

The origin of the Indo-European pronominal inflection

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0. Introduction

The inflection of the Proto-Indo-European pronouns presents many difficulties, but I think that the main outlines can now be explained. The paradigm of **k^wi-* as given by Szemerényi (1970: 192) may illustrate the pronominal inflection as reconstructed up to now (I add *-esmōd* which Szemerényi gives on p. 191).

	masc./ fem.	neuter	masc./ fem.	neuter
nom. sg.	<i>k^wis</i>	<i>k^wid</i>	pl. <i>k^weyes</i>	<i>k^wī</i>
acc.	<i>k^wim</i>	<i>k^wid</i>	<i>k^wins</i>	<i>k^wī</i>
gen.	<i>k^wesyo</i>		<i>k^weisōm</i>	
abl.	<i>k^wesmōd</i>			
dat.	<i>k^wesmei</i>		<i>k^weibh(y)os</i>	
loc.	<i>k^wesmi</i>		<i>k^weisu</i>	
instr.	<i>k^wī</i>			

1. *i-, e- and o-* stems

One of the remarkable things is that some pronouns present stems in *-i-, -e-, and -o-*. The first question is which stem belongs where.

It is generally assumed that there were parallel forms with *-i* and *-o*. Thus there would have been *k^wo-* beside *k^wi-*. There seems also to be no difficulty in the function of these two stems: the *o*-forms were adjectives (Rix 1976: 188).¹

In most handbooks it is assumed that the *e*-stem belonged with the *o*-stem. I think this is not correct.

There is one instance where we have part of an old system, the nominative and genitive singular neuter of *k^wi-*. Here OCS *čьto*, *česo*, Gk. *tí*, *téo* point to **k^wid*, gen. **k^weso*. (OHG *hwes*, PGmc. **hwes*, is not reliable as *-e-* was generalized in Germanic.) Here we have (part of) an old system, and I think the only one for which it is probable that it is old, where *-e-* belongs with *-i-*, and not with *-o-*.

This is confirmed by the pronoun that lives on in Lat. *is ea id*. It is generally accepted that to this pronoun beside ntr. **id*, acc. sg. masc. **im*, belonged a dative **esmei* (U. *esmei*). Here again *-e-* belongs with *-i-*. This connection becomes even more clear through Kortlandt's reconstruction of the nom. sg. masc. as **e* (i.e., **h₁e*) (apud Beekes 1983): **e* belongs with **id*, *im*.

The connection of *-e-* with *-o-* was probably assumed because it was generally accepted that the *o*-stem nouns had *e-* and *o*-stem forms side-by-side in the inflection. In my *Origins* (Beekes 1985: 184ff.) I have tried to show that this is not correct: the nouns had only forms with *-o*. However, we cannot draw a direct conclusion from this for the pronouns, as their inflection was of a quite different type.

Recently the oblique cases with *-e-* have been considered as neuter only: Rix (1976: 187). This seems based on Av. *cahyā*. Rix gives these forms as neuter. They are found Y 48.9a and 50.1a. In the first instance, however, it is clearly masculine, and in the latter it is so taken by both Humbach and Insler. Here one might take *cahyā* *avanhō* as 'some help', with *cahyā* as neuter adjective, but the context, notably the immediately following *ká...?* 'who...?', strongly suggests that it is masculine. It appears that both forms are indefinite. This is also true of *cahmāi* Yt 13,3 and *cahmi* FrD 3,3. That this is the distribution (*ka-* interrogative, *ci-* indefinite) in both Avestan and Sanskrit was long ago recognized (cf. n. 1). — (The form *cayās* Y 45.5c, earlier considered as the plural of *k^wi-*, is now generally taken as the neuter substantive 'regard'.)

Note that the result of this assumption (*-e-* is neuter only) is that the masculine had **k^wis*, **k^wos(i)o*, with *i-* and *o*-stems in one

paradigm, which is quite improbable (as there is no certain evidence anywhere for such a system).

We conclude, then, that the pronouns had *i-/e*-stems beside *o*-stems, the latter being adjectives.

2. The nominative singular

The nominative singular masculine of some pronouns is remarkable because of the absence of an *-s*. Thus we have **so*. Lat. *hic*, too, had no *-s*, nor did Skt. *asáu*. Skt. *ayám* points to a form **ei*. Kortlandt reconstructed the original form as **(h₁)e* (apud Beekes 1983). Lat. *qui* < **k^woi* points to an original **k^wo*. It is generally accepted that **k^wo* is the oldest form. This is clear because it is easily understandable that an *-s* was added, whereas it is not understandable why an *-s* would have been removed. Nevertheless this fact is mostly not integrated.

A form that has not been accounted for is the Celtic form of the last-mentioned pronoun. OIr. *cia*, W. *pyw*, C. *pyw*, Br. *piou* all point to a form **k^wei* (Pedersen 1909.2: 198; Jackson 1953: 657). The *e*-vocalism cannot be explained except as an archaism. Now Kortlandt reconstructed the nominative of Lat. *is* as **(h₁)e*, it is clear that the Celtic form points to an original nom. **k^we*. Thus *k^we*, *k^wid*, *k^wim*, *k^weso* is entirely parallel to **(h₁)e*, *id*, *im*, **(h₁)eso*.

It is sometimes assumed that forms like the Celtic one show a full grade *i*-stem (in the singular; on the plural see below). This is not correct in my opinion. For Lat. *qui* < **k^woi* it would be quite improbable to accept beside **k^wo-* a stem **k^woi-*. For **e* there is evidence for forms without *-i* (Beekes 1983). Also *ei/i* would not solve the problem of *e-* in the oblique cases. (Szemerényi's explanation [1970: 193] does not work as the forms must be reconstructed differently, as we shall see.) I think that the explanation of the *-i* as the deictic particle is acceptable.

3. The genitive singular masculine

The only (partial) system that has a good chance to be old is **k^wid*, gen. **k^weso*. This gives **-so* as the pronominal genitive ending. This

ending is mostly considered together with that of the *o*-stem nouns. Here we have evidence for **-osio*, **-eso* and **-oso*. It is now clear that **-osio* belonged to the *o*-stem nouns. As it originated here from the addition of *io* to the original genitive in *-os*, there is no place for this ending with the pronouns (cf. Beekes 1985: 185–186). Therefore **-eso* and **-oso* remain as pronominal endings. This agrees with the form **k^weso*. **-oso* may be expected for **to-* and **k^wo-*. Therefore both forms, **-eso* and **-oso*, may come from the pronouns, if we assume that **so* was added to the stem in **-e* or **-o* found in the nominative.

It has been assumed that this **so* was identical with the (nominative singular) pronoun **so* (Møller 1920: 225; Knobloch 1950: 143). I cannot go into this question, but it should be noted that both *so* and *io* were added to make a genitive (though *-os* already was a genitive itself).

4. The genitive singular feminine

If the genitive singular masculine was formed with a particle *so*, there is no reason to expect that there was a special feminine form (though one might think of a feminine **sā*, **seh₂*, if **so* was the pronoun). The form **to-so* can easily have been transformed later into **tosā(s)*. From this form the Germanic **-s-* in the feminine (throughout) instead of **-si-* can be explained.

Older handbooks say that you have *-s-* and *-si-* side by side in Germanic, without explanation (Streitberg 1896: 272; Meillet 1937: 332; thus also Guxman et al. 1962–1966.III: 353). At present it is mostly stated that the *-s-* was taken from the genitive plural. This seems easy for Old Icelandic, which has sg. *þeirar*, pl. *þeira* from **tois-*. But Goth. *pizos*, *pizo* has the stem of the singular brought to the plural. This suggests that they differed only in the vocalism. In general, if the singular had **tosyās*, **-āi* and the plural (only) **(tā)-som*, it would be hard to understand why **-si-* was replaced by **-s-*. Old English has gen. = dat. *þære* < **-syās*, **-syāi* beside *þāre* < **-sās*, **-sāi*. It seems evident that one of these two forms had **-s-*, the other **-si-*. Prokosch (1938: 269–270) gives the most instructive comment. He posits **tesās* “probably an extension of **teso*” and adds that for OE **þaizjōz* “must theoretically be recon-

structed to account for the umlaut", without further comment. On the dative, however, he says that Old English requires **-syāi*, but because there also is *þāre* < **-sāi*, he supposes that it (i. e., **-syāi*) was caused by analogy with the genitive (if I understand him correctly). This contradicts his comment on the genitive, where he posited **tesās*. I conclude that for Germanic the most probable reconstruction is **tesās*, **tesiāi*. It was apparently because of the authority of Sanskrit that one did not dare to posit this, but Skt. *tasyās* can be easily analogical after *tasyai*, *tasyām* (with influence of masc. *tasya*, which got the genitive ending of the *o*-stem nouns). It is clear that the old dilemma *-s/-si-* must be solved in this way that one form belonged to one case, the other to another.

5. The genitive plural

For the genitive plural, masc. **toisom*, fem. **tāsom* are reconstructed. The *-s-* of this form, which is not found in other plural forms, has been explained from **tāsom*, which would be the nom. pl. fem. **tās* with the gen. pl. ending **-om* added. In this form **-som* was considered as the ending, which was then added to **toi* (Hermann 1924: 217–219; Laroche 1966: 41). This explanation is quite improbable. First it assumes that the feminine imposed its form on the masculine, and it does not mention what the masculine form was and why it disappeared. Second, the nom. pl. **tās* has the nominal plural ending **-es*, so this form is probably a younger form. Then, it is hard to understand why here **-om* was added after the nominative plural ending, for which there is no parallel (i. e., no model) in the *ā*-stems (where the genitive plural was *-h₂om*, later often replaced by *-eh₂om*) or other feminines. Lastly it is not clear why **tāsom* was analyzed as containing an ending *-som* for which there was no parallel.

It is essential that OCS m. f. *těxŭ* shows that the feminine had **toisom*, as the feminine form cannot be analogical in Slavic.

It is much simpler to assume that this enigmatic **-s-* is the same as that of the genitive singular. Then **toisom* was a reshaping of **toi-so* after the nominal ending **-om*. **toi-so* would be the nominative plural (or the plural stem, see below) to which the same **so* was added as in the singular (this shows that **so* was unchangeable,

so a feminine **sā* in the genitive singular feminine is improbable). Note that there is no difficulty in assuming that here **so* was added to the nominative plural, because this happened also in the singular, and because we find **toi* in all plural forms (except the accusative).

This explanation was already given by Specht (1944: 367).

It should be stressed that the pronominal genitive plural ending **-som* confirms that the pronominal genitive singular ending was **-so*, not **-sio*. Thus the reconstructions and explanations confirm each other.

6. The forms with *-sm-*

The masculine forms have *-sm-* in the ablative, dative, locative; on the instrumental see below. The forms had *-smed*, *-smei*, *-smi* respectively added to **to-*, **h₁e-*, **k^we-*. (The forms in *-ōd*, *-ōi* are of course younger than those in *-ed*, *-ei*; to be corrected in Beekes 1983: 209.)

The dat. **k^wesmei* looks as if it consisted of **k^we* followed by the dative of **sem-* ‘one’.² In Beekes (1983) I hesitated between proterodynamic inflection, but in the animate forms one would expect hysterodynamic inflection (see Beekes 1985: 167 ff.), which is also indicated by the nom. **sō(m)*. The dat. in **-ei* is found in Myc. *eme* /*hemei*/ (cf. Beekes 1985: 117 ff., where I wrongly thought that the word was proterodynamic; hysterodynamic inflection confirms the theory which I presented there).

Ingerid Dal (1938: 186–218) discussed the Germanic, especially Old High German, material which shows that the neuter did not have **-sm-* when it was used substantivally with ‘abstract’ deixis, i. e., “wenn es sich nicht auf einen bestimmten Gegenstand oder auf ein Einzelwort (...) bezieht”. (Cf. Behaghel 1923–1928.1: 271.) She found traces of it also in Sanskrit. Especially the adverbs show these forms without *-sm-* (Skt. *āt*, *tāt*, *yāt*, Gmc. *þe*, *hwe* etc.). Thus **-sm-* has “‘individuelle’ oder ‘konkrete’ Deixis”. She concluded that **-sm-* is cognate with Skt. *sma*, Gk. *homós* or **sem-* ‘one’. (Specht 1944: 383, objected that OHG *diu* in most examples had a clear instrumental function. He assumed that *diu* was simply the instrumental and *hwamma* (etc.) the old dative in *-ōi*, from a side form in *-ō*. For the latter form there is no evidence elsewhere, but

decisive are the forms like Goth. *hwammeh*, which show that this form was undoubtedly an instrumental.)

That the pronominal element **-sm-* contained the root of 'one' was clearly supposed by J. Schmidt (1900: 39 ff.), as appears from his explanation of the feminine **-si-* (see below). Later Prokosch (1938: 267) suggested that it contained the word for 'some'. This word, however, had a laryngeal after the *m* (cf. Beekes 1983: 202–203), which is absent in the pronouns. Also the meaning seems inadequate for the demonstratives (**tosmei*, etc.). Lane (1961: 469–475) took up the idea. He suggested that **-sm-* was 'one', fem. **-si-* the pronoun **syo-*, and the pronominal **-s-* the pronoun **so*. The fact that three different elements are assumed without an explanation of their distribution, especially that the masculine had an element 'one' and the (parallel) feminine a deictic pronoun, was probably the reason why it was not accepted. It is decisive that there was no pronoun **syo-*, as I demonstrated in Beekes (1983: 215 ff.). Szemerényi (1970: 189) accepted 'one' for **-sm-*. So the critical point is the explanation of fem. **-si-*, to which we shall turn now.

7. The forms with **-si-*

The feminine forms with **-si-* are often explained from the genitive ending with **-si-*. Thus a form **tosiās*, based on masc. **tosio*, would have been the starting point for the other cases. Thus Specht (1944: 365), recently Burrow (1955: 270). This is improbable. First, it is not clear why the other cases were built on the genitive rather than on the (masculine) forms with **-sm-*, but this is not impossible. The essential fact is that, as we saw, the Germanic forms require a form with **-s-*, not **-si-*, which must have been the genitive singular (for otherwise which form would have had single **-s-*?). And we saw above that the genitive singular of the pronouns had **-so*, not **-sio*. Therefore the explanation is impossible.

Joh. Schmidt (1900: 391) explained **-si-* from **-smi-* in the feminine of **sem-*: **smiāi* > **siāi*, but this was rejected because a group **-smi-* before vowel is quite acceptable in Proto-Indo-European and was not reduced. I think we can now explain the feminine forms in a way that confirms the interpretation of **-sm-*.

The nominative of the element gen. **-siās* will have been **sih₂*. When we are looking for a fem. **sih₂* 'one', Gk. *ía* comes to mind. It is strange that scholars explained the pronominal element from **smiās*, and that they also explained Gk. *ía* from **smiās* (below), but that nobody as far as I know assumed a direct relation between the two.

ía is found in Homer, Iliad nine times (*ía*, *iês*, *iêi*), Od. once (*ían*), in the three Thessalian dialects (see below) and Hippocrates, Morb. 4.37. Homer also has a neuter *iôi* in Z 422. Other forms from *io-* are found in the Gortyn inscription, and in Messenia (Andania, IG V 1. 1390, l. 126, Schwyzler 1923: 74.126) from the first century BC. It is generally assumed that the Homeric form is artificial. Of the last inscription Frisk suggested that it was coined after the Homeric form. This is not very probable. These forms are partly or wholly considered as pronouns, in which case they are mostly derived from PIE **i-*, seen in Lat. *is*, *ea*, *id*. Lee (1966: 25–43, esp. 36 ff.) argued that in all instances *io-* means 'one, alone' and never 'ekeînos' or 'is, idem' (accepted by Rüdiger Schmitt 1977: 52 nr. 16). The view that all (four!) forms belonged to the well-established numeral *ía* seems to me preferable to the one that assumes that some or all of them belong to an otherwise unknown pronoun. For Lee there is no problem: if you have *ía* you have *ios*. But as the *-a* is short, the stem cannot have been **io-*. So the conclusion must be that Gk. *ios* was based on *ía*, which is attested much better and earlier (see also below). However, *ios* was a linguistic reality (and Z 422 may have been so as well). We must assume that *ía* with (or without) *io-* remained in use beside *hen-*, *mía*, probably with a specific meaning ('one and the same', 'alone?').

The Hesych gloss *ítton· hén. Krêtes* evidently made after *dittôs*, *trittôs* would be based on *io-* 'one'. But perhaps *heîs*, *hen-* could be at the basis as well.

It has been supposed that *ía* was formed by removing the *m-* of *mía* to adapt it to the other forms of *heîs*. Such a process is not impossible, but it is very rare. The agreement between the resulting forms was not yet very great. The other forms had a stem *hen-*, so if one wanted to adapt *mía* to them, one would have formed ***hemía*, *henía*, or in an earlier phase ***henya* > ***heína*. The only thing that *mía* had in common with *hen-* was the nasal, so it is very improbable that that would have been removed. We have no certain evidence that *mía* was ever changed or replaced. The form still exists, so apparently the form, though aberrant, was very strong.

If the existence of *ia* outside Aeolic is shown by Cretan *ios*, it is improbable that more dialects independently created *ia* from *mía*, the more so as Cretan had *mía* too. Therefore *ia* must be old.

ia was explained by Joh. Schmidt from **smiās*, of which we saw above that it was untenable. The explanations from the stem *i-* in Lat. *is*, or from *oi-* in *oíos* (see Schwyzler 1939: 588) all have the problem that **io-* would have lost its **i-* in Greek.

It is generally assumed that Hom. *ía* was an Aeolism. It is interesting to see what forms of the numeral 'one' are found in the Aeolic dialect inscriptions. Blümel (1982: 271) gives (B[oeot.], L[esb.], T[hessal.]):

nom.	<i>eis</i> L	<i>mēdeia</i> L	<i>en</i> T
acc.	<i>ena</i> B	<i>ian</i> LT	
gen.		<i>ias</i> B	<i>enos</i> B

This shows that the Aeolic system was *eis*, *ia*, *en*. Now we are looking, in order to explain the pronominal element **-sy-*, for a fem. **sih₂* 'one' beside masc. **sem-*. The coincidence is too perfect to be accidental. It is evident, to my mind, that Aeol. *ía* originated from **sih₂*.³ The absence of aspiration is explained by the Aeolic (Lesbian) psilosis.

Thus I reconstruct for PIE:

	masc.	fem.	neuter
nom.	<i>*sō(m)</i>	<i>*sih₂</i>	<i>*sm?</i>
acc.	<i>*sem-m</i>	<i>*sih₂-m</i>	<i>*sm?</i>
gen.	<i>*sm-ós</i>	<i>*siéh₂-s</i>	<i>*sém-s?</i>
dat.	<i>*sm-éi</i>	<i>*siéh₂-i</i>	<i>*sém-i?</i>
loc.	<i>*sém-i</i>	<i>*siéh₂</i>	<i>*sēm</i>

That the feminine is derived from another stem is known from cases like Skt. *páti-*, *patnī-*; *pīvan-*, *pīvarī-*. (Note that synchronically, Gk. *heís*, *hen-*; *mía* also has a different stem for the feminine.)

One might further ask whether there is a relation with the mysterious pronoun **sī* = **siH* 'she'. In Beekes (1983: 212 ff.) I assumed that it was **(H)ih₂*, the feminine of the pronoun found in Lat. *is*, *ea*, *id*, with *s-* taken from **so*. I cannot discuss this point further here.

8. The instrumental singular

Sanskrit has no **sm*-forms for the instrumental (m. *téna*, f. *táyā*, the latter of which is compared with OCS *tojŕ*), but Germanic points to **tosomeh₁*, etc. This form can be an analogical formation, but Skt. *téna* must continue an old form as it cannot be explained from Sanskrit. There can be little doubt that it contained (loc.) **toi* with a particle.

The Germanic forms like Goth. *pe*, *hwe*, will continue **k^we* with the instrumental ending *-h₁* added.

A form in *-ih₁* is supposed by Av. *cī*, Lat. *quī*. This form may be old. Note that the instrumental is typically a case of the neuter.

9. The plural

The nominative plural had *-i*. This was of course the plural marker, as was supposed long ago by Joh. Schmidt (1881: 6). (An ending *-i* was recently assumed by Kortlandt in the 3 pl. ending **-nti*, with which he compared Uralic forms; see his contribution to the FS Hoenigswald.)

The fact that we find **toi*, etc., in all plural forms (except the accusative), just as we find **to*, **k^we*, etc. in all singular forms, shows clearly, to my mind, that the inflection is recent. That explains why we find **toi* in all forms: as there was only one form, the endings (of the noun) were simply added. Thus we get **toi-mus*, **-bhi*, **-su*, abl. **toios* (from **toi-ios?*). The gen. **toi-som* was discussed above.

The accusative plural does not have the *-i*. This agrees with the fact that the singular too has a specific, probably old, accusative form.

The plural forms were not, of course, combined with **sm*- 'one'.

10. Conclusion

Thus we arrive at the following inflection:

	masc.	fem.	neuter	masc./fem.	neuter
sg. nom.	*so		*tod	*k ^w e	*k ^w id
acc.	*tom		*tod	*k ^w im	*k ^w id
gen.	*to-so			*k ^w e-so	
abl.	*to-smed		*tōd	*k ^w e-smed	
dat.	*to-smei	*to-sieh ₂ -i		*k ^w e-smei	
loc.	*to-smi	*to-sieh ₂		*k ^w e-smi	*k ^w ei
ins.	*toh ₁ , *toi(-)?		*toh ₁ , *toi?		*k ^w eh ₁ , *k ^w ih ₁ ?

	masculine/feminine	masculine/feminine
pl. nom.	*toi	*k ^w ei
acc.	*tons	*k ^w ins
gen.	*toi-so(m)	*k ^w ei-so(m)
abl.	*toios	*k ^w eios
dat.	*toi-mus	*k ^w ei-mus
loc.	*toi-su	*k ^w ei-su
ins.	*toi-bhi	*k ^w ei-bhi

Genitive singular: Gmc. *pes must have its *-e- from the other pronouns.

Ablative singular: A form with *-ed may be assumed, which is found in -ōd < *-o-ed of the o-stem nouns, and in the personal pronouns.

Locative singular: I would expect *sem(i), but *-sm(i) will soon have replaced it. In the feminine I would expect *-eh₂ (with no lengthening before laryngeal).

Accusative plural: Parallel to acc. sg. *k^wim we might expect pl. *k^wins rather than *k^wens.

11. The stems

The relation between *e*- and *i*-stems has not yet been clarified. We have found:

<i>*h₁e</i>	<i>*(h₁)id</i>	<i>*k^we</i>	<i>*k^wid</i>	<i>*so</i>	<i>*tod</i>
<i>*(h₁)im</i>	<i>*(h₂)id</i>	<i>*k^wim</i>	<i>*k^w,id</i>	<i>*tom</i>	<i>*tod</i>
<i>*h₁e-</i>		<i>*k^we-</i>		<i>*to-</i>	

What strikes us most in the first two systems is that the accusative masculine has the same stem (in *-i*) as the neuter, whereas all other forms have the stem in *-e*. The solution is evident: the neuter and the accusative masculine go back on a *casus absolutivus* of an ergative system. It will have ended originally in **-i*, and got **-d* (or **-t*) and **-m* later. For the background I refer to Beekes (1985: 172 ff.).

We find the same distribution with **so* **tod*. A difference is that the stem of the nominative (= ergative) serves as a basis for the other cases in the first two stem systems, whereas in the last system the stem of the absolutive case (*to-*) is found in the oblique cases. Perhaps **soi* 'to him' is a dative-locative of **so*. In this way we explain this completely isolated form.

Thus I arrive at an older system:

erg.	<i>*h₁e</i>	<i>*k^we</i>	<i>*so</i>
abs.	<i>*(h₁)i</i>	<i>*k^wi</i>	<i>*to</i>

It has been supposed that the neuter pronoun **to* is the origin of the neuter ending *-t* (*-d*).

Addendum: See now Beekes (1986) and Beekes (forthcoming).

Notes

1. Tedesco (1945: 128–141) argued that Proto-Indo-European had an original system masc. **k^wos*, ntr. **k^wid* (or it would be dialectal, of the satem group, but that would mean that it was an innovation of this group). He argues that Middle West Iranian points to the system found in OP *kasciy*, ntr. *cišciy*, and compares

OCS *кѣто*, *ѣто* and Arm. *ov*, *z-i*. When he says that four languages, Slavic, Armenian, Iranian, and Indic point to **k^wos*, **k^wid* (1945: 132), this is not correct, as he admits himself: both Avestan and Vedic have interrogative **kas*, **kat* and indefinite *ci-*. This is a quite different system. Tedesco says that this system must be “a matter of secondary differentiation” (1945: 135). There is, then, no agreement between Indo-Iranian and the other two languages. If the Middle Iranian languages point to a development as in Slavic and Armenian, the system of Old Indian and Iranian proves that these are independent innovations.

Tedesco thinks that the Skt. ntr. *kim* is a Middle Indic form (where all neuters end in *-m*). I am not convinced that this is correct. (The other instances of Middle Indic morphology in the Rigveda he adduces, sections 12–14, rather make it improbable that a pronoun was borrowed.) I would rather think that, as Tedesco assumes for Avestan ntr. *ciš*, *cīm*, *i*-forms (that were not indefinite) were considered as neuters. But why *kim* would have supplanted **kit*, I cannot explain. (That *cit* became a particle seems not sufficient.)

2. My colleague R. Smeets draws my attention to the Kabardian emphatic pronoun for the third person dingular *ye.zə*, of which *-zə* is identical with the word for ‘one’. However, he thinks that the form originated from an older **ye.re* (in which *-ré* was not the word for ‘one’), which became (phonetically?) *-zə* and which was then identified with *zə* ‘one’.
3. There is a problem with the development of **sih₂* in Greek. M. Peters expects **(h)iiā* (1980: 102), but I don’t see why (*mia* will be a Sievers’ form). On the basis of Megar. *sa* < **k^wih₂* I would expect **hya* > **ha*. Relevant may be the pronoun Gk. *hi*, given by grammarians, who cite Sophocles fr. 471 (see Kühner – Blass 1890.1: 595–596). This form is mostly explained from **sī*, i.e. **sih₂*, ‘she’, but (1) some grammarians say that the *i* is short; (2) it is not explicitly given as feminine; (3) Peters points out that it is often written without aspiration. Ad (1): The Sophocles fragment as we have it does not give a known metre: ἡ μὲν ὥς ἰθάσσον(α), ἡ δ’ ὥς ἰτέκοι παῖδα. ‘One (mother thought) that *she*, the other that *she* had born the swiftest son.’ Cobet’s emendation to *tétoke* is unacceptable. S. Radt (Trag. Gr. Frr 4, Göttingen 1977) puts *paída* at the beginning; this gives a good line, but it is not an evident emendation on which we can base further conclusions. I suggest to start a new line with *paíd(a)*, the first line missing the first word; the *i* is then long. I think that grammarians’ statement that it was short may have been wrongly inferred from a line like that of Sophocles. Ad (2) and (3): Peters thinks that the aspiration can come from the reflexive *hé*, *hoû*, *hoî*, either as a linguistic development or merely as a notation. But several grammarians say it was aspirated, and I think that the aspiration is exactly the reason why it was used as an indirect reflexive (though we have just one occurrence!). Taking (2) and (3) together, Peters suggests that masc. **i* was created on the basis of **im*. However, in that case Greek would have made it **is*. It remains most probable, then, that it was indeed */hī/* ‘she’ from PIE **sih₂*. – I would not exclude a development **sih₂* > *hī* (in a monosyllable?) (with analogical **hia*, after the accusative **hian*, in the case of *ia* ‘one’). There is no other evidence for *-iH* > *-ī* in Greek (nor for *-uH* > *-ū*); the dat. *-ī* from instrumental *-i-h₁* is far from certain, cf. Peters (1980: 128 n. 75). The particle *-ī* (*houtosī*, *nunī*) may not go back to *-iH* but to an expressive lengthening (probably post-Proto-Indo-European, though we find the length also in OIr. *-ī*).

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