke thick bread'

- (10) MUN-aš -ma-kán GIM-an ha-aš -š-i an-da *pár-š-i-it-ta-ri*
 salt-NOM but as hearth-LOC in break-MED 3SG
 'but as salt breaks on the hearth'

Note that the same middle verb *pa rš* - is transitive in (9) and intransitive in (10). For a more sophisticated argument in defense of the classification of this kind of verbs as inactives, see Kurzová (1993: pp. 121ff., Sec. 3.2.1.5).

As a morphological criterion, the shape of the root is resorted to (*op. cit.*, pp. 127ff., Sec. 3.2.2.1). As surmised from several Latin examples, according to Kurzová, the CEC root is primarily attributed to active verbs (cf. *op. cit.*, p. 127):

- | | |
|--------------------------------|---|
| (11) active | inactive |
| CEC: <i>veho</i> 'bear, carry' | CEIC: <i>vīdi</i> (cf. <i>video</i> 'see') |
| <i>fero</i> 'bear, carry' | CERC: <i>verti</i> (cf. <i>verto</i> 'turn') |
| <i>tego</i> 'cover' | CERH: <i>genui</i> |
| | (cf. <i>gigno</i> 'give birth to') |
| | CEHC: <i>pēgi</i> (cf. <i>pango</i> 'fasten') |

The opposition, **sed-* vs. **ās-* 'sit', or **legh-* vs. **kei-* 'lie', is also set down to the difference in root-shape. The CEC type (**sed-* and **legh-*) indicates an active class, and the other type (EHC for *ās-* and CEI for *kei-*) an inactive class (*op. cit.*, p. 128). Kurzová (1993: 129f.) gives a handful examples of IE root that belong either to the active or to the inactive class:

- (12) active verbs
**g^when-* 'strike', **weġh-* 'carry, drive', **deiġ-* 'show',
**bher-* 'carry', **sed-* 'sit (down)', **legh-* 'lie, put'

(13) inactive verbs

*ās- 'sit, be sitting', * $\hat{k}ei$ - 'lie, be lying', *weid- 'see', *wert- 'turn',
 *leik^w- 'let, leave', *peh₂ \hat{g} - 'be firm, firm', *welh₁- 'will', *weld/p- '?',
 *genh₂- 'be born, bear'

As seen from (12) above, the root * $dei\hat{k}$ - 'show' is exceptional, since its shape is of the CEIC type. The verb *iungo* 'unite, connect' must be an active verb but nevertheless hints at the form CEUC (i.e., **yeug-*) (*op. cit.*, p. 128). For these exceptions, Kurzová (1993: 128) makes a stipulation that "active CEIC, CEUC verbs are derived from the original inactive CEI, CEU roots.", and adds (p. 205, Note 99) that "it should be assumed that certain suffixal determinatives could change the inactive verb into the active one". (Obviously, a more insightful explanation of the mechanism would be needed to establish this rule in PIE.) Moreover, another type of exceptions are found. There are active verbs with a CEH root, consider * $g^w\bar{a}$ - 'go' and * $d\bar{h}e$ - 'put' (*op. cit.*, p. 128). Thus, a positive rule is only that "CEC roots with two radical consonants were confined to active verbs" (*op. cit.*, p. 128f.). She finally concedes that "until the IE verb has been systematically analysed from this point of view, we cannot use the difference in root/stem shape as a reliable classificatory criterion" (*op. cit.*, p. 129).

Another morphological criterion is ascribed to the active class. Kurzová (1993: 129) states that "[p]ositive evidence is provided [for the active class: T.T.] by the sigmatic and reduplicated type of aorist as it is indicated by the roots * $g^w\bar{h}en$, **wegh-*, and * $dei\hat{k}$ -." Furthermore, she suggests that the Latin *-vi* perfects indicate the original inactive class (*op. cit.*, p. 130).

1. 6 Discussion

1. 6. 1 Linguistic Typology

We have already pointed out in 1.2 above that some inconsistency is, from the typological viewpoint, to be recognized between the supposed PIE nominative system and the active/inactive dichotomy of the PIE

verbs. This point may be problematic, but concerning other assumptions, there seems to be little inadequacy in her reconstruction model.

As reviewed in 1.3. above, the active/inactive classification is related to the diathetic character of the verb, and the imperfective/perfective or process/state subclassification is based on the aspectual property. Kurzová's argument on the PIE verbal system should imply that the tense distinction was originally not represented by verbal morphology. Kurzová (1993: 24 & 132) in fact subscribes to the view that in PIE the augment **-e* and the particle **-i* could only facultatively attach to the verb. Cf. "Primacy of aspect before tense as a deictic category related to the hic-and-nunc situation" (*op. cit.*, p. 194). This type of reconstruction is sanctioned by linguistic typology, see Comrie (1976: 82ff.)⁷.

1. 6. 2 Active/Inactive Distinction: A Comparison with Kurylowicz-Watkins-Austefjord's Model

As I have already mentioned in 1.3 above, Kurzová's contention that there was a twofold classification of verbs in the PIE lexicon is in keeping with the recent trend of non-Brugmannian reconstruction of PIE⁸. Her explicit model of the PIE verbal system (cf. [5] above), it seems to me, makes a new contribution to elucidation of various mysteries of IE verbs. Below we should like to illustrate this by comparing her model with what may be called Kurylowicz-Watkins-Austefjord's model of PIE verb

7. Szemerényi would dispute this kind of reconstruction, who insists that "aspect is a late development accessory to an earlier tense-structure" (1985, 25; cf. 1989, 337: "In jedem Fall müssen wir aber Aspekt als eine frühe Kategorie, ja sogar eine Kategorie, die dem Tempus voranging, dazidiert ablehnen") and also reconstructs the PIE verbal morphology based on the tense distinction (1989: 330f.). His reconstruction of PIE verbal morphology is, however, far from satisfactory in that it does not properly incorporate the perfect and middle morphologies into the system (and that he does not even try to give an account of their origins). Moreover, we must note that it is in fact morphologized aspect, attested in Greek, etc., and not lexical aspect, dealt with here, which he takes into consideration, see also Szemerényi (1987).

8. For details, see also Lehmann (1993: 218ff.).

system.

Kurylowicz (1964: 62f.) has provided an explicit hypothesis about the origin of the IE perfect. According to him, it "goes back to a verbal adjective in $-\hat{e}$, conveying a meaning comparable to that of the younger formation in $-t\hat{o}$ -, plus elements ($-h_2e$, $-ta^x$, zero) functioning as grammatical subjects, *whatever their etymology*". A verbal adjective, an e -grade root plus $-\hat{e}$, such as **ghwenē* 'killed', is supposed to have had the following three functions:

(14)

- a. imperfective as in English (*he is being*) killed
- b. state as in English (*he is*) *killed* = (*he is*) dead
- c. perfective as in English (*he has been*) killed

Evidence that suggests the posited form once actually existed is presented by Watkins (1969: 106): an Indo-Iranian zero-grade nominal form, **ghn-ā*, which is retained as the second element of the compounds, Avestan *vərəθra-γna-*, Vedic *go-ghnā-*. The adjective 'killed', according to Kurylowicz, suffered the segmentation *ghwen-ē* and was reinterpreted as a form for 3rd person singular with a personal ending $-\hat{e}$, and then the elements, $-h_2e$ 'I' and $-ta^x$ 'thou', were attached to the stem *ghwen-* to create the following paradigm (cf. Watkins 1969, 105):

- (15) 3. sg. **ghwen-ē* 'killed(-one)'
 1. sg. **ghwen-h₂ō* 'killed-I' (> 'I am killed')
 2. sg. **ghwen-th₂ō* 'illed-thou' (> 'thou art killed')

In (15) the endings from Watkins's revised version is adopted, for the difference does not seem to matter much here. The paradigm in (15) shows an oxytonic pattern (i.e., the accent is placed on the final syllable or the ending), but it suffers a change into a barytonic pattern, due to the influence from the present system (cf. Kurylowicz 1964, 62):

He concludes that "The IE perfect is therefore the *oldest form of the mediopassive* that can be reconstructed on purely internal evidence" (*ibid.*).

If Kurylowicz's hypothesis as to the origin of IE perfect is correct, the perfect forms derive from the verbal adjective in $-\bar{e}$ with a suffix functioning as a subject. The relevant verbal adjective may be interpreted just like a past participle in modern languages. Thus, if the root has an intransitive meaning, the $-\bar{e}$ form remains intransitive (e.g., **gwem*- 'go' > *gwem*- \bar{e} 'gone'), and even if its semantic property is transitive, the agent is semantically suppressed in the verbal adjective (e.g., **ghwen*- 'kill' > **ghwen*- \bar{e} '(one's being) killed (by somebody),' where the agent is unknown or unexpressed'), and thus the form can be considered to be 'intransitive'. In this connection, Aufstefjord (1979: 209f.) observes that many of the Hittite *hi*-conjugation verbs are in fact intransitive verbs: *ak*- 'sterben (die)', *mai*- 'wachsen (grow)', *waš ta*- 'sündigen (sin)'. The following remarks by Kurylowicz (1964, 72) may also be cited here:

The analysis of the IE forms with the endings $-h_2a$, ta^x , $-e/o$, $-r$ makes us assume an original category of *intransitive verbs having the status of derivative rather than of inflexional forms*. Its incorporation into the conjugational system went together with its differentiation into several paradigms: aorist mediopassive, present - system mediopassive, perfect.

All we may legitimately assert is that certain IE morphs serving in the historical languages to express the grammatical categories of "mediopassive" and "perfect" go back to endings originally characterizing a class of derivative intransitive verbs. Confronted with the present-aorist system these verbs represent a more recent layer of the IE conjugation.

Aufstefjord (1979: 211), in this connection, states that "the perfect expresses a subject-related state" and that "this is indeed the primary meaning

of the IE perfects” (“Das Perfekt drückt ... einen subject-bezogenen Zustand aus, und eben dies ist die primäre Bedeutung des idg. Perfekts”). It is pointed out that there was surely a tendency in independent IE dialects that the perfect, originally intransitive and denoting subject-related state, suffered transitivization and also came to express the temporal past (Austefjord 1979: 213). Old Indic and Greek show many forms of ‘transitive perfect’. In Germanic (except for Gothic), too, middle was finally eliminated, and thus the perfect must have been subordinated to the ‘active’ paradigm and must have finally obtained a ‘transitive’ character as well. Latin perfect-presents, such as *meminī* ‘I remember’ and *ōdī* ‘I hate’, attest to such ‘activization’. They do not express the temporal past (i.e., they seem to remain verbs expressing the present subject-related state), but nevertheless they can take an object: *meminī alicujus* (genitive) ‘I remember something’, *ōdī aliquem* (accusative) ‘I hate somebody’.

Austefjord (1979: 213f.) presents the view that the starting-point of the transition to Gmc. strong preterites must have lain in the perfect forms of the ‘perfective’ (i.e., not ‘durative’) verbs, since such forms can contain a semantic element of the past. Namely, the perfect form **kwam(a)* ‘I have come’ was reinterpreted as the past form of **kwemō* ‘I come’. He adduces French *je suis venu* ‘I have come’ > ‘I came’ as independent evidence for this. By analogy, then, this trend made ‘durative’ verbs follow the same pattern, e.g., **skain(a)* ‘I shone’ as opposed to the present **skeinō* ‘I shine’. And finally, such transitive verbs as **teuhō* ‘I lead’ (cf. Go. *tiuhan*) — **tauħ(a)* ‘I led’ suffered this kind of change. (This type of verbs must have originally lacked perfect forms, and thus the **tauħ(a)* was newly created as a preterite form though the creation was on the analogy of the original perfect forms of intransitive verbs.) Austefjord (p. 214) cites suppletive forms of Gk. *ἐνήνοχα* (for *φέρω*) and Latin *tulī* (for *ferō*), which directly suggest that the Gmc. **bar(a)* is a new formation. He claims that other transitive preterites can also be regarded as new formations.

There seems to be evidence against Kurylowicz-Watkins-Austefjord’s

model of IE perfect so far reviewed. It is highly probable that IE **woida* reflects a very archaic characteristic of IE perfect, since its morphology is very conservative and, furthermore, it is attested largely in the same fashion in various IE dialects. Kurylowicz (1964, p. 62, Note 62, and p. 70) himself suggests the archaism of this verb, on account of its lack of reduplication, etc., see Note 6 above again. This indicates inadequacy of Kurylowicz-Watkins-Austefjord's doctrine. To the extent that the PIE root **weyd-* is regarded as meaning 'see', the perfect form **woid-ê* must, according to their theory, go back to the verbal adjective **weid-ê*, which must have meant 'seen'. Then, the form that have suffered 'polarization', **woid-h₂e* 'seen-I', must have meant either 'I am being seen', 'I am seen' or 'I have been seen'. But this supposition contradicts the attested meaning of this form. Gk *οἶδα*, Skt. *vêda*, Gmc. **wait* unequivocally attests the meaning 'I know', a transitive meaning (cf. Kurzová 1993: 116). Thus, the theory now at issue cannot give a neat account of a representative example⁹.

A theory that can neatly deal with **woida* is naturally required. Kurzová's (1993) dichotomy of PIE verbs into actives and inactives, on the other hand, seems capable of coping with such a representative example as **woida*. It simply was an inactive verb, the meaning of which must have been 'be in the state of seeing', hence 'can see' or 'know'. The meaning of the PIE root **weyd*, 'see', could be interpreted as an inactive meaning (note that as for the construction *x sees y*, *x* is not an agent but rather an experiencer to the extent that the construction can be paraphrased into *y is visible to x*), and this meaning does not describe a process but rather a state, and therefore this root could obtain a perfect morphology, **woid-a*, **woid-tha*, **woid-e*, which is the common ancestry of the perfect-present verb widely attested in the historical IE dialects, such as Greek, Sanskrit, Old Church Slavonic, Germanic. The PIE construction, *y woid-a*, must have meant 'I see y' or 'y is visible to me',

9. As reviewed above, Austefjord considers Latin *memini* and *odi* are new forms that suffered transitivization. This may be a possible view. But how can he explain **woida*, which shows special archaism?

and hence, 'y is familiar to me' or 'I know y' must have been derived¹⁰.

Furthermore, Austefjord's (1979: 212ff.) proposal on the Germanic verb system has something problematic. For instance, **kwam* (*a*) ('I have come' > 'I came') is supposed to reflect the original IE perfect, due to its intransitive meaning. But this is not plausible, in considering that its reflex in Old Indic shows an athematic, asigmatic aorist form, which is archaic, cf. (7) above. This property suggests that the original Aktionsart expressed by it must have been 'perfective', cf. Krahe and Meid (1969: III. 231f.), and that the original verbal form must have been **g^wem-m̥/s/t* rather than **g^wom-h₂e/th₂e/e* (i.e., Germanic **kwama* 'I have come' or 'I came' must have been a secondary, innovative form). According to Kurzová's theory, on the other hand, PIE **g^wem/h₂-* 'go/come' must have been an active verb since an agent is required for this verb, and it is subclassified into a 'perfective' verb (i.e., its meaning is not 'durative', cf. [5] and [6] above), and thus, it is explained why an archaic aorist morphology remained (cf. [7] above)¹¹.

Kurylowicz, Watkins and Austefjord's supposition that IE perfects were originally intransitive, as we have seen above, presents some problematic consequences. Kurzová's new model affords a better perspective in these respects.

1. 6. 3 Two types of endings in PIE and the origin of the *o*-grade

Kurzová's claim depends heavily on the assumption that PIE verbs had (only) two types of endings. As far as this point is concerned, Kurzová's

10. We should like to leave it open here whether there was also an active verb in the PIE lexicon which derived from the same root **weyd-* 'see' (i.e., with the construction *x sees y*, *x* was understood as an agent). Such an athematic present as OInd. *vedmi* (cf. Go. *-weitan*, OE *wītan*, etc., which belong to Str. 1st Class) might suggest this possibility, but this verb can be interpreted as back-formation from the *o*-grade **woid-*, see Cardona (1992: 5ff.), Lehmann (1986: 127 & 407), etc.

11. In the light of Kurzová's model, it is possible that not only OE *cuman* (aorist present, cf. Prokosch 1939, 150) but also Gothic *qiman* (not *e*-grade present but reflecting root aorist) somehow reflects the original Aktionsart. This paper leaves it open whether this consequence is born out by independent evidence.

model of reconstruction is consonant with Kurylowicz-Watkins-Austefjord's one. The difference lies in the status of the perfect-middle forms: Kurzová considers that both present-aorist (i.e., active class) and perfect-middle (i.e., inactive class) forms were original formation and their divergence in form goes back to the difference in semantics of the verbal root. Kurylowicz (1964: 62f.), etc., on the other hand, regard the perfect-middle forms as derivative or secondary. What remains unsolved, in spite of this difference, is the genesis of the *o*-grade in IE perfect. Unfortunately, Kurzová does not try to give an account of this issue, in presenting her new model. The notion of 'polarization,' presented by Watkins (1969: 105 & 112) (cf. [16] and [17] above), on the other hand, is nothing but a *deus ex machina* and by no means explanatory¹².

1. 6. 4 Morphological Shape of the Root

Among the topics reviewed in 1.5 above, the most intriguing but questionable is the discussion on the correlation of the root shape with the active/inactive classification. Such a postulation as "CEC root is limited to the active class" is an empirically refutable argument. It seems worth examining whether, say, Gmc. class V strong verbs with a CEC root unanimously indicate the original active class. To give only one example, it follows from her assumption that Gmc. **sehwan* 'see' (cf. Meid 1971, 49) must have, if it derived from a genuine PIE root at all, once been an active verb, as opposed to PDE *see*, with which inactive semantics evidently predominates. This might be a problematic consequence¹³.

12. A possible solution to this problem might be obtained from Cowgill's (1979: 34 *et passim*) assumption that the IE *o*-grade perfect goes back to PIE (or his PIH = Proto-Indo-Hittite) nominal verbs.

13. Moreover, it is regrettable to me that Kurzová does not make it clear what kind of stance she takes toward Benveniste's (1935: 147ff.) root theory, in dealing with PIE roots. One thing we can recognize from the relevant passages is that she does not accept Benveniste's postulation that the third consonant in the form *CeC-C- or *CC-eC- is an extra-radical element, i.e., a determinative or a suffix, cf. Lehmann (1952: 17f.)

1. 7 Summary

Although several problems remain in Kurzová's (1993) model as we have just seen, there are at the same time various merits in her proposals. She catches well up with the state of the art in IE linguistics, which deems that the traditional, Brugmannian or Greco-Aryan model of reconstruction does not give a sufficient image for PIE since it is invalidated by the Hittite evidence (cf. *op. cit.*, p. 110). Whilst she modestly concedes that a spatiotemporal differentiation of PIE (or how and when each dialect split off from the parent-language, in view of Space-Time Hypothesis, originating with Meid 1975) is beyond the scope of her book (*op. cit.*, p. 4), an explicit proposal is made: "the richer system of Greek/Aryan and the more simple system of Latin and other IE languages" are explained "as two separate alternatives of grammaticalization and paradigmaticization" and the common source (i.e., PIE) for both types of IE dialects must have had "a system poorer in developed inflectional oppositions, but richer with regard to derivational processes and capacities" (*op. cit.*, p. 110). This observation, it seems to me, affords a new key to a mystery of IE languages, i.e., why IE languages are similar to each other to a limited extent but are considerably divergent from each other in many respects.

Furthermore, her theory is particularly attractive in that it can give a natural account of the fact that Gmc **wait-* 'know' and the corresponding perfect-present in various other IE branches show a predominantly archaic perfect morphology, of which Kurylowicz-Watkins-Austefjord's model cannot give a satisfactory account. In Kurzová's view, it follows that at least the core members of the Germanic preterite-presents (including, of course, **wait-*) have not derived from corresponding present forms. On the contrary, they must be reflective of an archaic layer of the PIE inactive verbs¹⁴.

14. This consequence is again in keeping with opinions of some other non-Brugmannian scholars, see Meid (1971: 39), Cowgill (1979: 30), etc.

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