The Neuter Plural of Thematic Nouns.
Derivatives from a Stem in -*e*- from Thematic Nouns

It is generally recognised that the neuter plural in origin was identical with the nominative singular of the *ā*-stems. The neuter plural, however, has two forms: one in -h_2 and one in -eh_2. The latter would be that of the *o*-stems. In fact, one may have doubts here, for this system is found only in Indo-Iranian. All other languages have only one form, that in -eh_2, with the exception of Greek, which has short -*a* from -h_2 (and Latin, which has -*a* in all categories). If we accept this distribution as original, one would like to know how it came about. If an explanation is presented, it is assumed that thematic -eh_2 consists of a stem vowel -*e*, ablauting with -*o*-, followed by -h_2 (e. g. Rix 1976, 140). As the -h_2- was itself a suffix (making collectives), we would have an instance of derivation with a suffix from a stem in -*e* from the thematic nouns (which are called *o*-stems or *e/o*-stems). The question is whether such a derivation is possible.

This is the question which I want to discuss here. The answer will be negative. I will suggest an alternative explanation. Though the result of this study is mainly negative, the relevant material is of interest for a number of other problems, and therefore may be of some importance.

What I will do is look at all the forms where derivation from a stem in -*e* from thematic nouns has been assumed. I hope that I have found all relevant types, but it may well be that I overlooked some. As far as I know the material has not been collected before, with one exception.

We shall consider nominal derivation, the formation of compounds, and verbal derivation. My main interest is nominal derivation. On the compounds we can be very short. The verbal derivation is of considerable interest, but I cannot go into details here as it would take too much time; I hope to publish elsewhere on these questions.

I. Nominal Derivatives

A list of "Erweiterungen von *e*-, *o*-Stämme" is given by Hirt 1927, 233. It gives: 1. -*eios* in adjectives of material, type *argenteus*; 2. -*euos* in denominative adjectives, type *annuus*; 3. -*eno*, -*ono* in verbal adjectives, type Goth. *fulgins*; 4. Gr. -της (i. e. -teh_2-) after -*e*-, in οἰκέτης; 5. the suffix -teh_2t- in Gr. κακότης; 6. -*o-uent*, as in Gr. σκιόεις.

Number 3. is not derived from thematic nouns, so it does not concern us here.[1] The other forms will be discussed in the following together with other evidence I collected.

Forms that have a stem in -o

As is generally known there is ample evidence for stems in -o before derivative suffixes. I may shortly recall them, also to see whether there are perhaps variants with a stem in -e.

1) The suffix -uent-.
Greek has -o-uent-: Hom. δολό-, στονό-, ἠνεμό-εις; Myc. pitirjowesa /ptiljowessa/ '(decorated) with feathers' from πτίλον.

Hittite has -a-want in kartimmiyawant 'angry' beside the verb kartimmiya-, but the noun is kartimmiyat- 'anger'.

Sanskrit (AiGr. II 2, 871ff.) has -a-vant- (himávant-, but also in the Rigveda a dozen forms in -āvant- and some more in later texts (p. 886): áśvāvant- (twice with short a). Though Sanskrit has more unexpected long vowels, for which a rhythmical explanation is considered, it is quite possible that we here have an archaism where the effect of Brugmann's law is preserved. It is not surprising that in recent formations the stem vowel (short) -a- was used. The case is very instructive, showing that original long ā (from Brugmann's law) is being replaced by an unchangeable -a- already in the oldest text. — Avestan does not show the long ā: GAv. mīždavant-.

2) The suffixes -tero, -tmo-
In Greek there is only evidence for forms with -o-: λευκότερος, ἀκρότατος. (For the origin of -τατος see Risch 93.) — Indo-Iranian has -a-: juṣṭátara-, -tama-; GAv. spəntō.təma-, LAv. akatara-.

The use of the suffixes for comparison may not be of PIE date (Risch 91ff.). Their use in derivation from adverbs is older.

PIE is *kʷoteros-, Gr. πότερος, Skt. katará-, OCS kotoryi, Lith. katràs, Osc. púterei-pid, Goth. hvaþar. It seems most improbable to me that the OE and German forms with hve- continue ancient *kʷe-. In OHG secondary -e- is also found in (h)wër, (h)wen(an). In OE the coexistence of hvæþer and hveþer itself suggests that one form is recent (after hvelc, swelc?). (Note further that it concerns a pronoun; cf. IV.)

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1   After Seebold's article (1967) on the Old English forms the existence of -eno- has become very doubtful. Probably it did not exist (see now Boutkan (forthc.) in his dissertation on the Germanic Auslautgesetze).

The suffixes themselves must clearly be analysed as -ero-, -mo- following -t-, as is shown by the adverbial formations.

In Indo-Iranian we find no reflexes of Brugmann's law; the stem vowel -a was used. (Cf. Av. *fratara-*, *-təma-*, which cannot contain anything else but **pro*.)

3) The suffix *-teh₂t-*

This suffix is found in Greek, Latin and Indo-Iranian. Greek has -o-: νεότητ-, κακότητ- etc. — Latin gives no information for our problem, as all medial vowels were reduced and fell together; -o- gives -i-, -io- gives -ie- (so this -e- does not point to old -e-): *novitās, dignitās, societās* (Leumann 373ff.). — Sanskrit has only very few forms with the suffix (AiGr. II 2, 620f.), e. g. *upará-tāt-, devá-tāt-*. There are some more forms with *-tāti-*, which developed from *-tāt-* (Leumann 375; Latin does not have this form): *sarvá-tāti-*. Avestan has some thirty forms with *-tāt-*, a dozen of which have *-a-tāt-* e. g. *amərətatāt-, haurvatāt- uparatāt-*. Indo-Iranian, then, has short *-a-* and not the reflex of Brugmann's law, as we saw above. As these forms are in close relation with those with *-tā-* we have to look at the latter type.

3a) The suffix *-teh₂-*

Greek has only deverbative forms (Risch 25).

Latin *iuventa, senecta* are Latin creations; *vīta* is deverbal and does not continue **gʷiuo-tā-* (Leumann 335).

Sanskrit has no deverbative forms in the Rigveda, while there are derivatives from adjectives (AiGr. II 2, 616ff.). However, in books I-IX there are, besides *sūnŕtā-* only three forms, occurring rarely (among them *avíratā*). In the Xth book we find *nagnátā, devátā*. It has been supposed that the denominative use is secondary to the deverbal use.

Avestan has six forms in *-atā* (*paurvatā* 'mountain chain', Skt. *párvata-*, with *-uṇ-*, and *haδānaēpatā* 'a plant' not counted), *yesnyatā*. Gathic has *(a)spərəzatā*, which is deverbative.

Slavic has deverbative *-ta* (Vaillant IV 684) and a great many derivatives from adjectives in *-ota, dobrota, dlŭgota, nagota*. Baltic has the same type, Lith. *sveikatà* 'health', *nuogatà*.

Germanic has only forms in *-iþa* (on OE *fríod*, which is not of the type Skt. *priyátā*, see Bammesberger 1979, 54f.). E. g. Goth. *hauhiþa* 'height', *weihiþa* 'holiness'. Meid 1967, 145 states that the *-i-* can represent old *-i-* or *-e/(o)-*. It is not the general opinion, however, that *e* resulted in *i* in this position (outside Gothic); more probably *-e-* was retained (see Boutkan forthc.) This means that we cannot be sure that *e* is

involved. Meid cites as evidence for -*e*- Lat. *anxietās* on which see above, and British forms, to be mentioned now.

Celtic has the suffix in MW -*et, dahet* 'goodness'. Meid (145) assumes here an old *e*, but it may also be an *i* (as in Germanic), as is the view of Pedersen 2, 37.

Thus the forms with -*tā(t)*- show -*o*-, but no reliable evidence for -*e*-.

4) The suffix -*ko̧*-.

Greek does not have derivations with this suffix from thematic nouns. The form -ικο- became very productive. It is found rarely from thematic nouns: ὀρφανικός (Risch 161).

Latin gives no information on the vowel; cf. *ūnicus, modicus* (Leumann 336).

Sanskrit, where the suffix became very productive, has *putra-ká-, arbha-ká-* 'small', *sana-ká-* 'old' (AiGr. II 2, 515). — In Avestan the type is rare; *mašyāka-* 'man' (its long *ā* may be due to the preceding *y*). Old Persian has *ba(n)daka-* 'slave'.

Balto-Slavic has a few words only (Vaillant 462): *glǫbokŭ* 'deep', *vysokŭ* 'high', *širokŭ* 'long', *inokŭ* 'solitary'.

Germanic has -*aha-/-aga̧*- from thematic nouns: OHG *einag*, Goth. *waurdahs* 'wortbegabt', *auþags* 'rich, happy', OIc. *heilagr.*

There is no trace of -*e*-.

5) The suffix -*bʰo*-

Greek does not have the suffix from thematic nouns (Risch 171). — In Sanskrit there is only one adjective derived from a thematic noun, AV *sthūla-bhá-* 'grob, massig' (AiGr. II 2, 746ff.). — Slavic has abstract nouns like OCS *zŭlo-ba* 'badness'. (Baltic generalized long *i*, Lith. *aukštýbe*.) — Germanic has in Gothic adverbs in -*ba, ubila-ba*-.

Thus there is no evidence for -*e*-.

6) The suffix -*h₁en*-

The suffix discovered by Hoffmann had *h₁*, as is shown by the inflexion of Skt. *kanyā* if this is correctly reconstructed as -*h₁ēn*, -*h₁en-m*, the latter form appearing in acc. sg. *kanyánām* for **kaniyánam* (Hoffmann 1955, 38). The *e*-colouring laryngeal is confirmed by the participial ending -*m-h₁n-o*-. As it is supposed that the non-ablauting suffix -*ōn*- continues this suffix when it followed the thematic vowel, this vowel must have been -*o*-: -*o-h₁n*- > -*ōn*-.

7) The suffix *-tuo-* (and Gr. -σύνη)

Greek has Hom. μαχλο-σύνη and ξεινο-, δουλο-σύνη (Risch 150f.). — Sanskrit has neuters like *garbha-tvá-* 'pregnancy', *amṛta-tvá-* (AiGr. II 2, 711, 716). In Avestan the suffix is rare; from *o*-stems only *darǝγō.fratǝma-θβa-* 'lasting priorate'. — With *-tvana-* Sanskrit has also neuters, but none derived from a thematic stem. The same holds for Av. *-θβana-*. The *-a-* tells us nothing about original *-e-* or *-o-*. — Gothic has *þiwa-dw* 'servitude'. Feminine is *frijaþwa* 'friendship'. — Slavic *-tvo-* is rare and not known from *o*-stems (Vaillant 410). — The Greek suffix -σύνη is connected with Skt. *-tvana-*, though the relation is problematic. — No evidence for *-e-*.

8) The suffix *-tuHt-*

This suffix is found in Latin, Celtic and Germanic. Av. *gaδōtūs* is not evidence for the suffix in Indo-Iranian (Hoffmann 1967, 188). — Latin gives no evidence as the vowel is either syncopated (*virtūs*) or reduced (*servitūs*). — Only Celtic does give evidence. OIr. *bethu* for example, must come from *$*g^{u}iuo-tuHt-$* (lowering of the preceding *-i-* by an *-e-* would have been blocked by the palatal *w*). Forms of the type *uaisletu* 'apex' give no evidence (the *e* being the shwa preceded by palatal consonants, which were palatal because of the *-e-* which was lost in **upselo-*). — In Germanic only Gothic has the suffix, in four words, in all of which the stem vowel was syncopated: *ajuk-, gamain-, manag-, mikil-dūþs*.

Forms that provide no evidence

9) The suffix *-no-*

This suffix is rarely used as a secondary suffix. In Greek there are no forms in -ovo- (or -εvo-). There are only forms in -αvo- (ὄρφανος, κοίρανος), of unclear formation, which do not concern us (Risch 97ff.). — Latin *dominus*, which is the only word that may have been derived from an *o*-stem, gives no evidence about the vowel. — Sanskrit does not have secondary formations with *-na-* (AiGr. II 2, 726ff., esp. §562-4; 180-206 treats the suffix *-ana-* from *-eno-*, hardly *-ono-*, as this would have given *-āna-*; the suffix *-āna-*, pp. 270ff., is the medial participle ending, from *-mh₁no-*, and a very few other forms which are irrelevant; on *samāná-* see §562a.). — Germanic has a very few words that are cited in this connection (Meid 103ff.). Goth. *þiudans* is derived from an *ā*-stem (so it is not relevant here). OIc. *Herjann* may continue **harja-na-*. Unclear is Goth. *akran* 'fruit'; see Lehmann. Unclear is also Goth. *ahana* 'chaff'. Forms with *-in-* like OIc. *dróttin* are derived from *i*-stems (**druhti-na-*). A few words have *-in-* beside *-an-*: Goth. *maurgins*, OS, OHG *morgan*; here Old Icelandic has *-un-*, *morgunn*; Goth. *himins*, OS

heƀan 'heaven'; OIc. *heiđinn* OHG *heidan* 'heathen'. Cf. *Wuotan*, *Óđinn.* Much is unclear with these words, but it is a typical Germanic problem, not relevant to PIE.

Forms with supposed -*e*; before consonant

We have seen, as was well known, that there is abundant evidence for derivatives from thematic nouns with a stem in -*o*. Formerly, in fact until recently, scholars did not consider it a problem to assume that other forms were derived from a stem in -*e*. "Ablaut *e/o*" was sufficient explanation. This way of dealing with the facts is an inheritance from the beginning of Indo-European studies. Of course, it is quite improbable, not to say impossible, that both possibilities existed side by side (for long times): differences in form that do not correspond to a difference in meaning are eliminated. In fact, clear and certain evidence for -*e*- does not exist. Only incidentally is such a form assumed. We shall see that in all cases a different explanation is more probable or at least equally possible.

A result of the forms studied above is that the absence of Brugmann's law in Indo-Iranian cannot be considered as proof for *e*-vocalism. Here the synchronic stem vowel -*a*- was introduced.

10) A suffix -*euo*- (supposed to be -*e-uo*-) is unknown in Greek (Hirt cites πιαλέος, for which see Chantraine 1933, 253). κενεός is a thematic form of an *u*-stem. — Lat. *annuus* was formed after *perpetuus* which is a deverbative formation, Leumann 303. Further Latin has -*uus* from -*uo*- after consonant, as in *mortuus*. — Sanskrit, for which Hirt gives *keśavá*-, does not have a suffix -*ava*- according to AiGr. II 2, 219 (only *vidhávā*-, which derives from an *u*-stem; see 1992). With the suffix -*va*- the AiGr. II 2, 868 mentions very few words supposedly derived from nouns in -*a*. Among them is *keśavá*- 'with long hair', but here Av. *gaēsu*- 'id.' makes it probable that we have to do with a derivation from an original *u*-stem. The same will probably hold for *arṇavá*- 'wasserreich, Flut', and perhaps also for *kitavá*- '(successful) gambler', from *kṛtá*- 'throw (of dice)'. In any case these forms do not prove an IE formation. (Of course, the type *mānavá*- is derived from *u*-stems.) — Finally, the Slavic suffix -*ovŭ* must be mentioned. This is generally considered a thematization of nouns with a suffix -*eu*-; Vaillant IV 439. — Thus the conclusion is that there is no evidence whatever for a suffix -*uo*- added to a thematic stem in -*e*.

11) The words with -*teh₂*- preceded by -*e*- (type οἰκέτης, mentioned by Hirt) are in origin deverbal formations, Schwyzer 499f., Risch 31ff.

Cf. Myc. *ereta, eqeta, lawageta* /*eretās, hekʷetās, lāwagetās*/. From there the suffix was used in a few other forms, already in Myc. *kotoneta* /*ktoinetās*/ from *kotona* /*ktoinā*/. Forms derived from *o*-stems are rare and have -*o*-, τοξότης.

Thus there are no old formations with -*e*-*teh₂*-.

12) The suffix -*dʰo*-

A suffix -*dʰo*- in Greek is not found in derivations from thematic nouns (Schwyzer 510, Risch 174). — Sanskrit -*dha*- is found only from words with a dubious etymology (AiGr. II 2, 725; there is no suffix -*adha*-). — In Germanic the suffix can hardly be distinguished from -*to*-. Meid 177 gives no relevant forms.

The only word that probably has this suffix is Goth. *naqaþs (-d-)*, Lat. *nūdus*. The Germanic forms have a preceding -*o*-. For Latin an -*e*- has often been considered possible (e. g. Ernout-Meillet). This form could then be analyzed as **nogʷe-dʰo*- (thus e. g. Feist). Schrijver (1991, 274f.) has now proven that only a form with -*o*- is possible for Latin. An analysis **nogʷo-dʰo*- now seems obvious; cf. OCS *nagŭ*, Lith. *núogas* < **nogʷos* (with lengthening and acute accent according to the Winter-Kortlandt law). For Germanic, however, Boutkan (forthc.) explains the -*u*- of OE *nacod*, OHG *nackot* from the accusative of an original *t*-stem, in PGm. **-ad-un* with raising of *a* by the *u*. (A form with -*edʰo*- is assumed by Lehmann for OIc. *nøkkviðr*, but such a form cannot be accounted for, as was pointed out by Schrijver, who is undoubtedly correct in assuming a participle in -*itos* (from the verb *nøkkva* < **nakwjan*) for this form; thus also De Vries.)

13) The diminutive suffix -*elo*-

The Latin diminutive suffix -*ulus* could continue -*o-lo*-, as is assumed by Monteil 1973, 150. However, it has been argued that it goes back to -*elo*-; lastly Leumann 309, who explicitly states that the -*e* is the stem vowel of thematic nouns. There are five arguments: 1. two Faliscan words; 2. Umbr. *strušla*; 3. the type *porcellus*; 4. Lith. -*elis*, and 5. Goth. *Wulfila, leitils* etc. The Faliscan forms (*arcentelom, urnela??*) may not be decisive because of our poor knowledge of the language (though they look convincing), but the Umbrian form requires a front vowel (lost) before the -*l*- to explain the palatalization of the -*k*-. *porcellus* derived from *porculus* seems to require -*elo*- for -*ulus* because this explains -*ellus* < **-elVlo*-. However, it might be assumed that -*ellus* originated in forms in -*er*-, -*en*- (type *puella*) and became productive. Identification with the Baltic suffix is probable (see below). The Germanic forms could have the

same form, but here *-i-lo* is also possible (in the case of *leitils* an *i*-stem is probable).

Both Lithuanian and Latvian have the suffix with long and short *-e-* (Endzelins 1971, 110f.). This points to a suffix *-el-* (in Baltic extended with *-io-*). The lengthened form *-ēl-* may be ancient, but it could be a secondary lengthening (there is a distribution, the lengthened form occurring in long words; but this distribution may also be secondary). In Baltic the suffix is not specifically derived from thematic nouns.

A variant is (Lat.) *-culus*. This form is evidently derived from the suffix *-ko-*. This form is Italic only. As it is quite improbable that Italic still had a form *-ke-*, it was probably made by adding *-elo-* to *-k(o)-*, with loss of the *-o-*. If so, it would show that before a suffix beginning with a vowel the stem vowel was eliminated.

Thus Baltic points to a suffix *-el-*. It must also be stressed that in Baltic the suffix is not specific for *o*-stems. In any case, a suffix *-el-* may be assumed. Before this suffix the stem vowel of the *o*-stems would have been deleted.

It is probable that we have the same suffix in OIr. *uasal,* W. *uchel* 'high' (see sub 8) above on OIr. *uaisletu*). Gr. ὑψηλός shows that we have here a suffix *-el/ēl-*. For the use of the suffix with a word for 'high' we may compare its use with words for 'great', as in Lith. *didelis* (cf. also μεγάλος and Goth. *mikils*).

14) The suffix *-eios* is well known. Greek has e. g. λίθεος, ἀργύρεος etc.; in Mycenaean we have *kakeja, ponikeja, popureja* etc. (/*khalkeja, phoinikeja, porphureja*/). — In Sanskrit the suffix is very rare. Much cited *hiraṇyáya* is almost alone. Avestan here has *zaranaēna-,* and twice *zaranya-* which might stand for **-yaya-* (Mayrhofer[2] s. v. *híraṇya-*). Further *avyáya-* which stands beside *ávya-* and *gavyáya-* (instead of expected **gaváya-*), which stands beside *gávya-*. — Latin has *aureus* etc.

As to the origin of the suffix Monteil 157 analyses *-e-io-,* as Hirt apparently did; now also Schindler 1976, 351, who posits *-e-i̯Ho-*. Risch 131 and Leumann 286, however, refer to Benveniste 1935, 76, who thinks that it derives from thematization of *-ei-*. He considers this suffix as the full grade of ancient neuters in *-i*. What decides in favour of the second analysis, to my mind, is that *-io-* derivatives from *o*-stems loose the stem vowel (AiGr. II 2, 806): *áśvya-,* ἵππιος. This analysis is also followed by I. Hajnal in this volume. Schindler formulated the rule that the thematic vowel was eliminated before a suffix beginning with *-i-*. Thus he has to assume Ø-*i(H)o-* beside *-e-i(H)o-* which makes the second analysis most improbable. Also, *-e-i̯Ho-* may have given *-ειος* in Greek.

The conclusion is that, where -*eios* occurs from (better is of course: beside) *o*-stems, there is no stem vowel, e. g. λίθος, λίθεος.

Forms with supposed -*e*-; before vowel

15) The suffix -*ēt*-

Gr. ἀργής (acc. -ῆτα and -έτα) 'white' has been interpreted by Schindler (1976, 351) as a stem in -*e* followed by -*(e)t*-, -*e-et*-, giving -*ēt*-. The word seems derived from ἀργός. I don't think that this interpretation is in any way probable. (Note that the acute of ἀργής might point to lengthened grade; contraction would have given a circumflex.)

Chantraine 1933, 267 points out that this suffix makes derivatives from verbs, "et parfois aussi ... de noms." Thus we have κέλης 'courser' from κέλομαι, πένης 'poor' from πένομαι. ἀργής itself could be based on ἀργ- (not on the *o*-stem), as was ἄργυρος etc.

The other languages are not very helpful. Latin has substantives with -*et*- (*seges,* perhaps the type with -*iet*-, *ariēs*) and adjectives (*hebes, dīves*); the forms with -*iet*- show lengthened grade in the nominative, *ariēs, abiēs, pariēs* (Leumann 372, who does not note or mention the long vowel). Celtic has numerous *t*-stems, both with preceding long and short vowel (Pedersen 2, 101f., Thurneysen 205ff.; Pedersen's explanation of OIr. *luch* 'mouse' makes it probable that at least a number of the forms with short vowel had originally ablaut of long and short vowel). Beside the forms with -*ōt*- (type OIr. *bibdu*) there is one with -*ēt*-, the type OIr. *fili* 'seer'. Beside this word only *óengi* 'guest' is mentioned, which has no etymology (connection with Gr. οἴχομαι 'to go away' has been suggested). *fili* derives from **uel-ēt-s,* from the root 'to see'. This means that the only word outside Greek that can be identified is also derived from a verb.

I conclude that these words are probably verbal derivatives in origin, so that the denominal forms are recent. But even if the formation was not in origin deverbal, it cannot be established that their origin must have been in the thematic nouns. The type, then, is important in that it probably shows that a suffix of the type -$\bar{V}C$- could be used to derive nouns from *o*-stems, whereby the thematic vowel was deleted (cf. nr. 14 above). It cannot be established, however, that this process was of PIE date.

16) The suffix Gr. -εύς

In 1976 Schindler proposed to derive this suffix from a thematic stem ending in -*e*, as words with this suffix are mostly derived from *o*-stems and because *e/o* is deleted only before a suffix with -*i*- (see above on -*eios*). In fact he starts from an original paradigm nom. -*eus,* gen.

-ēu-(o)s, taking βασιλεύς, βασιλῆος at face value. This is improbable as
no paradigm of this shape is known anywhere in Indo-European. He
further thinks that this paradigm originated from nom. -e-u-s, gen.
-e-eu-s, assuming that a proterodynamic u-paradigm was added to the
e-stem. As he admits himself there is no parallel either for the secondary
use of such a paradigm. (I do not understand why Schindler does not
assume -e-ēus, for hysterodynamic inflexions are used secondarily, as in
*ph₂-tr-ōus.) It need hardly be said that this reconstruction is very uncer-
tain. Beside the possibility that the suffix is of foreign origin (e. g. Risch
156f.), there is the possibility that it represents hysterodynamic -ēus etc.
(e. g. Rix 1976, 147). The semantic parallel δμώς < *-ōus (Schindler 352,
who compares the word with οἰκεύς) is a strong confirmation of this re-
construction. Schindler's objection is that it is a secondary formation
from o-stems. (So one should expect -o-ēus etc.) I conclude that the the-
matic vowel was removed before the suffix. That this did not happen
only before -i- is shown by -elos (nr. 13 above). -eios (nr. 14) and -ēt/et-
(nr. 15). Also the suffix may have been added to root nouns which later
were replaced by o-stems (*uoik̂-?), so that a relation -os : -ēus arose.

    If one is prepared to assume -e-eC- we would even more expect
forms with -o-eC-, as stems in -o are clearly attested. This sequence
would have given -ōC- (cf. dat sg. -ōi < -o-ei). As far as I know, there is
no trace of such formations. (Gr. -ωδης, Lat. -ōsus is supposed to origi-
nate in compounds with -o-h₃(e)d-(s-o-), so it is not relevant here.)

Conclusion

    I conclude from this survey that there is no certain evidence for
derivatives from thematic nouns show: ng a stem in -e-. The — rare — in-
stances where this form has been assumed can be better, or at least as
good, be explained otherwise.[2]

II. Compounds

    On compounds we can be very short, but it is important to mention
them here. Compounds of which the first member is an o-stem always
have -o-, never -e-. This confirms the above conclusions.

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    [2] I am concerned here only with derivation. Whether there was -e- in the
inflexion is another matter.

III. Denominative Verbs from *o*-Stems

I can only add a few words on the denominative verbs derived from *o*-stems. I hope to publish elsewhere on this and related problems, and can give here only my provisional results.

1. It was generally accepted that denominative verbs derived from *o*-stems had the suffix *-ie/o-* added after the stem ending in *-e*, type **deiue-ié-ti*. Evidence for this type seemed certain: Gr. φιλέω, Lat. *albeō*, Skt. *devayáti*. (Note that in the latter type it is only since the acceptance of Brugmann's law that interpretation as *-e-ie-* seemed certain. This means that recent insight seemed to confirm the old theory of denominatives from *e*-stems.)

Forms derived from a stem form in *-o* were considered not to be old: there was only the Greek type δουλόω, but as this was isolated it seemed not to be an Indo-European inheritance.

There were also forms with *-ie/o-* without a vowel, be it *-o-* or *-e-*, but they are rare.

The foregoing has shown that there are no nominal derivatives, nor first members of compounds, that have a stem in *-e*, and that only a stem in *-o* is found. This makes it improbable that verbal derivatives would have *-e-*, and only *-e*, never *-o-*. (I noted this in 1986, 110, and in 1990, 273.) It can now be shown, I think, that denominatives from stems in *-e* did not exist. Denominatives from stems in *-o* can now be demonstrated, but the type with *-ie/o-* after a stem without a vowel was probably the Indo-European formation.

2. The type Greek φιλέω. I found my view that this Greek type did not continue a PIE formation in *-e-ie-* confirmed by the thorough study of Elizabeth Fawcett Tucker 1990. She arrived at the conclusion that the Greek type of denominatives in *-έω* derived from the PIE causative type in *-eie-* with *o*-vocalism of the root (pp. 19-199, esp. 162-180). It is important to note that Mrs. Tucker does not mention the problem of derivatives from *o*-stems showing a stem in *-e* but that she bases herself only on the interpretation of the oldest (Homeric) Greek material.

3. The Armenian presents in *-em* are supposed to derive from *-eie-*, and most of them are denominatives. I think that here the same development occurred as in Greek. Meillet in his *Esquisse* (1936, 105) already noted that it is sometimes hard to see whether a verb of this type is a (deverbative) causative or a denominative.

4. The type Latin *albeō*. The explanation of this type from a stem in *-e* + *-ie/o-* was challenged already by Watkins (1971, 60f.). He convincingly showed that these verbs are derivatives from stems with the stative suffix *-ē-*, i. e. *-eh₁-*. This is shown clearly by the related forms in *-ēscō*, from *-eh₁-sk*.

5. The Indo-Iranian type *devayáti*. Sanskrit has denominatives in *-ayá-, -áya-, -āyá-, -yá-* and *-īyá-*. Lubotsky (1989), in his review of Mrs. Jamison's book (1983), pointed out that the type with *-ayá-* only makes participles and that it is probably a secondary development of Sanskrit. The old type is that in *-āyá-* (*priyāyá-*) and this derives from *-o-ie-*. On this and the other types see below.

Avestan (Kellens 1984, 130f.) has *-aya-* only. The situation in Sanskrit must be more original.

6. The Germanic denominatives from *o*-stems in the first weak declension (Goth. *hailjan*) can be derived from *-e-ie-* as well as from *-ie-* (Krause 1968, 238; Kortlandt 1986).

7. I conclude that for all types supposedly derived from a stem in *-e* there is an alternative, which is often more probable. Combined with the fact that no nominal derivatives from a stem in *-e* are found, we must conclude that there were no denominatives from *o*-stems which had a stem in *-e*.

We shall now have a look at possible forms with *-o-ie-*.

8. We have seen above (sub 6.) that the Sanskrit type in *-āyá-* will represent *-o-ie-*.

9. The Hittite type *hatrāmi*. Oettinger (1979, 30 and 357-387) has shown that this type, with *-āmi, -āsi/-aesi, -aezzi* continues *-o-io-* (> *-ā-*), *-o-ie-* (> *-ae-*). Thus we have here confirmation for the type supposed for Sanskrit *-āyá-*.

10. The Greek type δουλόω This type is also extensively studied by Mrs. Tucker (273-328). This time I do not agree with her interpretation,[3]

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[3]   One type she explains from an adjective in *-ōtos*. However, the evidence for such an (independent) adjective is doubtful. The other type she connects with the Hittite suffix *-aḫḫ-*. The aorist with this suffix would have had *-ās-* in Greek, and this form would have been changed to *-ōs-* after the first type. This change seems improbable to me, and it de-

except that a derivation from -o-ie- does not explain the factitive mean-ing of this category.[4]

11. Thus we have found two types with -o-ie-, but there is also the type with -ie- without a preceding vowel. As the type with -o- can be easily explained as a recent formation, the latter type may be the oldest, and the only PIE, type.[5] It is found in:

a.   the Greek type ἀγγέλλω, ἱμείρω;
b.   the Latin type *servīre* if this had the simple suffix -ie/o-;
c.   the Germanic denominatives of the 1st weak class (*hailjan*), which must have -ie/o- as they cannot have had -e-ie/o-
d.   in Hittite we have a few forms of the type *marsie-* 'be false' from *marsa-*, see Oettinger 1979, 355, who doubts that the type is old;
e.   Sanskrit verbs of the types *taviṣyá-* and *taviṣīyá-* might belong to this category (Tucker 1990, 121 n. 159).

12. The foregoing has consequences for the Hittite factitives in -aḫḫ-. It is generally assumed that the suffix -aḫḫ- derives from -e-h_2-, the -e- being the stem vowel of o-stem nouns. We must now conclude that this interpretation is impossible. (See note 4.)

IV Further Suggestions

To solve the problem of the form in -eh_2 I can only make a sugges-tion.

The problem is that we have -eh_2 beside -h_2. I start from two con-siderations.

1) If -eh_2 was one suffix, in the full grade, we would have two differ-ent nominatives, which is rather awkward.

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pends on the explanation of the first type. — M. Peters now argues for -o-ie- as the source of the Greek presents in -όω (1988-90, 614f.).

   [4]   The Hittite factitive suffix -aḫḫ- has been connected with Latin verbs in -āre (which makes connection with the Greek verbs in -όω impossible). It is also possible, however, to connect the Hittite and the Greek verbs, excluding Latin, and assume -o(-)h_2- or -e/oh_3- for the suffix; as o-grade is less plausible, we might prefer -eh_3-.

   [5]   M. Peters (1988-90, 614) points out that these verbs may in fact have been de-rived from athematic forms. This is what I suppose. The formulation "loss or deletion of the thematic vowel" is only a synchronic statement. (The same holds for -io- forms beside o-stems. Thus Peters gives μειλίχιος and μειλίσσω from *meilikʰ- beside μείλιχος.) His-torically, the question may be connected with the origin of the o-stem nouns (cf. Beekes 1985, 184ff.).

2) Greek has short -*a* < -*h*$_2$ everywhere. It is mostly assumed (e. g. Hardarson 1987, 95) that this is the form of the consonant-stems which was generalised. As I pointed out earlier (1985, 25) this seems quite improbable to me. The *o*-stems are always the dominant type, as it is much more frequent.[6] Also, the Latin short -*a* cannot be explained easily.[7] Therefore I think that Greek preserved the ancient situation.

When we combine the two considerations, we conclude that the neuter plural nominative had single -*h*$_2$.

Note that, if we assume that the feminine *ā*-stem substantives had a nominative with -*eh*$_2$, this ending was n o t identical with the neuter plural ending. Hardarson may be right in assuming that the neuter ending was part of a proterodynamic (originally neuter) inflexion. However, the feminine *ā*-stem substantives cannot derive from a proterodynamic inflexion, as in this inflexional type the full grade was never generalised to the nominative and accusative (the only exception being the type **men-os*, which incidentally shows -*o*-). I therefore maintain that the feminine *ā*-stem substantives derive from a hysterodynamic paradigm.

Thus we are left with the question from where the nominative in -*eh*$_2$ of the *o*-stems originated. In the languages where it was spread, it went to the *o*-stems first, as we see in Sanskrit. This leads to the idea that this form originated in the pronouns. From here the neuter plural form may have easily gone to the *o*-stems. And we know that there were *e*-stems in the pronouns. But at this point I must leave the question for the moment.

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[6]   This is even more true if one assumes, with Szemerényi (1970, 155 (1)) and Hardarsson (1987, 111 n. 43), that -*oR-h*$_2$ became -*ōR*, for then -*h*$_2$ was found only after stops. But I see no evidence whatever for the assumed development.

[7]   Hardarsson (1987, 95, 98) simply supposes shortening of -*ā*, but this is generally rejected as all final long vowels were retained in Latin.

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