Verba Docenti

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Jay H. Jasanoff
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The Development of Proto-Indo-European *sm in Hittite

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1. Introduction

In two recent publications (Rieken 2000 and especially 2002), Elisabeth Rieken proposes that the Proto-Indo-European sequence *sm yields "(*s̆)šumm" in Hittite, with an anaptyctic *u* and a geminate *mm*; she admits, however, that the precise conditions under which this change takes place are unclear.[1] Her argument is based to a considerable extent on my work on pronouns, which began with a paper on Go. *izwis* that I wrote in 1991 for a wonderful course (Yale Indo-European 551b "Introduction to Historical Germanic Linguistics") taught by the man this volume honors, and I hope that Jay Jasanoff finds interesting my attempt in the following pages to refine Rieken's "Lautgesetz," which I believe is very attractive in principle. My aims are to assess the quality of the examples and potential counterexamples that Rieken adduces; to bring in a few other forms that she misses and that evidently complicate matters; and to comment briefly also on what one of them, in conjunction with some pronouns that she does mention, has to tell us about the development of the Proto-Indo-European system of personal pronouns in the Anatolian languages.[2]

2. The Word for 'Ax'

Fifty years ago, Johann Knobloch published a short paper (Knobloch 1956) in which he offered what has since been accepted, though often cautiously, as the correct etymology of Hitt. *šummittant-* 'ax'. Knobloch and others after him, comparing for example Eng. *smith* (OE *smiþ*), take the word back to something like **smit-Vnt-*, a participle of **smei-t-* (*vel sim.*) 'cut', a *t*-extension of the basic Proto-Indo-European root (whose precise reconstruction remains problematic[3]) seen as such in Gk. σμίλη 'carving knife' and σμινύη 'hoe'. The semantic attraction of this derivation is obvious, and formally it looks excellent as well, though there are two curious features. The one has been generally recognized

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2. Rieken 2000 ("Hethitisch *šumumaḫḫ-*") notes the importance of the word discussed in §2 and suggests the hapax in §4 as a second example; Rieken 2002 ("Ein Lautgesetz und der Obliquusstamm des urindogermanischen Personalpronomens der 1. und 2. Person Plural") adds as further would-be examples words in §§5–7. The present paper offers an expansion of my preliminary assessment of Rieken's rule in Katz 2006:86–8.

3. Watkins (2000 *s.v. smī*) suggests "**smiə₁-.*" I am not taken with the Semitic speculations in Vennemann 2004.

and fretted over: why is there a *u*—and, indeed, a *u* that may well be a true anaptyctic vowel (*pace* Melchert [1994:155]) and not merely some sort of graphic convention?[4] The reason for scholars' caution in wholeheartedly embracing the etymology has everything to do with this, for on the one hand there seem to be a number of other outcomes of **sm-* in Hittite and on the other, no further examples of an outcome *šum-* are generally acknowledged. There is, however, also a second point, whose importance Rieken was the first to appreciate, namely that the word is consistently spelled with two *m*'s—as ⟨šu-um-mi°⟩ and ⟨šum-mi°⟩—and thus appears to reflect not merely [sum-] but actually [summ-].[5]

3. The "Triple Reflex" (?) of **sm-*

Before diving into the matter of the number of *m*'s, it needs to be pointed out that Rieken herself admits something that has long been a matter of concern, to wit that there appear to be three (if not more) quite different Hittite reflexes of the old sequence **sm-*, at least in initial position.[6] In addition to *šummittant-*, with its "anaptyctic *u*"-reflex, we also have, as she notes, the verb *ša/emen-* 'disappear', which pretty much has to reflect something of the shape **smen-*, whatever exactly this may be, and which is the clearest example of what might be called the "normal" outcome, namely a spelling with either an *a* or an *e* between the initial *š* and the following single *m* (I return in §8 to the question of what this vocalic alternation means phonologically).[7] Furthermore, there is the famously problematic word for 'bridle' or 'rein', KUŠ*išmeri-*, which Rieken (2002:408 and 411; see also 1999:364) suggests comes from "**s(h₂)-mer-*" and thus seems to show a "prothetic *i*"-reflex.[8] Rieken (2002:408) writes of this mess: "Mit der Feststellung, daß die Dreiheit nicht willkürlich auftritt, ist das Verhältnis der Graphien bzw. Lautungen untereinander noch nicht geklärt—eine diesbezügliche Untersuchung steht noch aus—,

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4. Knobloch (1956:67) is himself cautious about what the *u* represents: "[W]ir [sind] berechtigt, eine ursprüngliche Lautung */smitant/ anzusetzen, gleichgültig, ob nun der eingeschobene Vokal gesprochen wurde oder nur eine graphische Hilfe darstellte." But see Neumann 1959:349 and especially Oettinger 1976:95 with 101 n. 16. Compare also now Carruba 2005:17 with n. 15.

5. *Pace* Kimball (1999:431–2), who writes that some scholars "suggest that initial **sm* developed to [sum] with anaptyctic [u] in the vicinity of a labial in *sumittant*" (432; compare also 196 and 199). In her paper from 2000, Rieken concentrates on the geminate *mm*, leaving open the matter of the *u*'s linguistic reality (compare the quotation from Knobloch in n. 4); by 2002, however, she had decided—correctly, I believe—that it is truly anaptyctic (see above all Rieken 2002:407 with n. 4).

6. The evidence for initial **sm-* is laid out most neatly in Kimball 1999:431–2. (For word-internal **-sm-*, see §8, with n. 38.) Although Kavitskaya (2001) does not treat **sm-* as such, her paper remains a good place to start for a theoretical treatment of the sorts of issues under discussion. Melchert 1994:29–33 ("Consonant Clusters vs. Anaptyxis and Prothesis") is indispensable.

7. Oettinger (1976:97–100 with notes on 102–3) gives a plausible (though not in my view certain) etymology for the root he sets up as PIE **(s)men-* 'gering sein'; his paper provides the most detailed discussion of the verb's morphological details (see also Oettinger 1979:20–1 and 104).

8. In support of the preform **s(h₂)-mer-*, which she takes to be a derivative of the root **seh₂(i)-* 'bind' (see Rieken 1999:364 and 2002:411), Rieken (2002:408 n. 9) simply cites Puhvel 1984 *s.v.* *ismeri-*. The source of the unusual-looking *i*-stem *ismeri-* is, however, entirely unclear—Puhvel notes the standard competing theories of E. Laroche and B. Čop and concludes, "Etymology uncertain" (429)—though H. Nowicki *apud* Tischler 1980 *s.v.* (KUŠ)*ismeri-*, building on Laroche, makes a case for a hysterokinetic paradigm **sh₂-mér, **sh₂-mn-* (see also now Rieken 1999:364) and Melchert (1994:155), referring to Čop, considers "conceivable" an equation with Pal. *sameri-* (meaning unknown). Weiss (1998:48 n. 39) makes a passing remark on the possible borrowing of *ismeri-* into Greek but does not comment on the etymology of the Hittite word itself.

doch läßt sich der Wandel **sm > (s)summ ⟨(š)šumm⟩* immerhin in einen weiteren Rahmen stellen." The purpose of the present paper is to provide at least the beginnings of such an "Untersuchung."

4. The Hapax Verb *šumumaḫḫ-*

It is very much to Rieken's credit that she decided to take the example of 'ax' seriously and investigate whether the word might not be unique after all. In the first place she asked herself—this was the main point of her paper from 2000—whether much the same phonological development might lie behind the hapax verb *šumumaḫḫ-*, which appears in a Neo-Hittite copy of part of the Old Hittite Bauritual. The relevant section, *KUB* 29.1 Ro. ii 39–48, reads as follows (transcription and translation after Rieken 2000:171):

39 *e-ḫu zi-ik* TI₈MUŠEN *i-it* I^EN*-mu-kán ut-tar*
40 *ar-ḫa me-er-ta uk-tu-u-ri-i̯a-aš i-it*
41 *nu ki-nu-u-pí ú-da*

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42 *ki-nu-pí-ma-aš-ša-an an-da* ŠA UR.MAḪ *ši-e-ša-i*
43 *pár-ša-na-aš* UZU*ši-ša-i šu-mu-ma-aḫ na-at ḫar-ak*

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44 *na-at ta-ru-up na-at* I^EN *i-i̯a na-at* LÚ*-aš* ŠÀ*-ši*
45 *pé-da nu* LUGAL*-u̯a-aš* ZI*-aš kar-di-iš-ši-i̯a*
46 *ta-ru-up-ta-ru*

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47 *nu* ᵈUTU*-uš* ᵈIŠKUR*-aš-ša* LUGAL*-u̯a-aš ták-šu-li-ši-it*
48 *da-an-du nu ut-tar-ša-me-et* I^EN *ki-ša-ru*! . . .

"Auf, du, Adler, geh! Eine Sache ist mir verloren gegangen. Geh zu den Verbrennungs-plätzen und bring einen *kinupi*-Behälter herbei! § Im *kinupi*-**Behälter aber . . . (Imperativ 2.Sg. eines Verbs auf -aḫḫ-) die Pranke/das Gebiß? eines Löwen und die Pranke/das Gebiß? eines Leoparden und halte sie!** § Vereinige sie und mache sie zu Einem! Schaffe sie zum Herzen des Mannes! Und die Seele des Königs soll auch in seinem Herzen vereinigt werden! § Und die Sonnengottheit und der Wettergott sollen die Zusammenfügung des Königs annehmen, und ihre Sache soll eins werden! . . ."

In lines 42 and 43, two things, the paw (?) of a lion and the paw (?) of a leopard are to be "somethinged" so that they can be held together; similarly, in what immediately follows, the king's soul is to be made one with his heart. There is a lot of joining and coming together here, and it thus occurred to Rieken that perhaps *šumumaḫḫ-* means much the same thing as such other words in the passage as *tarupp-*, the normal verb for 'join', and I^EN *iya-* 'make one': evidently a factitive in *-aḫḫ-*, *šumumaḫḫ-* would be yet another way of saying 'unify' and would owe the core of this meaning to the Proto-Indo-European root **sem-* 'one' (cf., e.g., Gk. εἷς 'one (masc., nom.)' and Lat. *sim-ul* 'at the same time'), here in the zero-grade, that is, with an initial consonant cluster **sm-*.

This is a capital idea, and yet there is an evident phonological problem: if Rieken is right about the importance of the two *m*'s as well as the *u* in the word for 'ax', then the outcome of her would-be preform **sm-eh₂-* (literally "uni-fy") should be **šumm-aḫḫ-* rather than *šumumaḫḫ-*. Rieken's initial solution, expanding on a passing remark by M. Marazzi (see Rieken 2000:172 with n. 4), was to say that the spelling ⟨šu-mu-ma°⟩ is an odd (in fact unparalleled) way of writing [summ-]. This is simply unbelievable, however, and in an addendum ("Korrekturzusatz") to her paper of 2002 (Rieken 2002:415), she thanks Craig Melchert for thinking about the problem and for informing her that he and Harry Hoffner have independently come to the conclusion that *šumumaḫḫ-*, though indeed a factitive of the root for 'one', has in its middle the *u*-containing suffix *-uma(n)-* found together with *-aḫḫ-* also in the Hittite verb *tameumaḫḫ-* 'make another's, alienate'.[9] In other words, *šumumaḫḫ-* is to be segmented as *šum-um(a)-aḫḫ-* and the two *u*'s have historically nothing to do with each other.

So far so good, but in working out this morpho-phonological problem, another one has been created, for if the two non-adjacent *m*'s in *šumumaḫḫ-* are not an unexpected indication of [summ-] and if the second *m* is part of a separate suffix, then how can the diachronic or synchronic phonology of this verb be compared with that of the word for 'ax'? Rieken accepts Hoffner's and Melchert's correction of her original analysis but fails to say whether she still believes that *šumumaḫḫ-* is somehow an example of her rule.[10] In fact, I believe it probably is: it is perhaps not too large a jump to suggest that the hapax ⟨šu-mu-ma-aḫ⟩ reflects a Neo-Hittite copying error and that what the scribe meant to write is something like *⟨šu-um-mu-ma-aḫ⟩, whose concatenation of *m*-containing signs could well have posed difficulty. However, it is obviously the case that Rieken's rule cannot stand on the emendation of a hapax—indeed, on a hapax that, in the end, the proposer of the etymology and the rule did not emend herself—and so I turn now to the other three examples that Rieken puts forth in her contribution of 2002.

5. The Word for '(Bul)rush'

One of these examples can be disposed of quickly: the word that is conventionally translated as 'cord' or 'binding' but that Melchert (2003:129–32 and passim) has now neatly explained as actually meaning '(bul)rush' and conclusively separated from Gk. ὑμήν 'membrane' (see already Melchert 2000:64 with n. 34 and the references cited there). According to Rieken (2002:411), this word is "*šummanza(n)-*," with a *u* followed by two *m*'s, but in fact, the form appears to be in the first place ⁽ᵁ⁾*šumanza(n)-*,[11] with a single *m*.[12] For this and other reasons (spelled out in Melchert 2003), it is thus en-

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9. On *-uma(n)-* (and variant spellings), see above all Melchert 1983:4–6 and passim.

10. It is in principle possible that the first *u* is instead an instance of a low-level phenomenon whereby a *u* later in the word is anticipated in the first syllable, as (probably) in *pūnušš-* 'interrogate' (< PIE **pn(e)u-s-* [*vel sim.*]; note, though, the occasional *plene*-writing in the first syllable); compare, e.g., Melchert 1994:175, with reference to N. Oettinger. See also Kimball 1999:113 and esp. 199, with references, for a somewhat different formulation of the "details of conditioning" of epenthetic *u*, which are "not entirely clear" (199).

11. Actually, the word might best be cited as *šumānza(n)-*, for it is spelled (albeit rarely) with *scriptio plena*; for simplicity's sake, however, I shall ignore this fact. (The spelling "*šūmanza(n)-*" in Melchert 2000:64 with n. 34 appears to be an error.)

12. Melchert (2003:130 and 132) presents the morpho-phonological and philological evidence. While one would certainly wish for more attestations that are securely classified as Old Hittite (Neu [1983:173] and Melchert

tirely unnecessary and indeed very likely wrong to take *šumanza(n)*- back to anything like Rieken's preform "**s(h₂)-mén- + *s*."[13] Rather, whatever exactly its root-etymology may be, *šumanza(n)*- surely reflects something like **sum-* rather than **sm-* and is therefore irrelevant for Rieken's rule, being neither an example of it nor, for that matter, a counterexample.

6. The Word for '(Formed, Unfired) Vessel'

Discussion of the next example will take somewhat longer: (DUG)*ti/eššummi-*, the name of a kind of vessel that, as Erich Neu once suggested, is literally "formed" and stands in contrast to *zeri-*, a cup of sorts that has actually been burnt (cf. Hitt. *zē-* 'cook'), that is, fired.[14] Rieken (2002:408–11) accepts this and also expands on the idea (implicit in Neu's mention of a "Verbaladjektiv auf -*mi*-"; see n. 14) that the word is a Luvianism—a very fine idea, since (though Rieken does not mention this herself) it provides a non-ad hoc explanation for the unexpected presence of *e ~ i* alternation already in Old Hittite (see, e.g., Neu 1983:195–7): the Hittites were not quite sure how to represent borrowings with the Luvian *i*-sound, which was presumably relatively open in view of the absence from the language of an *e*-sound.[15] Building on Neu's observation of a possible *figura etymologica* "*tešummin tiššai-*" (see n. 14), Rieken makes the attractive suggestion that both the noun *ti/eššummi-* and also the common verb (⸢)*tišša(i)*-, whose meaning she manages to make real sense of ('in Ordnung bringen, richten, formen, fertig bringen, herstellen' rather than, as has otherwise been said, 'voranbringen; an die richtige Stelle/in die richtige Position bringen' [2002:409]) and which is frequently written with the Glossenkeil (an indicator of foreign words, especially Luvianisms), are reflexes of the well-known Proto-Indo-European root **dʰeiǵʰ-* 'form' (cf., e.g., Eng. *dough* [OE *dāg*] and Lat. *figulus* 'potter').[16] However, Rieken's method of deriving these two words from

[2003:132] record but two instances), the distribution of *šummanza(n)*- and *šumanza(n)*- that we have points quite clearly to the primacy of the latter.

13. For Rieken, then, *šum(m)anza(n)*- and the very different-looking *išmeri-* go back to the same Proto-Indo-European root and somehow reflect almost identical preforms (see above, with n. 8): "Ein Anschluß an die Wurzel **seh₂(i)*- 'binden' erlaubt . . . ein Rekonstrukt als **s(h₂)-mén- + *s* mit lautgesetzlichem Verlust des Laryngals zwischen **s* und Sonorant sowie mit dem hier vertretenen Lautwandel **sm > (s)summ ⟨(š)šumm⟩*" (2002:411).

14. Neu's account reads as follows: "Liegt etwa in dem Ausdruck *tešummin tiššai-* eine Figura etymologica vor, indem nämlich *tešummi-* ('Becher') als das '(aus Ton/Metall) gestaltete (Gefäß)' zu verstehen wäre (Verbaladjektiv auf -*mi*-)? Demgegenüber könnte das andere heth. Wort für Becher, *zeri-* n., ursprünglich das '(aus Ton) Gebackene/Gebrannte' (zu heth. *zē-*) bedeutet haben" (1988:239 n. 17); see also Neu 1996:145–6.

15. Alternation between *e* and *i* in Old Hittite is expected only under circumscribed conditions, as described most fully by Melchert (1984:112–4 and passim). In his 1984 book, Melchert does not mention the example of *ti/ešummi-* or otherwise consider the possibility of Luvian interference, but see Melchert 1993 *s.v.* GIŠ*ir(ḫ)wit-* for the remark that the Cuneiform Luvian word for 'basket' is borrowed into Hittite as GIŠ*ērḫui-* and deriv. *irḫuit/dalla/i-*" and for the observation, due in the first place to F. Starke, that "Luvian origin [is anyway] proven by sporadic loss of -*ḫ*- between consonant and -*w*-" (93). Melchert (2005:448) now explicitly notes both *ti/ešummi-* and GIŠ*ērḫui-* as Luvianisms found in Old Hittite texts that are preserved in old ductus. (Incidentally, the word-initial use of the sign ⟨di(/e)-⟩ is vanishingly rare in Hittite, and one of the instances is an example of our vessel-word in old ductus: see Eichner 1980:149 with n. 72 and also Melchert 1994:20. Could the peculiar *d* [for *t*] somehow have the same basic cause—imperfect communication between Hittite and Luvian speakers—as the peculiar vocalic alternation in the same syllable?) Rieken's own explanation of *tešummi-* with *e*-vocalism is otiose: "*i > e* zwischen zwei Dentallauten (hier *d/t* und *s ⟨š⟩*)" (2002:411, with reference to earlier work in n. 25).

16. Note also CLuv. ⸢*tiššalli-*, a hapax that refers to a kind of container (see Melchert 1993 *s.v.*), and perhaps (as

the root in question simply will not work. Suggesting that (a) the zero-grade *$d^h i\hat{g}^h$-* would develop "[l]autgesetzlich" (Rieken 2002:410) into Luv. *di-*, with (more or less regular) loss in Luvian of the voiced dorsal stop, she states that (b) this would gain the "stammerweiternde Sibilant *$-s$-*"; then (c) the resulting *$ti\check{s}\check{s}$-* (*$di\check{s}\check{s}$-*) is borrowed from Luvian into Hittite, where (d) it is moved into a productive verbal class (Hitt. (ⁱ)*$ti\check{s}\check{s}a(i)$-*); meanwhile, (e) the would-be Luvian participle *$ti\check{s}ma/i$-* is likewise borrowed into Hittite, whence, by the phonological rule under consideration, regularly *$ti\check{s}\check{s}ummi$-*; and finally, (f) the Hittites also introduce the alternative spelling *$te\check{s}\check{s}ummi$-*.[17]

Most of the steps in Rieken's scenario are open to question. First of all, although (a) is probably fine in principle,[18] I know of no reason to believe that the late addition of *$-s$-* (b) is "für das Anatolische typisch," as Rieken (2002:410) claims.[19] Furthermore, even if one could justify the creation of this new Luvo-Hittite (quasi-)root *$d/ti\check{s}(\check{s})$-* (c), there are two independent reasons to cast doubt on the idea that it ever existed as such. For one thing, (ⁱ)*$ti\check{s}\check{s}a(i)$-* does not point to an original consonant-stem *$ti\check{s}\check{s}$-*, and while the verb could have been given a regular conjugation when borrowed from Luvian into Hittite (d), as Rieken supposes, there is no external reason to think that this is actually what happened. Rather more problematic is that the Luvian participial suffix *$-(m)ma/i$-* is never added directly to a consonantal root, so there is no cause to believe in Rieken's required preform *$ti\check{s}ma/i$-* (e) for *$ti\check{s}\check{s}ummi$-* (though I agree with her—if not for quite the same reason [see above, with n. 15]—that the spelling *$te\check{s}\check{s}ummi$-* is secondary (f)).

A way does present itself, however, to rescue the essentials of Rieken's persuasive etymology of (ⁱ)*$ti\check{s}\check{s}a(i)$-* (though not, in my opinion, her use of *$ti/e\check{s}\check{s}ummi$-* as support for her phonological rule). I propose that we take (ⁱ)*$ti\check{s}\check{s}a(i)$-* at face value, that is, as a normal denominative to the (unattested) Luvian noun *$ti\check{s}\check{s}a$-*, and I suggest further that this *$ti\check{s}\check{s}a$-* in turn reflects an adjective *$d^h i\hat{g}^h$-s-o-* 'formed', which is perhaps itself based on the Proto-Indo-European *s*-stem noun *$d^h\acute{e}i\hat{g}^h$-os* (cf. Gk. τεῖχος 'wall').[20] The phonology—that Luv. -*$\check{s}\check{s}$-* arises from the combination of a stop plus *s*—finds a good, though not exact, parallel in the Luvian word for 'year', CLuv. *$u\check{s}\check{s}a/i$-* = HLuv. *u-sa/si-*, which also presents what appears to be a nearly perfect morphological comparandum for our word since it is surely from *ut-s-o-* (compare Melchert 1994:269), a derivative of the *s*-stem noun *$u\acute{e}t$-os* (cf. Gk. ἔτος). But to return to *$ti/e\check{s}\check{s}ummi$-* (or is it really *$ti/e\check{s}\check{s}umi$-?*;

suggested by Calvert Watkins; p.c. of Craig Melchert) the semantically unclear Hittite word *$ti\check{s}\check{s}atwa$* as well, which is found in the Mastigga Ritual.

17. The form is sometimes spelled *$ti/e\check{s}\check{s}umi$-*, with a single *m*. For the purposes of exposition, I assume that the older writing is with a geminate. This could be wrong, however, and if it is, then Rieken's rule is for that reason alone automatically excluded as an explanation for the word's phonology.

18. That is to say, if one is looking to arrive at CLuv. *di-*, then PIE *$d^h i\hat{g}^h$-* may be a possible source, though the details are not clear (see Melchert 1994:253–6 for a judicious summary) and the fate of the second stop is in any case probably determined in part by what immediately follows, a matter that Rieken does not address since at this early stage in the derivation of *$ti/e\check{s}\check{s}ummi$-* she in effect considers the root in isolation.

19. Rieken cites as a parallel only Hitt. *$p\bar{u}nu\check{s}$-* (see n. 10), whose sibilant may be an import from a morphological category like the aorist (thus Oettinger 1979:215); alternatively, Harðarson (1993:195) wonders whether the source of the stem-final *-š-* is rather a desiderative (he is followed by M. Kümmel in Rix 2001 *s.v.* *$pneuH$-* 'zu Bewußtsein kommen'), and Kimball (1999:199) tentatively proposes a model whereby "*$p\bar{u}nuss$-* was derived from the iterative stem *$punusk$-* through backformation."

20. The status of *s*-stems in Anatolian remains somewhat unclear: see Rieken 1999:171–237 for a good account of the Hittite evidence. Stüber (2002:79-81) presents a convenient summary of the reasons to believe that the *s*-stem *$d^h\acute{e}i\hat{g}^h$-os* may be old.

see n. 17), the bottom line is that whatever its morphology may be,[21] it surely does not reflect a preform with an old cluster *-*sm*-; like *šumanza(n)*-, therefore, it is irrelevant for Rieken's rule.

7. The First-person Plural Possessive Pronoun ('Our') and Similar-looking Forms

This brings me to Rieken's final example, the possessive pronoun 'our', though we need to consider—as Rieken herself does in her 2002 paper—the larger system of personal pronouns in Proto-Indo-European and the Anatolian languages before tackling this one form (see Rieken 2002:411–5).[22] A notable feature of Hittite is that it has a number of plural pronouns that contain both *š* and *m*. The best-known and most discussed of these are the second-person forms, in the first place tonic *šumāš*, which has a *u* between an *š* and a single *m*.[23] As Rieken recognizes, the correct explanation of this form is due in essence to Melchert, whose scenario I some years ago modified to bring it morphologically in line with other pronouns throughout the Indo-European languages:

Hitt. 2pl. *šumāš* — *sumá < *su̯ué < *su̯é ← PIE *us-u̯é.[24]

Put into words, Hittite has a rule whereby the sequence *-*u̯V*- becomes *-*umV*- (with a [single] *u turning into a [single] *m), so *sumá (whence *šumāš*, etc. with the addition of case endings) can go back without further ado (and surely does go back) to *su̯é, the so-called "Lindeman variant" of *s-u̯é, which is itself an aphaeretized version of the expected disyllabic Proto-Indo-European oblique preform *us-u̯é (the source also of, e.g., Go. 2pl. dat.-acc. *izwis*). Furthermore, tonic *šum- comes also to be used as a clitic, and when this happens—very late—the *u* drops, thus giving the oblique clitic -*šmaš* (compare Melchert 1984:27) and also the possessive clitic -*šma/i*-:

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21. The Cuneiform Luvian adjective *annarummi(i)*- 'forceful, virile' looks vaguely similar, but I cannot make anything of the resemblance. Craig Melchert tells me (p.c.) that he is now skeptical of what he wrote about this form in Melchert 1983:17 n. 33.

22. Rieken builds heavily on Katz 1998a, which is largely about Celtic, but does not cite Katz 1998b, which takes on the full range of Indo-European evidence and goes into much greater detail on various points about which she expresses mild and in my view usually unfounded skepticism. Extensive discussion of the attestations and derivations of most of the forms cited in this section (§7) is to be found in these two works, which promote above all the idea that it need not be ad hoc to invoke aphaeresis and the recognition (due in the first instance to Warren Cowgill: see Cowgill 1965:169–70) that the Proto-Indo-European tonic oblique personal pronouns are built with the formants *-*me* and *-*u̯é* (see below, with n. 30). These points have been widely accepted (see now Ringe 2006:57–8, 290–1, and esp. 208–11), though there remains considerable disagreement over the reconstructive details of individual attested forms (compare, e.g., Rasmussen 2003:86–8). I encourage readers to compare my scenarios with those of such naysayers as Kenneth Shields, Jr. (see, e.g., Shields 2003) and Onofrio Carruba, whose series of recent, Anatolian-dominated papers (Carruba 2000, 2002, and 2005) rejects *-*me* almost entirely (note also Gippert 2004:164 n. 33), gives a less-than-ringing endorsement of *-*u̯é*, and does not show much affection for aphaeresis (but *caveat lector*: Carruba's arguments are often difficult to follow, and he attributes to me certain views—most egregiously about pronominal reduplication—that are directly contrary to what I explicitly espouse in Katz 1998a, 1998b, and 2001:21–2).

23. The form *šumāš* shows the (almost certainly inner-Anatolian) addition of the pronominal dative-accusative case-marker -*aš* (probably < PIE dat. pl. *-*os*; see Katz 1998b:249–50); what is of interest here is the stem *šum*-. Unless otherwise noted, all fully inflected Anatolian pronominal forms cited in what follows are in the first place oblique—and, if tonic, then specifically dative-accusative.

24. Thus Katz (1998b:138–41), revising Melchert (1984:26–7). Dunkel (2003:9) incorrectly attributes to me the belief (which he himself holds) that the initial *šu*- in Hittite comes from PIE *us- by metathesis; it is also far from the case (compare Rieken 2002:414 with n. 38) that I "reject[]" Melchert's view of the pronoun.

Hitt. 2pl. *-šmas* and *-šma/i-* ← Hitt. **šum-* (tonic).

Clearly, then, none of the second-person plural forms has anything to do with Rieken's rule, and of course she does not claim that they do.

What, however, about the corresponding first-person pronouns? These look very different indeed—and that is surprising (compare Katz 1998b:43–6). The tonic form corresponding to *šumāš* is *anzāš*, which has neither an *š* nor an *m* in its root and which clearly goes back to an extension of **n̥s-*, in my view specifically to **n̥s-u̯é*, the replacement of expected PIE **n̥s-mé* (cf., e.g., Gk. [Aeol.] 1pl. acc. *ἄμμε*), with the suffix **-u̯é* borrowed from the second-person form:

Hitt. 1pl. *anzāš* ← **antsu̯á* < **n̥s-u̯é* ← PIE **n̥s-mé*.[25]

As for the oblique clitic, *-(n)naš*, this certainly derives from the old full-grade clitic that corresponds to zero-grade **n̥s-*, namely **-nos* (cf., e.g., Skt. 1pl. gen.-dat.-acc. *nas*):

Hitt. 1pl. *-(n)naš* < PIE **-nos*.[26]

Interestingly—and this is Rieken's imaginative contribution to the matter—there is also a third first-person plural form, namely the possessive *šumma/i-*. Until quite recently, this pronoun, recognized as such only since the early/mid-1970's (see above all Francia 1995, with particular reference to H. Otten and E. Neu), was generally held to be homophonous with the second-person plural possessive, *-šma/i-*; it even had a clever (but, as it turns out, incorrect) etymology by Calvert Watkins.[27] However, as Rieken points out, following Francia (1995), the first-person plural possessive form is regularly spelled with a *u* and two *m*'s after the *š*. And it is this realization that in turn allows Rieken (2002:414–5) to see here the reflex of an old form **s-mé* from aphaeretized PIE **n̥s-mé*:

Hitt. 1pl. *-šumma/i-* ← **smé* ← PIE **n̥s-mé*.[28]

Corresponding neatly to 2pl. **(u)s-u̯é* (see above), **(n̥)s-mé* is, Rieken argues, nothing but the expected first-person plural tonic oblique pronoun, which has been preserved in Hittite in a "marginal" function, while the normal tonic pronoun in the category, *anzāš*, comes from a remade form such as (in my opinion) **n̥s-u̯é* (see above, with n. 25). Rieken's account of the possessive, which goes a long way toward explaining how the Hittites ended up with its remarkable three-way contrast in first-person forms (*anzāš*, *-(n)naš*, and *-šumma/i-*), is evidently attractive morphologically—and it is of course attractive phonologically as well, provided that Rieken's rule holds.

There is much to say—but that would be another paper—about the simultaneous appearance of both **-mé* and **-u̯é* in the same pronominal "slot," that is, the existence of one first-person plural pronoun in Hittite that reflects the former suffix (which I have argued is indeed proper to the first person) and another one that reflects the

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25. See Katz 1998b:146–50 for the (messy) details (accepted by Dunkel [2003:10–1 and 2004:21 and 25]).

26. By contrast, PIE 2pl. **-u̯os* (the clitic corresponding to **-nos*) is simply lost, replaced in Hittite by secondary *-šmaš*, as described above.

27. Watkins (1989:790) derives *-šumma/i-* from the reflexive pronoun, **s(u)u̯é (vel sim.)*, and compares (*Sinn*) *Féin* '(We) Ourselves'; see also Watkins 1995:148–9. I cited this idea with approval in Katz 1998b:235; Petit (1999:147–8) was right to be cautious.

28. The core of this idea is found also in Dunkel 2003:10–1.

latter (which I have argued is proper to the second person[29]).[30] More immediately relevant, though, is that there is still another plural pronominal form with both *š* and *m*, which Rieken unaccountably does not mention: yet one more -*šmaš*, exactly the same as the second-person plural general oblique clitic, but this time the *third*-person plural and specifically *dative* clitic (the other plural forms are built to a stem -*a*-). This paradigmatically fascinating pronoun has cognates in the other Anatolian languages (e.g., CLuv. -*(m)maš* and Lyc. -*ñne*),[31] as well as in Tocharian (B -*me*, A -*m*), and it quite clearly goes back directly to PIE *-*s-mos*:

Hitt. 3pl. dat. -*šmaš* < PIE *-*s-mos*.[32]

It also has a near cognate in the Greek third-person plural "dative" clitic σφι(ν), which, however, has the so-called "*bʰ*-ending" *-*bʰi* (originally an instrumental) attached to the zero-grade pronominal root *-*s*- (compare n. 29) rather than, as in Anatolian and Tocharian, one of the so-called "*m*-endings," *-*mos* (originally a dative).[33] But this leaves a big question: if Rieken's rule is correct, then why does it not apply to this -*šmaš*, why does this pronoun fail to surface with a *u* and two *m*'s as well?

8. Evidence and Potential Counterevidence

Let us take stock and assess the evidence for Rieken's rule and also, finally, examine the would-be counterevidence. We have already seen that the positive support for Rieken's

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29. And perhaps also the (third/)reflexive. I do not have a strong view on the antiquity of *-*u̯é* in the third-person (singular?) form *s-*u̯é* or on the formal and functional differences between anaphoric and reflexive pronouns that begin *s(V)-; recent works on these questions include Petit 1999, Puddu 2003, and Dunkel 2003 and 2004:19, with n. 4, and 26.

30. See now the bracing remarks of Dunkel (2004), who does not appear to know Rieken's work. I agree with some of Dunkel's points, disagree with others. Certainly he is right to chastise me for objecting in principle to the idea that there could for one reason or another be "coexisting forms in the first and second plural" (Dunkel 2004:25). One good piece of evidence for positing both *X-*mé* and *X-*u̯é* in a given category (whether or not one now accepts Dunkel's opinion that *-*mé* is inclusive and *-*u̯é* exclusive) comes from the discrepancy in Greek between forms such as 2pl. acc. ὔμμε (which is unambiguously from a proximate preform *us-mé) and 2du. (nom.-)acc. σφῶϊ (for which Dunkel appears to follow my analysis in Katz 1998b:Ch. 8, esp. pp. 251–3, that it is a marginal preservation that goes back ultimately to expected 2pl. *(u)s-*u̯é*; see Dunkel 2004:21 and esp. 24–5. Furthermore, although Rieken does not herself interpret the facts in this way (see Rieken 2002:414–5), her derivation of Hitt. -*šumma/i*-, coupled with that of *anzāš*, provides additional support.

31. As I show in Katz 1998b:243–7, the Hittite, Cuneiform Luvian, and (despite appearances and despite the claim to the contrary in van den Hout 1999:36 n. 26) Lycian forms go back to exactly the same preform, as do Pal. -*šmaš* and Lyd. -*mš* if either of these is real (see the references in Katz 1998b:245 n. 45 and van den Hout 1999:36 with n. 25, respectively); only very slightly different are HLuv. -*ma-za* (probably /-m(m)ants/) and perhaps, as van den Hout (1999) now neatly suggests, Car. -*ms(-)*.

32. The corresponding Hittite possessive -*šma/i*- is a secondary creation—as is the homophonous form 2pl. -*šma/i*-, whose background is, however, completely different (see above). Compare the broad outline in Dunkel 2003:9–11 (but many details seem to me wrong).

33. For details of the Anatolian, Tocharian, and Greek third-person forms just cited, see Katz 1998b:Ch. 8, esp. pp. 242–7, as well as pp. 248–51 on *m*- and *bʰ*-endings. Dunkel (2003:5–11 and passim) largely accepts my analysis but argues that the forms reflect syncopated *-*su-bʰi* (an old idea that goes back at least to Saussure) and *-*su-mos* since, in his opinion, zero-grade *-*s*- is not "licit . . . for particles . . . because a non-syllabic utterance is not phonetically capable of overcoming real-world interference" (7); I am not persuaded. Willi (2004) offers a divergent, and in my eyes wrong-headed, account of the various Greek pronouns in σφ- (including the second-person dual form σφῶϊ, on which see n. 30); he does not consider the Anatolian and Tocharian evidence (and neither do Petit [1999:235–331, esp. 244–50, and passim] and Shields [1999]).

rule comes from the noun *šummittant-* 'ax', the pronoun *-šumma/i-* 'our', and perhaps the hapax verb *šum⟨m⟩umaḫḫ-* 'unite'. As for the nouns *šumanza(n)-* '(bul)rush' and *ti/eššummi-* '(formed) vessel', they tell us nothing, and neither do the second-person plural pronominal forms *šumāš*, *-šmaš*, and *-šma/i-* 'you(r)'. Actual—and disparate—counterevidence, however, appears to come from words with initial *ša/em-*, such as (most clearly) the verb *ša/emen-* 'disappear', which reflects PIE **smen-* (see §3);[34] from *išmeri-* 'bridle, rein' (see §3); and from the third-person plural clitic *-šmaš* 'to/for them' (see §7).

At first glance, the variety of potential counterexamples might seem dispiriting for anyone who wishes to bolster Rieken's rule, but in fact a closer look reveals coherent patterns. Take, for instance, *š(a/e)men-*: the alternation between *a* and *e* suggests that there is no anaptyctic vowel here and that the variation is purely graphic (a so-called "empty vowel"); since the root is thus monovocalic, *š(a/e)men-* must go back to a preform in which the accent is on the vowel that immediately follows the initial **sm-*, namely to something like **smén-*.[35] Furthermore, the occasional spelling of *š(a/e)meḫuna-* (see n. 34) with *scriptio plena* on the first real vowel (⟨ša/e-me-e°⟩)[36] suggests on Hittite-internal grounds that this is the locus of the accent in this word (probably a borrowing from a non-Indo-European language) as well; and the same holds also for *z(a)mankur* (see n. 34), to judge from the comparative evidence, most obviously the barytonesis of its Sanskrit cognate, *śmáśru-* (← PIE **smé/óḱ-ru-*). By contrast, it is likely (though perhaps not possible to prove) that in the two examples of Rieken's that seem probative anyway—the word for 'ax' (§2) and the new verb 'unite' (§4)—the accent falls on a vowel other than the one that immediately follows the initial **sm-*: *šummittant-* probably goes back to **smit-V́nt-* and *šum⟨m⟩umaḫḫ-* to **sm-um-éh₂-* (*vel sim.*).[37]

When we put these observations about accent together with the fact that 3pl. dat. *-šmaš* was a clitic already in Proto-Indo-European times and therefore does not at any point in its history have a truly *initial* cluster (**)sm-*; when we recognize that Rieken's only would-be instance of the word-internal application of her rule, *ti/eššummi-*, is not actually an example and when, in fact, as Watkins has recently shown, the Hittite word for 'firewood', *(GIŠ)warš(a)m(m)a-*, offers positive evidence *against* the rule (evidence that jibes with my derivation of 3pl. dat. *-šmaš*);[38] and when we ignore the troublesome

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34. Note also *ša/emeḫuna-* 'couscous (*vel sim.*)', of unclear etymology. Whatever exactly the reason may be for the *z-* in *zamankur* 'beard' (vs. *šamankurwant-* 'bearded')—I am not wholly persuaded by the explanation in Oettinger 1994:322—this word, too, probably falls into the same basic category (though there is no evidence for ⟨z/še-⟩).

35. Compare Güterbock, Hoffner, and van den Hout 2002 *s.v. ša(m)men-*, *šemen-*, *šame-*: "The vacillation of the vowel in the initial syllable suggests a pronounced **smen-*" (120). Kimball (1999:117–8 and also 195–6) is reluctant to believe that the alternation is phonologically significant, though she does not absolutely exclude the possibility. However, Kassian and Yakubovich (2001:38–9 and 41 and 2002:19–21 and 32) advance the view that it is phonetically motivated, at least in the spelling of the various "*šm*-pronouns" (on which see also Kimball 1999:116).

36. Güterbock, Hoffner, and van den Hout (2002 *s.v. šameḫuna/e-*, *šemeḫuna-*) list the attestations.

37. The accent on the factitive suffix **-éh₂-* is clear on comparative grounds; that the participial suffix **-é/ónt-* has the accent (compare Kimball 1999:199) rather than the zero-grade root is admittedly just a guess (cf. also *(UDU)iyant-* 'sheep', which likewise reflects an old lexicalized participle, PIE **h₁i-V́nt-* 'going').

38. For the etymology of *warš(a)m(m)a-* as from PIE **ue/or-smo-* 'kindling', see Watkins 2002:881–2, where it is noted, with reference to Melchert 1994:158, that this would seem to be the only known Hittite example of inherited word-internal (though not intervocalic) **-sm-*. It should be pointed out that the demonstration that

word *išmeri-*[39] — when we do all these things, then we can provisionally formulate as a rule that PIE *sm- becomes *šumm-* in Hittite if and only if it is truly word-initial and not immediately followed by an accented vowel. Of course this still leaves the first-person plural possessive pronoun *-šumma/i-*. While I do not have a wholly worked-out answer to how this form can be an example of Rieken's rule, I am confident that the explanation has to do with the fact that while *-šumma/i-* is synchronically a clitic, its protoform was tonic and necessarily accented on the only vowel, right after initial *sm-: *smé. The three-way contrast in first-person plural tonic/clitic forms is unique (see §7), so there are no easy comparanda, but it seems reasonable to imagine that the rule whereby *sm*-becomes *šumm-*, gaining a geminated (or tensed; compare Watkins 2002:881) nasal and an anaptyctic *u* (probably in that order; compare Rieken 2000:173), goes into effect at a time when this and presumably other possessives following their head nouns have reduced, but still independent (secondary), stress — not normally tonic any longer but also not wholly accentless: *[Ń #smè]$_{NP}$.[40]

9. Conclusion

Certain issues raised in the course of investigating the outcome of PIE *sm- in Hittite are obviously in need of further study, most pressingly the etymology of Hitt. *išmeri-* and the very existence of secondary stress in Anatolian. Also desirable would be cross-linguistic work on gemination and anaptyxis[41] and, specifically for Hittite, a look at whether the conditions under which *sm- develops are similar to — they do not appear to be exactly the same as — what happens to another initial sequence of sibilant and labial, namely *sp-, which has also been said to manifest a triple reflex.[42] Still, even though some details remain uncertain, I hope to have demonstrated that Elisabeth Rieken's "Lautgesetz" is essentially correct, with position in the word and, interestingly, accent playing significant roles: initial (but not also medial) *sm- becomes *šumm-* in Hittite (but not, as far as we know, any other Anatolian language) just when the main accent is not on the immediately following vowel.

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this Proto-Indo-European cluster remains in Hittite does away with the phonological objection that Dunkel (2003:6 and 9 with n. 17) raises to my derivation of *-šmaš* from *-s-mos (rather than from, say, *-su-mos; see n. 33). I cannot accept the remarks on word-internal *-sm- in Kimball 1999:446 (with particular reference to J. Puhvel).

39. Does *išmeri-* actually go back to *sm-? And if it does, is the gained *i-* phonological or merely orthographic? Melchert (1994:155, with reference to Čop) writes that "[i]t is conceivable that Hitt. *išmeriya-* [sic] equals Pal. *šameri-* and thus represents /sm-/ spelled *iš-me-*" (see n. 8), but even if the Palaic word is related, it does not necessarily follow that the *i-* in Hittite is "silent." Whether or not *išmeri-* is etymologically connected to *išḫiya-* 'bind', it is possible that the *i-* has been borrowed from this verb and its derivatives (the status of whose own initial *i-* remains admittedly an open question: see, e.g., Melchert 1994:111, with references).

40. I do not see any compelling reason to follow Garrett (1991–93:160–1 and passim) in believing that a set of clitic possessive pronouns exists already in Proto-Anatolian. For a preliminary account of the Hittite evidence for "stress loss/reduction" in syntactic phrases, see Melchert 1998.

41. For anaptyxis, see (in addition to Kavitskaya 2001) Fleischhacker 2005:42–6 and passim (I owe my knowledge of this interesting work to Jeremy Rau).

42. Melchert (1994:31–2) and Rieken (2002:407–8) note *šuppišduwari-* (once *išpišduwara-*!) 'boss-like decorations' (of unclear internal morphology and etymology), (URUDU)*ša/e/ipikkušta-* 'pin, needle' (< PIE *sp(e)i-K- [vel sim.]), and the various forms of the notorious verb *šip(p)and- ~ išpand-* 'libate' (< PIE *spend-).

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