Past time reference in a language with not-so-optional tense: the case of Forest Nenets

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Abstract. Forest Nenets Aorist form has been typically analyzed as a non-future tense (Burkova 2010, 2022). We examine the patterns of temporal reference of Past (PST) and Aorist (AOR) forms with telic and atelic predicates and show that the only way to predict the data at hand is to suggest that AOR is, in fact, plain present tense. We argue that temporal reference to events in recent past, which occurs with AOR-marked telic predicates, can be explained by the presence of null perfect aspect.

The puzzle. In Forest Nenets (Uralic > Samoyedic), there are two verbal forms that can have past time reference. PST refers to events in the past with both telic and atelic predicates while AOR, traditionally regarded as non-future tense, refers to the past only with telic predicates and refers to the present with atelic predicates (cf. 1-3 and Table 1). We aim to account for this telicity split with AOR and explain why both AOR and PST are possible options for telic predicates in the recent but not distal past.

Table 1. AOR and PST: tem	ooral reference with	telic and atelic	predicates
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	PRES	Recent PAST	Distal PAST
TELIC	*AOR, *PST	AOR, PST	*AOR, PST
ATELIC	AOR, *PST	*AOR, PST	*AOR, PST

- (1) šajŋd'et λoxo-mpi-#(š)tea.pot boil-ATEL-#(PST)'The tea pot boiled' [Then it cooled down]
- (2) četid'aŋ kad'an-λ ko-ŋa-t / ko-ŋa-ta-š just morda-POSS.2SG find-GFS-SUBJ.1SG / find-GFS-SUBJ.1SG-PST 'I've just found a morda' [Is it yours?]
- (3) ńaxaλt d'aλa-ŋ če-na kińiwa-ma? witi-#(š) three day-GEN behind-LOC cat-POSS.1PL birth-#(PST) 'Three day ago, our cat gave birth'

Optional past and EXH. From the surface, FN appears to be an optional past language, as reference to past events is sometimes possible even without PST marking. Similar assumptions have been made about Tundra Nenets (Burkova 2022; Urmanicheva 2016 p. 760; Vostrikova & Kusliy 2024). However, reference to past events with AOR is available only with telic predicates. Competition between stronger PST and weaker non-future AOR might be a way to predict the contrasts between telics and atelics we have seen above. Suppose past and aorist are scalar alternatives with quantificational semantics as given below in (4). Note that we assume the presence of a temporal anchor t* that refers to Speech Time (ST) and fills the remaining temporal argument of tenses (Kusumoto 2005).

- (4) $[PST] = \lambda P \lambda t. \exists t' [t' < t \land P(t')]$
- (5) $[AOR] = \lambda P \lambda t. \exists t' [t' \le t \land P(t')]$

Then, through exhaustification (Bar-Lev & Fox 2020), we expect an inference to arise with atelic predicates: AOR → ¬PST. This inference blocks the use of AOR for past time reference. As for telic predicates, we know that telic predicates cannot be true at ST (Bennett & Partee 2004). This makes AOR-marked and PST-marked telic predicates equally strong, so no inference is generated and both AOR and PST can be used to mark past reference. However, the EXH-based analysis fails to explain why the contrast between telic and atelic predicates disappears in contexts of distal past. Hence, the optional tense approach does not account for the data at hand. A Maximize Presupposition!-driven analysis (MP!) similar to the one entertained in (Bochnak 2016) would also fail to predict our contrasts, since MP! is blind to the strength of the assertive component and would ignore the effects of telicity.

Graded tense. The striking contrast between distal and recent past brings us into the domain of graded (remoteness-based) tenses. Based on adverbial diagnostics, we might divide the past time into remoteness grades (Cable 2013; Mucha 2017; Johnson 2022) to constrain the reference of PST and AOR. In this system, PST would denote events in the past and AOR would denote events within the current day. However, this predicts only temporal reference of the forms with telic predicates and telicity contrast remains unaccounted for.

Pronominal and existential tense. Another option to account for two past tenses in a language is to suggest that one is existential and another one is pronominal (Chen et al. 2017). We could suppose that PST is existential past and AOR is pronominal non-future, although both can be used in narrative progression, but this would not derive the desired telicity split.

Proposal. We claim that AOR is not a non-future or recent past tense, but rather proper present tense. Therefore, with atelic predicates it only allows for temporal reference to time spans which include ST. As for temporal reference to recent past with telic predicates, we suggest that it arises due to the presence of a null perfect aspect (Grønn & von Stechow 2020). This stipulation is partly justified, since perfect-like meanings are expressed with AOR and pluperfect-like meanings are expressed with PST forms without any overt aspectual marking. At the cost of postulating null aspect, we get an accurate prediction for the pattern in Table 1.

The resulting semantics for AOR and tentative semantics for perfect aspect are given below:

- (6) $[AOR] = \lambda P \lambda t. [P(t)]$
- (7) $[PRF] = \lambda P \lambda t'$. $\exists t [P(t) \& XN(t, t')]$, where XN(t, t') = 1 iff t' if t' is final subinterval of t

More on perfect. The denotation in (6) needs to be motivated. The choice of Extended Now over the result state (Bohnemeyer 2014) is due to the fact that there is no requirement on actuality of the state at reference time, see (7).

(8) čuki d'aλ'a-ŋ s'ičaλs'i-m næ-ŋa-m this morning window-ACC open-GFS-1SG>SG 'I opened the window today' [Then closed it]

To account for the combination of PRF with atelic predicates, we argue that it acquires the universal reading. Truth conditions of such universal readings are hard to empirically distinguish from plain present tense. If a predicate holds at XN(t, t') where t' is speech time then it definitely holds at speech time. As a confirmation, AOR is the only choice in contexts with the universal perfect, see (8).

(9) mań naλa ńaŋat klubi-xana mansλa-ŋa-t-(#aš)

I spring in.ABL club-LOC work-GFS-1SG-(#PST)

'I've been working in the club since spring'

References.

- 1. Bar-Lev, Moshe E. & Danny Fox (2020): Free choice, simplification, and Innocent Inclusion. *Natural Language Semantics* 28(3). 175–223. doi:10.1007/s11050-020-09162-y.
- 2. Bennett, Michael & Barbara H Partee (2004): Toward the logic of tense and aspect in English. *Compositionality in formal semantics*. Blackwell Publishing Ltd Malden, MA, USA. 59–109.
- 3. Bochnak, M. Ryan (2016): Past time reference in a language with optional tense. *Linguistics and Philosophy* 39(4). 247–294. doi:10.1007/s10988-016-9191-6.
- 4. Bohnemeyer, Jürgen (2014): Aspect vs. relative tense: the case reopened. *Natural Language & Linguistic Theory* 32(3). 917–954. doi:10.1007/s11049-013-9210-z.
- 5. Burkova, Svetlana (2010): Kratkij ocherk grammatiki tundrovogo dialekta neneckogo yazyka [Sketch of grammar of the Tundra dialect of Nenets]. In N.B. Koshkaryova (Hrsg.), *Dialektologicheskij slovar 'neneckogo azyka [Nenets dialectical dictionary]*, 180–349. Yekaterinburg.
- 6. Burkova, Svetlana (2022): Nenets. In Marianne Bakró-Nagy, Johanna Laakso & Elena Skribnik (Hrsg.), *The Oxford Guide to the Uralic Languages*. Oxford University Press.
- 7. Cable, Seth (2013): Beyond the past, present, and future: towards the semantics of 'graded tense' in Gĩkũyũ. *Natural Language Semantics* 21(3). 219–276. doi:10.1007/s11050-012-9092-3.
- 8. Chen, Sihwei, Vera Hohaus, Rebecca Laturnus, Meagan Louie, Lisa Matthewson, Hotze Rullmann, Ori Simchen, Claire K. Turner & Jozina Vander Klok (2017): *Past possibility cross-linguistically: Evidence from twelve languages*. Bd. 1. Oxford University Press. doi:10.1093/acprof:oso/9780198718208.003.0012.
- 9. Grønn, Atle & Arnim von Stechow (2020): The perfect. In Lisa Matthewson, Hotze Rullmann & Thomas Zimmermann (Hrsg.), *The Wiley Blackwell companion to semantics, 1st edn (online)*, vol. 10.
- 10. Johnson, Kimberly (2022): Time and evidence in the graded tense system of Mvskoke (Creek). *Natural Language Semantics* 30(2). 155–183. doi:10.1007/s11050-022-09191-9.
- 11. Kusumoto, Kiyomi (2005): On the Quantification over Times in Natural Language. *Natural Language Semantics* 13(4). 317–357. doi:10.1007/s11050-005-4537-6.
- 12. Mucha, Anne (2017): Past interpretation and graded tense in Medumba. *Natural Language Semantics* 25(1). 1–52. doi:10.1007/s11050-016-9128-1.
- 13. Urmanicheva, A. Yu. (2016): "Antipody" perfekta v samodiiskikh yazykakh: nenetskoe proshedshee vremya ["Antipodes" of perfect in Samoyedic languages: Nenets past tense]. *Acta Linguistica Petropolitana* 12(2). 475–534.
- 14. Vostrikova, Ekaterina & Petr Kusliy (2024): V-NYI-8 Puzzles in Semantics . Lecture 2. Handout University of Göttingen.