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**Hittite and Indo-European studies:  
the denominative statives in -ē-**

BY

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# HITTITE AND INDO-EUROPEAN STUDIES : THE DENOMINATIVE STATIVES IN *-ē-*

By CALVERT WATKINS

A VERBAL suffix *-ē-* is found in a number of Indo-European languages, regularly with stative function. The type is discussed for example by Brugmann, *Grdr.* 2<sup>2</sup>.3.1.170-177 and Meillet, *Introduction*<sup>2</sup> 209, as well as in a number of special studies such as H. Wagner, *Zur Herkunft der ē-Verba in den idg. Sprachen* (1950) and ZCP xxv, 1956, 161-173, with earlier literature. Among the formants in the several languages which have been derived wholly or in part from this Indo-European stative suffix *-ē-* are the Greek intransitive and passive aorist in *-η-*; the Latin second conjugation *-ē-* of verbs like *sedēre* 'sit', *habēre* 'have'; the Germanic third class of weak verbs, Old High German *habēn*; the Slavic verbs of Leskien's class IVb with aorist stem in *-ē-* like *gorēti* 'burn'; the corresponding Lithuanian verbs in *-ėti* like *garėti* 'id.'; and more recently, the Tocharian third class of intransitives in B *-e-*, A *-a-* like B *lyuketār* 'shines'.<sup>1</sup> In all the aforementioned types we have to deal with deverbative derivatives.

Now beside this deverbative stative suffix *-ē-* there is also a denominative stative *-ē-* in Indo-European. Though it is

<sup>1</sup> H. Pedersen, *Tocharisch* 161-2 (*KDVS, Hist.-Fil. Med.* 28,1[1941]) and Watkins, *IE Origins of the Celtic verb* 70-71 (1962). The characteristic middle inflexion of the Tocharian verbs (Krause-Thomas, *Toch. Elementarbuch* I, 200[1960]) should be compared with Latin *caletur*, (*mihi*) *uidetur*, as well as the impersonal uses of *misereri*, *uideri*. But the third class in *-etār* with non-palatalizing thematic vowel *-e-* should rather be derived from *\*o-tor*; thus *lyuketār* = Hitt. *lukkatta*, as Jay Jasanoff points out to me.

The suffix *\*ē-* has furthermore been identified in Hittite in the *hi*-verb *halzai* 'cries', cf. Pedersen, *Hittitisch* 151 (*KDVS, Hist.-Fil. Med.* 25,2 [1938]) and Wagner, *ē-Verba* 50. But this is very doubtful both on inflexional grounds, and because the older form of this verb is the middle *halziyari*, which also explains the assibilation *\*tj > -ziy-* (Luvian *hālzi-*). cf. Watkins, *Indogermanische Grammatik* III/2,57 (1969), and on the non-assibilation of *\*t* before *\*e* in Hittite, W. Cowgill's forthcoming *Idg. Gram.* I, ch.3§33. The inflexional pattern of the type *halzai*, *halziyanzi* is an inner-Hittite development.

unlikely that there is no connection between the two—as most authors hold—they are still synchronically distinct suffixes in Indo-European. The deverbative is a primary suffix, attached directly to verbal roots; the denominative is a secondary suffix, attached to synchronically existing adjectival and substantival stems, with the meaning ‘be or become what the base denotes’: ‘das Sichbefinden in einem bestimmten Zustand, oder das Geraten in einen Zustand,’ as Paul Diels has defined it for Slavic. Their independence was recognized by Brugmann, *Grdr.* 2<sup>2</sup>.3.1.217. It is the denominative *-ē-* verbs which will be our concern from this point on.

The denominative *ē-* verbs have been recognized principally in Old High German, Slavic, and Baltic. Typical are Old High German *altēn* ‘grow old, senescere’; *heilēn* ‘heal (intr.)’ = Old Church Slavonic *cělějetъ cělěti* ‘id.’; Lithuanian *senėju senėti* ‘grow old’. Brugmann was willing to entertain the possibility of adding the Latin type *claudēre* ‘be lame’, *senēre* ‘be old’, and equating them with the Germanic and Balto-Slavic types. But subsequent handbooks have rejected this in favor of the derivation of the Latin verbs via thematic denominatives which was Brugmann’s first suggestion (*Grdr.* 2<sup>1</sup>.2.1124 and 2<sup>2</sup>.3.1.216): thus *albus* → *albē-īe/o-* like Greek *φίλος* → *φιλε-ίω*. The latter view for these Latin forms must be rejected and the connection with *\*-ē-* restored, as will be shown below.

Traditionally at this point the handbooks introduce the question of the form of the suffix. The basic question is that of the primacy of the athematically inflected *\*-ē-*, or of the suffixed thematic form *\*-ē-īe/o-*.

Brugmann posited for the present formation of these denominatives a composite suffix *\*-ē-īe/ó-*, the *-īe/ó-* being the standard denominative present forming morph. While the denominatives cannot be separated from the primary deverbatives in *-ē-īe-*, “ebenfalls meist intransitiv,” they are a younger formation (*Grdr.* 2<sup>2</sup>.3.1.175). Brugmann states that the denominative suffix *\*-ē-īe-* does not appear to be directly related to the thematic vowel *-e/o-* of the underlying nominal form, but does not express himself on the origin of the *-ē-*.

Kuryłowicz, *Infl. Cat.* 77, states that the *\*-ē-* is an aorist marker in Greek (in the deverbatives) and Balto-Slavic, whereas the Latin and Germanic types seem to show a more recent layer of formation, with the introduction of *-ē-* into the present system and the formation of a complex suffix *-ē-īe/o-*, thus following Brugmann. But this view of the Balto-Slavic forms has not been universally accepted; cf. also I. A. Perel'muter, *Vop. Jaz.* 1969.5.11–21, who likewise rejects the aoristic value of *\*-ē-* proposed as well by Brugmann (*Grdr.* 2<sup>2</sup>.3.159) and Meillet-Vendryes, *Traité de grammaire comparée des langues classiques*<sup>2</sup> 285. Deprived of the Balto-Slavic support, the aorist value of the Greek deverbative intransitives like *ἐμάρην*, *ἐχάρην*, *ἐκάη* is more simply explained as a function of their secondary endings and the opposition to the present stems in *\*-īe/o-*: *μαίνομαι*, *χαίρομαι*, *καίεται*.

The assumed composite character of the Latin and Germanic presents (suffix *\*-ē-īe/o-*) is also uncertain; athematic inflexion (suffix *\*-ē-*) has been suggested, notably by Meillet, and defended most recently by E. Polomé.<sup>2</sup>

Meillet on pp. 217–218 of his *Introduction*<sup>8</sup> takes the Lithuanian type *senėju* and Latin *seneō* from a lengthened thematic vowel plus *-īe/o-*, thus *\*-ē-īe/o-*. But on pp. 209 and 219 he suggests rather athematic forms for Latin: the denominative suffix is to have the form *\*-ē-*, parallel to athematic *\*-ā-* in the first conjugation. He does not express himself further on the source of this *-ē-*, but simply notes that ‘these forms in long vowel are old’. As we shall see, the subsequent evidence will prove his hunch correct.

Unfortunately, the Germanic data raise problems: the phonological preform or preforms of the third class of weak verbs. The apparent problems are first the common source of the Gothic stem vowel *-ai-* and the Old High German stem vowel *-ē-*, and second, the athematic paradigm of Old High German beside the seemingly “semi-thematic” paradigm of

<sup>2</sup> ‘On the origin of Germanic class III of weak verbs’, *Beiträge zur Indogermanistik und Keltologie* (Festschrift J. Pokorny), *Innsbrucker Beiträge zur Kulturwissenschaft* 13, 83–92 (1967).

Gothic : OHG *-ēm*, *-ēs*, *-et*, *-ēmēs*, *-ēt*, *-ēnt*, Goth. *-a*, *-ais*, *-aiþ*, *-am*, *-aiþ*, *-and*. It is probably fair to say that more nonsense has been published on this topic, on both sides of the Atlantic, than on any other but the laryngeal theory. This results from a false evaluation of the problem. For the *form* of the third class is a pseudo-problem ; to introduce another metaphor, it is a symptom rather than a cause. For this reason the attempts to attack it by the "half-thematic" inflexion with ablauting suffixes *\*-ēi/-iō-*, even *\*-ēi/-i(-!)* by certain authors<sup>3</sup> is doomed to failure. Such a solution, wholly unlike any paradigm in any IE language,<sup>4</sup> has in my view nothing to recommend it.

What is important is to recognize that in *function* the Germanic denominative third class weak verbs, principally in Old High German, continue unchanged the Indo-European denominative statives in *-ē-*. That is the primary comparative fact. The formal implementation of this suffix is of secondary importance ; comparison shows that an innovation has taken place—scarcely surprising in a language of the European middle ages. But the innovation is einzelsprachlich, and it is wholly improper to attempt to build a new reconstruction of Indo-European on such a foundation.

Consider an illustration. Indo-European had a factitive suffix *\*-ā-* (*\*-e₂-*, *\*-o₂-*), suffixed to adjectives in the meaning 'to make something what the adjective denotes'. Thus from *\*neyo-* 'new' we find Hittite *newahh-* 'make new, renew', Latin *nouāre*, and Old High German *niurwōn*. The primary comparative fact in Greek is the continuation of the *function* of this suffix in the verbs in *-ow* like *νεώω* 'renew'. There has been a formal innovation in Greek, which we may or may

<sup>3</sup> Wagner, *ē-Verba* 49 ; W. P. Schmid, *Studien zum baltischen und idg. Verbum* (1963) ; M. M. Guxman, *Srav. gram. germ. jaz.* 4.388(196) ; O. Szemerényi, *Einführung in die vergleichende Sprachwissenschaft* (1970). All are ultimately based on H. Flasdieck, *Untersuchungen über die germ. schwachen Verben III. Klasse* (1935).

<sup>4</sup> The Hittite verbs in *-ai* (3 sg. *hi-conj.*) and *-aizzi* (3 sg. *mi-conj.*) are a Scheingleichung or mirage, being independent but parallel developments from (partially) similar initial conditions. cf. note 26 below.

not be able to give a satisfactory account of. But it is clear that that innovation is secondary and einzelsprachlich.<sup>5</sup>

The dialectal distribution of denominative secondary *-ē-* is different from that of deverbative, primary *-ē-*, since the former is unknown in Greek, and in Germanic confined to Old High German. This fact has led some scholars to share Brugmann's view that the denominative type is the more recent, essentially a matter of individual dialects, and in some sense less noteworthy. Typical is Wagner, *ZCP* xxv, 1956, 161<sup>1</sup> : 'Als sekundäre, einzelsprachlich ausgebildete *ē-Verba* betrachte ich die meist denominativen Verba vom Typus . . . *senēti*, *senēre*, *altēn*.' In the same tradition is the verdict of Z. P. Stepanova, *Vop. Jaz.* 1965, III : the denominatives are 'javno bolee poznogo proisxoždenija.' Similarly Polomé, *Festschrift Pokorny* 91<sup>14</sup>. Yet we should not make the mistake of thinking that a synchronically secondary suffix cannot be of equal antiquity in Indo-European with a synchronically primary suffix, and perhaps even older.

The Old High German derivatives in *-ēn* are collected (not exhaustively) and analyzed in an exemplary dissertation by

<sup>5</sup> Gk. *veāv* < *\*ney-ā-* is an archaism preserved as an agricultural technical term in the quite ancient secondary meaning 'replough' ; cf. Latin *nouāre agrum* in the same sense, and especially Greek (ή) *veiós* 'reploughed field', which shows an older form of the 'feminine' of the Indo-European adjective *\*neyios* than Skt. *návyā*. On the secondary character of the feminine gender in Indo-European, stoutly maintained by Meillet, see now W. Kaster, *Die griech. Adj. zweier Endungen auf -OΣ* (1967) and E. Neu, *IF* 74, 1969, 235–41, against A. Kammenhuber, *MSS* 24, 1968, 70 f., 76 ff. The former are surely right. To the Anatolian evidence discussed by Neu should be added that—which is conclusive—of the Luvian collective suffix *-ah-it-* (*adduwal-ahit-* 'badness') which in its first part continues untouched the form of the Indo-European collective *\*-o₂-*, later becoming the feminine in *-ā-*. Luvian *-ah-it-* furthermore can be compared with the metrically and formulaically archaic feminines of the Homeric type *πρεσβήτιδα τιμήν* (Hymn. Hom. 29.3), *τιμῆς βασιληίδος* (Z 193), cf. *βασιληίδα τιμήν* (Hes. Theog. 462). The parallelism is striking, though the constitution of *-ah-it-* (*-ah* + *it-* or *-ah* + *i* + *t-*) and *-ηιδ-* (*ā* > *η* + *ιδ-*) is doubtless independent. The Old Hittite nouns like *maniy-ahh-i-* (*maniy-ahh-ai-*) 'rule' : verb *maniy-ahh-* 'rule, hand over', *parar-ahh-i-* (KBo III 60 II 10) of unknown meaning : verb *pararahh-* (KUB XXXI 110,7) are also doubtless related.

Erich Aumann.<sup>6</sup> Representative samples from older glossatorial sources, all from attested thematic adjectives, are beside *altēn*, *armēn* 'egere', *berahtēn* 'splendiscere (sic)', *bleihhēn* 'pallere', *breitēn* 'extare, vastum esse', *fulēn* 'putrere', *nazzēn* 'madere', *swarēn* 'ingravescere (sic)', *tunkalēn* 'caligare', *warmēn* 'cale(sce)re'.

For the semantics, compare the native speaker Notker's glossing of forms of *swarzēn*, *warmēn* as 'dispositus ad nigredinem, calorem', and especially the passage (I 520 ed. Piper) discussed by Aumann, p. 34, where Notker exemplifies the proposition *si fit aliquid et non est* by a derivative of *wiz* 'white': *Ter nu uuizet. ter neist noh meht uuiz* 'he is whiten-ing now; he is not yet white'.

Aumann prefers the term stative (Zustandsverben), and notes specifically that the inchoative force is often a function of the preverb *ir-*. Though the term is improper, 'inchoative' is still probably the best single definition of the function of the class (so Meid, *Germanische Sprachwissenschaft* 3,250 [1967]), but several old derivatives show 'durative' stative value, with no trace of the inchoative force. Such are *breitēn* 'be broad', and especially *starēn* 'stare' from \**stara-* 'stiff' (OHG *star*). The formation of this denominative *ē*-verb must be Common Germanic, recurring in Old English *starian*, Middle Low German *staren*, and Old Norse *stara* (*ē*-verb). The association with the eyes is ancient, cf. OHG *starablind* 'quite blind', OE *starablind*, ON *starblinda* 'blindness'.

The type is clearly still productive in Old High German; but a number of derivatives attest the great antiquity of the type. We have *ir-sōrēn* 'emarescere' as an early Alemannic gloss, though there is no Old High German adjective \**sōr* 'dry'. But we have Old English *sēar*, Middle Low German *sōr* presupposing Germanic \**sauza-*, an ancient Indo-European adjective found in Lithuanian *saūsas*, Old Church Slavonic *suxъ*, and Greek *αῖος*. In *ser(a)wēn* 'tabescere, arescere, marcere' we have a derivative of an adjective \**serwo-* which

<sup>6</sup> *Denominative-ē-Verben im Altgermanischen* (Diss. Leipzig, 1935).

is attested nowhere in Germanic, but recurs in Old Irish *serb* 'bitter' (Aumann 21; Pedersen, *VKG* 1.78).

As noted, these denominative statives in *-ē-* are productive only in Old High German. But Aumann (p. 40) convincingly explains the virtual absence of denominative stative *ē*-verbs from East and North Germanic by the spread there of the stative-intransitive-inchoative *-nan*-verbs. At the same time he points out that Old Norse *skorta* 'lack' from *skotr* 'shortness, lack' beside Old English *scortian* 'get short' from *scort* 'short, small', together with ON *stara* 'stare' and cognates (discussed above), show that the category did exist also in North Germanic, where we have fuller documentation than in East Germanic. These forms would indicate that the category of denominative *ē*-verbs once existed in Ingvaenonic, and that in these dialects we must reckon with a secondary transfer from *ē-* to *ō*-inflection. Aumann's conclusion, with which we can entirely concur, is that 'Die e-Ableitungen vom Nomen müssen darum nach Bedeutung und Bezeugung als *selbständige Gruppe* anerkannt werden. Die bisherigen Überlegungen haben sie als *urgermanisch* erwiesen.' The distribution within Germanic suggests clearly that Old High German preserves an archaic category which has been formally renewed elsewhere in the family. As E. Sehrt has stated (*Festgabe Th. Frings* 6 [1956]) 'Das Ahd. hat das ursprüngliche bewahrt.'

Baltic and Slavic both show a present suffix \**-ē-je/o-* (infinitive stem \**-ē-*) in denominatives built on adjectives (and less frequently nouns) with stative meaning. In Slavic the pure stative value predominates, while in Baltic the inchoative force is common. Thus we have Old Church Slavonic *bogatějo* 'I am rich' from *bogatъ*, Lithuanian *senėju* 'I grow older' from *sėnas*, Latvian *dzeltēju* 'I grow yellow' from *dzeltъ*. Possible common Balto-Slavic word-equations are rare, but do exist, as in Russ. CS *roděti se* 'blush' = Lith. *rudėti* = Latv. *rudēt* (on which see further below), or OCS *vetřsajo* 'I grow old' = Latv. *vecēju* (Stang, *Das slav. und balt. Verbum* 163 [1942]).

Although so eminent an authority as Stang (*ibid.* 50, 166

and *Vgl. Gram. der balt. Sprachen* 362 [1966]) prefers the explanation via lengthened thematic vowel \*-ē-, there is in my view no real objection to Brugmann's assumption of a stative suffix \*-ē-, further extended in the present system by the productive \*-īe/o-. Lengthening of the thematic vowel is not an Indo-European process. The resultant composite -ēīe/o- then may have given its characteristic shape to the class of Slavic verbs in -ěje, Baltic -ėjū, whatever the origin of other functionally diverse members of this class in Slavic and particularly in Baltic. Alternatively, the inflexion of the statives in -ē-, if originally athematic, was itself influenced by the formal pressure of other patterns, such as the denominatives in Balto-Slavic \*-ā-īe/o-, \*-ou-īe/o-, and perhaps \*-ō-īe/o-. If the Germanic and Latin types were originally athematic, as in appearance Old High German 1 sg. -ēm and Latin 3 pl. -ent < \*-ēnt(i), this latter explanation is to be preferred for Balto-Slavic.

Balto-Slavic is noteworthy for differentiating the inflexion of denominatives (Lith. *senėti senėjū*) from that of the deverbatives (Lith. *minėti minjū*). The 'aorist stem' in \*-ē- of the latter has perhaps in Balto-Slavic spread to the deverbatives from the denominatives. Such a view is entirely consistent with Kurylowicz's brilliant derivation (*Infl. Cat.* 79-84) of the present stem of the Balto-Slavic deverbative statives from Indo-European perfects: 3 sg. OCS *mini*[tɔ] = Lith. *mini* IE *\*m.n-ei*.

Two factors combine to obscure almost completely the one-time presence in Celtic of the Indo-European stative suffix \*-ē-. The first is phonological: the merger of IE \*-ē- and \*-ī- into -ī- already in Common Celtic times. The second is morphological and semantic: The stative function (inter alia) is assumed by the new and highly productive suffix which appears in Old Irish as 3 sg. dep. -aigedar. Bruce Boling suggests to me that the latter type is in fact to be derived at least partially from stative \*-ē- suffixed to the very productive adjectives in -āko- (OIr. -ach). He promises to discuss this at greater length elsewhere.

That the category once existed in Celtic is shown first by the isolated presence of the Old Irish verb *-ruidi* 'blushes, turns red' < \*rudhēt. The verb is preserved in a number of languages; see below for cognates and discussion. In the second place, the -ē->-ī- is one of the basic sources for the Old Irish *i*-verbs of class AII (cf. Watkins, *Idg. Gram.* III/1,170, since Early Welsh 3 sg. -it, lsg. -if must go back to IE athematic \*-ēti, \*-ēmi. Other forms are phonologically less certain; for example Old Irish *tee* 'hot', nom. pl. *teit* can correspond either to Sanskrit *tāpant-* 'hot' (\*tep-e/o-) or to Latin *tepent-* (\*tep-ē-). In view of the general proximity of Italic and Celtic one should perhaps opt for the latter, but the Irish form is equivocal.

A final piece of evidence may be mentioned. Early Hittite shows a number of verbal abstracts with the suffix form -ema- (frequently spelled -ima-). Typical is *weritemas* 'fear'. As will be shown at greater length below, these abstracts are derived from stative verbs in -ē-: the Indo-European form of the suffix would be \*-ē-mo-. Now one of the characteristic forms of verbal noun for Old Irish *i*-verbs (class AII) is -Vm, feminine ā-stem: *do-meiccethar* 'despises' → *dímiccem* (Thurneysen, OIGr. 453). Such forms may be phonologically derived from \*-ē-mā-; they could have been originally formed to statives in \*-ē-, and then spread beyond their original bounds. So *do-meiccethar* could well have been an original stative in \*-ē- (Celt. \*-ī-); cf. OHG *hazzēn* 'hate' for the semantics.

The denominative stative ē-verbs in Latin, the type *senēre* 'be old', have been recently catalogued and studied, as part of a very useful larger work on denominative derivation as a whole in this language, by X. Mignot, *Les verbes dénominatifs latins* 81-144 (1969). It is worthwhile noting at the outset Mignot's immediate conclusion (p. 100): 'On retiendra donc que la formation s'est presque toute entière constituée à date préhistorique; qu'elle est surtout représentée par des formes peu fréquentes; que son développement ultérieur demeure des plus limités; et que, n'étant guère plus vivante, elle se distingue mal d'autres types in -ēre, fléchis de la même manière.'

This is not the description of a productive class of thematic denominatives in any Indo-European language. That alone is adequate to justify the rejection of the very common view that these forms represented denominatives built on the thematic vowel (the *\*-eje/o-* theory);<sup>7</sup> for had they existed as such, they would have remained productive.

The best argument against seeing thematic denominatives in the Latin second conjugation is the simple fact that 'straight' thematic denominatives, i.e. not the *-āre* type, appear in Latin in the fourth conjugation. The type is that of *largīrī* 'give generously' (*largus* 'generous'), *saeuīre* 'rage' (*saeuus* 'furious'), *seruīre* 'be a slave' (*seruus* 'slave').<sup>8</sup> Of a total of 36 denominatives in *-īre*, *-īrī* in the archaic period,<sup>9</sup> fully 11 are from thematic stems, of which all are adjectives except *seruus* and *procus*.<sup>10</sup>

Mignot's work has the advantage of broad if not exhaustive coverage, and in particular, the Latin forms arranged according to their date of attestation. Notably p. 82 ff. shows the total population of denominative *-ē*-verbs with attested base in Latin starting from the archaic period (from the beginning to 100 B.C.). We have both derivatives from both adjectives and nouns, but the stative value predominates clearly. Examples from adjectives in the early period are *senēre* 'be old', *clārēre* 'shine', *lentēre* 'be slow', *nigrēre* 'be black', *pigrēre* 'be lazy'. Examples from nouns (which usually still describe the state of the subject) are *anēre* 'be old (of a woman)', *flōrēre* 'be in flower'. As is evident, the semantic slots are similar to those already noted in Germanic, Baltic, and Slavic, and the

<sup>7</sup> cf. M. Leumann, *Lat. Gram.* 202, 318 (1926); F. Sommer, *Hdb. der lat. Laut- u. Formenlehre* 458 (1914); Meillet-Vendryes, *Traité*<sup>2</sup> 286 (1948); Ernout, *Morphologie hist. du latin*<sup>2</sup> 146 (1953).

<sup>8</sup> Deponent *-īrī* is doubtless older, cf. the Hittite middle denominatives in *-iya-*.

<sup>9</sup> I add to Mignot's list (18-20) *gnārīre* 'make known, tell' (*gnārus* 'knowledgeable') and *procīre* 'ask in marriage' in the supine *procitum* (*procus* 'suitor'), both archaic forms found in Livius Andronicus.

<sup>10</sup> Mignot's figures on p. 63 are misleading, and do not agree with the data of pp. 18-20.

label 'stative' (rather than for example Mignot's 'essive') fully justified.

We have already noted that a number of languages of the family attest an Indo-European suffix *\*-ā-*, earlier *\*-o₂-* (*\*-e₂-*) with factitive force, suffixed to adjectives. It means 'to make something what the adjective denotes', and should be etymologically kept apart from the denominatives in *\*-ā(-je/o-)* coexisting in the same language. The suffix is ancient in Indo-European even though 'secondary', i.e. forming derivatives from synchronically existing stems.

In Latin, genuine oppositions could exist between a stative and a factitive from the same stem. The stative is subject-oriented, the latter object-oriented. Compare the discussion of Mignot 125-128. An example is *clārēre* 'be clear, be shown' (*clārus*) beside *clārāre* 'make clear, show' (or the much more frequent *dē-clārāre*), both occurring in Lucretius, 4.778 and 6.937. Beside *albēre* 'be white' we have *dēalbāre* 'whiten, make white'. A prehistoric instance not noted by Mignot (because the nominal base is no longer found in Latin) is *liquēre* 'be clear' (pple. *liquēns* 'fluid') beside *liquāre* 'make liquid, liquefy', from a lost thematic adjective *\*wlikw-o-* occurring in Welsh *gwlyb* 'wet' (fem. *gwlebb*), and built on the earlier *u*-stem *\*wlik-u-* found in Old Irish *flúich* 'id.'

Such oppositions remained relatively rare in Latin, partly because of the obsolescence of the *-ēre* stative type, and partly because the *-āre* factitive type came to be used intransitively as well, due to its formal identity with the productive denominatives, which were indifferently transitive or intransitive. Thus in place of old *nigrēre* 'be black', found only in Pacuvius and Accius, Lucretius uses *nigrāre* with stative meaning (2.733), beside the contemporary factitive meaning of the compound *dēnigrāre* 'blacken, make black'. Yet the very existence of such oppositions of derivative in *-ē-* and *-ā-* in Latin, and vestigially also in Old High German (*mihhilōn* 'eminere': *mihhilōn* 'magnificare', *skuldīgēn* 'schulden': *skuldīgōn* 'beschuldigen', *einēn* 'vereinzelt sein': *einōn* 'unite', *merēn* 'mehr sein': *merōn* 'mehren', Aumann 42)

is a notable archaism, recurring otherwise only in Hittite, as will appear.

As for the original inflexion and the source of the Latin sign *-ē-*, Mignot hesitates at length between athematic *\*-ē-* (as in dialectal Greek *-ημι*), *\*-ēje/o-* (as in Greek and Indo-Iranian), and *\*-ēje/o-* (as in Balto-Slavic), finally coming out slightly favoring the last. The connection with the deverbative statives he regards as secondary. Most handbooks of Latin have opted for the *-ēje/o-* thematic denominative type. But as has been shown above, the presence of fourth conjugation thematic denominatives, as well as the semantic value and chronological distribution of these statives in Latin argue against a straight thematic type *-eje/o-*, and favor the original presence of a morpheme of stative value; it would be strange not to identify this morpheme as *\*-ē-*. The phonetics of Latin permit either athematic *-ē-* or composite *-ēje/o-*. The 3 pl. *-ent* argues for the former (*\*-eionti* would surely have yielded *\*-eunt*), and we could explain the 1 sg. *-eō* directly as *-ē + ō* (compare Sappho's *ποθήω*), as part of the general elimination of 1 sg. *\*-mi* in the Latin indicative. The athematic denominative as well as deverbative type in *-ē-* would then have imposed its pattern, as universally admitted, on the 3 pl. of the causative-iterative type *monēre*, which had a genuine inherited thematic suffix *-eje/o-*.

The Italic dialects offer no help either way. The *ē*-verb type is indeed attested, but never in the present indicative: cf. Oscan *pútiad* 'possit' (*\*pot-ē-*, Lat. *potēns*, *potuī*), *fatium* 'dicere' (*\*fat-ē-*, Lat. *fatēri*), *turumiad* 'trepidat (vel sim.)'.<sup>11</sup>

The case of Oscan *pútiad*, Latin *potēns*, deserves special notice. The underlying verb *\*pot-ē-* 'be able' must be a denominative to the *i*-stem adjective Lat. *potis*. The *i*-stem is ancient here in the simplex, cf. Skt. *pátih*, Gk. *πόσις*; the consonant stem *\*pot-* appears only in composition, Lat. *compos*, *hospes*, cf. Gk. *δεσπότης*. We must therefore assume

<sup>11</sup> See Vetter, *Handbuch der italischen Dialekten* 44, who first saw that this verb must be a stative.

that, like the thematic vowel, the *-i-* of an *i*-stem noun is deleted already in Common Italic before the suffix *-ē-*. This is confirmed by the existence from Early Latin times of *putrēre* 'be rotten', from the *i*-stem adjective *puter*, *putris*.

In Early Latin adjective stem-final *-i-* is apparently deleted also before factitive *-ā-*: cf. *leuāre* 'lighten' (*levis*), *grauāri* 'consider weighty' (*gravis*), *turpāre* 'make ugly' (*turpis*), *celebrāre* 'celebrate' (*celeber*), *simulāre* 'make like' (*similis*), or Ciceronian *attenuāre* 'make thin' (*tenuis*). Here however the *i*-deletion is doubtless attributable to the fact that (with the exception of *celeber* and *turpis*, both etymologically isolated) the Latin *i*-stem of the adjective is secondary. Compare respectively Gk. *ελαχύς* 'light', *βαρύς* 'heavy', *ὁμαλός* 'like', and Skt. *tanu-* 'thin'. In particular Latin *tenu-i-* 'thin' → *attenu-ā-* 'make thin' etc. reminds us of Hittite *parku-i-* 'pure' → *parku-nu-* 'make pure'. I may state parenthetically that the *i*-stem of neither language has anything to do with the feminine gender.

For *u*-stems the only example given by Mignot is Lat. *anēre* 'be old' from *anus*, *-ūs* 'old woman', Latin having eliminated *u*-stem adjectives. But this example is suspect, since the *u*-stem of *anus* is a probable innovation (after *socrus*, Ernout-Meillet s.v.), cf. Hittite *ḫannaš* 'grandmother', and *anēre* (ἄπ. λεγ.) is in any case a nonce creation by Plautus himself. If however we go beyond Mignot's lists to earlier *-ē*-statives without extant adjectival base in Latin, it appears that the *-u-* of *u*-stems also undergo deletion as part of the derivational process. Deverbative *u*-stem nouns are rare and unusual in Indo-European; Lat. *acus*, *-ūs* 'needle' must be a substantivized adjective *\*aku-* 'sharp', as its feminine gender might also suggest. cf. Leumann, *Lat. Gr.* 237. The adjective occurs elsewhere in Latin as first member of a compound in *aci-pēns* (variant *aqui-pēns*) 'sturgeon', and in *aqui-folium* (*-ia*) (for *\*aci-folium*, *\*aku-*) 'holly'. From *acu-* 'sharp' the stative is Old Latin *acēre* 'be sharp, sour' (Cato); thus *\*ak-u-* → *\*ak-ē-*. If ante-classical *algu* m. (or *algu* n.) 'coldness' is a substantivized adjective *\*algu-* 'cold', compare



then *algēre* 'be cold' (from Naevius): \**alg-u-* → \**alg-ē-*. These morphophonemic relations are ancient in Indo-European.

Still another case may be noted. The parallelism of the adjective suffixes \*-u- and \*-ro- has often been noted: compare Lat. *acu-*: Gk. *ἄκρος* 'pointed'; Hitt. *tepu-*: Skt. *dabhrá-* 'small'; Lith. *dubūs* 'deep': Toch. B *tapre* 'high' (\**dhubh-ro-*); Gk. *ῥδύς*: Toch. B *swāre* 'sweet' (\**swād-ro-*) etc.

Now perhaps the single most notable Indo-European stative in -ē- is evidenced by the equation Lat. *rubēre* 'be red' = Old Irish *ruidi* 'is red' = OHG *rotēn* (OE *rudian*, ON *roða*) = Russian Church Slav. *roděti se* = Lith. *rudėti* 'turn reddish', which has been presented by a number of scholars.<sup>12</sup> This equation is rightly regarded as indicating the Indo-European antiquity of the formation, but not precisely for the reasons generally adduced. Manu Leumann cited in Wagner points out that there is no Indo-European adjective \**rudhos* 'red', only \**roudhos* and \**rudhros*, and therefore Wagner concluded that the aforementioned verbs must be derived from an Indo-European primary verb \**rudhē-*. On this basis there existed only "gewisse *seman-tische* Vorbilde zur Ausbildung von inchoativen *ē-Verba* schon in Indogermanischen." Similarly Meid loc. cit.: "Die Anfänge dieses nur im *Ahd.* produktiven Typs liegen bereits in vorgerm. Zeit."

On the contrary we may state that the stem \**rudh-ē-* attests an extremely archaic level of secondary derivation in Indo-European: it is derived from the adjective \**rudh-ro-* with the morphophonemic change known as Caland's law, which requires the deletion of the secondary suffix -ro-. The derivational relation \**rudh-ro-* → \**rudh-ē-* is exactly parallel to that of such archaic types as Vedic 'positive' *śuk-rá-* 'brilliant' → 'comparative' *śóc-īyas-*, Greek *κυδρός* → *κυδι-* as first

<sup>12</sup> Specht, *KZ* lx, 1935, 33 and apparently independently Aumann 13; Wagner *ē-Verba* 6; Guxman, *Srav. gram. germ. jaz.* 4, 189; Meid, *Germ. Spr.* 3, 260. The addition of the Old Irish verb (v. infra) to the list I owe to an oral communication of Heinrich Wagner. On the OHG form, *rotēn* beside (*ir*)-*rotēn*, note Aumann loc. cit.

member of a compound.<sup>13</sup> Whatever the ultimate historical explanation (Kuryłowicz, *Infl. Categ.* 232 is inconclusive), the arrows indicate a synchronic derivational relationship ("foundation") which is *Indo-European* in date.

This example is not unique. We have other instances of the identical morphophonemic relation, which seem to have gone unnoticed in the literature heretofore. A particularly clear one is furnished by the Latin adjective *macer* 'thin' (\**mak-ro-*), with its evident cognate Greek *μακρός* 'long'. The Ionic comparative *μάσσων* from \**mak-īon-* shows the same relationship as Indic *śukrá-*: *śócīyas-* noted earlier. Now in Plautus there is found the verb (hapax) *macēre* in the meaning 'be thin'. Previous views have merely noted the relationship, with the details ignored or unexplained (Ernout-Meillet s.v. *macer*, Mignot 94). But the relation \**mak-ro-* → \**mak-ē-* is clearly identical with that of \**rudh-ro-* → \**rudh-ē-*. Despite the isolation of the Latin verb we must have to do with a genuine archaic survival.

I suggest that we have a further example of this archaic derivational procedure in Latin *piger* (\**pig-ro-*) → *piget* (\**pig-ē-*). The original sense of *piger* was 'slow', as in the derived verb in Accius Tr. 267 *melius pigrasse quamde properasse est nefas*, and of *pigēre* 'to be slow', as attested in Paul. Fest. 235,3: *piget interdum pro tardari, interdum pro paenitere poni solet*. cf. Ernout-Meillet, *Dict. étym. lat.*<sup>4</sup> s.v. *piger* and Mignot 134, who notes that the personal forms of *pigēre* are furnished by the new stative *pigēre* built directly on the adjective. We have thus a renewal of the verb in its primary function, as *pigēre*, and the restriction to impersonal use (secondary function) of the old form *piger*: a classic setting for the operation of Kuryłowicz's fourth law of analogy. The verb is etymologically isolated; in the light of the basic Latin

<sup>13</sup> cf. Wackernagel (-Debrunner) *Altind. Gram.* 2, 159-60, Kuryłowicz, *Infl. Cat.* 232. Chantraine, *Festschrift Pokorny* 21-24, brings new Greek examples, and we may add to these the perceptive analysis of the inherited formula *ἱερὸν μένος* in G. Nagy, 'Classical Greek', forthcoming in *Current Trends in Linguistics (Europe)*.

meaning of 'slow, unwilling', Hirt's connection (*Idg. Gram.* 1, 299) with German *ficken* would presuppose a general Germanic fleshly hebetude which seems far-fetched.

Latin also knows a productive class of verbs with the thematic suffix *-ēscō*, *-ēscere*,<sup>14</sup> discussed by Mignot 145-228. Early examples are *flaccēscere* (Pacuv.) 'become weak', *cōnsenēscere* (Plaut.) 'get old', *ex-albēscere* (Enn.) 'turn white', *clārēscere* (Lucr.) 'become clear'. The quantity of the vowel in *-ēsc-* is established by *nōtēsceret* CIL VI 1257e18 with apex, and by Aulus Gellius 7.15. As has been pointed out, the formation is particularly frequent in composition with a preverb.

The genesis of this formation is clear from the synchronic Latin data. We can juxtapose derivative in *-ēsc-* and derivative in *-ē-*. cf. *senēre*: *cōnsenēscere*, *flaccēre*: *flaccēscere*, *albēre*: *exalbēscere*, *clārēre*: *clārēscere*. The ultimate source is a nominal form, usually adjectival: the pattern Adj. → Vb. in *-ē* → (Preverb +) Vb. in *-ē-sc-* is clearly 'l'ancien processus de dérivation', with Mignot 181-183 and already K. Sittl, *Arch. für lat. Lex.* i, 1884, 465-533. Thus *flaccus* → *flaccēre* → *flaccēscere*, or *clārus* → *clārēre* → *clārēscere*. This process was later troubled by the occasional elimination of the middle step (a linguistic commonplace), to be expected with the obsolescence of the statives in *-ēre*; but that is a later development and outside our concern.

These forms are traditionally termed 'inchoatives', an improper term going back to the Roman grammarians. They are actually progressive in force, and focus on a developing state: the state of becoming, rather than being, what the base adjective denotes. As Mignot points out (228), the forms in *-ēsc-* preserve the stative value of the forms in *-ē-*; 'ils leur ajoutent une nuance sémantique, à savoir l'indication expresse d'une progressivité dans l'instauration d'un état.'

As mirrored in the respective suffix forms, they are the

<sup>14</sup> In some cases our manuscripts hesitate between *-escere* and the later form *-iscere*, which had a considerable fortune in Romance. No notice of this post-classical variant spelling of these verbs has been taken here, following the model of K. Sittl, *Arch. für lat. Lex.* i, 1884, 465-533.

marked member of the opposition *-ē-*: *-ē + sc-*, and it is not surprising that these verbs in *-ēsc-* tend to spread at the expense of those in *-ē-*. Just so, we can observe on the semantic level that in the Old High German stative verbs in *-en* it is the stative value of becoming which predominates; *altēn* 'grow old, senescere', not 'be old, senere'. Formally and semantically it is the marked stative which encroaches upon the domain of the unmarked; the ultimate result is the weakening (as in Latin) or complete elimination (as in Germanic) of the original opposition of the two. We shall have occasion to observe a Hittite parallel below.

We may retain the existence in Latin, from the earliest times, of a tripartite set of possible derivatives from adjectives and occasionally substantives: a factitive in *-ā-*, a stative in *-ē-*, and an 'inchoative' stative in *-ē-sc-*. All three may be represented by the same stem; compare

<i>clārāre</i>	<i>clārēre</i>	<i>clārēscere</i>
<i>-albāre</i>	<i>albēre</i>	<i>albēscere</i>
<i>-nigrāre</i>	<i>nigrēre</i>	<i>nigrēscere</i>
<i>liquāre</i>	<i>liquēre</i>	<i>liquēscere</i>

The last is noteworthy in that the adjectival base exists only in Celtic; the formation in Latin is prehistoric.

The formation in *-ēsc-* is quite productive in Latin throughout the historical period, unlike that of the statives in *-ē-*. But this continued productivity should not mask from us the basic fact that the category is ancient in Latin; the proliferation of verbs in *-ēsc-* is a specific characteristic of the archaic style. Compare Pacuvius (Trag. 77 Ribb.) *flucti flaccescunt, silescunt uenti, mollitur mare* 'the waves grow gentle, the winds grow still', or Furius Antias apud Gell. 18.11, who uses (together with *incrēscere* 'grow') *lutēscere* 'turn to mud', *noctēscere* 'become night', *uirēscere* 'get one's strength back', and *opulēscere* 'grow rich', all seemingly coined by him, within six lines.<sup>15</sup>

<sup>15</sup> Wendell Clausen points out to me this passage and its archaic character. A parallel to Furius' *noctēscere* is Notker's *nahtēn* in Old High German. On *opulēscere* see further below.

If the category of verbs in *-ēsc-* as well as those in *-ē-* is an archaism in Latin, it is worthwhile examining cases whose formation must be prehistoric because the nominal base is no longer extant. Such are notably *nītere* 'shine' and *nītescere*, *pūtēre* 'stink' and *pūtēscere*, which with *fatēri* 'confess; proclaim' and Oscan *fatium* 'speak' must be derived from old lost nominal forms in *-to-*: *\*nī-to-*, *\*pū-to-*, *\*bhā-to-* (Gk. *φάρος*). The verb *silēre* 'be silent' and *silēscere* must be derived from a suffixed nominal form *\*si-lo-*, since *sil-* is not a permissible Indo-European root form. The form is older than Latin; *silēre* has a Germanic cognate, Goth. *ana-silaida* 'ἐκόπασεν, became still', a third class weak verb which continues, at least indirectly, a *\*si-l-ē-*. The semantically identical Latin *tacēre*, *con-ticēscere* likewise goes with Gothic *þahan* 'σιωπᾶν, be silent' and especially Old High German *dagēn* 'id.' which as Meillet *Introduction*<sup>8</sup> 209 rightly saw, presuppose an oxytone Germanic stem *\*pag-ē-*. With these forms we reach an Indo-European category of 'adjective-verbs'. The close semantic connection between adjective and verb has been well brought out in generative grammar; it is interesting to observe the phenomenon in Indo-European itself. The category deserves further investigation, to bring out the full range of semantic and syntactic relations and their morphological implementation. cf. roots like *\*tep-*, *\*kal-* (Av. *sarata-*, Lith. *šaltas* 'cold', with the primary verbal root attested in Ossetic; Lat. *calēre* 'be hot'?).

Particularly interesting is *lūcēre* 'be light' and *lūcēscere* 'grow light', both from Plautus on. Nothing indicates that this verb is a denominative from the root noun *lūx*; OLat. *lūc-ē-* is an old stative form *\*leuk-ē-* of the adjective-verb root *\*leuk-* which we see in the Old Hittite pres. mid. *lukkatta*, *luggatta*, pret. *luktat* 'is light' (*\*leuk-to-*).<sup>16</sup> As adjective-verb, on an extremely archaic level of Indo-European word formation, consider the following sets:

<sup>16</sup> On the Hittite forms and the archaic character of the middle *luk(kat)ta* cf. E. Neu, *StBoT* v, 110(1968).

nominal	<i>*leuk-o-</i>	Gk. <i>λευκός</i>
	<i>*leuk-to-</i>	OHG <i>liocht</i> 'bright'
	<i>*leuk-oto-</i>	Goth. <i>liuhab</i> 'light'
verbal	<i>*leuk-o</i>	Ved. <i>roca-te</i> , OHitt. <i>lukka-tta</i>
	<i>*leuk-to</i>	OHitt. <i>lukka-t</i>
	<i>*leuk-oto</i>	OHitt. <i>lukkatta</i>

Noun stem and 3 sg. med. verb ending are identical, which can scarcely be accidental. On the formal renewal *-o(-) → -to(-) → -oto(-)* see Watkins, *Idg. Gram.* III/1, §§ 27, 69.

In Plautus *lūcēre* is both stative 'be light' and causative-transitive 'light, ignite'. We have a formal falling together in Latin of two Indo-European forms: stative *\*leuk-ē-* and causative-iterative *\*louk-ēje/o-*. The latter is attested not only in Vedic *rocáyati* and Avestan *raočayēiti*, but also in Hittite *lukkizzi* 'lights, sets on fire'.<sup>17</sup> The existence in Hittite of the classical Indo-European *o*-grade causative-iterative has now been demonstrated in exemplary fashion by H. Eichner, *MSS* xxviii, 1970, 9-18, who shows that Hittite *waššiezzi* 'clothes' continues the *\*uos-ēje-ti* in Vedic *vāśáyati*, Gothic *wasjip*, and Albanian *vesh*, all in the same meaning.<sup>18</sup>

One other Latin verb attests the conflation of a stative and a causative. *Torrēre* 'dries (trans.)' corresponds not only to Old High German *derrēn*, Skt. *tarśáyati* 'dry (trans.)' from *\*tors-ēje/o-*, but also in the participle *torrēns* 'dry' to Old High German *dorrēn* 'dry out (intrans.)' from *\*trs-ē-*. The causative-transitive *\*tors-ēje/o-* is responsible for the participle *tostus* < *\*trs-to-*; the causative-iterative *\*louk-ēje/o-* is

<sup>17</sup> Compare Plautus Cas. 118 *lucēbis facem* 'you will light a torch' with early Hittite (KUB XX 10 III 4-5) <sup>G18</sup> *zuppari lukkizzi* 'he lights a torch'. Add Plautus Cure. 9 *lucēs cereum*, Ennius Ann. 156 *lumina lucent*, as well as the more recent (in form!) *zuppari lukkanzi* of KBo VIII 72 Vs. 10. Hoffmann's view of this Hittite verb, *KZ* lxxxii, 1968, 214-220, cannot stand.

<sup>18</sup> The same recognition in Hittite of *\*uosējēti* (as well as of *\*loukējēti*) was previously made, independently, by both Warren Cowgill and myself, that of the origin of Albanian *vesh* likewise by Eric Hamp. 'Il y a là une présomption de vérité.'

probably also responsible for the unexpected sigmatic perfectum *lūxī* < \**leuk-s*.<sup>19</sup>

For Mignot (*Verbes dénom.* 180 ff., 227) as well as other authors, the forms in *-ēsc-* are a Latin innovation, built out of a combination of two inherited elements, *-ē-* and the well-known present-forming suffix *-sc-*. Yet it is not easy to see precisely how the creation of the type came about in the prehistory of Latin. In particular the deverbative suffix \**-sk-* in prehistoric Latin did not go through a period of marked productivity. Rather the contrary: most of the *-sc-* forms, notably the deponents in *-īscor*: Hitt. *-škahha(ri)*, show all the signs of being retentions. Nor is there any clear reason for the suffixation to verbs in *-ē-*, despite Mignot's circular statement (181). If we cannot account for the creation of \**-ē-sk-* (*-ē-* + *-sk-*) in prehistoric Latin, there is a good chance that it is inherited, even if no immediate comparanda exist.

As noted already in the nineteenth century by Brugmann, *Grdr.* 2<sup>1</sup>.2.1029 and 2<sup>2</sup>.3.1.350, and further elaborated especially by V. V. Ivanov, *Obščeindoevr. sistemy* 139–174 (1965) as well as Watkins *Idg. Gr.* III/1, 56 (both with references), the Indo-European morphs *-s-* and *-sk-* show extensive parallelism of distribution from the earliest times. We find the secondary suffixes Tocharian A *-s-* but Tocharian B *-sk-*, Luvian *-šš-* but Hittite *-šš-*; the primary present suffixes \**k<sup>w</sup>nth-s-* in Old Irish *céssaim* 'I suffer' but \**k<sup>w</sup>nth-sk-* in Greek *πάσχω* 'id.'; and finally the root constituent \**po<sub>2</sub>-s-* in Hittite *palš-* 'protect', Old Church Slavonic *pas-ŏ* 'I herd, pasture', Latin *pās-tor*<sup>20</sup> 'shepherd', beside the Latin present *pāsc-ō* 'I pasture', with the unextended root in Sanskrit *pā-* 'protect' and the Latin perfectum *pā-uī*. Further examples were cited already by Brugmann, *loc. cit.* A particularly striking case, hitherto unrecognized, is the Armenian

<sup>19</sup> The \**leuk-s-* of the sigmatic 'aorist' *lūxī* may perhaps also be compared directly with the \**leuk-sk-* of the Armenian aorist *luc'ī*, 3 sg. *eloyc'* (whence pnes. *luc'anem* 'I light [trans.]'); see further below. Note also the Tocharian causatives 3 sg. B. *lukšām*, A. *lukāš* 'lights (trans.)' < \**luk-se/o-*.

<sup>20</sup> The long vowel is guaranteed by the archaic spelling *paastores* CIL 1<sup>2</sup> 638, cf. Leumann, *Lat. Gr.* 48, 314.

weak aorist in *-c'* < \**-sk-* beside the classical sigmatic (*-s-*) aorist.<sup>21</sup>

Now Hittite shows a formal class of denominative *mi*-verbs characterized by the suffix *-eš-*, built on adjectives and occasionally substantives, and showing the meaning 'to become what the adjectival or substantival base denotes'. Typical examples are *dannatt-eš-* 'become deserted' (*dannatta-*), *marš-eš-* 'become false' (*marša-*), *nakk-eš-* 'become heavy, weigh (on one's conscience)' (*nakki-* 'heavy'), *palh-eš-* 'become broad' (*palhi-*), *tepaw-eš-* 'become small' (*tepu-*), *danku-eš-* 'become dark, black' (*dankui-*), *park-eš-* 'become tall' (*parku-*), and GEME-*aššar-eš-* 'become a slave girl' (Sumerian logogram GEME with the suffix *-šara-* denoting females), from a substantive. The type is well-known, and recognized in all the standard grammars.<sup>22</sup>

It is evident that these Hittite verbs are semantically identical with the Latin and Germanic 'inchoatives'. On the basis of the archaic parallelism *-s-* : *-sk-* I equated already in 1962 (*Celtic Verb* 76–77) the Hittite inchoative suffix *-eš-* with the Latin inchoative suffix *-ēsc-*. Thus we would have \**-ē-s-* : \**-ē-sk-*, with the stative *-ē-* common to both.

From the phonetic point of view the equation of Hittite *-e(š)-* and Latin *-ē(sc)-* is impeccable; for an example of Indo-European *-ē-* (*-e<sub>2</sub>-*) giving Latin *-ē-* and Hittite *-ē-* we need only compare Latin *fē-cī* and Hittite *te-zzi* from IE \**dhē-* (\**dhe<sub>2</sub>-*). We thus obtain the following picture, which will display the relation of the respective forms in Latin and Hittite:

<sup>21</sup> Thus the real equation is not Gk. *ἐννυμι* : Arm. pres. *zgenum*, both independent creations of \**yes-nu-*, but rather Gk. *ἐσ(σ)αι* < \**yes-s-* : Arm. aor. *zgec'ay* < \**yes-sk-*. Note especially the archaic Rigvedic aor. 3 sg. *apras* 'filled' < \**e-plē-s* (Watkins, *Idg. Gram.* III/1, §33) beside Arm. *elic* < \**e-plē-sk-*. The present *inum* 'I fill' is secondary, and like *zgenum* built on the aorist stem.

<sup>22</sup> See Friedrich, *Heth. Elem.* 273 (1960), Sturtevant, *Comp. Gram. of the Hitt. Lang.* 2126 (1951), Kronasser, *Etym. der heth. Sprache* 398–402 (1966), Kammenhuber, 'Hethitisch' 190–191 (*Hdb. der Or.* 1.Abt.2.Bd.1.u.2.Abschn. Lf.2[1969]).

	stative	inchoative
Latin	*-ē-	*-ē-sk-
Hittite		*-ē-s-

It is clear that one crucial element is missing, in order to complete the quadrant, namely a Hittite reflex of simple stative \*-ē-. And it is perhaps the absence of this element which is responsible for the lack of attention that my earlier equation of the Hittite and Latin suffixes has found in the relevant literature.<sup>23</sup>

We are now in a position to identify this missing stative suffix -ē- in Old Hittite, where its existence was previously unsuspected. The Hittite suffix form is -e-. The first several examples are furnished by newly edited texts of birth-omens whose writing closely resembles the cuneiform ductus of the Old Kingdom, as reported by their editor, K. K. Riemschneider, *StBoT* 9 (1970), after collation by H. Otten. All these verbs in -ē- are found in the apodosis of conditional sentences beginning, to judge from parallels, *tak-ku IZ-BU* 'if a foetus', and describe the state which can be predicted from the given omen. The examples follow; the numbers in parentheses before each lemma refer to the number of examples attested of the stative verb in each.

(1) KBo XIII 13 Vs. 14 ]-ši LUGAL-uš *na-ak-ke-e-zi* 'the king will be important'. The verb *nakke-*, here 'be weighty, important', is derived from the adjective *nakki-* 'heavy, weighty, ponderous' (both in the good sense of 'important' and the bad sense of 'burdensome').<sup>24</sup> Beside *na-ak-ke-e-zi* the same text has ]LUGAL-uš *na-ak-ke-eš-zi*, with the (elsewhere

<sup>23</sup> Compare Kammenhuber, loc. cit. 320 and the silence of Kronasser, loc. cit. 398.

<sup>24</sup> Hittite *nakki-* is the exact semantic equivalent of Lat. *gravis*, and as an independent Hittite creation must be the replacement of Indo-European \*g<sup>h</sup>ṛ-u- in *gravis*, Gk. *βαρύς*-, Skt. *guru-*. As rightly suggested by R. S. P. Beekes, *The Development of the PIE laryngeals in Greek* 93 (1969), Hitt. *nakki-* 'weighty' < \**nok-i-* is related to Gk. perf. *ἐρύφα*, aor. *ἐρύκειν* 'bear'. For the semantics compare Ossetic *baryn* 'weigh' from Iranian *bāraya*, iterative to *bar-*, IE \**b<sup>h</sup>er-*, or Bengali *bhāri* 'heavy' from Indo-Aryan *bhar-ika-* to the same root.

well-attested) regularly suffixed form *nakkeš-*. The context is too scanty to prove or disprove a semantic contrast, but the scriptio plena *na-ak-ke-e-zi*, which this text never uses for -ēš-verbs, shows that it cannot be a simple scribal error for *na-ak-ke-e-(ēš-)>zi*, as Riemschneider prints it (with justified doubts in the commentary).

It was noted earlier that Hittite attests as well the Indo-European factitive suffix \*-o<sub>2</sub>- (\*-e<sub>2</sub>-), in the form *-ahh-*. Thus we have also the derivative *nakkiyahh-* 'make heavy', attested in the middle voice in the meaning 'become heavy, burdensome' in classical Hittite.

(2-3) Ibid. Vs. 11 [*na-aš-ma KUR ?* LU<sup>h</sup>KUR *ta*]-*an-na-at-te-ez-zi* 'or the land of the enemy will be deserted'. The verb *tannatte-* is from the thematic adjective *tannatta-* 'deserted, empty'. Another birth-omen text, which shows the old conjunction *takku* 'if' (though the ductus is not old), has the same form with a graphic (or phonetic) intrusive nasal: KBo XIII 34 Vs III 18 (Riemschneider 26-39) *a-pa-a-at KUR-e ta-na-an-te-ez-zi* 'that land will be deserted', beside the (again elsewhere well-attested) regular form in -ēš- at Rs. IV 13 nu KUR-e *ta-na-at-te-eš-zi* 'and the land will become deserted'. Here a functional contrast seems unlikely; we have rather the replacement of obsolete forms in -e- by more productive forms in -ēš-. Beside these stative and inchoative forms we have the factitive *dannattahh-* 'make empty'.

(4-6) Ibid. Vs. 13 *a-an-za-a[š-š]i-iš na-ak-ku-uš-ši-e-zi* 'ānzaššiš (or 'his ānzaš'?) will be the ritual substitute, scapegoat'. The verb is also found in the same text at line Vs. 6, without context, and in the form *na-ku-uš-[ši ?]-e-ez-zi* in Bo 1488 Rs. III 8 (ed. Riemschneider 52-55). The latter tablet is also old; the editor comments 'Duktus ähnelt dem der alten Tafeln', after collation by Otten. Here the forms could be also interpreted as an -iya-verb (so Riemschneider 55<sup>1</sup> and Van Brock, *RHA* lxxv, 1959, 144<sup>33</sup>), and the 1 sg. pret. [*na*]-*ak-ku-uš-ši-ya-nu-un* they cite would favor this. But the expected corresponding verb in -ēš- *na-ak-ku-uš-še-eš(-)x*], with unambiguous -e-, not -i-e-, occurs twice in the moon-omen text

KUB VIII 13, 6', 8', which shows the old conjunction *takku*. Hence I assume a *nakkušše*- 'be a scapegoat', beside *nakkuš-šeš*-, derived from the noun *nakkušši*- 'scapegoat'.

(7-8) Ibid. Vs. 19 ]-e-zi and Rs. 2 ]te-ez-zi may provide two further examples of the suffix, though the base is unknown or uncertain. Riemschneider conjectures *tanat]tezzi* for the last, which is plausible though not compelling.

(9) KUB XXXI 4 + KBo III 41, 17 (ed. Otten, *ZA NF* xxi, 1963, 156-168). "The cow with the crumpled horn", another text in old ductus, furnishes an independent instance of the verb *nakke*- 'be heavy', this time in a different tense and meaning. *ma-a-an la-aḫ-ḫi-eš-ki-nu-un nu-un-na-aš* HUR.SAG-aš *na-ak-ke-e-et* 'wann ich jeweils auf einen Feldzug zog, lag uns das Gebirge im Wege'. Here the verb is derived from *nakki*- 'heavy' in the bad sense; 'aggravate, be an obstacle'. The sense here is clearly stative rather than the inchoative 'become heavy' of *nakkeš*-.

(10-11) KBo VI 2 II 55 = Hittite Laws §49, in old ductus (A of Friedrich's sigla) *ma-an ḫu-u-ma-an-te-eš-pāt mar-še-e-er* 'wären alle miteinander falsch' (Friedrich), 'tutti appunto sarebbero ingannatori' (Imparati). The verb *marše*- 'be false' is derived from *marša*- 'false'.<sup>25</sup> The inchoative verb *maršeš*- 'become false' is also attested from Old Hittite, in the Proclamation of Telepinus: BoTU 23 A I 21 *ma-a-an ap-pi-iz-zi-ya-an-ma* IR.MEŠ DUMU.MEŠ LUGAL *mar-še-eš-še-er* 'but when afterwards the subjects of the princes became rebellious' (Sturtevant). A duplicate text of this passage has however the simple stem *marše*-: KUB XI 1 = BoTU 23 B I 20 ]*mar-še-e-er*, with the same spelling with scriptio plena as the form in the Laws. Beside these stative forms we have the factitive *maršaḫḫ*- 'falsify'.

<sup>25</sup> This adjective is probably to be connected with the root \**mers*- of Skt. *mṛṣyate* 'forgets', *mṛṣā* 'in vain, erroneously', Arm. *mořanam* 'I forget', Goth. *marzjan* 'anger', OEng. *mierran* 'disturb', Lith. *maršas* 'forgetting' (Pokorny, *Idg. etym. Wb.* 737), to which should be added Tocharian (AB) *mārs*- 'forget'. The *e*-present *mārs-e-tār* 'he forgets' of Tocharian B is noteworthy, though the semantic distance would indicate that this is surely independent of Hitt. *marše*-.

(12) KUB VIII 29 I 2, a text giving moon-omens and showing the conjunction *takku*: *Ū-UL mi-ya-ḫu-un-te-zi* 'he will not grow old', beside KUB VIII 35 Vs. 9 (also moon-omens) *a-pa-a-aš* DUMU-aš *LUŠU.GI-eš-zi* 'that child will grow old', and KUB XIV 12 I 12 (Plague Prayers of Mursilis, ed. Götze, *Kl. Forsch.* i, 1929) *ma-aḫ-ḫa-an mi-ya-ḫu-un-te-eš-zi* 'as he grows old'. Götze (p. 240) cited the passage above and assumed a scribal error for *mi-ya-ḫu-un-te-⟨eš⟩zi*. Such an assumption is not necessary, and it is most suspicious that such "mistakes" only occur in this class of inchoatives, and not in e.g. *ga-ne-eš-zi* 'recognizes' or other verbs in *-š-zi*. The verb is derived from an adjective \**miyaḫu(wa)nt*- 'old', attested only in the logogram *LUŠU.GI* 'old man'. Here again Hittite shows also the factitive *LUŠU.GI-aḫḫ*- 'make old'. The semantic identity of Hitt. *miyaḫunte*- with Lat. *senēre*, OHG *altēn*, OCS *vetṣaję* etc. is naturally striking.

(13) KUB VIII I II 4 (another omen-text, dealing with eclipses of the moon) *ta-me-ta ú-e-ri-ti-iz-[-zi* 'elsewhere (?) he will be afraid'. The stem is correctly given by Friedrich, *Heth. Wb.* 252 as *werite*- because of the causative *werite-nu*- 'frighten' and the nominal derivative *werite-maš* 'fear'. Beside the stative *werite*- 'sich ängstigen' we have the inchoative *weriteš*- 'ängstlich werden'; the glosses are Friedrich's. The verb is related to Latin *uerēor*, itself an *ē*-verb; *werite*- is built on a nominal derivative in *-t*- (cf. Lat. *ueritus*), as in the Latin type *fatēri*, *nitēre*, *pūtēre*, and indeed the relation Lat. *uerēri*: Hitt. *werite*- strikingly recalls that of Lat. *paene*: *paenitēri*.

(14) The derivational set *weritema*:- *weriteš*:- *werite*- just noted suggests that underlying *wantemma*- 'heat': *wanteš*- 'gets warm' we should postulate an unattested \**wante*- 'be warm'. For the semantics compare Lat. *calēre* and OHG *heizēn*. The relation of this \**wante*- to the later Hittite *wantai*- 'be warm' (3 sg. pret. *wantait*) is unclear, pending the clarification of the Hittite verbs in *-ai*-; but I suspect that inter alia they represent a reformation of the older morpheme *-e*- from \**-ē*-. A similar but independent morpheme replacement

-ē- → -ai- (cf. Hitt. *dāi* 'places' beside IE \**dhē-*) probably explains the vexed form of the Germanic (or at any rate Gothic) third class of weak verbs. Note Hitt. *gangai* 'hangs' beside Goth. intransitive *hāhan* < \**hanh-ai-*.<sup>26</sup>

(15) By the same argument the existence of *lalukkima* 'light' beside *lalukkeš-* 'grow light' might entitle us to assume a stative verb-stem \**lalukke-*. The verb would be a denominative to the adjective *lalukki-* 'light, bright', a reduplicated derivative of Hittite *lukk-*, IE \**leuk-*. Cf. also *lukkeš-* 'grow light', discussed further below.

(16) A noun *ḫaḫlimmaš* 'yellowness' is attested in the medical text KUB VIII 36 III 18 [*ma-a-an an-tu-uh-ša-an*] *ḫa-ah-li-im-ma-aš e-e[p-zī]* 'If jaundice attacks a man'. From the same base we have also the derivatives inchoative *ḫaḫhaleš(k)-* 'become yellow, green', factitive *ḫaḫlahḫ-*, and extended adjective *ḫaḫlawant-* 'yellow, green'. cf. Friedrich, *Heth. Wb.*, 2 *Erg.* 10, citing Riemschneider (*MIO* v, 144). Both *ḫaḫlimma-* (= -*ema-*) and *ḫaḫleš-* could have been built on an unattested stative \**ḫaḫle-* 'be yellow' to an underlying adjective \**ḫaḫla-*.<sup>27</sup>

(17) In the same semantic area of abstracts from qualitative adjectives we have *ekunimaš* (= -*ema-*) 'coldness, coolness'. The base is *ekuna-* 'cold', but the derivative in -*e/ima-* can be explained most easily via an intermediary \**ekune-* 'be cold'. But a direct derivation, bypassing this intermediary step, is of course not excluded in this or the cases previously discussed, once a composite suffix -*ema-* has been constituted.<sup>27</sup>

(18-19) It is curious that the verb given by Friedrich 1952 : 119 as *kururiḫa-* 'be hostile', a denominative from *kurur-*

<sup>26</sup> On the origin of the Germanic third class of weak verbs see a forthcoming paper by J. Jasanoff. The result of the replacement -ē- → -ai- would seem to be a real diphthong in pre-Gothic, to judge from the feminine PNN (dat.) *Lubaini* (CIL XIII 3622), *Vanaenia* (CIL XIII 3624), cited by H. Krahe, *IF* lxvi, 1961, 37-39, and plausibly related by him to Goth. *lubains* 'hope' (cf. OHG *lobēn*, Lat. *lubēre*), *wainains* 'lack'.

<sup>27</sup> cf. Kronasser, *Etym.* 178-179, who envisages both possibilities. The fact that *ḫaḫlimma-* and *ekunima-* are the only two nouns in -*ema-* clearly derived from qualitative adjectives speaks however for the existence of stative verbs *ḫaḫle-* and *ekune-*.

'hostile', is found only in Old Hittite (2x), and on both occasions with the suffix form -*e-*. The oldest instance is in the famous Zukraši-tablet, the first identified as in the special ductus of the Old Kingdom : KBo VII 14 + KUB XXXVI 100 Rs. III 4 *n]a-aḫ-ša-ri-an-ta-ti nu-a-pi-e-a ku-u-ru-ri-e-er* 'they were afraid, and these too were hostile'.<sup>28</sup> Another is found in the Proclamation of Telepinus : KUB XI I = BoTU 23 B II 7 *KUR-e-ma-aš-ši ku-u-ru-ri-e-et* 'the (following) lands were hostile to him'. For an Old Hittite stative denominative in -*iḫa-* we would expect the middle voice, as in *naḫšari-antati* in the Zukraši-text cited. And since the -*iḫa-* denominatives continued to be productive in Hittite, there is no very good reason why a *kururiḫa-* 'be hostile' should be replaced by the paraphrase *kurur eš-*, the only expression found in the later language of the New Kingdom. For these reasons I assume a stative stem *kurure-* in Old Hittite, and would transliterate the forms as *ku-u-ru-re-e-er* and *ku-u-ru-re-e-et*. The obsolescence of the stative -*e-* already in Old Hittite would readily account for the new periphrastic form *kurur eš-* (e.g. Hatt. Rs. IV 59 *ku-i-e-eš ku-u-ru-ur e-šir*). Beside the obsolete stative, New Hittite shows a formal factitive *kururiyahḫ-* 'bekämpfen, bekriegen ; Krieg führen'.

(20-22) Another such case is the denominative verb from \**ḫaššu-* 'king' (logogram LUGAL) given in Friedrich, *Heth. Wb.* 64, 284 as *ḫaššuwai-* 'be king', which is found in the (Old Hittite) Proclamation of Telepinus. BoTU 23 A I 13 *ḫa-aš-šu-e-et* = *ibid.* I 24 LUGAL-*u-e-et*. I assume an -*e-* verb *ḫaššu-e-*.

The same form is almost certainly attested in another Old Hittite text surviving in later copies, the Deeds of Hattusilis, edited by F. Imparati, *Studi Class. e Orient.* 14.40 ff. (1965), and discussed with important comments most recently by O. Carruba, *ZDMG* Suppl. I, 1969, 226 ff., esp. 230-234. From the edition of the principal text, KBo X 2 I 3, the available space requires that we restore [*ḫa-aš-šu-e-e*]t. Neither [LUGAL-*u-i*]t (Imparati) nor [*ḫa-aš-šu-i*]t (Imparati, notes) nor LUGAL-

<sup>28</sup> Or perhaps 'and then' for (*nu*)-*a-pi-e-a*.

*u-e-e*]t will fit.<sup>29</sup> Compare the space required for the similar restoration in the later version KBo X 3 I 1 [LUGAL-*u*]-*e-iz-z[i-ya-at* made by Goetze, *JCS* vxi, 1962, 24, from which he correctly deduced the sense of the lacuna in X 2 I 3. (Goetze did not give the form of the latter.) For LUGAL-*uezziia*- see below.

This analysis receives an unexpected confirmation from the derivative abstract noun LUGAL-*u-e-(ez-)zi* 'kingship', attested only in archaic texts, and replaced by the later LUGAL-*uiznatar* (Riemschneider 32). It is a neuter noun in -*zi*- (IE \*-*ti*-) of a type old and rare in Hittite, like DUG *išpanduzzi* 'wine vessel' built on DUG *išpandu(wa)*- 'id.' (: *šipand*-, old *išpand*- 'make a libation'). An exact parallel to the Hittite composite suffix -*ezzi* (stative \*-*ē* + abstract *ti*-) is furnished by a wholly isolated form in Germanic, Gothic *faheþs* 'joy' (\*-*ē-ti*-). The suffix of *faheþs* was noted in this connection by Polomé, *Festschrift Pokorny* 88<sup>o</sup>, and cf. especially the discussion in Meid, *Germ. Sprwiss.* 3, 156. Already Wagner, *ē-Verba* 68 correctly derived this from a Germanic stative \*-*fagēn* 'rejoice', and rightly compared Greek *ἐχάρην* for the semantics. The Germanic stative verb in -*ē*- we see in Old High German *fagēn* 'comply'.<sup>30</sup> The suffix \*-*ē-ti*-, Hitt. -*ezzi*- thus appears clearly ancient.

From the Hittite noun LUGAL-*uezzi*- is formed a new denominative verb LUGAL-*uizziya*- 'be king', with the expected middle inflexion for old stative denominatives in -*iya*-. This verb (and the even later LUGAL-*uiznai*-) replaced the earlier LUGAL-*ue*- (*haššue*-), with which it is semantically

<sup>29</sup> The scriptio plena instead of logogram is a well-known sign of archaism, and Carruba *loc. cit.* has made the significant point that such graphic archaisms tend to occur, as here and in Telepinus, at the beginning of texts copied from older originals.

<sup>30</sup> This stative was replaced in Gothic by the secondary derivative in \*-*in-ō-faginōn* 'rejoice'; on the suffix cf. Guxman, *Srav. gram. germ. jaz.* 4, 196-197. Another derivative in Gothic is *fulla-fahjan* 'satisfy'. In all likelihood these are derived ultimately from a lost Germanic adjective meaning 'happy'. The different treatment by Verner's law in Gothic *faginōn* and -*fahjan*, OHG *fagēn*, would also suggest an original pattern adjective \**fahaz* → stative \**fagēn*..

identical. (Neu *StBoT* v, 109, citing Kammenhuber, *MIO* ii, 1954, 431<sup>80</sup>). A good example is precisely [LUGAL-*u*]ezz[*iyat*] above for earlier [*haššue*]t in the Deeds of Hattusilis.

(23) In view of the derivational sequence *haššu*- 'king' → *haššue*- 'be king' → LUGAL-*uezzi*- 'kingship' → LUGAL-*uizziya*- 'be king', we are probably justified in inferring a parallel *išha*- 'lord' → \**išhe*- 'be lord' → \**išhezzi*- 'lordship' → *išhizziya*- 'übermächtig werden' (Friedrich, *Heth. Wb.* 86), 'übermannen' (Kammenhuber, *Heth.* 190 [*Aukleinas. Spr., Hdb. d. Or.*]).

(24-25) In one of the Old Hittite fragments of the palace chronicle (Laroche, cat. 25), KBo III 28 = BoTU 10 II 16'ff., in old ductus,<sup>31</sup> we read *at-ta-aš-ma-aš har-ša-ni-i* <sup>1</sup>*Id-ya me-ek-ke-eš pa-ap-re-eš-kir šu-uš A-BI LUGAL* (17') *na-at-ta hu-iš-nu-uš-ke-e-et* <sup>1</sup>*ki-iz-zu-wa-aš-pāt A-NA SAG A-BI-YA* <sup>1</sup>*Id-ya* (18') *pa-ap-ri-it-ta*. 'Many proved guilty vis-à-vis (uel sim.) the River-God in (the matter of offending) the person of my father. And the king's father used not to let them live. Even Kizzuwaš proved guilty vis-à-vis the River God in the matter of offending the person of my father.' In the first verb *papreškir* we have the -*šk*- iterative to the verb *papreš*- 'prove impure, guilty (in the context of an ordeal)', as in *pa-ap-ri-iš-zi* KUB XII 3 II 17 (translated by Goetze, *Ancient Near Eastern Texts*<sup>2</sup> 207). The -*šk*- form is sometimes used in Hittite to express the single performance of an act by a number of subjects, as here; it contrasts with the simple verb without -*šk*- in the same tense denoting the single performance of the act by a single subject. In our passage this is expressed not by *papreš*- but by the *s*-less form *pa-ap-ri-it-ta*. In accord with the semantics and the preceding morphological patterns I assume an Old Hittite stative stem \**papre*- (spelled *papri*-) 'be, prove impure' (whence 'guilty' by ordeal), from the adjective *papr-ant*- 'impure'. The corresponding factitive *papr-ahh*- is well attested.

Another occurrence of the stative verb \**papre*- in Old Hittite is in the Laws §25, in A of Friedrich's sigla which is in

<sup>31</sup> Kammenhuber, *KZ* lxxxiii, 1969[1970], 259-261.



old ductus. KBo VI 2 I 56, 57, 59 *pa-ap-ri-iz-zi* 'is impure' (DUGUTÚL-*i našma luliya* 'in a water-vessel or a well', presumably a euphemism for 'urinates'). The verb is intransitive: 57 *paprizzi kuiš* 'he who is impure', 59 *kuiš paprizzi* 'whoever is impure'.

The only other instance of the verb is in a Late Hittite text (Cat. 301<sup>8</sup>) from the time of Tudḫaliyas IV (III), IBoT II 103, 12: 3 pl. pres. *pa-ap-ri-an-zi*. Here the obsolete Old Hittite stative morpheme *-e-* has been renewed to the banal *-ai/-iya-* type, as in *wantait* cited earlier.

The inflexional pattern 3 sg. pres. *paprizzi* (= \**paprezzi*), pret. *papritta* (= \**papretta*) is noteworthy, in that it precisely parallels that of Homeric 3 sg. pres. act *φῆσι* but pret. (impf.) mid. *φάτο*, noted as an archaic feature by Meillet. The ending is not 'Luvian', cf. E. Neu, *StBoT* xii, 48<sup>20</sup> (1970), it is an archaic feature; note *ú-e-da* 'came' in 'the cow with the crumpled horn', KBo III 41 + XXXI 4, Vs. 18, ed. Otten, *ZA NF* xxi, 1963, 155-168. Otten describes the ending as 'mit überhangendem *-a* geschrieben', thus presumably taking it as an active ending, graphic for [-t]. But the Greek parallel suggests rather that we take it at face value, as 3 sg. mid. [-ta] < \**-to*. Note also *pa-a-i-ta* 'he went' in the archaic Illuyankas-myth, KBo III 7 III 13, and *paitta* cited by Otten, *Bi Or* viii, 1951, 230.

The particular preterite forms *pāita* and *ueda*, derived from the preverbs *pē* and *u* plus 3 sg. mid. \**ei-to* beside present *paizzi*, *uizzi* from \**ei-ti* = Gk. *εἶσι*, Ved. *éti*, are significant. In the Rig-Veda 3 sg. pres. *éti* (*eti*) occurs 131 times, while the corresponding form with secondary ending, 3 sg. imperfect (augmented) *áit* is found only 6 times, of which 5 are in the late tenth book.<sup>32</sup> As noted earlier (cf. Watkins, *Idg. Gram.* III/I, passim), the renewal of the 3 sg. middle ending is \**-o* → \**-to* → \**-oto* (apophonic \**-eto*). If beside present \**ei-ti* we, posit an Indo-European \**ei<sub>2</sub>-o*, the first renewal \**ei-to* will explain *pāita*, *ueda*, and the second renewal \**ei<sub>2</sub>-oto* will account

<sup>32</sup> Five of the six instances are in composition, including the oldest, *úpa prá áit* V 30.9; similarly Avestan \**aij* occurs only in composition.

for both the Rig-Vedic 3 sg. impf. mid. (with augment) *āyata* and for the Hitt. 3 sg. mid. *iyatta* 'goes'.<sup>33</sup> Within the same paradigms, RV 1 sg. subj. *ayā* (IV 18.2) can also be exactly equated with Hitt. 1 sg. *iyahḫa(ri)* 'I go'.

(26-67) In a Classical Hittite text concerned with a river-ordeal cited above, KUB XIII 3 II 16'-17', 30'-31' (tr. Goetze, *ANET*<sup>2</sup> 207), we find an antithetical pair of verbs: *papreš-* 'prove, impure, guilty' and *parkueš-* 'prove pure, innocent', derived (with stem-truncation) from the adjectives *papr-ant-* and *parku-i-*. Beside *papreš-* we had reason to assume the existence of an older stative verb \**papre-*, attested twice in Old Hittite in the spelling *papri-*: 3 sg. pres. *paprizzi*, pret. *papritta*. The parallelism of the stems *papreš-* and *parkueš-* would indicate that we ought to find a stative stem *parkue-* (*parkui-*) parallel to *papre-* (*papri-*), if the interpretation of the latter is correct.

Such a form exists. It is attested twice, in wholly separate literary genres but in the same verbal context, and in the older instance with the same 3 sg. mid. form *parkuitta*, exactly paralleling *papritta*.

In the Old Hittite version of the epic tale of Sargon of Akkad *šar tamḫāri* 'king of battle' (Cat. 1, 2), edited with the addition of an important new fragment by H. G. Güterbock, *MDOG* ci, 1969, 14-26, we have the lines (Bo 68/28, 6') [xxx]x-*pa(?)* LUGAL-*gi-na-aš te-eš-ḫa-az pā-ku-i-id-d[a]* (7') [nu ?] LÚ.MEŠ. SAG *ud-da-ar-še-et me-mi-iš-ki-u-wa-an da[-a-iš]* '[th]en ? Sargon purified himself from the dream, [and ?] began to relate its words to the courtiers.'

Güterbock (p. 23) prefers to translate the verb 'arose', with a derivative of *parku-* 'high', citing the identical phrase and verb form in the tale of Appu, which he had discussed earlier in *Oriens* x, 1957, 354. But the context of the latter shows precisely that 'arose from his sleep' (H.G. '[Als(?)] Š. sich vom Schläfe erhoben hat') is not possible. In the text in question (KUB XXIV 8 I 24 ff.), edited by Friedrich, *ZA NF*

<sup>33</sup> This equation and the explanation of Hitt. *iya-* (mid.) 'go' was made in Spring 1970 by my student Patrick Hollifield.

xix, 1950, 214 ff., we have the following sequence of actions of the rich but childless Appu, who is seeking offspring: (24) [ar]aiš-apa <sup>1</sup>Appu n-aš-za parna-šša pait 'Appu arose and went home.' (26) [GİS]NÁ-aš šarkuw[a]nza šesk[i]t 'he went to bed with his shoes on.' (29) pait-aš (30) SAL-za n-aš-za ITTI <sup>1</sup>Appu waššanza šeskūt 'she went, the wife, and went to bed beside Appu with her clothes on.' (31) [Lap-]pu-uš Ū-az párkui-ya-ta-at 'Appu purified himself from the dream', Friedrich 'A. reinigte sich vom Schläfe'. This leads directly into a passage of what in early Irish literature would be called 'pillow-talk': His wife began to ask him, 'Did it work?' Appu replied, 'You are a woman and understand nothing.' And only then have we (38) araiš-apa <sup>1</sup>Appu-uš GİS NÁ-az 'then Appu arose from the bed.' It is the same bed he has been lying in (with his shoes on) since line 26. The intervening verb *parkuiyatat* clearly cannot mean 'arise', but must be 'be pure (of), purify oneself (of)' as it was glossed already by Sturtevant, and as it appears in Friedrich's dictionary. In form the Old Hittite stative *\*parkue-* (*parkui-*) has undergone the same renewal to Classical *parkuia-* that we observed earlier for Old *papre-* (*papri-*), Classical *papria-*.

This interpretation is confirmed by a semantically equivalent but syntactically different, and historically later, expression in Hittite. In Old Hitt. *tešhaz parkuidda* we have with the ablative noun phrase 'from-the-dream' a stative verbal predicate 'was-pure/purified-himself'. At a later stage of the language, with the obsolescence of the category of stative verbs morphologically derived from adjectives, the same semantic value is obligatorily expressed by a verb phrase consisting of the verb 'be' plus the adjective (noun phrase). We have the very phrase in *uddanaz parkuiš eš* 'from-the-matter (NP<sub>abl</sub>) pure (Adj) be (V)': KUB XXIX 7 Vs. 11 *kinunaz DINGIR-LUM ape[z] uddanaz parkuiš gangadanzašša eš* 'now, O God, be pure and absolved of tha[t] matter'. Likewise KBo XVI 47 Vs. 14' *linkiyaz parkuiš eštu* 'shall be absolved of the oath' (XVth cent.). The chronological replacement of *\*parkue-* (spelled *parkui-*) by *parkuiš eš-* is exactly parallel to

that of Old Hitt. *kurure-* by Class. Hitt. *kurur eš-* 'be hostile' noted earlier.

We have thus some twenty-seven possible examples of a Hittite stative verb stem in *-e-*, corresponding exactly both in form and in semantic force to the Latin and other statives in *-ē-*. Nineteen are directly attested in full, in eleven separate texts. The attested forms are 3 sg. pres., 3 sg. pret. (act. and mid.), and 3 pl. pret. Virtually all the verbs in *-e-* come from clearly Old Hittite texts, and most are in or resemble old ductus; the two exceptions *miyahunte-* and *werite-* are found in the same special genre of texts as the older examples, and certainly represent later copies of Old Hittite texts. We evidently have to deal with a category already obsolescent in the earliest period of our documentation of the language. Most of the verbs in *-e-*, both those directly and those indirectly attested, co-occur with inchoative stems in *-eš-*, in the manner suggested above. We can therefore supply the hitherto missing quadrant of the comparison with Latin:

	stative	inchoative
Latin	*-ē- (-ē-)	*-ē-sk- (-ē-sc-)
Hittite	*-ē- (-e-)	*-ē-s- (-e-š-)

From the attested forms of the Hittite paradigm the inflexion is clearly athematic: 3 sg. pres. *-ezzi* < *\*-ē-ti*. The original inflexion of the Latin, Germanic, Balto-Slavic, and Celtic statives can therefore likewise be assumed to have been originally athematic. Though long divorced from the stative function, the Early Welsh 3 sg. *-it*, 1 sg. *-if* faithfully continue IE *\*-ē-ti*, *\*-ē-mi*.

We can in fact go even further. In Hittite, as is well known, to virtually every verb in the language can be formed an 'iterative' or imperfective in *-š-*, the Indo-European suffix *\*-ske/o*. The formation is well attested for verbs in *-eš-*: the iterative has the suffix form *-ešk-*. Now it has been shown that the most archaic layer of derivative verbs in *-ske/o* in several older Indo-European languages are inflected in the middle voice, even where the base verb may be active in flexion. Compare the discussion in Ivanov, *Obšč. sist.* 139 ff.

and Watkins, *Idg. Gram.* III/1, 72 ff. This relation is particularly clear in early Hittite.

It has now been pointed out by E. Neu, *StBoT* vi, 88–89 (1968) that to the active *-eš-* inchoative statives are frequently formed middle iteratives in *-ešk-*: ‘Abgeleitete Verba auf *-eš-* pflegen, wenn sie in die *-šk-* Ableitung treten, bei unveränderter Diathese medial flektiert zu werden.’ We have thus an opposition 3 sg. act. *-eš-zi*: mid. *-ešk-itta(ri)* which exactly parallels that in Hittite *ui-zzi*: *ui-šk-itta(ri)*, *pai-zzi*: *pai-šk-itta(ri)*, or Old Latin *pacere*: *paciscī*, *apere*: *apiscī*. Neu cites the following examples, all with the *-šk-* form in the middle voice:

- ašiwantešk-* ‘become poor’ (*ašiwant-* → *ašiwanteš-*)
- kallarešk-* ‘become unfavorable’ (*kallar-* → *kallareš-*)
- makkešk-* ‘become numerous’ (*mekki-* → *makkeš-*)
- nakkešk-* ‘become heavy, weigh on the conscience’  
(*nakki-* → *nakkeš-*)
- palhešk-* ‘become broad’ (*palhi-* → *palheš-*)
- parkawešk-* ‘become tall’ (*parku-* → *\*parkaweš-*)
- parkešk-* ‘become tall’ (*parku-* → *parkeš-*)
- tepauešk-* ‘become few’ (*tepu-* → *tepaueš-*)

Of these forms, *makkešk-* and *palhešk-* come from an unpublished text in archaic language (Neu, *StBoT* v, 111[1968]), and *parkešk-* is an older form found in Ullikummi, for which a variant has the later form *parkawešk-*. *kallarešk-* occurs in an oracle text and *nakkešk-* in prayers, both of which are archaizing genres. In view of the general rarity of middle inflexion for the *-šk-* forms in Hittite, as well as the clear preponderance of middle *-šk-* forms in general in the old language, these middle forms in *-ešk-* must be regarded as archaisms.<sup>34</sup> They

<sup>34</sup> Neu’s explanation of them as secondary (*StBoT* v, 89) flies in the face of common sense, and scarcely accounts for the existence—which he does not mention—of numerous *-ešk-* forms with active inflexion. “Tritt nun zwischen das auslautende *-eš-* und die Aktivendung das *-šk-* Suffix, wird diese enge Bindung (*-eš-/Aktivflexion*) gestört.” If *-eš-* implies active endings, and *-šk-* implies active endings, then *-eš + šk-* = *-ešk-* will imply active endings. Therefore *-ešk-* with middle endings is the ancient form, by the principle of the lectio difficilior.

preserve the oldest reconstructible form of inflexion of the Indo-European secondary suffix *\*-sk-*.

Synchronically, at least, Hittite *-ešk-* is for morphophonemic {*-eš-šk-*} cf. *haš(š)-* ‘bear’ ← *hašk-*, *haš(š)-/heš(š)-* ‘open’ → *hešk-*, *hašk-*. But in view of the history of the genesis of Indo-European *-sk-* from *-s + k-* we should assume a historical *\*-e-sk-* (*-e-s + k-*) built on *\*-ē-s-*. It is one of the clearest early examples of such a formation.

To this set of forms assembled we must finally add the ‘factitives’ in *-aḫḫ-*.<sup>35</sup> No less than six of the statives in *-e-*

<sup>35</sup> The existence of an Indo-European secondary suffix *\*-e<sub>2</sub>-* > *\*-ā-* is clear. The ‘factitive’ or ‘causative’ transitive value of most of the descendant forms would also seem to be clear. Yet the exact original semantic value of this suffix, and the inflexional pattern which it originally showed, still remain to be determined. In view of the respective semantics it is at least curious that the STATIVE verbs in *-ē-* are inflected for the most part with athematic active endings (with the exception of *papritta*, *parkuitta*, which in the light of Lat. *calētur*, (*mihi*) *uidetur* [note 1 above] may be significant), whereas the so-called FACTITIVES in the earliest Hittite appear to be inflected as thematic middles, or as active *hi-*verbs, pointing to an earlier middle. It is also noteworthy that in older Hittite an intransitive, virtually stative value appears for a number of *-aḫḫ-* verbs, both with middle endings and with active *hi-*conjugation endings. For the former, compare the forms gathered by E. Neu, *StBoT* vi, 41, 84–85 and *StBoT* v, passim, like 1 sg. mid. *innarahḫat* ‘(if) I regained my strength’ (KUB XXX 10 Vs. 18, 19). For the latter, note cases (with *-za*) like *mān-za* SAL *armahḫi* ‘if a woman is pregnant’ (ABoT 21 I 1), *nu-za* *namma* GUD<sup>ḫ</sup> *UDUḫ-ia* DUMU.LÚ. ULÚ.LUMEŠ Ū-UL *armahḫanzi* ‘cattle, sheep, and mankind do not get pregnant’ (KUB XVII 10 I 15), both cited by Goetze, *JAOs* lxxiv, 1954, 188.

In the middle *-aḫḫ-* forms we have both the 3 sg. ending *-ta* (plus optional particle), found in both present and preterit, and the 3 sg. ending *-a* (plus particle), found only in the preterit. This distribution, with *-a* confined to the marked member of the opposition pres.: pret., clearly points to the greater antiquity of 3 sg. *-a*, which we know in any case on other grounds (Watkins, *Idg. Gram.* III/1, 84 ff.). To these forms can be added the evidence of 1 sg. pret. *ma[(-ni-ya-a)]ḫ-ḫa-aḫ-ḫ[(-a-ti)* KUB XXXVI 98b Rs. 8 (KUB XXVI 71 I 21) ‘I ruled’, from Anittas, our oldest Hittite document (Neu, *StBoT* v, 112 cites the form but curiously neglects it; it is not mentioned in *StBoT* vi). These forms point to a primitive paradigm of Hittite *-aḫḫ-* verbs 1 sg. *-aḫḫ-aḫḫa*, 3 sg. *-aḫḫ-a*, the last later renewed to *-aḫ-ta*. Cases like 1 sg. *innarahḫat* above may well show haplogy from *\*innarahḫ-aḫḫat*.

The critical comparandum is the archaic Latin deponent type *aemulārī*, *laetārī*. To the renewed 3 sg. *-aḫ-ta* (*\*-o<sub>2</sub>-to*) corresponds exactly Latin

(and *-eš-*) also show factitives in *-ahh-*, a percentage notably higher than that of the *-eš-* verbs as a whole (Kronasser, *Etym.* 425). Compare the Latin sets cited earlier. We can therefore extend the previously noted schema by including the Hittite forms in *-ešk-* and *-ahh-* as well:

	stative	inchoative	factitive
	*-ē-	*-ē-s-    *-ē-sk-	*-ā-
	(-e <sub>21</sub> -)	(-e <sub>21</sub> -s-) (-e <sub>21</sub> -sk-)	(-e <sub>22</sub> -)
Hittite	-e-	-eš-    -ešk-	-ahh-
Latin	-ē-	-ēsc-	-ā-

The labels are only to serve to identify the classes. One could of course extend the basic group (in \*-ē- and \*-ā-); cf. Old High German *-ē-*, *-ō-*.

It was noted earlier that early Latin preserved an archaic Indo-European morphophonemic trait in the deletion of the adjective suffixes *-i-*, *-u-*, and *-ro-* before the secondary stative verbal suffix *-ē-*. We may observe the same in Hittite. The case of *u*-stems is particularly clear, where we have examples like *miu-* 'mild': *mies-* 'become mild', *miliddu-* 'sweet': *milites-* 'become sweet', *daššu-* 'strong': *daššeš-* 'become strong', and *parku-* 'high': *parkeš-* 'become high'.<sup>36</sup> See Neu, *StBoT* v, 137<sup>1</sup>, with references. Derivatives like *pargarweš-* 'id.', *idalaweš-* 'become bad' (*idalu-*) belong to a chronologically later level of derivation. In the *i*-stems the situation is less clear due to the ambiguity of the writing system: *na-ak-ke-e-* (*nakki-* 'heavy') can of course also be transliterated *na-ak-ki-e-*. But we have one certain example which

*-ā-tu(r)*. To the 1 sg. *-ahh-ahha* (\*-o<sub>21</sub>-o<sub>22</sub>o) could correspond exactly—by loss of both laryngeals and contraction of the three *o*'s to *ō*—the Latin first conjugation ending *-ō-*, *-or* (instead of the \*-aō, \*-aor we would expect phonetically, like *-eō*, *-eor* of the second conjugation), as well as the ending of the Old Irish *a*-stem type 1 sg. *marbu* 'I kill' (*marb* 'dead') or deponent *molor* 'I praise'. The Latin endings of the first conjugation might thus owe their shape to the 'factitive' component of the *-ā*-verbs, just as those of the second conjugation owe theirs to the stative component of the *ē*-verbs. An important problem in Indo-European morphology is here to be investigated.

<sup>36</sup> To this list we might add *šarku-* 'lofty' → *\*šarkeš-* (iterative *šarkišk-*) 'rise'; otherwise Friedrich, *Helh. Wb.* 185.

demonstrates the truncation of *-i-*: *na-ak-ku-še-eš-* (*nakkušši-* 'scapegoat') supra.

In Hittite we have also truncation of the secondary suffix *-ant-*: cf. *innaraweš-* from *innarawant-* 'vigorous'. This permits us to note a striking similarity between Hittite and Latin. Hittite shows an adjective *happinant-* 'rich', from a preform *\*<sub>23</sub>op-en(o)nt-*. The root appears in Latin *ops*, *opēs*, and a further derivative *\*<sub>23</sub>op-nēs-* in Skt. *āpnas-* 'property, wealth; work' and Avestan *afnah-*. Already O. Szemerényi, *Glotta* xxxiii, 1954, 266–282 made the interesting comparison *happinant-*: Lat. *opulentus* (*opulēns*), assuming a (readily acceptable) dissimilation *n . . . n* (*\*openont-*) → *l . . . n* (*\*openlont-*). Now the inchoative from Hittite *happin-ant* is *happin-eš-* 'become rich', with deletion of *-ant-*; and with the same truncation the inchoative of Latin *opul-ent(o)-* is *opul-ēsc-*, attested as a hapax in *Furius Antias* cited by *Aulus Gellius* 18.11. If Szemerényi's theory of dissimilation is correct, the formation of the two inchoatives would be necessarily independent.<sup>37</sup> But the parallelism is striking, and in some sense *Furius opulēscere*—even if he himself formed the word—is the indirect descendant of an Indo-European *\*open-ē-* (*\*<sub>23</sub>open-e<sub>21</sub>-*).

Probably the most notable Wortgleichung between Hittite statives and those of other Indo-European languages is that with the Indo-European adjective-verb *\*leuk-* 'light'. The athematic root furnishes a middle verb in Old Hittite *luk(kat)ta* (active *lukzi* is younger, cf. Neu, *StBoT* v, 110<sup>1</sup>) and a feminine noun in Latin *lūx*. All three stative-inchoative variants are represented in various languages:

\**leuk-ē-*: Lat. *lūcet* 'it is light'

\**leuk-ē-s-*: Hittite *lu-ke-e-eš-zi* 'it grows light'<sup>38</sup>

\**leuk-ē-sk-*: Lat. *lūcēscit* 'it grows light'

<sup>37</sup> It is of course conceivable that the form underlying the Latin was original *\*op-el(o)nt-* rather than *\*op-en(o)nt-*. cf. Hittite *mak-l-ant* 'thin', *mak-l-atar* 'thinness' beside *\*mak-r-* in Lat. *macer*, Germ. *mager*, Gk. *μακρός*.

<sup>38</sup> KBo VI 25 + KBo XIII 35 IV 2' (Riemschneider 22), a birth-omen text showing *takku*. cf. also *lu-uk-ke-eš-ta* 'it grew light' KBo VI 31 I 1 = KUB VIII 48 I 1 (Gilgamesh), despite Kronasser, *Etym.* 385, 401, 406.

The addition of the Hittite evidence for the Indo-European secondary suffix *\*-ē-* throws an entirely different light on the geographical or areal distribution of that suffix. Far from being confined to Krahe's—and August Fick's—(non-existent!) 'Old European', the basic *\*-ē-* (*\*-e₂*) is found in virtually all the branches of Indo-European except Indo-Iranian, Greek, and Armenian (I have admittedly no information about Albanian). It is surely no accident that these three form a separate dialect area also in respect to other features, such as the augment *\*e-*, and that it is these three alone which unambiguously attest the "Indo-European" thematic denominative suffix type *-e-īē/-e-īō-* (Sanskrit *vasnayāti*, Greek *φιλέω*, Armenian *sirem*). We have yet another instance of the striking disparity between Brugmann's Indo-European based largely on the agreement of Greek and Indo-Iranian, and the common language reconstructible today.<sup>39</sup> It is not even certain that the suffix *\*-ē-* was wholly absent from these three languages. Vedic may preserve a trace in the participle *sanāyānt-* 'altgewohnt' (RV I 62, 13) if from *\*sen-ē-īe/o-*; it is tempting to include it in the semantic and suffixal set of OHG *altēn*, Lat. *senēre*, OCS *vetšajo*, Lith. *senėju*, Latv. *vecēju*, and Hitt. *miyahuntezi*. Cf. also Ved. *rtāyānt-*.

Armenian might be ambiguous, since the passage of *\*ē* to *\*ī*, just as in Celtic, would have rendered the suffix unrecognizable. But the facts are that in Armenian the stative or inchoative meaning is expressed by derivatives in *\*-ā-*: pres. 1 sg. *-anam*, aor. 1 sg. *-ac'ay*. cf. *lusanay* 'it becomes day', aor. *lusc'aw* (from *\*leuk-ā-sk-*), or *hmanam*, aor. *hnac'ay* 'become old'. Clearly there has been a replacement here; perhaps the original factitive became utilisable as a stative—compare Latin *nigrāre*—under the pressure of a new factitive, as in *hnac'uc'anem* 'I make old, cause to grow old'.

Greek in any case attests the deverbative stative *\*-ē-* in the aorist passive, and the two (denominative and deverbative) must ultimately be the same suffix. The point of contact is

doubtless the "adjective-verbs" like *\*leuk-*, which are very ancient in Indo-European, and of some typological interest as well.<sup>40</sup> Note also the several derivatives of the adjective-verb *\*reudh-* 'red'; the transitiving, factitive function of the nasal infix in OIr. *roindid* 'reddens, dyes red' is old, and comparable to that of the nasal infix in Hittite, while the transitive force of Gk. *ἐρεύθω* is attributable to the thematic active endings.

Of the inchoatives, built on the basic *\*-ē-* by means of a secondary marked present formant, *\*-ē-sk-* is assured by two languages, Latin and Hittite. *\*-ē-s-* is hitherto confined to Hittite; but I believe that another language can be adduced which shows the same.

Chantraine, *Grammaire homérique* 349, notes several Greek *-ew* verbs apparently derived from *s*-stem nouns which have, irregularly, futures and aorists in *-ησω -ησα*. Already Schwyzler, *Griech. Gram.* 1, 724 (1938) had noted some of these forms, with the cryptic note 'mit *-ησω -ησαι* oder nur so belegt [emphasis mine] hom. ἀλγέω ἀνθέω θαμβέω θαρσέω μισέω παρβέω τευχέω'. Chantraine's fuller list points clearly to the greater antiquity of the sigmatic forms in *-ησ-* than of the corresponding presents. I list the Homeric sigmatic forms below; in two out of three cases the present is post-Homeric.

ρίγησω	ρίγησα	'be cold' (Iliad)	ρίγέω
ἀνθήσαι		'bloom' (Odyssey)	ἀνθέω
θάρσησα		'be courageous' (Iliad)	θαρσέω (also Iliad)
τάρβησεν		'fear' (Iliad)	ταρβέω (also Iliad)
θάμβησε		'be astounded' (Iliad)	θαμβέω (Odyssey)
γηθήσω	γήθησα	'rejoice' (Iliad, passim)	γηθέω (also Iliad)
κατηφήςας		'be downcast' (Iliad)	κατηφέω
ἀμελησε		'be neglectful of' (Iliad 3x)	ἀμελέω
δμήρησε		'meet' (Odyssey)	δμήρέω

<sup>39</sup> In this respect I cannot agree with the views of K. Hoffmann on the system of verbal categories in Indo-European, *MSS* xxviii, 1970, 19–42.

<sup>40</sup> See the stimulating forthcoming paper 'Where have all the adjectives gone', by R. M. W. Dixon.

ἀλγῆσας	'feel pain' (Iliad)	ἀλγέω
ἐλέησα	'have pity on' (Iliad)	ἐλεέω
μίσησεν	'hate' (Iliad)	μισέω

For Schwyzler and with some hesitation Chantraine these are denominatives to the corresponding *s*-stem nouns. But in the case of genuine denominatives to *s*-stem nouns we expect a Homeric present in  $-\epsilon(\iota)\omega$  and sigmatic forms in  $-\epsilon\sigma-$  as with  $\tau\epsilon\lambda\epsilon(\iota)\omega$  or  $\alpha\iota\delta\epsilon\omicron\mu\alpha\iota$ , as they point out.<sup>41</sup>

The chronological distribution is different from those listed above for  $\pi\epsilon\nu\theta\eta\sigma\alpha\iota$  'bewail' (T 225) beside pres.  $\pi\epsilon\nu\theta\epsilon\acute{\iota}\epsilon\tau\omicron\nu$ , also Iliad (Ψ283).  $\pi\epsilon\nu\theta\eta\mu\epsilon\nu\alpha\iota$  (σ 174 τ 120) is an apparently later Aeolic creation according to the athematic pattern (itself inherited). Hence we can take  $\pi\epsilon\nu\theta\epsilon\acute{\iota}\omega$  as a genuine denominative from the *s*-stem  $\pi\acute{\epsilon}\nu\theta\omicron\varsigma$ , and  $\pi\epsilon\nu\theta\eta\sigma\alpha\iota$  as analogical.

The remaining verbs given above thus do not appear to be denominatives in their morphological form. They furthermore do not show the predominance of present-tense forms characteristic of  $-\epsilon\omega$  (and  $-\alpha\omega$ ) denominatives in Homeric Greek, but precisely the opposite; the present is usually later. These verbs begin their attested history in Greek with the sigmatic aorist and future.

Morphologically and distributionally these forms are not denominatives from substantives in  $-\varsigma$ . And semantically, it cannot have escaped notice that they are without exception statives. The Latin or Old High German translation of most of these would be, significantly, an  $\tilde{e}$ -verb: cf. *florere* ( $\acute{\alpha}\nu\theta\epsilon\acute{\iota}\nu$ ), *audere* ( $\theta\alpha\rho\sigma\epsilon\acute{\iota}\nu$ ), *gaudere* ( $\gamma\eta\theta\epsilon\acute{\iota}\nu$ ), *misereri* ( $\acute{\epsilon}\lambda\epsilon\epsilon\acute{\iota}\nu$ ), OHG *hazzēn* ( $\mu\iota\sigma\epsilon\acute{\iota}\nu$ ). Chantraine observed this for one of the forms, and made the right comparison: 'pour  $\acute{\rho}\acute{\iota}\gamma\eta\sigma\omega$   $\acute{\rho}\acute{\iota}\gamma\eta\sigma\alpha$  où l' $\eta$  a une valeur d' "état", cf. lat. *frīgēre*.' But he did not draw the full consequences of his observation. For we have not merely a comparison, but an equation. Just as we can observe the stative forms  $*\text{leuk-}\tilde{e}-$ ,  $*\text{leuk-}\tilde{e}-s$ ,  $*\text{leuk-}\tilde{e}-sk-$  in Latin *lūcēre*, Hittite *lukkeš-*, and Latin *lūcēscere*, so we have

<sup>41</sup> For the special case of  $\acute{\alpha}\rho\kappa\acute{\epsilon}\omega$  cf. Watkins, *IJSCP* lxxiv, 1970, 70.

the stative forms  $*\text{srīg-}\tilde{e}-$ ,  $*\text{srīg-}\tilde{e}-s-$ ,  $*\text{srīg-}\tilde{e}-sk-$  in Latin *frīgēre*, Homeric  $\acute{\rho}\acute{\iota}\gamma\eta\sigma-$ , and Latin *frīgēscere*. We have a suffix form in Greek  $-\eta\sigma-$  which is identical with that of Hittite  $-\tilde{e}-\tilde{s}-$ . The intervocalic  $-s-$  of the sigmatic forms is morphologically restored in Greek in the contract verbs; the ultimate identity of the sigmatic tense marker  $-s-$  in Greek with the  $-\tilde{s}-$  and  $-\tilde{s} + k-$  of Hittite and the  $-s + c-$  of Latin is clear from Watkins, *Celtic Verb* passim and Ivanov, *Obšč. sist.* 139–174, both building on earlier works.

It may be noted that equation of Greek  $\acute{\rho}\acute{\iota}\gamma\eta\sigma-$  and Latin *frīgē(sc)-* permits us to reject definitively the derivation of the Greek forms from *s*-stem nouns. The Greek noun  $\acute{\rho}\acute{\iota}\gamma\omicron\varsigma$  is identical in form with Latin *frīgus*, and the two clearly continue a common form. We have two series of forms: one verbal and stative in function,  $*\text{srīg-}\tilde{e}-$ , and the other nominal and an abstract  $*\text{srīg-es-}$ . Their coexistence is a commonplace in Latin (cf. *tepēre*, *tepor*, etc.) and we may assume the same for Greek. In no sense is the verb in  $*\tilde{e}-$  derived from the noun in  $*-es-$ . Even more conclusive is  $\theta\alpha\rho\sigma\eta\sigma-$ , derived with suffix-truncation from the adjective  $\theta\alpha\rho\sigma-u-$  (Skt. *dhṛṣ-u-*), since the oldest form of the *s*-stem noun shows inherited full-grade vocalism:  $\theta\acute{\epsilon}\rho\sigma\omicron\varsigma$ .

The athematic inflexion of  $-\epsilon\omega$  (and  $-\alpha\omega$ ) verbs in Aeolic,  $\phi\acute{\iota}\lambda\eta\mu\iota$  etc., with its clear traces in Homer particularly in the infinitives in  $-\eta\mu\epsilon\nu\alpha\iota$ , is probably an inheritance, insofar as the  $-\eta-$  continues the Indo-European stative  $*\tilde{e}-$ . What we have in the  $-\epsilon\omega/-\eta\mu/-\eta\omega$  verbs is a conflation of several original types, including  $*\tilde{e}\acute{\iota}\epsilon/o-$  causative-iteratives,  $*\tilde{e}\acute{\iota}\epsilon/\acute{o}-$  denominatives, and  $*\tilde{e}-$  statives. Aeolic generalized (or tended to) the athematic stative for the form, and imposed this form on the other types. The same sort of formal conflation took place in Germanic (class III weak verbs) and Latin (second conjugation), from partly identical and partly different sources, with the same sort of dialectal variation between athematic and thematic forms as in Greek.

It would appear reasonable to suppose that it is the sigmatic type in  $-\eta\sigma-$  to original statives (in  $-\eta-$ ) which has imposed its

form on the innovated extra-presential forms of the banal Greek denominatives: whence the origin of the declensional pattern  $\phi\iota\lambda\acute{\eta}\sigma\omega$   $\acute{\epsilon}\phi\iota\lambda\eta\sigma\alpha$ .<sup>42</sup> Similarly in Aeolic the athematic stative is formally (though not functionally) reflected in  $\phi\iota\lambda\eta\mu\iota$  just as in Latin the athematic stative is formally (though not functionally) reflected in 3 pl. *monent*, *docent*. Although in itself a new form, the infinitive  $\pi\epsilon\upsilon\theta\acute{\eta}\mu\epsilon\nu\alpha\iota$  in the Odyssey is typologically old; an Aeolic  $*\rho\acute{\iota}\gamma\eta\mu\epsilon\nu\alpha\iota$  is perfectly plausible, and would continue the same unsuffixed  $-\acute{\epsilon}$ - as Latin *frīgēre*, or the Old Hittite verbs in  $-e$ -.

We may then complete the pattern earlier set forth (p. 86), by including Greek  $-\eta\sigma-$  in the empty slot under Hittite  $-es-$ . Each of the formal nodes reconstructed,  $*-\acute{\epsilon}$ -  $-\acute{\epsilon}s-$   $-\acute{\epsilon}-sk-$   $-\acute{\alpha}$ - ( $*-e\acute{\rho}_1-$   $-e\acute{\rho}_1-s-$   $-e\acute{\rho}_1-sk-$   $-e\acute{\rho}_2-$ ), can be supported by evidence from at least two traditions in the Indo-European world.

In all cases we are dealing with, and have reconstructed, a piece of the grammar of Indo-European dealing with secondary not primary derivation: derivation from stems synchronically existing in the language at any given point in time. Yet this very fact gives an interesting dimension to our reconstruction, and the emergent picture of a language undergoing change. The formation of stative verbs in  $*-\acute{\epsilon}$ - and 'factive' verbs in  $*-\acute{\alpha}$ - from adjective stems was a productive rule in Common Indo-European. The morphophonemics of such forms as  $*rudh-ro-$   $\rightarrow$   $*rudh-\acute{\epsilon}$ -,  $*ak-u-$   $\rightarrow$   $*ak-\acute{\epsilon}$ -, mark them as belonging to an ancient layer of derivation, in the remotest Indo-European we can reach by reconstruction. But the suffixal process continued productive in at least some of the historical languages until well into the European Middle Ages; indeed, in certain Baltic and Slavic languages, to the present day. It is another instance of the remarkable longevity of a rule of grammar.

A functional identity, with the common label 'stative', has been often assumed, tacitly or otherwise, between the verbs in  $*-\acute{\epsilon}$ -, both secondary denominative and primary deverba-

<sup>42</sup> On the role of the stative  $-\eta-$  in Greek conjugation see especially Chantaine, *BSL* xxviii, 1928, 9-39.

tive, and the classical Indo-European perfect.<sup>43</sup> This is an error. While there exists some functional overlapping, (1)  $-\acute{\epsilon}$ - is a derivational category, the classical perfect an inflexional one; (2)  $-\acute{\epsilon}$ - admits contrast with 'inchoative' or otherwise marked  $*-\acute{\epsilon}s-$ ,  $-esk-$ , while the perfect does not; (3) the endings of  $-\acute{\epsilon}$ - are basically the active ones, while those of the perfect are distinct, with affinities with the middle. The semantics of the variety of labeled 'stative' is still a long way from being fully understood; compare the work of recent years on this question in semantic theory within the framework of generative grammar. It is a problem for the future.<sup>44</sup>

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<sup>43</sup> cf. e.g. most recently Perlmutter, *Top. Jaz.* 1969.5.15, 19 and the references he cites in the course of his study.

<sup>44</sup> This study will be a part of my book *Hittite and Indo-European studies*, currently in preparation. It was originally written in May-July, 1970; a German version was presented at the Universities of Saarbrücken, Bonn, and Köln, in January, 1971, and the English to the Philological Society in June, 1971. I have benefited from the discussion on each of these occasions.

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[Addendum: another Hittite  $e$ -verb is probably to be seen in  $hu-iš-ú-e-le-en$  'even if you had escaped with your lives', *Madd. Vs.* 12, from the adjective  $huišu$  'alive'. For a complete list of the attested form of this archaic verb see Otten, *StBoT* xi, 1969, 12.]