INDO-EUROPEAN *S*-MOBILE AND INDO-EUROPEAN MORPHOLOGY

This brief paper explores how the plausibility of an individual reconstruction can be assessed in terms of its logical consistency with the larger reconstructed system. Specifically, it evaluates competing theories of the origin of Indo-European *s*-mobile in light of recent proposals about the nature of early Indo-European morphology. The conclusion reached here is that the element arose through morphological reinterpretation.

A major concern of historical linguists today is the evaluation of competing etymological explanations of extant data. Thomason (1989, p. 485) characterizes the problem as having «to do with whether or not we can rule out alternative explanations for a set of facts. If it cannot be shown that a pet hypothesis has better support than one or more alternative explanations, then ... we should either propose none of the possible explanations or all of them.» In Shields (1992, pp. 4-10) I offer a number of proposals regarding the evaluation of specific alternative reconstructions, including what I call the criterion of «internal consistency»—the evaluation of a reconstruction on the basis of its logical compatibility with other aspects of an entire reconstructed system. In other words, I feel that, as a linguistic system is reconstructed, the plausibility of a given reconstruction can be confirmed, in part, by assessing the degree of logical consistency of that reconstruction within the emerging reconstructed system itself. As a case in point, I would like to explore the origin of the problematic *s*-mobile of Indo-European within the context of the system which Adrados (1992) calls «the new image» of Indo-European morphology.

In describing the phenomenon of *s*-mobile, Burrow (1973, p. 81) says: «Indo-European *s* when it formed the first member of an initial consonant group, was an unstable sound, and liable to disappear under conditions which it has not been possible accurately to define. Forms with and without *s* are found side by side in the various languages, as illustrated by the following examples: Skt. *tányati* 'thunders', Lat. *tonāre*: Skt. *stanayitnú-* 'thunder', cf. Gk. στένω, O. Sl. *stenjǫ*, etc.; Skt. *tāyú-* 'thief', O. Sl. *tatŭ* 'id', Gk. τητάω, Hitt. *tāya-* 'steal': Skt. *stená-* 'thief', *stāyú-*, *stāyánt-*, etc.» Two major explanations of

the alternation have been proposed—«some scholars [have] explained it by a sandhi alternation ... [cf. Burrow 1973, p. 81]; others [have] thought the *s* the remnant of a prefix whose meaning had become obscured [cf. Siebs 1904]» (Hoenigswald 1952, p. 182) [1]. The latter theory is generally rejected because of lack of independent evidence for such an autonomous morphological element. As Edgerton (1958, p. 445) observes, «that this *s* was an old prefix ... seems to me no explanation, but a case of 'obscurum per obscurius'.» As a supporter of the first theory, Edgerton (1958, p. 445) writes that «when in an Indo-European sentence a word ending in *s* was immediately followed by a word beginning with *s* plus any consonant, one *s* was lost.» Since «this word-final *s* of Indo-European was almost always morphologically significant», «it follows that the single *s* + consonant posited by our analysis would, by speakers of the language, tend ... to be analyzed as word-final *s* plus word-initial other consonant» (Edgerton 1958, p. 446). Still a third theory —based on the operation of reinterpretation, a process of non-proportional analogy (cf. Antilla 1989, pp. 92-93)— is endorsed by Lehmann (1993, p. 136), who asserts that «although several explanations have been proposed for the *s*, the only likely one accounts for it through mistaken word division. Examples of mistaken word division could be cited from various languages; they are ready at hand in English, with pairs like *newt* made from an older form of *ewt*. Since in English a typical word preceding these nouns is *a/an*, speakers may mistake the word boundary, and pronounce the noun with the *-n* of the indefinite article. The Middle English word *napron*, borrowed from French, was conversely modified to *apron*, and similarly *nadder*, German *Natter*, to *adder*. In Proto-Indo-European a form ending in *-s* would commonly have preceded the verb. Accordingly, a mistaken word division may have been made, giving rise to the Avestan form [*spasyeiti* 'sees', cf. Skt. *páśyati* 'sees'] from the alternate root **spek-*» [2]. In my opinion, it is Lehmann's analogical theory, not Edger-

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[1] After making reference to loss through sandhi as a possible cause for the appearance of *s*-mobile, Prokosch (1939, p. 45) notes that the prefixed element has been identified as a preposition by some scholars (cf. Hirt 1927, p. 329). Although he appears to accept the «prefix theory», Benveniste (1935, p. 165) is quite unprepared to specify the original nature of the prefix: «On ne saurait dire encore à quelle fonction répond la préfixation de *s-*: renforcement? différenciation de racines homophones? préfixation veritable?» Szemerényi (1980, pp. 87-88) acknowledges both Lehmann's and Edgerton's positions, but describes the two together as «eine Sandhi-Erscheinung».

[2] Although he prefers loss of initial *s* through sandhi as the primary explanation of the origin of *s*-mobile, Brugmann (1930, p. 727) raises the possibility that contamination, another non-proportional analogical process (cf., e.g., Engl. *squench* < *quench* + *squelch*), may have given rise to a few cases of *s*-mobile.

ton's sandhi theory, which is most consistent with recent proposals regarding the nature of Indo-European morphology —proposals to which Adrados (1992) refers as «the new image».

In regard to these recent hypotheses about the morphology of Indo-European, Adrados (1992, p. 1) says: «There is an increasingly wider acceptance of the idea that one should attempt to reconstruct not one sole type of Indo-European (IE, henceforth) without spatial or temporal definition, but three. The most ancient of those, IE. I (also called Proto-Indo-European or PIE.), would not yet be inflected. Then there would come IE. II, inherited by Anatolian, some of whose archaisms, though, would be preserved in other languages: in this type, there would already be inflexion, although merely on the basis of using endings and other resources, not the opposition of stems. Finally, the most recent phase would be IE. III, which is practically that of traditional reconstruction: in this type, stems were opposed to mark tenses and moods in the verb, the masc. and fem. genders, and degrees of comparison in the adjective.» In a similar fashion, Fairbanks (1977, p. 101) notes: «It has long been customary to reconstruct 8 case forms for the Indo-European noun ... There are, however, rumblings of discontent in the literature.» He then proceeds to argue that attested Indo-European dialects have not generally lost various original surface case inflections but have actually «acquired new surface representations.» Unlike the traditional Brugmannian system, Kuryłowicz (1964, p. 199), for example, posits a three-case system for earlier stages of Indo-European, consisting of a nominative-accusative-vocative, a genitive-ablative, and a locative. He rejects the traditional reconstruction of a nominative (singular) masculine-feminine desinence in *-*s* and proposes instead a marker in *-∅* with this function. Just as the Indo-European case system lacked many of the distinctions found in the historical dialects, Lehmann (1974, pp. 201-202) maintains that number was not an inflectional category in earlier stages of Indo-European: «The system of verb endings clearly points to an earlier period in which there was no verbal inflection for number ... For the dual and plural endings are obviously defective. We cannot reconstruct endings in these two numbers which are as well supported as are those of the singular, except for the third plural... The number system is defective in substantival as well as verbal inflection. The personal pronouns never did introduce expressions for plurality, as suppletive paradigms indicate, e.g., Hitt. *uk* 'I', *wēš* 'we', etc., in contrast with demonstratives, e.g., *kāš*, *kē* 'this, these', and nouns, e.g., *antuhšaš, antuhšeš* 'man, men'.» Even more radical departures from traditional theory include Schmalstieg's acceptance (1980, pp. 89-90) of a common morphological origin of the Indo-European noun annd verb. He says, on the basis of Indo-European and typological evidence, that «the oldest form of the verb was

originally a nominal form, not marked for diathesis» [3]. Watkins (1969, p. 49) also hints at the common morphological origin of the two categories when he maintains: «Der funktionale Status der 3. Person als zéro- oder Nicht-Person hat die allgemeine sprachliche Tendenz zum formalen Ausdruck durch ein zéro-Zeichen zur Folge; das bedeutet, dass in der gegebenen syntaktischen Funktion des Prädikats eine Nominalform als Verbalform mit 3. Sg. Endung $\emptyset$ (zéro) aufgefasst werden kann: Nomen *nek^wt → 3. Sg. Verb *nek^wt-$\emptyset$.» Such assertions about the nature of nouns and verbs lend support to the notion of an original pre-inflectional Indo-European.

Now the antiquity of *s*-mobile is made clear by its distribution in such a wide range of Indo-European dialects, including the archaic Anatolian. This antiquity makes Edgerton's theory unlikely within the view that earlier stages of Indo-European lacked the morphological complexities of the Brugmannian reconstruction. Indeed, Edgerton's assertions about the prevalence of final *s* are predicated on its wide distribution in inflectional suffixes. He says: «If anyone wants evidence for the frequency of *s* in morphologically significant word-final position, it is so easy to find that I almost hestitate to list examples. For noun endings in *s* in Sanskrit, all of which may with certainty or plausibility be attributed to Indo-European, I shall only refer to Wackernagel-Debrunner [1930, sec. 3.28 ff.], where all Sanskrit noun case endings are conveniently assembled. In them, final *s* is particularly wide-spead: nominative singular masculine and feminine ...; genitive-ablative singular ...; genitive-locative dual ...; nominative and accusative plural masculine and feminine ...; instrumental, dative-ablative plural ...» (1958, p. 446). On the other hand, Lehmann's view of the origin of *s*-mobile is entirely consistent with «the new image».

It is well known that reinterpretations of morphological boundaries of the type posited by Lehmann generally require «opacity», or «surface ambiguity»—a factor which Anttila (1973, p. 9) characterizes as «an invitation to reanalysis.» In the English examples which Lehmann (1993, p. 136) cites, *n* could reasonably be construed as a segment belonging to either the indefinite article *an* or to the base morpheme of the word following the indefinite article, precipitating reanalysis through «inductive change», or, more precisely, «abductive change» (Anttila 1989, pp. 94, 197). If, indeed, the original desinence of the nominative case in Indo-European was *-$\emptyset$, and if this desinence underwent eventual replacement by *-*s* in many masculine-feminine noun classes

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[3] Schmalstieg (1976, pp. 23-27) amply acknowledges that «the nominal origin of the Indo-European verb has long been assumed by many scholars in the field of Indo-European studies», cf., e.g., Hirt (1904/05). However, it is clear that this position has not traditionally represented the mainstream view.

probabley during the early stages of IE. II, then there would have been a period during which a vacillation between *-∅ and *-s would have occurred in these nouns, for, as Bailey (1973, p. 157) points out, a linguistic change «begins variably rather than categorically; that is, it begins as a rule that sometimes operates and sometimes does not.» Therefore, the surface ambiguity inherent in the situation where *-s (=nominative marker) + # (=word boundary) permits its reanalysis as *-∅ (=nominative marker) + #s and makes Lehmann's claim about the origin of *s*-mobile quite likely. Without the requisite surface ambiguity, Lehmann's proposal would have little to recommend it.

It is interesting, too, that the root alternations which result from *s*-mobile operate across parts of speech and seem unaffected by the presence of other morphological elements in the words of which they are a part. Superficially, it may appear that such a mechanistic occurrence of the phenomenon indicates a phonological (i.e., sandhi) origin. However, if *s*-mobile originated during early IE. II, prior to widespread affixation in word forms and close to the time when nouns and verbs lacked significant morphological differentiation, this distributional pattern is easily explained. Indeed, if the origin of *s*-mobile is to be ascribed to mechanistic phonological processes involving such a common word-final segment, one would expect its distribution to be even more widespread. On the other hand, the inherently sporadic operation of non-proportional analogy is consistent with the sporadic attestation of *s*-mobile.

It is similarly interesting that the lexical items which are affected by *s*-mobile generally —as verbs— have meanings which require an animate subject, e.g., *(s)ker- 'cut', *(s)teu- 'strike', *(s)mer- 'think, remember', *(s)pen- 'weave', *(s)teg- 'cover, protect', *(s)pek- 'see', *(s)nē- 'sew, spin', *(s)neu- 'sneeze', *(s)per- 'scatter', *(s)thā- 'stand', *(s)teigh- 'ascend' (see Hirt [1927, pp. 329-333] for a detailed inventory of forms). This observation can be explained by the fact that the *s of such items is a segment transferred from animate subjects [4].

Although the origin of *s*-mobile will probably never be definitively known, I believe that I have demonstrated how one particular theory gains plausibility by looking at its place in a systemic reconstruction of the proto-language. In short, the internal consistency of the reconstructed system can lend support to all of its component reconstructions.

KENNETH SHIELDS, JR.

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[4] I recognize that the word order typology of Indo-European can affect the strength of such arguments, but in the absence of a clear indication of the nature of the word order typology of Indo-European (cf. Lightfoot 1988, pp. 305-306), I leave the matter open.

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