Sanskrit -na- Participles and the Glottalic Theory

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1. The distribution of the Sanskrit -ta-/na- participles is an unsolved problem. Whitney (1889-1895) and Wackernagel-Debrunner (1954-1968) only mention that the suffix -na- is predominantly found after roots in long vowels, in d and in velars, but give no explanation for this peculiar state of affairs.

In order to see the problem in due perspective, we must first of all realize that the spread of the -na- suffix is a Sanskrit innovation. In Indo-European, the suffix *-no-, among other functions, formed verbal adjectives, and this was inherited into Indo-Iranian, cf. Skt. śvāna- 'white, whiten', Goth. žuan 'white': Skt. āita 'to become white, light'; Skt. uṣāṇ- 'hot': Skt. uṣā- 'to burn'; Skt. oṣāṇ- 'wanting, deficient'; LAv. ána- 'deficient', L Av. anāma 'empty', OPG māna 'deficient'. Skt. ātā 'to become exhausted, deprived of'; Skt. pūrṇā- 'full', Av. pūrṇa-; Goth. fjol; Skt. ātā 'to fill'. The Indo-Iranian verbal adjectives in -na- existed side by side with those in *-ta-. (Skt. áhāra 'dry, dried out', LAv. āhuī-'dry'; Skt. tu 'to be dry'); *-na- (Skt. pārṇa- 'ripe, cooked', Kh. pān- 'ripe, cooked'; Skt. pār 'to cook'); *-na- (Skt. tāma- 'sharp'; Skt. tā 'to be sharp'); *-na- (Skt. kāma- 'small'; Skt. kāp 'to disperse', Av. kāpa- 'sharp'); *-u- (Skt. rāgūna- 'quick', LAv. mānu < *rāguva acc.sg. 'fast, quick'; Skt. nāma- 'to hasten, to run'), etc. The Indo-Iranian suffix *-na- also belonged to this group, forming verbal adjectives with a passive resultative meaning (Skt. bhājā-, Av. barmā- 'hurt'), if the verb was transitive, and non-passive resultative meaning (Skt. gata-, Av. gata- 'gone'), if the verb was intransitive. It is important to keep in mind that not every verbal root had a verbal adjective in Indo-Iranian, let alone one with the suffix *-na-.

This Indo-Iranian situation is rather faithfully preserved in Iranian, but in Sanskrit we encounter an increasing tendency to provide every verbal root with a full-fledged paradigm, including a verbal adjective. The most productive suffix was -ta-, but it was involved in heavy competition with -na-, and at some point had become synonymous with -ta- in Sanskrit. This probably happened because prāna- 'full' was analyzed

1. I am in disagreement on this point with the grammar by Thumb and Hauschild (1959), who write on p. 368: "Die partizipiale Verwendung des Suffixes [*-no-] ist am deutlichsten im Av. ... , ging aber z.B. im Griechischen und Lateinischen verloren." 2. As a simplex, this adjective is first attested in the AV, but its antiquity is confirmed by RV anañā- 'annoying, not deficient' (y), anañāna- 'of unwanting splendor', and the denominative verb saña- 'to leave deficient, make void' (RV 1.3.5; cf. anañāna- 'annoying, not deficient'), rāna- 'to stretch out, extended' originally was a verbal adjective in -na-; in the root (*-na- 'to stretch') (cf. Beekes 1982-83:206 n. 1 and Beekes 1985), but since the verbal root in Indo-Iranian is almost exclusively *-na-, this verbal adjective became disassociated from it and was replaced by -na- < *-na-.
as "tilted" and thus considered analogous to a -na- participle. As we shall see below, *prHna- played a crucial role in the development of this category. The other Indo-Iranian formations in -na- (sdnta-, nma-, din- -) have kept their original meaning, but further remained peripheral.

2. Since the spread of -na- is an innovation, it is important to examine how the -na- participles expanded in the course of the history of Vedic. The first attestation of a form does not prove that the form had not existed before, but we get a good impression of the dynamics of the process.

In the family books of the RV, we find no more than seven different -na- participles.

Next to the inherited jyrJd-, only jurJd- "strained" < *prHna- is solidly embedded there (I' II' III' IV' V' X, sitraudhara - who has strained the sacrificial grass' V' X), whereas pert-stmina- 'cut (around)' (VII' X, delcimmna- 'with uncertain wings' Y') < *sid-nta- (Sauna- 'fallex, dropped' (VII' X) < *sid-nta- (VY) < *sid-nta- 'released off' (VII' X, vityasa- Y'). In both, we find a hapax jurJd- 'decayed', old (I', IX) > *prHna- and a quasi-hapax tunna- 'struck, hurt' (9.6.7.6 and 9.6.7.20) > *tna-

The younger books I, VIII, X add seven new -na- participles, viz. atriya- 'not covered' (VII') < *trH-na-, muna- 'split' (V, vi-bhinta- X) < *ni-nta-, din- 'cut, mown' (VII') < *dH-na-, 'hewed off' (VIII' X) < *Hna-, 'paludized' (VII') < *A-trna- (dind-, hinda-). Jurada- 'pruned' is practically restricted to the RV. At 3.3.1.6a (where jurada- 'cut (around)' is found in the rock ... '), jurada- is a normal root jurada- which can hardly be correct.

5. Incidentally, we add that jurada- "sawed (a branch)" (for the accent cf. jurada- 'sawed (a branch)'); after jurada- jurada- 'cut (around)' (Ab.), jurada- jurada- 'cut' (YV), jurada- jurada- 'cut, mown' (VII), jurada- jurada- 'sawed (a branch)' (YV) < jurada- jurada- 'sawed (a branch)', jurada- jurada- 'sawed (a branch)' (VII). The expansion continued in the later texts: the AV adds 7 new -na- participles, although most of them are hapaxes, and the VY adds 20 old more. For our purposes, the analysis

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In the scholarly literature (e.g. Wackernagel-Debrunner 1954:729), *tud-na- is associated with the verb "set in motion" (to...)

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roots in \( rH \) and those from roots in \( d \). As we have seen above, there were two crucial moments in the development of the \(-na-\) participles in Sanskrit: (1) interpretation of \(-na-\) as passive and thus synonymous to \(-ta-\), and (2) analogical spread of the suffix along formal lines: from roots in \( rH \) to roots in \( d \) and only later further afield. The first step is perfectly understandable, but the second one requires an explanation. There must have been a phonetic feature in common between \( rH \) and \( d \), otherwise this spread would be unexplicable. I believe this feature was glottalization. It is very probable that the three Indo-European laryngeals had merged into a glottal stop in Indo-Iranian (see already Polome 1972:244, Lubotsky 1981), while there is considerable evidence that Indo-Iranian had preserved the glottalic articulation of the unaspirated stops. Since I have discussed the issue on several occasions in the past, I simply refer to my earlier articles (Lubotsky 1981, 1994; for the glottalic theory in general see Kortlandt 1985).

It is therefore likely that \( rH \) and \( d \) were phonetically \([r\#]\) and \([\#d]\), or glottalized \( r \) and \((\text{pre-})\text{glottalized } d \). Since we are dealing with a fairly early period in the development of Sanskrit, preceding the RV or during the stage of its earliest hymns at most, it is conceivable that \( r \) was not yet retroflex, but dental, which would mean that \([r\#]\) and \([\#d]\) were phonetically even closer.

References


