

## THE INDO-EUROPEAN VERBAL SUFFIX \*-sk-

In this paper it is argued that the Indo-European verbal suffix \*-sk- may derive from a reanalysis of the sequence: person marker \*-Ø + adverbial (> non-singular) element \*(e)s + deictic particle \*-k.

One of the most widely attested stem-forming verbal suffixes in the Indo-European language family that can be traced to a Proto-Indo-European etymon is \*-sk-, cf., e. g., «hitt. 3<sup>e</sup> sg. -škizi, 3<sup>e</sup> plur. -škanzi; tokh. B. 3<sup>e</sup> sg. -iṣṣam, 3<sup>e</sup> plur. -əskam; 1<sup>re</sup> pers. sg. act. gr. -skō = lat. -scō = v. h. a. -sku; ... le sanskrit a -ccha- et l'avestique -sa-» (Meillet 1964: 220). Until recently scholars were perplexed about the original function of this suffix because it plays a variety of roles in the historical dialects themselves. As Szemerényi (1980: 253) says: «Semantisch zeigen die verschiedenen Sprachen sehr verschiedenartige Entwicklungen. Die im Latein so bedeutend gewordene inchoative Funktion ist in den anderen Sprachen kaum bekannt, sicher ist sie sekundär von Fällen verbreitet worden, in denen der Stamm die inchoative Nuance nahelegte, wie bei *crēscō*. Im Hethitischen, wo die Bildung sehr produktiv ist, kann eine iterativ-durativ-distributive Bedeutung festgestellt werden, vgl. *walliskitsi* 'er preist wiederholt', *atskantsi* 'sie fressen (die ganze Nacht hindurch)'. Interessant ist, dass im Tocharischen (B) -sk- gewöhnlich eine kausative Bedeutung entwickelt: *rittäskau* 'ich verbinde'; es gibt aber noch Reste einer iterativen oder durativen Bedeutung.» However, Dressler, in a brilliant study (1968) based on typological considerations, maintains that the iterative function of \*-sk-, so prominent in Hittite, cf. Friedrich 1974: 140-141, is basic, with the other attested functions developing from it (1968: 233). The iterative category itself is viewed by Dressler (1968: 43) as a variant of the category *plurality*, manifested in verbs as well as in nouns<sup>1</sup>.

<sup>1</sup> Erhart (1973: 245) characterizes Dressler's thesis in this way: «... der nominale Plural und die Aktionsarten der verbalen Pluralität als kombinatorische Varianten des Semems 'Pluralität' aufzufassen sind».

I believe that the etymological analysis of *\*-sk-* can proceed still further by pursuing some of the ideas inherent in Dressler's proposal about the relationship between verbal and nominal plurality. I would like to suggest that *\*-sk-* is a suffix composed etymologically of two separate morphological entities —an adverbial particle *\*(e)s* and a deictic element *\*k*<sup>2</sup>.

Before proceeding to a discussion of the origin of *\*-sk-*, I must point out some assumptions which I make about the Indo-European verbal system. I have argued elsewhere that the Indo-European verb was originally uninflected (1982: 19) and that when inflection for person did arise the Indo-European verb at first possessed just two personal categories which did not show number congruence —a personal (first person) and a non-personal (second-third person) (1979: 218-219, 1981: 265-268, 1982: 12-17), cf. also Erhart 1970: 56-58, 113, Lehmann 1974: 201-202, and Schmalstieg 1977a. Moreover, I have proposed that the original exponent of the non-personal category was *\*Ø*, which was eventually replaced by both *\*-s* and *\*-t*, «with *\*-s* gradually becoming specialized primarily in the second person and *\*-t* in the third, although remnants of the original vacillation are still historically attested» (Shields 1979: 219) (e. g., Hitt. *dāiš* 'he put', OPers. *āiš* 'he went'). «The occurrence of *\*Ø* in the second person function is still attested in the singular imperative (*\*age* 'lead': Skt. *āja*, Gk. *áge*, Lat. *age*). Moreover, as Erhart (1970: 57-58) says: 'In einem kleinen Teil der Fälle sind die Endungen der 3. Person Sg. akonsonantisch: aind. *a*, *e*, gr. *ei*, *e*, het. *i*, *a*, *ari*, toch. AB *Ø*, got. *Ø*, lit. *a* usw. ...; als ihre Bausteine sind der thematische Vokal und der Präsensdeterminativ *i* (bzw. *r*) zu erkennen'» (Shields 1979: 219, fn. 1)<sup>3</sup>. I further believe that throughout the history of Indo-European deictic elements could be incorporated into verbal formations. Watkins (1962: 102-103) thus argues that a deictic particle *\*i* with 'here and now' signification was frequently combined with various verbal suffixes in Indo-European, including *\*Ø*. He says: «This particle was freely combinable with the personal endings, as in *-m/-mi*, *-t/-ti*, *-nt/-nti*. We know furthermore that the free combinability of this particle existed down through the period of the formation of the individual dialects, since these show divergent utilizations of *-i*. It has been

<sup>2</sup> Thus, this paper represents a qualification of the analysis presented in Shields 1981, where it is argued that the sigmatic element of all Indo-European sigmatic verbal formations derives from a deictic particle in *\*(e/o)s* with non-present signification. Simply, I now believe that the sigmatic element of the suffix *\*-sk-* represents an exception to this etymology.

<sup>3</sup> See Watkins 1962: 90-92 and 1969: 49-50 for additional evidence in support of the reconstruction of *\*Ø* as the original third person suffix of Indo-European.



suffixed to the perfect endings *-a -tHa -e* in Italic *-ai -tai -ei* > Lat. *-ī -(is)tī -ī(t)*. The same occurred independently in the Hittite *hi*-conjugation: *-ha -ta (\*-e?)* → *-hi -ti -i*. In Slavic the same change *-a* → *-ai* is attested in 1 sg. *vědě*. We know as well that IE *-i* was combinable with a 3 sg. zero ending as is proved by the Greek thematic 3 sg. present *-ei* < *-e + i*, where *-e* is simply the thematic vowel. The Hittite *hi*-conjugation 3 sg. *-i* may also contain deictic *-i* suffixed to a zero ending. The deictic *-i* alone, suffixed to the bare root with zero ending, occurs finally in a very archaic category in Indo-Iranian: the 3 sg. aorist passive. The most archaic form of this class in the Rig Veda is *jani* 'was born', which shows the absence of the secondary *vṛddhi* as in *jāni*.» In Shields Forthcoming, I maintain that the deictic marker *\*u* 'there and then', cf. Hirt 1927: 11-12, was likewise incorporated into verbal conjugation and that it is attested there in imperative suffixes like Skt. *-t-u* (3 sg.), Avest. *-t-u* (3 sg.), and Hitt. *-t-u, -u* (3 sg.). The addition of deictic particles to verbal forms was motivated by the fact that «at an early stage of Indo-European deictic markers constituted the formal indication of the grammatical categories expressing time, place and person» (Markey 1979: 65). Lehmann (1974: 139) also argues that «in PIE, tense and the time of action were given by means of particles or adverbs or were implicit in the aspects of the verb forms». Only «in late PIE» did «features of tense become predominant», with tense distinctions becoming inflectionally expressed (Lehmann 1974: 189-190).

I must also point out that the independent existence of *\*-s-*, apart from *\*-k-*, in the suffix *\*-sk-* is strongly suggested by the existence in Hittite of a suffix in *\*-s-* which is functionally identical to *\*-sk-*. Watkins (1969: 73) thus observes: «Wir haben im Hethitischen nur noch eine Handvoll Formen mit dem iterativ-durativ-(imperfektiven) Suffix *-ša-*, das der Funktion nach mit *-šk-* identisch ist: *ešša-* 'machen' von *ie-* (*iya-*), *halzešša-* 'rufen' von *halzai-* (*halziya-*), *warešša-* 'zu Hilfe kommen' von *warrai-*... Es sind Reliktformen; die Kategorie ist früh..., und so gut wie ausgelöscht worden durch die im Hethitischen alles überschwemmenden *-šk-*-Formen.» Apparently these relics are preserved in other Anatolian languages: «Vgl. pal. 3 Sg. Präs. *mari-šši* 'zerstückelt' (*hi*-Konj.), neben heth. Simplex *marriya-* 'id.' ... Im Luwischen haben wir das Suffix *-šša/i-*, hierogl. luw. *-sa-* und im Lykischen *-s-*» (Watkins 1969: 73). Such evidence leads Szemerényi (1980: 253) to conclude that «Formal wird *-sk-* eher eine Vereinigung zweier Suffixe, also *s + k*», although he does not explicitly identify the nature of these original forms, cf. also Watkins 1969: 56.

The existence of an Indo-European deictic particle in *\*k* has most recently been proposed by Markey, who writes in regard to the «*k*-enlargement» of the *k*-perfect of Greek: «...we provisionally suggest that it reflects an archaic deictic particle; namely, *\*k*, which figures in the formation of, for example, Lat. *ci-s*, Gmc. *hē-r*, OE. *hē*, Goth. *hi-mma*, OHG. *hi-tumum* (cf. Lat. *ci-timis*), Goth. *hi-dre* (cf. Lat. *ci-tra*); OIr. *ce-n*, Corn. *ke-n*, Gaul. *du-ci*; Hitt. *kāš*, *ki-ššan*, directly comparable to Lat. *ci-s*; Gk. *\*ky-* in Ion. *sētos* = Att. *tētos*; Lith. *šis*; OCS *si*; Arm. *s-* (radical of the 1st pers. demonstrative, 'this' *hic*, near the speaker...). Note, further, OIr. *ol-chen(a)e* 'besides', lit. 'beyond (and) on this side of it', where *ol-* is comparable to OLat. *ollus* > *ille*; possibly also in OIr. *bith-cé* 'this world'; OIr. *cen-alpande* = Lat. *cis-alpine* ...» (1980: 280-281).

Dressler (1968: 51-91) emphasizes the close functional and formal relationship between verbal and nominal plurality. Functionally, the distinctly «quantitative» nature of the iterative aspect (and the closely related intensive, distributive, and durative aspects, cf. Dressler 1968: 43) constitutes a vivid parallel to the notion of quantity inherent in nominal plurality. Formally, the two major variants of the plural category are both frequently manifested «durch Reduplikation oder Verdoppelung (Epanadiplosis)» (1968: 84). Moreover, Dressler (1968: 85) indicates that both plural variants also commonly share «ein lexikalisches Mittel» of marking, apart from epanadiplosis. For example, in this regard, Jespersen (1965: 210) says: «If we say 'they often kissed' we see that the adverb expresses exactly the same plural idea as the plural form (and the adjective) in *many kisses*.» The parallel lexical expression of verbal and nominal plural can be seen even more clearly in a pair of expressions like *He walks frequently* and *He takes frequent walks*. Finally, Dressler (1968: 85) notes that sometimes nominal and verbal plural variants are marked by the same affixes, although this situation is rare because verbal plurality tends to be less grammaticalized than its nominal counterpart (1968: 94).

Now I have argued in Shields 1977: 60, 65 and 1982: 63-72, 94-97 that the nominal non-singular<sup>4</sup> markers of Indo-European, which included the suffix *\*(e)s* (e. g., nom. pl. Skt. *sūnāv-as*, OCS *synov-e*, Go. *sunjus* 'sons', Skt. *mātār-as*, Gk. *mētér-es*, OIr. *māthir* 'mothers'), were

<sup>4</sup> Although until this point I have used the term *plurality* in reference to the quantitative category under consideration because it is associated with Dressler's analysis, I frankly prefer the term *non-singularity* since the dual and the plural of Indo-European originally constituted a unified non-singular category, cf. Schmalstieg 1974 b: 192 and Shields 1982: 63-64.



probably adverbial (quantitative) particles of some sort and that they only gradually developed into obligatory inflectional markers<sup>5</sup>. Lehmann (1974: 201-202) also subscribes to the idea of «the late development of the number system» when he says: «Number accordingly was not consistently applied in late PIE and the early dialects in accordance with natural reference. Subsequently application became more regular, and number congruence was carried out for both substantives and verbs.» Since verbal plurality and nominal plurality share a number of common formal markers, including lexical means of expression, it would not be unreasonable to suggest that in early Indo-European the same adverbial element may have served as an exponent of both. This element became enclitic in nature and eventually evolved into a specialized bound morpheme, but still retained its optionality until the late Indo-European Period.

When the enclitic quantitative adverb (> non-singular marker) \*-(e)s was added to non-personal (second-third person) verbs, the following formation resulted: \* $\emptyset$ -s (person marker plus enclitic adverb). To this «verbal plural» structure could also be added a deictic particle whose function was to indicate the time of the action. On the basis of attested forms containing deictic \*k, it would seem that this element originally possessed what Schmid (1972: 10-11) calls «Dieser Deixis». Since this deixis indicates some distance from 'here and now', it can be assumed that the action or state of a verbal formation marked by \*k occurred in non-present time<sup>6</sup>. This original signification of \*k perhaps explains the «remarkable» fact that «the iteratives in -šk-... take secondary endings» (Lehmann 1974: 148). Apparently the formation \* $\emptyset$ -s-k was re-analyzed, cf. Anttila 1972: 94, as \*-sk- $\emptyset$ , with \*k losing its temporal meaning, perhaps through the simple process of contagion (condensation), cf. Bloomfield 1933: 438-439. In any event, the continued existence of Hittite iteratives in \*-s- demonstrates the original optionality of the

<sup>5</sup> Schmalstieg (1974 a: 1) endorses this same assessment when he writes: «In the earliest period of Indo-European there was possibly no distinction of number at all. Number was considered an inessential category and various enclitic adverbs were used to express such vague general concepts as 'as, like, approximately, about, more or less', cf. also Schmalstieg 1974 b: 189 and 1977 b: 129-134.

<sup>6</sup> In terms of deictic force, Schmid (1972: 10) characterizes «Dieser Deixis» as p<sub>3</sub> on a scale of p<sub>1</sub> to p<sub>6</sub>, with p<sub>1</sub> constituting the 'here and now' («Thema: Sprecher») and p<sub>6</sub> constituting extreme distance from that point and time («nicht näher bestimmt»). On the original nature of the spatio-temporal system of Indo-European, see Shields 1981, where it is argued that the system was binary ('here-and-now': 'not-here-and-now'), with \*i expressing 'here and now' and «other deictic particles denoting various degrees of distance from that... point» and time (1981: 273), cf. also Gonda 1956: 28-29.

deictic element \*k. \*-s(k)- was then analogically extended to the first person as a «plural» stem-formant<sup>7</sup> because of the tendency for the (second-)third person «to impose its form on the rest of the paradigm, irrespective of the form of... any other person» (Watkins 1962: 90), cf. Benveniste 1971<sup>8</sup>.

In closing, I must say that although this analysis of mine departs in many ways from «traditional» ideas about the nature of Indo-European, it is, nevertheless, reasonable and therefore merits consideration as a possible explanatory statement.

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<sup>7</sup> Of course, the suffix \*-s(k)- was further subject to the process of thematization.

<sup>8</sup> I am tempted to propose that the alternate form \*-isk-, especially common in Greek and Armenian, «vgl. gr. *thnēiskō*, *klēisketai*, *mnēisketai*...» (Watkins 1969: 56), shows a contamination of the quantitative adverbial particles \*-i and \*-(e)s. The adverbial element \*-i is seen as a marker of nominal non-singular function in such forms as Skt. *nāmān-i* 'names', Hitt. *kurur-i* 'hostilities', and Gk. *lúko-i* 'wolves'.



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