

From Agent Noun to Future Tense: Grammaticalization in Vedic Sanskrit

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The inventory in Late Vedic and Classical Sanskrit

- synthetic *-sya*-future
- periphrastic *-tā́*-future: sg. *-tā́*, pl. *-tā́rah*. Agent noun, with copula (pres.ind.) in 1st and 2nd, no gender distinction. Grammaticalization evident from
 - lack of agreement (except for pl. in the 3rd person)
 - forms like *b^havitā́*
 - and (probably) from VP-syntax
- Note: agent noun remains productive: Thus, *kartā́si* is ambiguous: ‘You are a man of action’ or ‘you will make [it]’

Semantics of the $-t\acute{a}$ -future: The Indian tradition

Pāṇini (1987: 277)

(1) anadyatane luṭ

non=today=adj.loc endings of the periphrastic future

[When the action refers to the general future time (*b^haviṣyati* 3)]
excluding the current day, endings of the periphrastic future are
used. III,3,15

Semantics of the *-tā́*-future: Western Indologists

It is therefore a remote future. The future in -syati, on the other hand, is the general future, and may be used of any future action, whether intended or not, whether actual or remote. (Speijer 1886: 259)

Es wird gebraucht, wenn man sagen will, dass etwas in einem bestimmten Zeitpunkt der Zukunft eintreten wird. (Delbrück 1888: 295)

...le future en -tā́ fonctionne presque exclusivement dans le discours. (Renou 1938: 128)

Semantics of the *-tā́*-future: Western Indologists II

- Gonda: “Fait-accompli-Darstellung” (1957: 166), Dravidian adstratum (1957: 176)
 - on certainty see Kölver (1982: 142): “...we find *adyá varṣiṣyati*, but *śvo vraṣṭā́*.”
- Tichy (1992) = Tichy (2006: 310): in complementary distribution to the (imminent) future in *-syati*, fills the slot of the prospective subjunctive: “Notlagen [...] begünstigen das Aufkommen von Periphrasen” (1992: 342)
 - But: no evidence for imminence with *-syati*!
 - Is grammaticalization a response to emergencies?

The temporal semantics of *kartā* 'is going to make'

$e_1 t_1$
$\text{kar}(e_1)$
$\tau(e_1) \otimes t_1$
$n \prec t_1$

- t_1 : topic time
- n : time of speech act
- $\tau(e)$: the time an event e takes up.
- \otimes : overlap relation, i.e. neutral aspect
- in this talk, I have nothing to say about the *anadyatane*-restriction

Agent noun → future?

The grammaticalization path is to my knowledge typologically isolated:
There are no comparable data in Heine & Kuteva (2002).

So, what's behind this strange pattern?

The Early Vedic future

- prospective use of the subjunctive (allowing for aspectual differences) (Tichy 2006)
- synthetic *-sya*-future
 - based on an older desiderative
 - rare in the RV (only 15 roots)
 - more frequent in the AV (> 30 roots)
- gerundive: future passive participles, attested in nominal/copula sentences

Early Vedic agent nouns

- are formed from the full grade root with an ablauting suffix *-tar-/-tṛ-*.
- come in two types:
 - hysterotone *-tṝ-*
 - NP-syntax (with transitive roots theme in the genitive)
 - “aspect ponctuel” (Renou 1938: 111), “zeitstufenbezogen”, “situationsgebunden” (Tichy 1995: 105)
 - akrotone *˘-tṛ-* (rare from the onset)
 - VP-syntax (with transitive roots theme in the accusative)
 - “présent général, duratif” (Renou 1938: 108), “generelle Funktion” (Tichy 1995: 223), “habitual/generic meaning”, “restricted to actions performed *vartamāne*, ‘at the current time’” (Kiparsky 2016: 173-4)
 - from the AV on, the type merges into the *-tṝ-* type, VP-syntax vanishes

-tṛ- and tense

Nouns in -tṛ- (almost exclusively) have a special semantics:

-tṛ- typically denotes participation in an event which is situated relative to the matrix verb event. It is an *event-agent noun* (Levin & Rappaport 1988).

from a spell against snakebites (Renou 1938: 111):

- (2) *damṣṭāram* *ānv* *agād* *viṣām* *āhir*
 chopper.acc back go.aor.3.sg poison.nom serpent.nom
amṛta
 die.aor.3.sg

The poison returned to the one who bit. The serpent is dead.

AV 10.4.26

Temporal semantics of situative *daṃṣṭár-*

$$\lambda Q. \lambda e \left[\begin{array}{c} e_1 \ t_1 \\ \text{daṃṣ}(e_1) \\ \tau(e_1) \otimes t_1 \\ \rho(t_1, \tau(e)) \end{array} \oplus Q(e) \right]$$

- Q in (2) = *ánu gā*
- ρ in (2) anteriority; simultaneity or posteriority likewise possible, depending on the context

Simultaneity

- (3) só asnātṛ́n apārayat s_uastí
 he.nom not-swimmer.acc.pl cross-caus.ipf.3.sg safely
 he made them cross safely without them sinking
 RV 2.15.5 (converbal)
- (4) píbā sómam ind_ara mándatu tvā yám
 drink.ipv Soma.acc Indra.voc cheer.3.sg.ipv you.acc who.acc
 te suśáva har_iaśv_a ádriḥ sotúr
 you.dat press.prf.3.sg of bays.voc stone.nom presser.gen.
 bāhúb^hyām súyato n_á árvā
 arm.instr.du well-guided.nom like horse.nom
 Drink Soma, Indra! It shall cheer you, [the one] whom the stone
 pressed for you, you of the bays, [guided] by the arms of the one
 who pressed like a well-guided steed. RV 7.22.1 (adnominal)

Posteriority

posterior reading

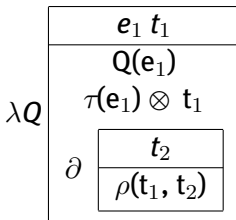
- (5) táyor ādityá nirhantáram aic^haṃs.
 they.gen.du Āditya-nom.pl abort.nom.ag.acc seek.ipf.3.pl
 tá āmśaś ca b^hágaś ca nírahatām
 they.acc.du NP and NP and abort.ipf.3.du

The Ādityas looked for someone who could abort them. Amśa
 and B^hága aborted the two. MS I 6.12 : 104,15

What about predicative $-tṛ-$?

- (6) taṁ ha tad eva vicic^hidatus. tasmin hodāte.
 him ptcl then ptlc rip apart.perf.3.du this.loc ptcl=speak.perf.med.3.du
 tvaṁ hantāsi, tvaṁ hantāsīti.
 you killer=be.2.sg you killer=be.2.sg=so
 Then they ripped him to pieces. They argued about it: You killed him!
 [No], You killed him! JB III 94

- no reference point in the sentence
- situative $-tṛ-$ triggers a presupposition:
 - there is some event e around which is the reference point to the $-tṛ-$ -event
- presupposition resolution depends on world knowledge and context

temporal semantics of situative $-t\ddot{r}$ -

Other uses of *-tṛ-*

occupational titles like *jaritár-* ‘singer of praise’ or *stotár-* ‘ibid.’ (note: occupational titles more frequently akrotone like *hótar-* ‘instigator of a sacrifice’)

- (7) át^ha yát táto yajñám tanváte. tád yanti. tán nayati
 and when then sacrifice perform.3.pl then go.3.pl then lead.3.sg
 yó netá b^hávati sá
 who.nom leader.nom be.3.sg this.nom

And when they perform the sacrifice then, then they go. Then the one who is the [designated] leader leads them. ŚB IV 6.8.1

What's the starting point?

- three possibilities: akrotone, hysterotone, or both
- akrotone has VP-syntax
- hysterotone has accent on the suffix
- but: akrotone already gone at AV times (and with it VP-syntax)
- emergence of the periphrastic future is post-AV
- → hysterotone it is! (VP-syntax a consequence of the integration into the verbal paradigm)

Speaker-hearer interaction

- bridging context: a context in which “mis parsing” is possible without impairing the felicitous discourse (Heine 2002: 86, Giomi 2017)
- requirements for a possible bridging context:
 - predicative use (which is the most frequent anyway, see Renou 1938: 112,123)
 - additionally maybe achievement/accomplishment semantics, because “la considération d’un terme peut donner l’illusion d’ un futur” (Renou 1938: 108)
 - (possibility of a) situative reading, since situative reading is as unique as is the grammaticalization of agent noun to future tense

A possible bridging context in the RV

- (8) vib^haktá[́]si citrab^hāno sínd^hor ūrmā[́]
 distributor=be.2.sg bright-beamed-voc Sindhu-gen wave.loc
 upākā[́] ā[́] | sadyó dāśú[́]ṣe kṣarasi
 near.loc to soon worshipper.dat flow.2.sg.prs

You are a donor, o bright-beamed one! Nearby, as on a wave of Sind^hu you soon flow to the worshipper.

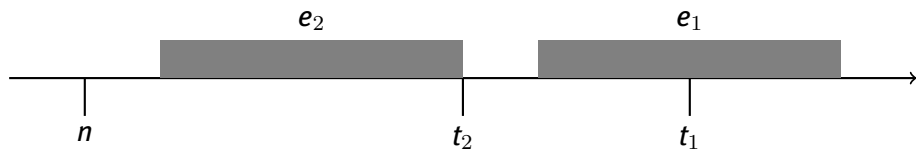
Or: You will give away [gifts], o bright-beamed one! Nearby, as on a wave of Sind^hu you soon flow to the worshipper. RV 1.27.6

Intended readings for (8)

two possibilities:

- intended reading 1:
 - generic state level (occupational title)
 - present tense
- intended reading 2:
 - situative reading
 - context (sacrifice) allows for an event-related interpretation
 - the addressee, Agni, is not permanent, he comes into existence during the ritual
 - frame adverb *sadyāḥ* invites futurate reading: the worshipper receives gifts only after Agni comes to him
 - present tense allows for future and past reading (Delbrück 1888: 278-9).

Temporal semantics of *vib^haktā́* with situative reading in (8)



- $e_2 = dāśūṣe\ kṣarasī$, an accomplishment
- $t_2 = sadyāḥ$, possibly the end point of e_2
- $e_1 = vib^haktā́si$, an accomplishment
- $\rho(t_1, t_2) = t_2 \prec t_1$ via presupposition resolution, implies futurate reading for *vib^haktā́si*

Reanalysis

- starting point is the situative reading of (8)
- presupposed posteriority, $t_2 \prec t_1$, is interpreted as novel conventional meaning $n \prec t_1$
- which is assigned to a new item $-t\acute{a}$ + copula
- where the present tense of the copula contributes n
- → fewer pragmatic computations (Schwenter & Waltereit 2010; Schwarz, Romoli & Bill 2014)
note the kataphoric relation in (8), (Schwarz 2007; Tiemann et al. 2011)
- under reanalysis the discourse remains felicitous
- turned speaker, the listener integrates the new item as an inflectional form into the verbal paradigm
- → no agreement, VP-syntax (but see Lowe 2017: 135)

Why future?

Why no reanalysis as past tense?

The ingredients would be essentially the same...

- frequency?
- past tense periphrasis with *-tā-* did not yet exist in Vedic times
- but: periphrasis in futurate contexts is well attested:
 - the gerundive / future passive participle in *-ya-*, *-tavyā-* occurs in nominal sentences from the RV on (Delbrück 1888: 397)

A parallel in phonology

- non-distinctive features turn distinctive
 - e.g. [+ noise] in the Germanic case of /p^h/, /p^ϕ/ > /f/ (see Boersma 2003 for a possible scenario)
 - phonemicization of an already phonologized but peripheral feature (Hyman 1976)
 - reduction of computational load (analytic bias / cognitive bias Moreton 2008)
- similarly, presupposition turns core semantics

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