

# The agent suffixes as a window into Vedic grammar\*

Paul Kiparsky

## 1 Two agent suffixes

The two Indo-Iranian agent suffixes *'-tar-* and *-tár-* can be reconstructed for IE as preaccenting *\*'-tor-* and accented *\*-tér-* on the evidence of their Greek cognates. In addition to accent and ablaut, they differ in three other respects: (1) semantically, (2) morphotactically with respect to their constituency in the word, co-occurrence with other affixes, compounding potential, and whether they allow the prefix to be separated from the root, (3) syntactically with respect to whether they have accusative or genitive complements, and adverbial or adjectival modifiers. Here I put forward a unified analysis that explains these systematic differences and relates them intrinsically to each other. I have relied on the Vedic material assembled by Renou, Lühr, and most comprehensively by Tichy. My citations and interpretations of Rigvedic examples adhere to the authoritative new translation by Jamison and Brereton (2014).

Everyone agrees that the two agent suffixes differ in meaning, but opinions diverge drastically on what that difference is. (1) is a thumbnail summary of the proposals that I will be reviewing before presenting my own in section 2.<sup>1</sup>

(1)	<i>'-tar-</i>	<i>-tár-</i>
Pāṇini	present habitual/generic agency	agency (unrestricted)
Renou	present/durative agency	punctual agency, function
Benveniste	actual agency	generic agency
Hale	event agency	non-event agency
Lühr	stage-level agency	individual-level agency
Tichy	habitual/generic agency	potential/situation-bound/occasional agency

My conclusion will be that Renou and Tichy were each right about a different part of the meaning of *'-tar-*, and that everyone has been wrong about the meaning of *-tár-*, except for Pāṇini, who got the meanings of both suffixes exactly right. Pāṇini's key insight was that the semantic opposition is privative rather than equipollent: *'-tar-* denotes habitual/generic agency in ongoing time, while *-tár-* does not have the contrary meaning but rather denotes agency pure and simple. Since the temporal feature, one of the two meaning components that distinguish *'-tar-* from *-tár-*, is also a core property of verbs, it furnishes a principled basis for explaining why *'-tar-* agent

---

\*I am grateful to the editors Dieter Gunkel and Benjamin Fortson for their helpful comments.

<sup>1</sup>For some remarks on Kim 2005 see section 2. The comprehensive reserach survey by Balles 2005 covers a number of other proposals, notably those of Hoffmann 1967 and Lazzeroni 1992, which I have no space to discuss here.

nouns have verb-like syntax, in that they assign structural accusative case to their objects, and are modified by adverbs rather than by adjectives (section 3).

Less attention has been devoted to the equally puzzling morphological and morphotactic differences between the two agent suffixes. My solution (section 4) starts from the observation that *'-tar-* belongs to a class of inner derivational suffixes that select only bare unprefixated roots, the so-called Caland suffixes. These inner suffixes have a range of special morphological and phonological properties due to their intimate bond with the root. I show that the constituent structures of the two agent suffixes predict the accentual differences between them in prefixed formations. The morphotactic restriction against *'-tar-* on complex bases, including causatives, intensives, desideratives, denominatives, and prefixed roots is also crucial to understanding the semantics. Being an outer suffix, the all-purpose agent suffix *-tár-* steps in to fill the gap. Consequently the meaning distinction between the agent nouns is neutralized after complex bases. Neglecting the neutralization between the two suffixes in this context has muddied the waters in previous efforts to pin down the meaning of *-tár-*. In section 5 I go on to show that the different morphological constituency of the two agent suffixes also explains why only *'-tar-* agents ever allow the preverb to be separated from the root (tmesis), and why only *-tár-* agents ever occur in nominal compounds.

## 2 The semantic distinction

Renou (1938: 108) claimed that *'-tar-* forms agent nouns with the value of a “general present” tense, and therefore, in virtue of the durative character of the Vedic present, of durative (imperfective) aspect. They are often used like participles to modify the main predicate by specifying its manner of action; also as agent nouns *tout court*, and to designate occupations and skills (*váptar-* ‘shearer’, *dhmátar-* ‘smelter’, *táṣṭar-* ‘carpenter’, *ástar-* ‘archer’, *sthátar-* ‘driver’, *métar-* ‘architect’, *hétar-* ‘rider’, *séktar-* ‘impregnator’), as well as four priestly functions (*hótar-*, *pótar-*, *néṣṭar-*, *sámstar-*). For Renou the basic distinctive semantic feature of agent nouns in the other suffix *-tár-* is punctual aspect (p. 111); as a secondary property that emerges from this aspectual value, they express a “function” attributed to the agent, resulting either from a single unique act or a repeated act.

Benveniste (1948: 11-27) rejected Renou’s idea that the suffixes differ in tense/aspect. Since he gave no arguments we can only guess why; possibly he saw tense and aspect as categories that have no place in the nominal domain. This is now known to be false, and there is meanwhile a growing literature on nominal tense/aspect (Tonhauser 2008). For Benveniste the properties that Renou had considered secondary are basic. In his words, *\*'-tor-* denotes “l’auteur d’un acte”, while *\*-tér-* denotes “l’agent voué à une fonction”, or “voué à un accomplissement, que cet accomplissement ait lieu ou non”. The intended contrast is between the agent of an actual act, and a generic agent who may or may not have actually done anything. Although his interpretation relies heavily on hand-picked examples, sometimes rather subjectively glossed, it became very influential. It was in essence adopted by Debrunner (1954: 670) after he and Wackernagel had wrestled with the problem in an earlier volume of their *Altindische Grammatik* (1930: 201, 597); similarly by Seiler (1986: 58).

Several recent works have given Benveniste’s idea a new twist in terms of contemporary lexical semantics. Mark Hale identified it with the distinction between event agent nouns (*'-tar-*) and

non-event agent nouns (*-tár*).<sup>2</sup> The distinction, introduced by Levin & Rappaport 1988, may be illustrated with the ambiguity of the word *receiver*. As an event agent noun, it refers to an actual recipient, and inherits the verbal argument structure of *receive*, as in *frequent receiver of distinguished awards*. As a non-event agent noun, it refers to a person or device that is generically supposed to receive something, but possibly has not ever done so. For example, a radio can be called a *receiver* because it is designed to receive broadcasts, even if it has never actually received one, and a particularly inept *wide receiver* (in American football) may have dropped all the passes he was supposed to receive. Levin & Rappaport note that non-event agent nouns lose the argument structure of the underlying verb: a frequently used radio is not a *\*frequent receiver*, and it would be peculiar to speak of a *\*wide receiver of long passes*. The analogy between this English dichotomy of agent nouns and the Vedic one is intriguing, but ultimately not helpful. We shall see that Vedic *'-tar-* and *-tár-* differ from English *-er* semantically and syntactically, and that both Vedic suffixes inherit the full range of arguments of the basic verb.

A different update of the Benvenistean distinction, due to Lühr (2002, 2005), equates it with Carlson's (1977) distinction between stage-level and individual-level predicates. According to Lühr, *\*-tor-* agents are stage-level predicates, meaning roughly that they describe a transient property, while *\*-tér-* agents are individual-level predicates, which describe an intrinsic or permanent property.<sup>3</sup>

Tichy's (1995) extensive monograph on the Vedic uses of the two agent suffixes broke with this near-consensus and effectively turned the traditional view on its head. Her conclusions carry special weight because she mustered the entire Vedic corpus, including the prose, and formulated systematic generalizations about the uses of the two agent nouns. For her it is the preaccenting *'-tar-* that denotes habitual or generic agency. Its basic function is to predicate a permanent property or ability. In Rigvedic it also predicates “generalized agency” in sentences expressing universal truths of the type “he whom Indra favors, does X”. In contrast, *-tár-* has a “situative function”, denoting agency in some particular situation or situations, either potential, actual, or (most frequently) temporally unspecified occasional situations.

For all their differences, these analyses share two critical assumptions about the nature of the semantic opposition between the two agent suffixes. First, the opposition is taken to be *equipollent* — a distinction between two specific contrastive meanings. This assumption is presupposed by, and built into, the commutation test that Tichy uses as her primary analytic tool. Secondly, each meaning is taken to be constituted by a distinctive semantic feature or set of features, at least one of which is manifested in all its uses, possibly with specialized sub-meanings either in free variation or in a contextually determined distribution. Were it not for its adherence to these constraints, Tichy's meticulous analysis might have come very close indeed to the mark.

Pāṇini's grammar takes a very different approach, which I believe is correct. In his analysis, the opposition is *privative* — an opposition between a specified meaning and no specified meaning.<sup>4</sup>

---

<sup>2</sup>*Apud* Watkins 1995: 385, fn. 5; the same idea in Fortson IV 2004: 111-2, a similar one for Greek in Schubert 2000.

<sup>3</sup>The stage-level semantics that Lühr attributes to *'-tar-* can perhaps be reconciled with the temporal restriction to ongoing time noticed by Pāṇini, which will be a cornerstone of the analysis offered below. In Kratzer's (1988/1995) influential analysis, stage-level predicates are associated with a “Davidsonian” spatiotemporal variable that is constrained by tense, while individual-level predicates are not. For her they also differ syntactically, in that the subject of individual-level predicates appears in the external argument position (the Specifier of IP), whereas a stage-level predicate is base-generated in a lower position, from where it may raise. Whether this analysis works for the Vedic case remains to be investigated.

<sup>4</sup>In an unpublished conference talk, Thurneysen (1904) drew attention to Pāṇini's privative characterization of the

Furthermore, the privative opposition is *two-dimensional*. Its unmarked member *-tár-* (Pāṇini's *tr̥C*) denotes simply an agent. The marked member *'-tar-* (Pāṇini's *tr̥N*) has a conjunction of two additional meaning components, both of which are manifested in all its uses.

The first additional meaning component of *'-tar-* according to Pāṇini, noted by almost all writers on the topic, restricts it to habitual, professional, or expert agents (P. 3.2.135 *ā kves tacchīlataddharmatatsādhuḥkāriṣu*). As a shorthand term, I'll refer to this as the HABITUAL/GENERIC meaning. *'-tar-* (Pāṇini's *tr̥N*) shares this meaning with other agent suffixes, enumerated in the rules that follow, which compete with it after particular roots (but do not block it, in virtue of 3.1.94 *vāsarūpo 'striyām*). These include *-iṣṇu-* (e.g. *carīṣṇú-* 'relentlessly) moving', 3.2.136), *-aka-* (*vuṅ*) (3.2.146), *-aná-* (*yuC*) (3.2.148), *-u-* in desiderative nouns and in *bhikṣú* 'beggar' (3.2.168), and *-i-* (3.2.171), among many others — all semantically equivalent to *'-tar-*, and so designated by Pāṇini by grouping them together under the scope of rules 3.2.123 and 3.2.134. Tichy notes that their synonymy is confirmed by textual pairings such as *táturir vīró ... śrótā hávam...* 'the surpassing hero (*-i-*), ... hearer (*'-tar-*) of the singer's call' (RV 6.24.2, Tichy 1995: 236).

The second additional meaning component that Pāṇini attributes to *'-tar-* is unaccountably ignored in the entire literature: *'-tar-* is temporally specified, *-tár-* is not. The rule that introduces *'-tar-* (3.2.135 *tr̥N*) comes under the scope of 3.2.123 *vartamāne laṭ*, which restricts it to actions performed *vartamāne*, 'at the current time'.<sup>5</sup> It shares this present temporal meaning with 27 other suffixes introduced in 3.2.123 – 3.2.177, including the agent suffixes listed in the preceding paragraph, and the present tense suffixes and participles.<sup>6</sup> Renou (1938: 124) does not mention the temporal restriction of Pāṇini's rule, but it perfectly supports his own observation that *'-tar-* has the temporal value of present tense and functions prominently like a present participle. The numerous scholars who have cited that rule since then in discussions of the agent nouns have repeated this omission.

The accented suffix *-tár-*, on the other hand (inserted by rule 3.1.133 *ṇvultr̥cau*) does not come under either of these semantic headings. It has neither the temporal restriction nor the restriction to habitual actions that delimit *'-tar-* (*tr̥N*) as well as the abovementioned other inflectional and *kṛt* suffixes. Aside from a special modal use separately recorded by rule 3.3.169 *arhe kṛtyar̥caś ca*, to which I briefly return in section 4, *-tár-* has no additional meanings, only the general meaning of agency by 3.4.67 *kartari kṛt*. It belongs in a synonymy class with *'-aka-* (*ṆvuL*) and with other semantically nondescript agent suffixes introduced by subsequent rules which compete with *-tár-* after particular roots, e.g. *'-ana-* (*Lyu*), *-ín-* (*ṆinI*), *-a-* (*aC*) (3.1.134). Their synonymy is likewise confirmed by textual pairings, e.g. RV 9.97.39 *vardhitā vārdhanaḥ* 'the strengthening (*-tár-*) strengthener (*'-ana*).

Pāṇini's treatment reveals two important insights about Sanskrit morphology and exploits them to condense his rules. First, suffixes come in synonymy classes. For each meaning there is a general (default) suffix, whose use is delimited by other synonymous suffixes reserved for particular contexts. These sets are grouped together in the grammar under a common semantic heading. The

---

opposition and maintained that it was correct also for Rigvedic.

<sup>5</sup>As Sharma (1995: 454) translates 3.2.135: "Affix *tr̥N* occurs after verbal roots to denote a *kartr̥* who perform an action *at the current time* because of his nature, sense of duty, or skill." Similarly Singh (1991: 40).

<sup>6</sup>Joshi & Bhate (1984: 163) explain the principle by which *vartamāne* is continued from 3.2.123: "Categorical semantic terms are continued automatically till they are cancelled by a new incompatible categorical item. ... The categorical meaning term *vartamāne* cancels the incompatible meaning term *bhūte* [from 3.2.84]." But the meanings of habituality etc. in 3.2.134 are not incompatible with *vartamāna* time. "Therefore, *vartamāne* is continued up to P. 3.2.177," so that the suffixes assigned in this section express present time in addition to habituality, etc.

second insight is that most deverbal (*kr̥t*) suffixes share a subset of the inflectional tense endings' modal and temporal features. Pāṇini's ingeniously captures that relationship by a parallel treatment of these inflectional and derivational suffixes within an integrated morphological subsystem under the headings 3.3.84 *bhūte* "in the past", 3.2.123 *vartamāne* "in the present", 3.3.3 *bhaviṣyati* "in the future", and 3.3.18 *bhāve* "in a stative".

To return to the agent nouns: if the opposition between them is in fact privative and involves two features, as Pāṇini's analysis claims, their semantics must be reconsidered. The occurrences of the marked suffix *'-tar-* share an invariant semantic feature bundle: the conjunction of two features that restrict it to agents of habitual/obligatory/accomplished actions in ongoing time. But *-tār-* is not restricted in this way. It is just an all-purpose agent suffix. That is why in the Vedic texts its type frequency is more than twice, and token frequency ten times, that of *'-tar-*

So it is not surprising that efforts to distinguish the two agent suffixes by a simple semantic feature have failed to converge. Does *'-tar-* denote agency in ongoing time (Renou), agency of an actual act (Benveniste, Debrunner), or habitual/generic agency (Tichy)? Does *-tār-* denote agency in punctual aspect and derivatively a function (Renou), just a function (Benveniste), potential or situationally/temporally restricted actual or occasional agency (Tichy), or permanent properties of individuals (Lühr)? There is some truth to all of these formulations but little common ground between them, and none captures the entire semantic gamut of the suffixes. In their search for a uni-dimensional equipollent opposition, scholars have seized on different components of the marked agent suffix *'-tar-*'s meaning bundle, and imposed complementary specific meanings on what is actually the unmarked, generalized agent suffix *-tār-*, the more accurate of them constituting no more than a list of heterogeneous meanings.

A review of the textual material carefully marshaled in Tichy (1995: 249 ff.) points to a core meaning for *'-tar-* which fully agrees with Pāṇini's grammar: an agent who currently (*vartamāne*) acts habitually, professionally, or expertly (*tacchīla-taddharma-tatsādhukārin*).

The current time meaning subsumes a special use of *'-tar-* found primarily in Rigvedic, in which it denotes a "generalized" agent in sentences that express universal truths (Tichy 1995: 226). Typical are main clauses to conditionals of the form "he/anyone who/whom..." with a tensed or subjunctive (not injunctive) verb in the protasis, e.g. *yám ... hinóṣi ... sá távo'tī góṣu gántā* (RV 8.71.5) 'whom you impel, he by your help arrives/will arrive at cows'. These agent nouns can be equally well translated with the present, as Tichy does, or with the future, as Jamison & Brereton do, but they clearly proclaim universal timeless truths. Since these can be expressed in finite clauses by present tense, e.g. *yám yajñám ... paribhūr ási sá íd devéṣu gacchati* 'the sacrifice that you surround, it alone goes among the gods' (RV. 1.1.4), they are fully compatible with the present temporal feature of *'-tar-*.

Outside of such permanent truths *'-tar-* is never used for agents of future events (Tichy 1995: 129).

Very rarely *'-tar-* denotes agents of past events. The clearest such exceptional case is *hántā yó vṛtrám sánitotá vājam* '[Indra] who is the smasher of *Vṛtra* and the winner of the prize' (RV 4.17.8, see Tichy 1995: 239, 251). But this verse is a special case in that it details "the qualities which make Indra worthy of our attention" (Jamison & Brereton 2014: 582), of which all the others in the verse are expressed with agent suffixes denoting *vartamāne* "current time" actions: *satrāhaṇ-* "total smasher" (sc. of obstacles, which are also called *vṛtra*), *dādhṛṣi-* 'daring', and *hántar-*, *sánitar-*, *dātar-*, with respectively *KvIP* (3.2.177), *KiN* (3.2.171), and *tr̥N* (3.2.135). In this context, *hántā vṛtrám* perhaps expresses the idea of the current relevance and potential repeatability of

Indra’s signature accomplishment. Of the other cases, RV 7.20.1-2, 8.41.4, 10.49.3 allow a similar interpretation (Tichy 1995: 246, 253), and RV 4.20.6 and 10.99.3 are actually translated with present tense by Jamison & Brereton.

Kim 2005: 104 ff. objects to Tichy’s argumentation on the grounds that the temporal meaning of a sentence such as ŚB III 6.2.18 *yathāivāśyāmútra goptāro ’bhūmaivám evāyāpīha goptāro bhaviṣyāmaḥ* ‘as we have been his protectors there, so we will be his protectors here as well’ is expressed by the copula, and is therefore irrelevant to the function of *-tár-*. This criticism appears to be misdirected, since Tichy’s interpretation does not require that *-tár-* expresses past or future agency, just that it is *compatible with* it. The essential fact is that sentences with non-present temporal reference (such as the cited one) allow only *-tár-*, not *'-tar-*, which shows that *'-tar-* expresses agency in current time and *-tár-* expresses agency with no temporal restrictions, just as Pāṇini’s grammar says.

Negated existential sentences never have *'-tar-* (Renou 1938: 114, Debrunner 1954: 689, Tichy 1995: 85, Lühr 2002), even when the agent noun whose existence the sentence denies would appear to satisfy the semantic conditions required for them.<sup>7</sup>

- (2) a. *nā́sya vartá ná tarutá mahādhané nárbhe asti vajríṇaḥ* (1.40.8)  
‘There exists no one to obstruct, no-one to overcome the one who wields the mace, be the stake great or small’
- b. *ná yásya vartá janúṣā nv ásti ná rádhasa ná āmaritá maghásya* (4.20.7)  
‘For whom by nature there now exists no obstructor and no hinderer of benefit and bounty’
- c. *nákir eṣāṃ ninditá mártyeṣu* (3.39.4)  
‘There is no-one among mortals who scorns them’
- d. *ná marḍitá vidyate* (10.64.2)  
‘No dispenser of mercy is to be found’

This can be understood as follows. Being semantically nondescript, *-tár-* can be substituted *salva veritate* for the more specified *'-tar-* in affirmative declaratives, and conversely *'-tar-* can be substituted *-tár-* in negative declaratives. However, doing so would decrease informativity, not only needlessly restricting the scope of such existential assertions and therefore avoided for Gricean pragmatic reasons, but actually defeating their intended hyperbolic rhetorical force, which the poets take pains to bring out by other means as well, typically by enumerations such as *ná . . . mahādhané nárbhe* ‘be the stake great or small’ (2a), *ná rádhasa ná . . . maghásya* ‘neither benefit nor bounty’ (2b).

The suffix *'-tar-* is also avoided in modal contexts, such as general conditionals and wishes for the future:

- (3) a. *má vo riṣat khanitá* (RV 10.97.20)  
‘Let your digger [=whoever digs you up] not suffer harm’
- b. *ninditáro níndyāso bhavantu* (RV 5.2.6)  
‘Let them who scorn become those to be scorned’

<sup>7</sup>In (2) and other such cases, the agent noun can be translated naturally with a subjunctive clause (as Tichy does) or with a modal infinitive, e.g. “no-one who could hinder”, “no-one to hinder”.

Modality is compatible with *-tár-* but not with *'-tar-* because of its restriction to ongoing time. Examples like those in (3) indicate that modal meanings are not only compatible with *-tár-* agents, but can be specifically conveyed by them. This must therefore be a special use or meaning of *-tár-*, on top of its generalized unmarked meaning. Indeed, Pāṇini records such a modal meaning for *-tár-* in his 3.3.169 *arhe kṛtyarṇas ca* ‘gerundives and *-tár-* [denote agency] in the meaning of *arh-*’.

Since the current time meaning component of *'-tar-* makes it unsuited to express future action, the periphrastic future was grammaticalized from *-tár-*, which is compatible with future and modal uses. For the same reason, its atemporal synonym *'-aka-* (P. 3.1.133) forms agent nouns that head purpose clauses (*bhojako vrajati* ‘he goes to eat’), and likewise the atemporal nominal *'-ana-* (P. 3.1.134) is apt to have infinitival uses: *sá yáthā ná bāhyāñ chābdāñ chaknuyād grāhaṇāya* (ŚB 14.5.4) ‘when he cannot hear external sounds’.

This analysis immediately raises two questions. Does *-tár-* appear in *all* agentive senses, or is its use limited to the meanings that are not expressed by the semantically restricted suffix *'-tar-*? In other words, does *'-tar-* BLOCK *-tár-*? According to the Aṣṭādhyāyī the general principle that special rules block general rules should apply.<sup>8</sup> Whatever the situation in Pāṇini’s time, in Rigvedic this blocking is clearly a very strong tendency, but it is not an absolute constraint. Unrestricted *-tár-* is mostly confined to meanings that the restricted *'-tar-* does not express, but still the two suffixes sometimes overlap in usage. For example, Indra is called *dātā maghāni* ‘giver of bounties’ in RV 4.17.8 and *dātā vājānām* ‘giver of prizes’ in 8.92.3. We would expect the special suffix *'-tar-* in both cases, but in the latter the general suffix *-tár-* seems to encroach on its semantic territory for no particular reason and with no appreciably different nuance of meaning. Because of this leeway in the use of *-tár-* we cannot always tell whether a *-tár-* agent noun is habitual/generic, perhaps denoting a *Sondergott* ‘special god’ (Tichy 1995: 201, Lühr 2005: 197), or just situation-bound.

A second question is whether the restriction to ongoing time is absolute or relative. The grammatical tradition assumes that the suffixes that fall under temporal headings are subject to a kind of sequence of tenses. For example, 3.2.85 *karāṇe yajaḥ* assigns the agent suffix *-in-* (*ṆinI*) to *yaj* in composition with an instrumental. This rule comes under the heading 3.2.84 *bhūte* “with reference to past time”. An *agniṣṭomayājin* is therefore someone who *has* performed the *agniṣṭoma* — not someone who *is, will be, or might be* performing it. Grammatical doctrine considers the temporal denotation of the suffix to be relative to an implicit reference time, which at the time of utterance

<sup>8</sup>There are some interpretive intricacies here, however. Rule 3.1.94 cancels blocking for the special suffixes in its scope (which include *trN* = *'-tar-*), making them merely preferred (*vā*) rather than obligatory (Kiparsky 1979: 27-35). But the rule is applicable only to suffixes that are *asarūpa* ‘of different shape’. Since *trC* and *trN* are of the same shape, differing only in their diacritics, 3.1.94 does not apply to them. So blocking *should* hold and the more specific *trN* should pre-empt the more general *trC*. In other words, *-tár-* should be reserved for agency that is *either* non-present *or* non-customary/amateur/inexpert, or both. But this said, it must be acknowledged that principle 3.1.94 does not correspond to classical Sanskrit usage with 100% accuracy anyway. A post-Pāṇinian amendment *tācchīlikeṣu vā'sarūpavidhir nāsti* (Pbh. 67 of Nāgeśa’s *Paribhāṣenduśekhara*, cf. Vt. 3 on P. 3.2.146) stipulates that 3.1.94 does not apply to the suffixes with the meanings specified in 3.2.134 that are introduced in 3.2.135-177, which includes the suffix *trN* that interests us here. In any case blocking should be obligatory. Possibly Pāṇini normalized a tendential blocking relationship between the two suffixes by including them in the large class of *kṛt* suffixes that obey categorical blocking, as he does in some other cases (see Kiparsky 1979: 53-54 on “rounding off”). It is also possible that the strict blocking implied by Pāṇini’s grammar (and rigorously adhered to in his own usage) really obtained in the language of his time and had arisen from the more flexible Vedic usage through language change. Even though the language described by the Aṣṭādhyāyī preserves the main Vedic features of the two agent suffixes, including their accentual and morphotactic idiosyncrasies, *'-tar-* was fast disappearing in the actual texts of the time, the older Upaniṣads (Renou 1938).

may lie in past or in the future. So *agniṣṭomayājy asya putro bhavitā* ‘his son will be someone who has performed the *agniṣṭoma*’ can be said of a newborn son, or even one as yet unconceived. Do our agent suffixes behave this way? Could Indra’s mother, nursing her divine baby, have used the current-time *-trN* to declare: *vr̥trám hántā bhaviṣyati* ‘he will be the slayer of Vr̥tra’?<sup>9</sup>

For Vedic, anyway, the answer appears to be negative. In reference to past and future events, the suffix *'-tar-* is systematically avoided (Tichy 1995: 126 ff.). In those contexts, the suffix *-tár-* is used instead, as in *vāsantāu māsau goptārāv ákurvan* ‘they made the two spring months protectors’, 7.8.3 *kadā bhavema rāyó vantārah* ‘when will we become winners of wealth?’, ŚB 6.2.18 *goptāro bhaviṣyāma* ‘we shall be protectors’. This shows that the time reference of *'-tar-* is current in relation to the time of the utterance, rather than to the time that the utterance refers to. Here is another difference between Pāṇinian grammar (on one interpretation at least) and Vedic usage.

### 3 Connecting semantics and syntax

Agent nouns in *'-tar-* are syntactically verb-like in that they assign structural accusative case to their objects, can take adverbial modifiers, such as adverbs of time and manner, and directional locative complements, e.g. *iṣkartā víhrutam púnah* (RV 8.1.12) ‘one who makes what has gone awry right again’ (Tichy 1995: 33).

It is far from obvious how the verbal syntax of *'-tar-* relates to its semantics. Indeed, Debrunner (1954: 683) declared it paradoxical that the syntactically verb-like *'-tar-* is the “more nominal (substantival)” of the two suffixes from the semantic point of view, while the syntactically nounlike *-tár-* is semantically “more participial”.

Kim (2005) attempts a semantic explanation for the two case assignment patterns. He states that the genitive object of *-tár-* has a concept-forming function (*dient zur Begriffsbildung*, p. 130). The accusative object of *'-tar-*, on the other hand, gives “more precise information” and completes the verb’s meaning holistically (*ganzheitlich*, p. 131, 135). *'-tar-* needs a genitive complement because it is characterized by “perfectivity” and by *Beeigenschaftung* “typing”.<sup>10</sup> These features of *'-tar-* agents are in turn connected with their “individuality”, “genericity”, “high extensionality”, and “indicativity (–divisible)” (p. 145). I am skeptical of the utility of *Begriffsbildung* and *Beeigenschaftung* for explaining the syntax, for two reasons. First, since accusative case on objects of verbs is a purely structural case that has no semantic function, it is not likely that accusative case on objects of *-tár-* agents has a semantic function. Secondly, it is not clear how these semantic categories can be responsible for the other verb-like properties of *-tár-* agents, that they allow adverbial modification and directional locative complements.

Kim’s claim that agent nouns in *-tár-* are non-referential (p. 144), as opposed to agent nouns in *'-tar-*, which have an identifiable referent and are definite (p. 145) is more lucid, but false at least on a standard understanding of referentiality and definiteness. The two agent noun types do not differ in these respects. Agent nouns in *'-tar-* can very well be non-referential, and indeed usually are non-referential in their most typical use as predicates. For example, in RV 5.87.6 the

<sup>9</sup>As a Vedic speaker she wouldn’t have used the second future *bhavitā*.

<sup>10</sup>*Beeigenschaftung*, literally ‘propertification’ is not simply ‘qualification’ or ‘attribution’. It has a richer and somewhat hard to grasp meaning, defined by Kim (p. 121) as *Typisierung* ‘typing’, the attribution of a property “perpetuated” from the past to the “bearer of the situation” (*Sachverhaltsträger* — the agent, in this case) as an “ideal representative” of this property.



poet uses the *'-tar-agent sthātārah* as an epithet in order to attribute to the Maruts a property ('you are charioteers'); not to identify them as particular individuals ('you are the charioteers'). To be sure, agent nouns are often *predicated* of specific individuals, such as the Maruts in this example, but of course that does not make the predicates themselves referential, any more than adjectives predicated of specific individuals are thereby referential. Besides, agent nouns can just as well be predicated generically of non-referential subjects, as in the type *yám agne pṛtsú mártiyam . . . sá yántā sásvatīr ísaḥ* (RV. 1.27.7) 'The mortal whom you will help in battles, O Agni, he will hold fast to unfailing refreshments'. Here the agent noun *yántar-* is not meant to apply to any specific person, but to whatever person Agni helps. As for definiteness, *'-tar-* agents are indefinite in many common uses, for example in comparisons with *iva* and *na*, such as *ásteva* 'like an archer' (not 'like the archer'), *yāteva* 'like a driver' (1.70.11), *sékteva* 'like a pourer' (3.32.15), *dātā ná* 'like a mower' (5.7.7), *suyámo ná vódhā* 'like a draft-horse easy to control' (9.96.15), *vápteva* 'like a barber' (10.42.4). Indefinite designations of groups of indeterminate size and unknown membership can certainly be expressed by *'-tar-* agents, e.g. *ástrbhiḥ* 'with archers' (1.8.4). In short, *'-tar-* agent nouns do not necessarily have identifiable referents, nor are they necessarily definite.

Our analysis provides a feature that makes *'-tar-* agents capable of assigning structural case to their objects and of having adverbial modifiers. It is the tense/aspect feature that they share with finite verbs and participles, which are actually made from tense/aspect verb stems. Infinitives are built on the root; in so far as they assign direct case to their complements, which in Vedic they often do not ("attraction"), the infinitive suffixes must have some verbal feature that license case assignment. Besides nouns in *'-tar-* a number of other derived agent nouns sometimes assign accusative case to their objects in Vedic. All of them have ongoing time reference. The most common ones of them are placed in Pāṇini's grammar after the heading 3.2.123 *vartamāne (laṭ)* "in the present", "in ongoing time".

- (4) a. *-i-* after reduplicated stems (*Ki, KiN*, P. 3.2.171). E.g. RV 9.61.20 *jághnir vr̥trám* 'killer of Vr̥tra' (Debrunner 1954: 293).
- b. *-(i)ṣṇu-* (P. 3.2.136). E.g. RV 1.63.3 *dhr̥ṣṇúr etān* (Kim 2005: 134).
- c. *-u-* after desideratives (P. 3.2.168). E.g. AV 12.1.48 *nidhanám titikṣuḥ* 'enduring poverty' (?), Debrunner 1954: 469).
- d. *-∅-* (*KvIP*, P. 3.2.177-178). E.g. RV 1.1.4 *yám yajñám . . . paribhūr ási* 'the sacrifice that you embrace'.

The agentive *-i-* that appears after non-reduplicated roots usually forms synthetic compounds (see (10f)); they tend to have accusative objects, e.g. RV 4.20.1 *turvániḥ pṛtanyún* 'overcoming battlers'. This use is not covered in Pāṇini's grammar, but since it is historically identical with *-∅-* on *seṭ* roots (4d) *KvIP*, it is not surprising that it has the same meaning and accusative case-assigning potential. Kim (2005: 135) also cites instances of accusative objects with a few other suffixes: *-a-* (*aC*) (P. 3.1.134, 3 examples, e.g. RV 8.33.5 *ākaráḥ sahásrā* 'who distributes thousands'), *-ín-* (*ṆinI*) (P. 3.1.134, 1x), *-van-* (1x), and desiderative *-u* (P. 3.2.168, 1x). In each case the textual context of the examples indicates ongoing time, though only the last falls under P. 3.2.123. Nouns derived with clearly tenseless suffixes, whether they are bare-root (*-ā-*, *-rá-* (*-lá-*), *-má-*, *-as-* etc.), or outer suffixes, never assign object case. These suffixes are assigned by the rules in the first part of the *kṛt* section up to the first tense heading 3.2.4 *bhūte* (in practice from 3.1.133 to 3.1.150, where the *upapada* suffixes begin), and under the heading 3.3.18 *bhāve* "denoting a state".

In addition, nominals in comparative *'-īyas-* and superlative *'-iṣṭha-* assign accusative case to their objects. These gradated formations are paradigmatically related to (and on some analyses morphologically derived from) agent nouns in *-tár-* and other bare-root suffixes. In this capacity they inherit the syntax of these agent nouns by one of the mechanisms discussed in section 4 below.

Untensed deverbal nouns are grammaticalized to form infinitives and periphrastic futures and perfects. Nouns with tensed suffixes are not suitable for this use because their tense features (present, past, and future) are not compatible with the tense or mood features of the target constructions.<sup>11</sup> So only tenseless suffixes are grammaticalized as verbal forms: the second future *-tā* (from *-tár-*), infinitival *-ana*, *-aka* as complements of motion verbs, gerundives sanctioned by 2.3.69 *na lokāvyayaniṣṭhākalarthatṛṇām*, and the periphrastic perfect with *-ā-*. Once grammaticalized as verbal forms, they naturally assign object case and allow adverbial modification like any other verb.

## 4 Morphotactics and morphophonology

The usage of the two agent suffixes is not constrained only by meaning. Morphological constraints also play a role. The suffix *'-tar-* is one of a class of BARE-ROOT SUFFIXES that may be added only to unprefixes and unsuffixed roots. For example, the four priestly functions *hótar-*, *pótar-*, *néṣṭar-*, *śámṣtar-* are designated with *'-tar-*, whereas *udgātár-*, *upavaktár-*, *praśāstár-*, *viśastár-*, *śamítár-*, *pavitár-* are formed with *-tár-*.<sup>12</sup> Attempts to make a semantic distinction between the two sets of terms (Benveniste 1948: 16, Tichy 1995: 286) are unconvincing because they lack support in ritual practices. But there is the obvious formal difference that *hótar-*, *pótar-*, *néṣṭar-*, *śámṣtar-* are made from simple roots, whereas the others are made from complex bases. *Ud-gātár-*, *upa-vaktár-*, *pra-śāstár-*, *vi-śastár-* have prefixed roots, and *śamítár-*, *pavitár-* are from the causatives *śamáyati*, *paváyati* (*pāváyati*), at least synchronically. For *śamítár-* Pāṇini's rule 6.4.54 *śamítā yajñe* shows that *śamítár-* is indeed a decausative agent noun from his native speaker perspective (with deletion of the causative suffix *ṆiC* by 6.4.51 *ner aniṭi*). And it is natural to suppose that if *pótar-* is from *punāti*, then *pavitár-* is from *paváyati*.<sup>13</sup>

Being officiating priests whose functions are regulated in the *śrautasūtras*, these are certainly habitual, professional, or skilled agents, and by rule 3.2.135 should preferably be denoted with *'-tar-*. But an iron-clad restriction of Vedic morphology dictates that the suffix *'-tar-* selects for a bare root. It must follow the verbal root directly, without any other intervening suffix, and it is never made from prefixed bases.<sup>14</sup> Agents of causative verbs and prefixed verbs are therefore invariably made with *-tár-*, e.g. *codayítár-*, *codayitr'ī* 'impeller'. Since *-tár-* is just an agent suffix with no additional semantic or morphological restrictions, it can step into the breach whenever *'-tar-* is unavailable for any reason.

<sup>11</sup>Two Sankrit infinitive endings, *-dhyai* and the rare *-sani*, can be added to present stems as well as to roots. Whether this distribution is innovative or original is disputed (Garcia-Ramón 1997, Keydana 2003: 35 ff., Fortson 2012). In any case, the tense/aspect suffix does not appear to contribute a semantic tense feature to these infinitives, for the infinitives built on the present stem function like the ones built directly on roots.

<sup>12</sup>Kātyāyana (Vt. 1 on 3.2.135 *trjvidhāv ṛtvikṣu cānupasargasya*) notices this contrast and correctly identifies the constraint against prefixed bases.

<sup>13</sup>The regular form for Pāṇini (6.4.52 ff.) is TS *pavayítár-*, which retains the causative suffix.

<sup>14</sup>The other derivation, compounding prepositions with *'-tar-* agents, was not available for *\*úd-gātár-*, *\*úpa-vaktár-*, and *\*prá-śāstár-* because the nouns *gātár-*, *vaktár-*, *śāstár-* are not used in Vedic. *\*vi-śastár-* would have been possible since there is AV *śāstár-*, so perhaps *vi-śastár-* was built on the pattern of the others.

Tichy (1995: 204 ff.) lists agent nouns predicated of divinities, persons, and animals in Vedic prose that are formed with *-tár-* but on the face of it appear to involve habitual or generic agency, rather than agency in some particular situation. It turns out that the overwhelming majority of these nouns are from bases that are either causative,<sup>15</sup> prefixed, or both:

- (5) a. *arpayítár-* ‘achiever’, *kalpayítár-* ‘fixer’, *svadayítár-* ‘sweetener’, *majjayítár-* ‘sinker’, *āpayítár-* ‘procurer’
- b. *pradātár-* ‘provider’, *vinetár-* ‘one who leads apart’, *abhinetár-* ‘one who leads towards’, *aparoddhár-* ‘expeller’, *prasavitár-* ‘impeller’, *prāvitár-* ‘furtherer’, *ativedhár-* ‘one who leads into’, *abhivedhár-* ‘one who leads out of’, *anubhartár-* ‘transferrer’, *abhisektár-* ‘asperser’, *anumántar-* ‘one who sets free’, *apahantár-* ‘one who drives away’, *abhigantár-* ‘planner’, *niṣeddhár-* ‘prohibiter’
- c. *prapyāyayítár-* ‘sweller’, *prajanayítár-* ‘engenderer’, *avagamayítár-* ‘one who causes to come to power’, *vicetayítár-* ‘differentiator’, *prajñāpayítár-* ‘one who causes to recognize’, *abhigoptár-* ‘protector’

Tichy’s search for a semantic justification of the use of *-tár-* in (5), such as reference to *Sondergötter* ‘special gods’ (rightly criticized as implausible by Kim 2005: 111 ff.) is therefore unnecessary. Since the morphology restricts the specialized agent suffix *'-tar-* to bare uncompounded roots, the agent nouns in (5) can only be formed with *-tár-*, which is compatible with any kind of agency including the habitual/generic type of agency ordinarily denoted by *'-tar-*.

Only four of the agent nouns in this group cited by Tichy are formed from simple roots. For three of them, as she points out (p. 217) the context requires a special modal meaning: ŚB II 3.1.11 *aśítár-* ‘one who is able to (or entitled to) to eat’, JB II 32, 1. 6 *hantár-* ‘one who is able to (or entitled to) to kill’, TB I 8.6.2 *pātár-* ‘one who is supposed to drink’. A modal meaning is also possible, though not contextually guaranteed, for the fourth case, ŚB IV 1.4.1 *kartár-* ‘one who does (or is supposed to do)’. These cases instantiate the special modal use of *-tár-* which Pāṇini takes care of in his abovementioned rule *arhe kṛtyatṛcaś ca* ‘gerundives and *-tár-* [denote agency] in the meaning of *arh*’.<sup>16</sup>

Tellingly, the nouns in (5) sometimes explicate agent nouns in *-ana-* (Tichy 1995: 205), which as noted above are semantically equivalent to *'-tar-*, and, being outer suffixes, can be freely added to causative bases. This is another clear indication that *-tár-* can be used in any meanings that *'-tar-* is used in, and must be so used when the base is not a simplex root.

The suffix *'-tar-* is one of a class of BARE-ROOT SUFFIXES that are morphotactically restricted in this way. This class also includes adjectival *-ant-* (*brh-ant-* ‘high’, Av. *bərəzant-*, Lowe 2012), nominalizing *-as-* (*téjas* ‘sharpness’), adjectival *-a-* (*dīrghá-* ‘long’), comparative *'-īyas-* and superlative *'-iṣṭha-* (*cyāv-īyas-* ‘rushing more’, *gám-iṣṭha-* ‘most willing to go’), stative *-(i)man-* (*pre-mán-* ‘affection’), adjectival *-rá-* (*-lá-*) (*ug-rá-* ‘mighty’), nominalizing *-má-* (*ruk-má-* ‘ornament’, *kṣā-má-* ‘scorched’), and *-as-* (*śrāv-as-* ‘fame’).

Since all these suffixes must directly follow the root, they can never co-occur. This mutual incompatibility drives the so-called CALAND SYSTEM — to which exactly this class of suffixes belong, and which they indeed constitute. For example, since suffixed adjectives like *tig-má-*

<sup>15</sup>One third of the total, according to Tichy.

<sup>16</sup>The root *arh* that functions as a gloss in the rule has a range of modal meanings: ‘to deserve’, ‘to be entitled to’, ‘to be allowed to’, ‘to be obliged to’, ‘to be able to’.

‘sharp’ cannot receive either the bare-root gradation suffixes *'-īyas-* and *'-iṣṭha-* or the nominalizer *-as-*, their gradation and *-as-* nominalization must be built directly on the root: *téj-īyas-* ‘sharper’, *téj-iṣṭha-* ‘very sharp, sharpest’, *téj-as-* ‘sharpness’; *drāgh-īyas-* ‘longer’, *drāgh-iṣṭha-* ‘longest’, *drāgh-(i)man-* length’. In the same way, agent nouns in *'-tar-* are supplied by bare roots in gradation and nominalization, e.g. *dā-tar-* ‘giver’, *dé-ṣṭha-* (*dáy-iṣṭha-*) ‘givingest’, *dā-mán-* ‘givingness, generosity’; *āgantar-* (ŚB) ‘forthcoming’, *āgamiṣṭha-* ‘most forthcoming’.

Depending on one’s approach to morphology, the Caland system can be thought of as a network of suffix correspondences, or as a process of stem truncation. The former type of analysis prevails in modern Indo-Europeanist work. It is typically couched in terms of suffix alternations within an item-and-arrangement morphological framework (Rau 2009), but it can also be understood derivationally in terms of the necessarily mutually exclusive distribution of bare-root suffixes:

- (6) a.  $gam \rightarrow gam\text{'tar-} \rightarrow gántar- \rightarrow \acute{a}\text{-gántar-} \xrightarrow{\text{BAP}} \acute{a}gantar-$  ‘forthcoming’  
 b.  $gam \rightarrow gam\text{'iṣṭha-} \rightarrow gámiṣṭha- \rightarrow \acute{a}\text{-gámiṣṭha-} \xrightarrow{\text{BAP}} \acute{a}gamiṣṭha-$  ‘the most forthcoming’

This style of analysis faces the problem of explaining how combinations of *-īyas-* and *-iṣṭha-* with bare roots can have agentive and other meanings on top of their basic gradation meaning. One possibility is to posit two distinct meanings for them, one being plain gradation and the other a portmanteau of gradation plus agentivity.

The truncation approach is found in Pāṇini’s grammar. He derives the Caland alternations in comparatives by affixing *'-īyas-* and *'-iṣṭha-* to nominal stems (i.e. by treating them as *taddhita* rather than *kṛt* suffixes) and formulating morphophonological rules that delete the final rhyme of the base (in the case of *-tar-*, the entire suffix) before *'-īyas-* and *'-iṣṭha-* (rules 6.4.154 *ṭer iṣṭemeyassu*, 6.4.155 *ṭeḥ*). For example, *āgamiṣṭha-* would be derived from [ḍ-gam-*'tar-*iṣṭha-] by truncating the agent suffix. While truncation of morphemes is incompatible with many modern morphological theories, in this case it does have the twin advantages of regularizing the distribution of the gradation suffixes by making all of them strictly denominal at a deeper level of analysis, and of deriving their semantics directly from this source.

Whichever theoretical option we adopt for analyzing the Caland system in the synchronic morphology, it is clear that *'-īyas-* and *'-iṣṭha-* are paradigmatically related to agent nouns formed with bare-root suffixes including *'-tar-*. The fact that *'-tar-* is a bare-root suffix whereas *-tár-* is added at a later stage of the morphological derivation predicts that only bare-root *'-tar-* should correspond to the bare-root gradation suffixes *'-īyas-* and *'-iṣṭha-*. This prediction appears to be correct. A few Vedic comparatives and superlatives are cited as gradated forms of *-tár-* agents by Tichy 1995: 73, but every one of them can be related to other Vedic bare-root agent formations that belong to the Caland system: *vānīyāms-* (RV) can be from *vanú-* rather than from *vántár-* (both RV), *yāmiṣṭha-* from *yāma-* (RV), *aviṣṭha-* from *ávi-* (AV), and *códiṣṭha-* from *codá-* (RV).<sup>17</sup>

The morphological bottleneck of bare-root suffixes drives the spread of replacement morphology, such as the gradation suffixes *-tara-*, *-tama-*, which are not encumbered by a bare-root restriction, e.g. RV *ā-miś-la-tama-* from *ā-miś-la-* (instead of something like *\*\*ā-miś-iṣṭha-*). Another example of replacement morphology is that nouns denoting property concepts are with increasing

<sup>17</sup>VS *námo hantré ca hánīyase ca* is an interesting case where suffix-stressed *hantár-* is paralleled by the comparative of root-stressed *hántar-*, another demonstration of the two agent suffixes’ meaning compatibility.

frequency made with the historically more recent *-tvá*, *-tā*, especially after bases that cannot receive the bare-root suffix *-(i)man-*, to express that function. Paraphrases and periphrastic constructions offer still another escape from the bottleneck. The perfect, a bare-root inflectional category, is expressed periphrastically for causatives, denominatives, and other derived verbs in Sanskrit; the same strategy in Germanic is of course the historical source of weak preterites.

The large class of OUTER SUFFIXES to which accented *-tár-* belongs can be separated from the root by other suffixes, such as the causative, denominative, intensive, and desiderative formatives. They are affixed to the whole verb base (lexeme), including the extended root plus any preverb that the lexeme may have. Accordingly the respective constituent structures of words with *'-tar-* and *-tár-* look like this:

- (7) a. Bare-root suffix: [ Preverb [ Root *'-tar-* ] ]  
 b. Outer suffix: [ [ Preverb [ Root (Caus)... ] ] *-tár-* ]

Three lines of reasoning converge on this conclusion. The first relies on the principle that affixes can morphophonologically affect exactly the stems they are added to, no more and no less. This is a general consequence of cyclic morphophonology (see Kiparsky 2010 for evidence that it holds also for Sanskrit). Armed with this principle, we can use word accent to diagnose morphological constituency. We observe that whenever the suffix is of the bare-root type (such as *'-tar-*), stems of the form Preverb+Root+Suffix are accented on the preverb, regardless of the suffix's own accentuation: *bhártar* 'bringer', *prá-bhartar-* 'offerer'. An outer suffix, on the other hand, dictates the place of the word accent in prefixed and simple stems alike, depending on whether it is inherently accented and whether it is dominant or recessive. Since *-tár-* is dominant and accented, it causes all accents on its base to be deleted, and is accented on the resulting stem: TS *pra-dāpayítár-* 'one who causes to give', ŚB *unnetṛṇám* (gen.pl.) 'raiser, pourer out' (a type of priest).

Given (7), this accentual difference between bare-root and outer suffixes is a consequence of the cyclic principle. For since bare-root suffixes are immediate sisters of the root (as shown in (7a)), they do not scope over the preverb. Rather, the "preverb" is composed with the noun derived by attaching the suffix to the root. So it is an immediate constituent of the compound stem, and out of reach of whatever accentual influence the bare-root suffix inside the second member might have. Being the first inherently accented morpheme in the word, it receives the word accent (the ictus) by the BAP, occulting the accent of the root+suffix combination. An outer suffix, however, is added to the root plus any causative or other secondary suffixes and the preverb, and so all these elements will be in its scope and fall under its accentual sway. If it is dominant, it deletes all stem accents including that of the preverb. Thus the accentual effects of outer suffixes are always overtly manifested. The derivations in (8) and (9) show this.

(8) Bare-root *'-tar*

- a. [bhar-] → [bhar-*'tar*] → [bhár-tar] *bhártar-*  
 b. [bhár-tar] → [prá-[bhár-tar]]  $\xrightarrow{\text{BAP}}$  [prá-[bhar-tar]] *prábhartar-*

(9) Outer *-tár*

- a. [bhar-] → [ápa-bhar] *ápa-bhar-* (e.g. inf. *ápabhartavái*)

b. [ápa-bhar] → [[ápa-bhar]-tár-]  $\xrightarrow{\text{Deaccentuation}}$  [[apa-bhar]-tár-] *apa-bhar-tár-*

The second argument for the constituent structure in (7) is that preverbs can determine the choice of outer suffixes (or of their allomorphs, from another point of view) but not of bare-root suffixes. For example, the absolute ending is *-ya* when the root is compounded with a preverb or adverb, and *-tvā* when the root is not so compounded. So *-ya* cannot be added until the root has been compounded with a preverb. A similar distribution relates *-ti-* and *-tu-*. Eventive *-a* as in *kéta-* ‘desire’, *háva-* ‘invocation’, *kāma-* ‘desire’ is supplanted by accented *-á-* in compounds: *pra-ketá-* ‘appearance’, *ā-havá-* ‘challenge’, *apa-kāmá-* ‘aversion’ (Debrunner 1954: 99). Bare-root suffixes, on the other hand, are never restricted to the presence of a particular preverb. This follows from the constituent structure in (7), on the assumption that the selection of affixes (and of their allomorphs) is sensitive exactly to the base to which they are added, not just to a smaller piece of it, nor to some larger constituent.

The third argument for the constituent structure is that the combination of a root and an outer suffix sometimes does not occur independently of the preverb; they are synthetic (*upapada*) compounds. Such cases tell in favor of the constituent structure (7b). For example, RV *vi-pr̥k-vant-* ‘separated, unmixed’ is made by adding *-vant-* to *vi-pr̥c-* ‘separate’, not by adding *vi-* to *\*\*pr̥k-vant-* (which does not exist). Similarly, *ā-dhārá-* ‘support’ is from the causative *ā-dhāray-* (*ā-dhārayate* ‘supports’), not from *\*\*dhāra-*, which does not occur uncompounded in Vedic; (*a-*)*vidasyá-* ‘(un-)ceasing’ is from *vi-das-* (*ví-dasyati*), not from *\*\*dasya-*. Examples can be multiplied ad libitum. The opposite case, in which a Preverb+Root combination is systematically restricted to the context of outer suffixes, does not appear to occur.

Bare-root suffixes have exactly the reverse pattern, pointing to the right-branching constituent structure (7a). For example, there is no compound verb such as *\*vi-prī-* (*\*\*viprīnāti*, *\*\*viprīñīte*) from which *vípre-man-* ‘estrangement’ and *vípriy-a-* ‘estranged’ might be derived; instead they are formed as nominal compounds, respectively from *ví-* plus *pré-man-* ‘affection’ and from *ví-* plus *priyá-* ‘dear’. Similarly, RV *āmiśla-* ‘mixing’ is not from *\*\*ā-miś-* — there is no such verb, and even the simple root *miś-* has only nominal derivatives. Rather, it is made by prefixing *ā-* to *miśla-* ‘mixed’, which appears with other prefixes as well (RV *ní-*, *sám-*), and is very common in the phonological variant *miś-ra-*. AV *ávaḥṣāma-* ‘wasted’ must be from *ḥṣāmá-* ‘charred, scorched’ (MS, JB), since *ava-ḥṣā-* has no verbal forms, only nominal *avaḥṣāna-* ‘burned down’ (MS, TS). *Apa-kāmá-* ‘aversion’ is from the very frequent noun *kāma-* (VS *kāmá-*) ‘desire’, not from *\*\*ápa-kām-*, *\*\*ápa-kāmayate*, which is not used.

Let us mention as an aside that *-tum* infinitives and root nouns in  $-\emptyset$  shed light on the compositional analysis of the accent system (Kiparsky 2010). These suffixes are just inherently unaccented, but dominant, which is to say that they delete any inherent accent of the stem to which they are added. At the stem level this configuration results in movable accent for monosyllables, and in polysyllables it feeds the Oxytone rule which assigns default accent to the stem-final syllable, yielding such contrasts as instr.pl. *bhū-bhīḥ* ‘worlds’ vs. *ā-bhū-bhīḥ* ‘present ones’. Independent evidence for the unaccented dominant status of  $-\emptyset$  is that it creates inherently unaccented accentually movable monosyllabic root nouns from inherently accented roots (“Narten roots”), e.g. *śās-*, instr. *śās-ā* ‘command’, with accent on the case ending. Unlike  $-\emptyset$ , *-tum* is a word-level ending; it terminates the derivation. The Oxytone rule is not applicable at the word level. Rather, the default for finished words is initial stress, as shown most obviously by orthotonic vocatives. Under these assumptions the analysis proposed in Kiparsky 2010 need not be extended in any way to derive

this new data, and in particular there is no need to add a category of initial-accenting suffixes for the sake of the word-initial accent of *-tum* infinitives.<sup>18</sup>

Outer suffixes, by the abovementioned criteria that they can be attached to prefixed or suffixed roots, or form synthetic compounds, include the following:

- (10) a. Eventive and agentive  $-\emptyset$ . RV *ni-víd-* ‘instruction’, *pra-yúj-* ‘acquisition’, *vṛtra-hán-* ‘Vṛtra-killer’ (synthetic compound).
- b. Agentive *'-aka-*, *-aká-*. ŚB *cikitsaká-* ‘physician’ (desid. *cikitsa-*), VS *gāṇaka-* ‘astrologist’ (denom. *gaṇayati* ‘calculates’, MU *tāraka-* ‘carrying over’ (AV caus. *tāráyati*).
- c. Eventive *'-ana-*. *ā-mántraṇa-* ‘invitation’ (*mántraṇa-*, denom. (*ā-*)*mantráyate*)
- d. Agentive *'-ana-*. RV. *pra-árpaṇa-* ‘arouser’ (*árpaṇa-*, caus. (*prá-*)*arpayati* ‘sets in motion’).
- e. Eventive *-ā-*. AV *vi-īrt-s-ā-* ‘desire to frustrate’ (desid. *v'īrtsayati* ‘wants to frustrate’, VS *upa-sík-ṣ-ā-* ‘desire to learn’ (B *sík-ṣ-ā-* ‘instruction’, desid. *úpaśikṣati*).
- f. Agentive *-í-* (*Ki*, *KiN*). Derived from reduplicated stems, with perfect-type reduplication (Pāṇini 3.2.171, Debrunner 1954: 293, Kim 2005: 119) and semantic connections also to the intensive (Debrunner, 291): RV *saṃ-dadí-* ‘comprising’, *vi-sāsahí-* ‘overwhelming’, *ni-jaghni-* ‘knocking out’. In simplexes the inherently accented reduplication normally supersedes the suffixal accent, e.g. *jághni-* ‘killer’.
- g. Agentive *-(i)ṣṇu-* (3.2.136). E.g. *dhrṣṇúr etán* (Kim 2005: 134).
- h. Agentive *'-i-*. Reanalyzed from  $-\emptyset$  on *seṭ* roots: RV *vāja-sáni-* (synthetic compound), *ā-táni-* ‘penetrating’.
- i. Agentive *-iṣṇú-*, *-itṇú-*. RV *stan-ay-itṇú-* ‘thundering’ (*stanáyati* ‘thunders’), *tāp-ay-iṣṇú-* ‘tormenting’ (AV *tāpáyati* ‘torments’), ŚB *pra-jan-iṣṇú-* ‘procreating’ (*pra-já-* ‘progeny’, *prá-janayati* ‘procreates’).
- j. Agentive *'-uka-*. MS *vy-árdhuka-* ‘deprived’, TS *ud-bándhuka-* ‘one who hangs (himself)’.
- k. Agentive *-tár-*. RV *cod-ay-i-tr-'ī-* ‘impeller’ (*codáyati* ‘impels’), TS *pra-dāp-ay-i-tár-* ‘bestower’ (*prá-dāpayati* ‘bestows’), *ni-dhā-tár-* ‘one who sets down’ (*dhātár-* ‘one who sets’, *ní-dadhāti* ‘sets down’).
- l. Agentive *'-van-*, fem. *-var-ī-*. *vi-bhā-var-ī-* ‘brilliant’ (*ví-bhāti* ‘shines forth’), *pra-sū-var-ī-* ‘bearing offspring’ (*prá-sūte* ‘procreates’, *niṣ-ṣídḥ-var-ī-* ‘granting’. According to Debrunner (1954: 899) these are extensions of synomymous root nouns *vi-bhā-*, *pra-sū-*, *niṣ-ṣídḥ-*.
- m. Gerundive *'-ya-*. *car-kṛt-ya-* ‘to be praised’ (intens. *carkarti*), 10.116.5 *bhrāśya-* ‘to be caused to collapse’ (caus. *bhrāśáyati* ‘causes to collapse’), TS *saṃ-sthāp-ya-* ‘to be set up’ (caus. *sám-sthāpayati* ‘sets up’).
- n. Eventive/agent noun *'-ya-*, fem. *-yā-*. AV *upa-hat-yā-* ‘injury’ (*úpa-hanti* ‘hits’).<sup>19</sup>

<sup>18</sup>In terms of this framework, both agent suffixes are dominant, meaning that they delete any accent off their bases and impose their own accentual requirements on them. *-tár* is really an unaccented dominant suffix, so it forms unaccented stems, which receive default oxytone accent and pseudo-mobile inflection, e.g. *kar-tr-é*, *kar-tṛ-bhis*. The full grade of the preceding syllable shows that the suffix is indeed inherently unaccented. Avestan *bərətar-* (Debrunner 1954: 673) suggests that it might have been amphikinetic in IE.

- o. Eventive/agent noun '-∅-' (root compounds, Pāṇini's suffix *Kvlp*, (4d)). *ṇe-pra-n'ī-* 'constant leader' (intens. *ṇe-nī-yá-te*), *vi-bhā-* 'brilliant', *pra-sū-* 'bearing offspring'.

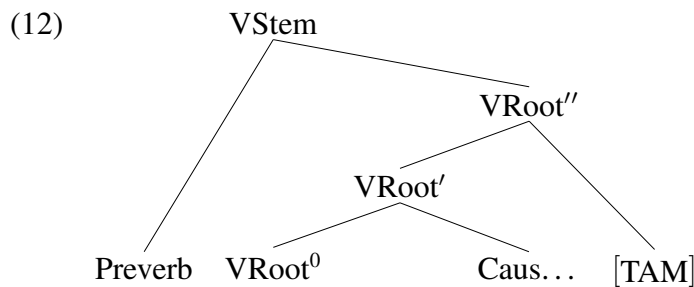
Some bare-root (Caland) suffixes function as outer suffixes as well:

- (11) a. Agentive/instrumental *-á-*. *vará-* 'suitor' (*vṛnóti* 'chooses, woos'), *pari-car-á-* 'servant' (*pári-carati* 'attends to'), *vevijá-* 'trembling' (intens. *vevijyáte* 'trembles'), *ā-dardirá-* 'crushing' (intens. *ā-dardarti* 'crushes'), *ā-dhārá-* 'support' (caus. *ā-dhārayate* 'supports'; the causative suffix is deleted but its presence in the derivation is betrayed by the *vṛddhied* root), *abhi-rorudá-* 'causing tears' (intens. *rorudá-*), present stem RV (*a-*)*vidasyá-* '(un-)ceasing', from *vi-das-* (*ví-dasyati* 'expires'. Infinitival uses: RV *upa-sthāyam* 'standing near', from *upasthā-* (*upatiṣṭhati* 'stands near').
- b. Agentive *-ín-*. *ni-tod-ín-* 'piercing' (*ní-tudati*, *ní-tundate* 'pierces'), *niy-ay-ín-* 'going to' (*ny-èti* 'goes to'), *upamantrīṇ-* 'reciter' (denom. (*úpa-*)*mantrayate* 'recites'), KŚS *śrāp-in-* 'cooking' (caus. AV *śrap-ay-a-ti* 'cooks').
- c. Agentive *-ú-* (paradigmatically paired with *-á-*, (4c)). *abhi-dipsú-* 'wanting to hurt' (desid. *abhi-dips-*) *ririkṣú-* 'wanting to hurt' (desid. *ririkṣati*), *-u- vṛṣayú-* 'rutting' (denom. *vṛṣayāti*), *ṛtāyú-* 'righteous' (*ṛtāyáte* 'is righteous'), *bhājayú-* (caus. *bhājáyati*).

## 5 Tmesis and compounding

Agents formed with the bare-root suffix *'-tar-* allow occasional tmesis, as in *sáttā ní yónā* (= *nísattā yónā*) *kaláśeṣu sídati* (RV 9.86.6) 'seated in his womb, he [Soma] sits down in his tubs', 9.97.38 *úpa sūre ná dhātā = sūre nópadhātā* 'like the Placer of the Sun'. And they never occur in nominal compounds at all, while *-tár-* agents occasionally do, and in rather archaic-looking ones at that: RV 1.174.10 *nṛ-pā-tā*, 7.74.6 *nṛ-pā-tár-ah* 'protector(s) of men', *man-dhā-tár-* (PN) 'thoughtful', lit. 'mind-setter' 1.112.13, 8.39.8, 8.40.12, 10.2.22.

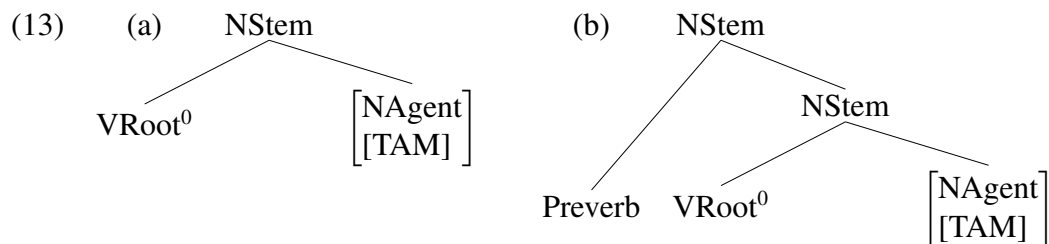
The constituent structure that we motivated on accentual and morphological grounds in (7) provides a rationale for these restrictions. In finite verbs, the fact that Tense/Aspect/Mood (TAM) morphology is invariant for each root regardless of the presence of a preverb tells us (on the above-mentioned assumption about the domain of allomorphy) that it is suffixed to an extended root projection, forming a constituent (here labeled somewhat arbitrarily as *VRoot''*) to which the preverb is then added:



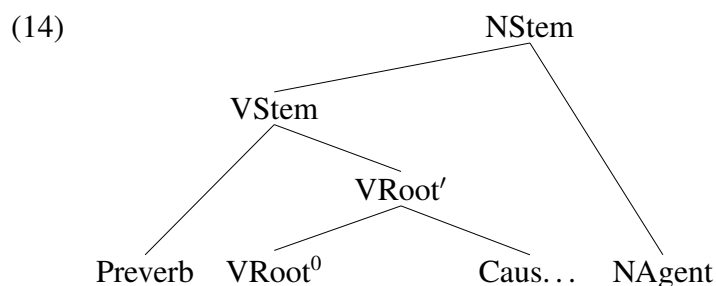
<sup>19</sup>Not a clear case. Might really be a bare-root formative because it rarely appears compounded with preverbs (but very often with nominals), and there are no recorded derivatives from extended roots.



As discussed at (7), (8), and (9), inner agent suffixes are added directly to the root to form a noun stem, which can then be composed with a “preverb”. In this way (13b) is derived from (13a).

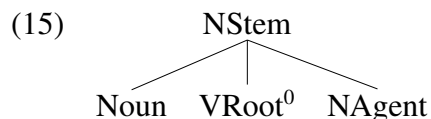


Outer suffixes, including the agent suffix *-tár-*, are added to the entire verb stem to form a noun stem.



It will be seen that the preverb is an immediate constituent of the stem in (12) and in (13b) but not in (14). Given the natural assumption that tmesis splits a word into its immediate constituents, it follows that tmesis can occur only in finite verbs and in nominals with bare-root suffixes such as *'-tar*, never in nominals with outer suffixes such as *-tár-*.

Finally, the compounds *nr̥-pā-tár-* ‘protector of men’, and *man-dhā-tár-* PN, lit. ‘mind-setter’ are *synthetic* compounds. We know from morphological and accentual evidence that synthetic compounds are formed by adding the compound suffix to the Noun and the Root together.<sup>20</sup> The constituent structure of these compounds is therefore simply this:



But bare-root suffixes are not eligible for insertion in this structure. Synthetic compounds are only formed with outer suffixes, as can be verified from their accentuation, see (10a,g). So the bare-root agent suffix *'-tar-* cannot form synthetic compounds. Only *-tár-* is available in the structure (15), which underlies synthetic compounds. These formations are however rare because they are normally blocked by a special set of suffixes dedicated to the formation of synthetic compounds.

<sup>20</sup>Morphological evidence shows that in synthetic compounds neither Noun+Root nor Root+Suffix are constituents, and accentual evidence shows that the suffix determines the accentuation of the entire compound, which by the reasoning of section 4 entails that they are sisters of it in the morphological constituent structure of the word; see Kiparsky 2010, section 5 for a fuller development of this point.

## 6 Conclusion

Meaning and morphotactics fit together seamlessly to explain the properties of the Sanskrit agent nouns. The systematic differences between *'-tar-* and *-tár-* in case assignment, adverbial vs. adjectival modification, morphological distribution, parallelism with other agent suffixes, preverb accentuation, tmesis, and compounding are all explained by the fact that *'-tar-* is a tensed bare-root suffix and *-tár-* is unrestricted.

## References

- Balles, Irene. 2005. Indogermanische Nomina agentis: Probleme und Lösungsansätze. In Balles, Irene, and Rosemarie Lühr (ed.), *Indogermanische Nomina agentis*. Linguistische Arbeitsberichte 83. Institut für Linguistik, Universität Leipzig.
- Benveniste, Emile. 1948. *Noms d'agent et noms d'action en Indo-Européen*. Paris: Adrien-Maisonneuve.
- Carlson, Gregory. 1977. *Reference to kinds in English*. Doctoral dissertation, U.Mass.
- Debrunner, Albert. 1954. *Altindische Grammatik von Jakob Wackernagel. Band II,2*. Göttingen: Vandenhoeck & Ruprecht.
- Debrunner, Albert, & Jakob Wackernagel. 1930. *Altindische Grammatik. Band III*. Göttingen: Vandenhoeck & Ruprecht.
- Fortson, Benjamin W. IV 2005. *Indo-European Language and Culture*. Oxford: Blackwell.
- Fortson, Benjamin W. IV 2012. Latin *-rier* and its Indo-Iranian congeners. *Indogermanische Forschungen* 117: 75-118.
- García Ramón, José L. 1997. Infinitive im Indogermanischen? Zur Typologie der Infinitivbildungen und zu ihrer Entwicklung in den älteren Indogermanischen Sprachen. *Incontri Linguistici* 20: 45–69.
- Hoffmann, Karl. 1967. *Der Injunktiv im Veda. Eine synchronische Funktionsuntersuchung*. Heidelberg: Winter.
- Jamison, Stephanie W. & Joel P. Brereton. 2014. *The Rigveda*. Oxford: OUP.
- Joshi, S. D. & Saroja Bhate. 1984. *Fundamentals of Anuvṛtti*. Pune: University of Poona.
- Keydana, Götz. 2003. *Infinitive im Ṛgveda*. Habilitation. Available at <http://www.keydana.de/download> University of Göttingen.
- Kim, Jeong-Soo. 2005. Die Nomina agentis auf *-tar-* im Vedischen. In Balles, Irene, and Rosemarie Lühr (ed.), *Indogermanische Nomina agentis*. Linguistische Arbeitsberichte 83. Institut für Linguistik, Universität Leipzig.
- Kiparsky, Paul. 1979. *Pāṇini as a Variationist*. Cambridge and Poona: MIT Press and Poona University Press.
- Kiparsky, Paul. 2010. Compositional vs. paradigmatic approaches to accent and ablaut. In Stephanie W. Jamison, H. Craig Melchert, and Brent Vine (ed.), *Proceedings of the 21st Annual UCLA Indo-European Conference*. Bremen: Hempen.
- Kratzer, Angelika. 1995. Stage-level and individual-level predicates. In Carlson, Gregory N. and Francis Jeffry Pelletier, *The Generic Book*. Chicago: University of Chicago Press.

- Lazzeroni, Romano. 1992. L'espressione dell'agente come categoria linguistica. I nomi indoeuropei in *-tér-* / *-tor-*. *SSL* 32: 233-245.
- Lowe, John J. 2011. Caland adjectives and participles in Sanskrit and Proto-Indo-European.
- Lühr, Rosemarie. 2002. Konzeptionierungen des Prädikativums in der Indogermania. *Zeitschrift für Sprachwissenschaft* 21: 4-24.
- Lühr, Rosemarie. 2005. Individuen- und Stadienprädikation im Altindischen. In Balles, Irene, and Rosemarie Lühr (ed.), *Indogermanische Nomina agentis*. Linguistische Arbeitsberichte 83. Institut für Linguistik, Universität Leipzig.
- Rau, J. 2009. *Indo-European nominal morphology: the decads and the Caland system*. Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.
- Renou, Louis. 1938. Le suffixe védique *tr-* et les origines du futur périphrastique. *BSL* 39: 103-132.
- Sharma, Rama Nath. 1995. *The Aṣṭādhyāyī of Pāṇini*. Vol. III. New Delhi: Munshiram Manoharlal.
- Singh, Jag Dev. 1991. *Pāṇini: His description of Sanskrit*. New Delhi: Munshiram Manoharlal.
- Schubert, Paul. 2000. *Noms d'agent et invective: entre phénomène linguistique et interprétation du récit dans les poèmes homériques*. Hypomnemata 133. Göttingen: Vandenhoeck & Ruprecht.
- SEILER, HANSJAKOB. 1986. Zum Zusammenhang von Nomina actionis, Nomina agentis und Eigennamen, in Annemarie Etter (ed.) *o-o-pe-ro-si. Festschrift für Ernst Risch zum 75. Geburtstag*, 60-71. Berlin — New York: Mouton.
- Tichy, Eva. 1995. *Die Nomina agentis auf -tar- im Vedischen*. Heidelberg: Winter.
- Thurneysen, Rudolf. 1904. Über das periphrastische Futurum im Altindischen (Auszug). *Verhandlungen des XIII. Internationalen Orientalisten-Kongresses (Hamburg, September 1902). Sektion I*. Leiden 1904, p. 9-10. Reprinted in Rudolf Thurneysen, *Gesammelte Schriften*, Band I (edd. Patrizia de Bernardo Stempel & Rolf Ködderitzsch), p. 46-47. Tübingen: Niemeyer.
- Tonhauser, Judith. 2008. Defining cross-linguistic categories: The case of nominal tense. Reply to Nordlinger and Sadler (2008). *Language* 84: 332-342.
- WATKINS, CALVERT. 1995. *How to kill a dragon: Aspects of Indo-European poetics*. Oxford: OUP.
- LEVIN, B. & M. RAPPAPORT. 1988. Non-event *-er* nominals: a probe into argument structure. *Linguistics* 26, 1067-1083.