## II. The Indo-European Dative and Locative EDGAR HOWARD STURTEVANT

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The Indo-European dative ending ei and locative ending i are full grade and nil-grade of the same ablaut base. They were originally merely variant forms of a single case, which denoted place where, place whither, and indirect object; and this state of affairs is actually preserved in Hittite. The case ending ai of Greek infinitives and adverbs  $(\delta\epsilon i \xi ai, \pi a \rho ai)$  and of the middle ending  $\tau ai$ , which is to be identified with the Balto-Slavic infinitive ending ti, comes from the reduced grade of the same ablaut base, namely 3i. Before a pause this developed into Greek ai and Balto-Slavic i; it was specialized in infinitival value because infinitives tended to stand at the end of the phrase. The adverbs in final ai were originally enclitics, as is shown by their lack of any full grade vowel.

There is nothing revolutionary in suggesting a connection between the Indo-European dative and locative singular. Brugmann (Grund. 112, 2, 122) remarks: "Das Formans ai des Dativ Singularis und das Formans i des Lokativ Singularis scheinen dasselbe gewesen zu sein, nur dass sie ablautlich verschieden waren: ai. pitré : pitári." Since Solmsen's demonstration that the Indo-European dative ending was ei instead of ai, the relationship of the two cases has become more evident in proportion as the ablaut pair ei:i is more frequent than ai:i. One may add that an example even more striking than the one cited by Brugmann is presented by Sanskrit divé: duávi<sup>2</sup> = Cyprian διρει : Latin Iove (<\*diéui). Less striking on account of the accent leveling are Sanskrit n-stem forms such as name: namani. It is generally assumed that, except for the suffixless locatives, all other types of noun stem show the same pair of endings as the consonant stems in dative and locative singular; and so, if the two are merely ablaut variants, it follows that at an early period in the history of the parent speech there was but a single dative-locative case.

<sup>&</sup>lt;sup>1</sup> Kuhn's Zeitschr. XLIV, 161-169 (1911); for references to his predecessors, see p. 161. Solmsen's conclusions have won acceptance in many quarters although not yet in all.

<sup>&</sup>lt;sup>2</sup> Dative dyave is late.

On the other hand it is perfectly clear that at the close of the Indo-European period, dative and locative singular were sharply distinguished, as they are in Indo-Iranian, Italic, Germanic, Baltic, and Slavic. We are therefore compelled to assume that if there was originally but a single form for dative-locative, the two forms that resulted from the ablaut changes were during the Indo-European period specialized in different functions. There is no real difficulty in such an assumption, although it is at variance with the tendency of most Indo-European languages of the historical period to reduce the number of cases.

Neither is there any semantic difficulty in deriving the two cases from a common source. A confusion of place where and place whither is logically easy and to be observed in numerous languages (e.g. English where = Lat. ubi and quo), and equally easy and frequent is the development of a mechanism denoting place whither into a mechanism denoting the indirect object (e.g. Eng. give to, Fr. donner à). The only possible objection to combining these three meanings (place where, place whither, indirect object) in a single Pre-Indo-European case is that it upsets the beautiful symmetry of the three local cases (accusative = place whither, locative = place where, ablative = place whence 3). Undoubtedly the accusative did denote the end of motion from very early times; but it is not unusual for a language to possess two or more means of expressing a single idea, and it is unsound method to demand greater regularity of our reconstructed Indo-European than we find in its descendants. As a matter of fact the dative as well as the accusative denotes end of motion in Sanskrit (grāmāya gacchati as well as grāmam gacchati), Greek (ψυχὰς "Αιδι προίαψεν, ἴστον δ' ἰστοδόκη πελάσαν), Latin (mittis leto, it caelo.), and Slavic (Ch. Sl. idetŭ tebě krotŭkŭ 'he comes to you as a friend').4

<sup>&</sup>lt;sup>3</sup> I must confess that I recently (*Lang.* v, 140) cited this very symmetry against Forrer's theory of a Hittite locative in a of the place whither. Fortunately the validity of my argument is not affected by cancelling that appeal to prejudice.

<sup>&</sup>lt;sup>4</sup> Other examples in Delbrück, Grund. III, pp. 289 ff.

Less numerous but somewhat more difficult to reconcile with the traditional scheme are dative forms carrying the meaning of place where or time when, as in Sanskrit  $div\acute{e}$   $div\acute{e}$  'day by day,' Latin  $r\bar{u}r\bar{i}$  'in the country,'  $Karth\bar{u}gin\bar{i}$  'at Carthage,'  $temper\bar{i}$  'in time,' etc.<sup>5</sup>

Nevertheless it must be admitted that these considerations scarcely carry us beyond a "non liquet." The fact that the Sanskrit dative *pitré* and locative *pitári* must be identified as to stem and may be identified as to ending does not quite prove that the ending must be the same. And it is possible to derive the dative of the end of motion from the grammatical use of the dative, as Delbrück did. Additional evidence is needed.

Hittite has a single dative-locative case, which performs the very three functions that we were tempted to assume for an early stage of Indo-European, namely place where, place whither, and indirect object. This case usually ends in i, which may represent either original i or any i-diphthong with short prior element, and consequently it is frequently impossible to tell whether a Hittite dative-locative corresponds to an Indo-European dative or to an Indo-European locative. In certain instances, however, a decision is possible. Hittite weteni 'in the water' has full grade of the second syllable, and hence it goes with Sanskrit locatives like nāmani. On the other hand haddulanni from \*hadulatni, beside nom. haddulatar 'health,' shows nil-grade of the suffix, and is therefore to be compared with Sanskrit datives like namne. Dativelocatives from o-stems, such as antuhsi from antuhsas 'man,' must have original final ei or oi, since ōi would become ai; 6 in this declension we have occasional forms like pete 'in the place' (: Gk. πέδον 'ground'), whose final e cannot represent original i. In the i-declension we have suppai from suppis 'pure' and lenkai from lenkais 'oath,' which must contain an

<sup>&</sup>lt;sup>5</sup> H. Hirt, *Indogerm. Gramm.* 111, p. 50, traces such forms to his locative ending ai. M. Leumann, *Stolz-Schmalz*, *Gram. Lat.*<sup>5</sup> p. 273, invokes the influence of o-stem locatives.

<sup>6</sup> See Lang. vi, 31-35.

original long diphthong ending in i. As I have shown (loc. cit.), these must correspond with the Indo-European locatives in  $\bar{e}i$ . Hittite i-stems also show dative-locative forms like suppiya and linkiya, whose a must represent Indo-Hittite ei (see below, p. 25). No doubt we should reconstruct Indo-Hittite \*\*lenghiei,7 with the inflectional type seen in Sanskrit pátye from patis 'master' and in Greek  $\pi \acute{o}\lambda \iota os$  from  $\pi \acute{o}\lambda \iota s$ ; the ablaut base  $ei\acute{e}i$  would normally yield  $i\acute{e}i$ .8 The u-stem dative-locative assawi, from assus 'good,' must be parallel to the Sanskrit dative  $\acute{s}\acute{a}trave$ , from  $\acute{s}atrus$ , 'enemy'; both represent -ouei, a contamination of  $-\acute{o}ui$  and  $-u\acute{e}i$ .

The additional evidence of Hittite justifies us in assuming for Indo-Hittite and for the Pre-Indo-Hittite period of the ablaut changes a dative-locative case with the functions of the Hittite dative-locative. The ablaut changes produced the two endings ei and i, which are attested both by Hittite and by Indo-European. During the Pre-Indo-European period the forms with ending i were specialized in the strictly locative function of the place where. The other two meanings continued to be expressed by the ending ei throughout the Indo-European period and into historical times in Indo-Iranian, Greek, Italic, and Slavic. There was, however, an increasing tendency to restrict the forms in ei to the "grammatical" force, and to use the accusative for the place whither.

So far we have left out of account the case-forms in ai, which are most clearly represented by Greek infinitives of the types  $\dot{\epsilon}\nu\epsilon\hat{\epsilon}\kappa\alpha\iota$ ,  $\delta\epsilon\hat{\epsilon}\xi\alpha\iota$ ,  $\epsilon\hat{i}\delta\dot{\epsilon}\nu\alpha\iota$ ,  $\delta\bar{\delta}_f\epsilon\nu\alpha\iota$ ,  $\delta\delta_f\epsilon\nu\alpha\iota$ ,  $\delta\delta_f\epsilon\nu\alpha\iota$ ,  $\delta\epsilon\hat{\epsilon}\rho\epsilon\sigma\delta\alpha\iota$ ,  $\delta\epsilon\hat{\epsilon}\rho\epsilon\alpha\iota$ . In view of these Greek forms it is natural to assume original ai for Sanskrit nir- $\acute{a}je$  'to drive out,' Latin  $ag\bar{i}$  'to be driven' (cf.  $\dot{\epsilon}\nu\epsilon\hat{\epsilon}\kappa\alpha\iota$ ), Sanskrit  $ji\dot{\epsilon}$  'to conquer,' Latin  $dar\bar{i}$  'to be given'

<sup>&</sup>lt;sup>7</sup> For the root, cf. Greek ἐλέγχω 'prove, disprove.'

<sup>&</sup>lt;sup>8</sup> It is possible to identify Hitt. *suppiya* with Skt. *agnaye*, from *agnis* 'fire,' as I did in *Lang*. vi, 31; but a form with full grade in successive syllables (\*\*pgnéiei) cannot be original, and it is safer not to assume it unnecessarily.

<sup>&</sup>lt;sup>9</sup> The Cyprian infinitive should be written thus to match Skt. dāváne. The short vowel, an analogical substitute for a from a, would require a following  $\mu$ ; see A.J.P. 1, 360–369.

(cf. δείξαι), Sanskrit dāváne (cf. δο̄ρεναι), Sanskrit dāmane, Latin imperative daminī (cf. δόμεναι).

I have found reason (Lang. VII, 242–251) to consider the middle ending seen in Greek  $\tau a\iota$ , Sanskrit te and Hittite ti an original infinitive. If so, it may plausibly be identified with the Balto-Slavic infinitives in ti. Finally, there are a few stereotyped case forms functioning as adverbs: Greek  $\chi a\mu a\iota$  'on the ground, to the ground,'  $\kappa a\tau a\iota$  'down,'  $\pi a\rho a\iota$  'beside,' Latin prae 'before.'

As we noted at the outset, Brugmann was inclined to consider the ending ai the full grade form of the locative ending i, and the adverbs just cited seem to support such a conclusion; cf.  $\pi\epsilon\rho i$ ,  $per:\pi\alpha\rho\alpha i$ , prae, Latin  $n\bar{e}m\bar{o}$  (<\*ne-hemo):  $\chi\alpha\mu\alpha i$ . On the other hand the Greek infinitives in  $\alpha i$  whose structure is clear regularly appear after full grade of either root or suffix. Such forms as  $\delta i\delta\delta\nu\alpha i$ ,  $\tau i\theta\dot{\epsilon}\nu\alpha i$ , and  $\delta\epsilon i\kappa\nu\dot{\nu}\nu\alpha i$  are probably relatively late analogical creations. The history of the infinitives in  $\sigma\theta\alpha i$  is so uncertain that they had better be left out of consideration entirely. Some of the Sanskrit infinitives which have been grouped with our Greek forms (see above, p. 21) show weak grade of the stem (Skt.  $ji\dot{s}\dot{e}$ ,  $dr\dot{s}\dot{e}$ , etc.); but they may contain original ei. The majority of the Sanskrit forms, like the Greek, show strong grade in suffix or root or in both.

Since, then, the infinitives generally show a strong grade in the stem, and since we already have in ei the full grade of the dative-locative ending and in i the nil-grade, one naturally asks whether the ai of Greek and the cognate finals of the other languages can represent the reduced grade of ei, namely 3i. The difficulty is that 3i very early became i before a consonant and i (many scholars write ii) before a vowel. There remains, however, the position before a pause, and so we must inquire whether original 3i in that position could yield the recorded forms. There is no difficulty with Greek

<sup>&</sup>lt;sup>10</sup> See below, p. 23.

<sup>&</sup>lt;sup>11</sup> See Brugmann-Thumb, Gr. Gramm. p. 412 and references.

<sup>&</sup>lt;sup>12</sup> See H. Güntert, Indogermanische Ablautsprobleme, pp. 97 ff., 107 ff.; H. Hirt, Indogerm. Gramm. II, pp. 87, 95 ff.

and Latin, where alone ai appears, for schwa secundum regularly becomes a in both. In Indo-Iranian also the normal development is to a, and consequently Sanskrit e from  $\delta i$  is not surprising. The Slavic infinitive ending ti (Primitive Slavic  $t\bar{\imath}$ ) can readily be combined with the Greek middle ending  $\tau a\iota$  on the basis of Indo-European  $\delta i$ , and the same thing holds for Lithuanian ti, which may represent primitive Baltic  $t\bar{\imath}$ .  $t\bar{\imath}$ 

Since we have to assume that 3 survived in most positions as a separate sound down to the close of the Indo-European period, it is probable that it survived in our endings also. As far as Greek, Italic, and Indo-Iranian are concerned it would be easy to assume an Indo-European change of final 3i to ai; but, while the Balto-Slavic infinitives do not definitely disprove this, it is less satisfactory to assume for them a change of 3i to i through ai than directly. At any rate it will be convenient to write 3i instead of ai in Indo-European and Indo-Hittite reconstructions. My article in Lang. VII, 242–251 should be corrected accordingly.

If we conclude, then, that 3i before a pause survived in Indo-Hittite and Indo-European we see at once why that ending came to be used particularly in infinitives. Undoubtedly the infinitive of purpose is a peculiarly archaic construction, and in this value the Veda regularly places the infinitive at the end of the phrase. In early Greek also the infinitive stands at the end of the phrase much more frequently than the dative of substantives; in the first book of the Iliad 54 per cent of the infinitives appear to be followed by pauses, but only 20 per cent of the datives of substantives. In

<sup>13</sup> This is certainly more satisfactory than Endzelin's suggestion (Lettische Grammatik, p. 710) that the common Baltic infinitive ending is a dative-locative in ti. It makes for simplicity to identify Baltic ti, Slavic ti, and Gk.  $\tau a\iota$ . The dialectic Lithuanian infinitive ending tie may represent full grade tei as Endzelin thinks, and this may be recognized in Skt. middle forms with weak grade of the root (e.g. dviste). The ending tie0 was generalized in Gk.  $\tau a\iota$ , but there is no proof of a similar development in Skt.

<sup>&</sup>lt;sup>14</sup> See Renou, Gramm. Sanscrite, pp. 297 f.

<sup>&</sup>lt;sup>16</sup> It would be interesting to know whether this tendency to put the infinitive at the end of the phrase was maintained in later Greek; but that question is not

The observation that a dative-locative in Greek  $\alpha$  or Latin ae belongs at the end of the phrase suggests an explanation for the weak grade of the stem in the adverbs  $\chi \alpha \mu \alpha i$ ,  $\kappa \alpha \tau \alpha i$ ,  $\pi \alpha \rho \alpha i$ , and prae. They were originally enclitics, and so they contain no full grade syllable. A trace of this usage is preserved in the order of the Latin colloquial phrase  $\bar{\imath}$  prae 'go ahead,' which is common in Plautus and Terence. Greek  $\chi \alpha \mu \alpha i$  also stands at the end of the phrase in Aeschylus, Eum. 261, Aristophanes, Ach. 869, Eq. 155, Aristotle, H.A. IX, 29, 1, and elsewhere.

If we are to recognize in our infinitives and adverbs reduced grade of the ending in the position before a pause, we should expect to find some traces of the same grade in the forms it would take in the interior of the phrase. The antevocalic form, however, would be indistinguishable from the nil-grade i; and so we need search only for the anteconsonantal ending with  $\bar{\imath}$ . There are many Homeric datives in long  $\iota$ ; but some of them, at least, should be read with  $\epsilon\iota$ . In particular  $\Delta\iota\bar{\iota}$  is surely to be connected with Cyprian  $\Delta\iota_{f}\epsilon\iota_{-}$ , since the radical vowel and the later accent both demand full grade. In such words as  $\kappa\rho\dot{\alpha}\tau\epsilon\bar{\iota}$ ,  $\sigma\theta\dot{\epsilon}\nu\epsilon\bar{\iota}$ ,  $\nu\eta\bar{\iota}'$  one must assume  $\bar{\iota}$  from Indo-European  $\bar{\imath}$  or else suppose that  $\epsilon\iota$  was introduced by analogy. In Vedic Sanskrit alone do we find forms that cannot readily be disposed of otherwise; e.g.  $ut\bar{\imath}$  'to help,' <sup>16</sup> and locatives such as  $vaktar\bar{\imath}$  and  $tanuv\bar{\imath}$ .

In Hittite I would recognize as forms in original  $\delta i$  only the medial endings ti, ri, and ni. The first of these, as already stated, is identical with Greek  $\tau a\iota$ , Sanskrit te, and Balto-Slavic ti. In Hittite it is always preceded by another formative element (e.g. es-ha-ti 'I sat,' ar-ta-ti 'he arrived,' es-a-ti 'he sat,' kis-anta-ti 'they became'), and it seems likely that in the

important for our present point. In the second book of the *Iliad* I find 41 per cent of the infinitives before pauses, and the same proportion in the ninth book. In the third book the proportion is 52 per cent. In the first thirty chapters of Herodotus only 37 per cent of the infinitives are followed by pauses.

 $<sup>^{16}</sup>$  Brugmann,  $Grund.\ \Pi,$  p. 1415, considered this an instrumental from a stem in ti.

The forms that function as infinitives in our Hittite texts must end in original ei or i. The common type, tiyanna 'to come,' arnuwanna 'to bring,' kunanna 'to strike,' is a case form of a verbal noun in tar (tiyatar, etc.); hence we have nil-grade of the suffix, and must assume full grade of the ending. The change of original final ei to a before an initial vowel of the next word implies an intermediate stage ai. This is somewhat surprising since e remains before y in neyari 'he turns': Sanskrit nayate; perhaps we should assume that original ei before a vowel remained, while ei before a consonant became ai, and in our infinitives the anteconsonantal form was generalized. When, consequently, this ai came to stand before initial a of the next word its second element was lost.

The other common Hittite infinitive (usually called a supine) ends in wanzi or manzi (e.g. saruwawanzi from saruwai- 'sack,' wahnumanzi from wahnu- 'turn'). Since it is only before original i that t becomes z, we must trace these to Indo-Hittite unti and mnti. We should expect wenzi and menzi from Indo-Hittite uenti and menti; but evidently the nil-grade of the suffix was generalized.

For fear some reader may miss a treatment of the so-called suffixless locatives, I will say that I agree with Hirt and others in considering these forms, as well as the vocatives and the stem-forms used as prior members of compounds, as a survival from the period before the noun inflection existed. We shall probably never know why these forms survived in uncompounded words only as locatives and as vocatives.

<sup>&</sup>lt;sup>17</sup> Correct my assumption of original ai (Lang. vi. 25).

<sup>&</sup>lt;sup>18</sup> See Lang. iv, 227-231.