

Fluid semantic alignment in Tundra Nenets: strange place, strange logic

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Genetic Affiliation:

- Uralic, Samoyedic

Geography:

- Russian tundra - from the Kanin Peninsula in the west to the Yenisei River in the east

Sociolinguistics:

- ~ 25 000 people; the language is almost extinct in urban areas, fairly endangered in rural areas and is said to survive rather well in tundra, among reindeer herders

General Typological Characteristics:

- both head- and dependent-marking in predication and NP
- accusative alignment
- usage of non-finite verb forms for subordination

Interesting Features:

- morphophonology is extremely complicated: many rules, multiple levels of application plus a fair number of irregularities
- nominal possessive declension is encoded by the same person-number suffixes that are used for verbal agreement with subject and object (possessee is coded as object, possessor as subject)
- nouns used predicatively are encoded by the cross-reference verbal affixes (Set A for plain nouns, Transitive Set for possessed nouns)
- there are two types of personal pronouns, each built on a unique root for all persons and numbers (pid- 'body' and s'it-): different persons and numbers are encoded by nominal possessive affixes (one of the personal pronouns has distinct forms for 1st person nominative (man'-))
- reference to past is encoded by a postfix, going after cross-reference affixes on verbs and predicate nouns
- verbal aspectual and argument derivations are recursive with up to 6-8 derivational morphemes in succession
- there is no valence-decreasing derivational morphology, but there are at least 3 different causatives

Text example

- (1) (N)opoj nJenecJh jilJe-wi-Ø.
one man live-NARR.GF-3SGa
(Once upon a time) there was a man.

- (2) (N)opoj-xah nJi-n(a)-ki-Ø jilJe-q mJa-kana
one-NOM.DU NEG-IPFV-PROBAB.GF-3SGa live-CONNeg tent-LOC

Noka jilJe-nJa-q.
many live-IPFV.GF-3PLa

He didn't live alone, many (people) lived in the tent (=Russian 'chum', traditional tent-house).

- (3) xow sJanewa-na xone-**ja-d[ej]q** xone-**ja-dq**
 (N)anJh.
 thus once-LOC go_sleep-SF-3PLb go_sleep-SF-3PLb at_last
Once they went to sleep.
- (4) sJin-(h) tJer-q laba-l-**i-dq**...
 place_for_dishes-GEN content-PL sway-INCH-SF-3PLb
(Suddenly) there was some clinking in the pantry for dishes...

*Have you ever seen semantic alignment (Split-S), realized by verbal agreement in any Uralic language?
 And, more generally, in any language of the European North?*

Have you ever seen fluid semantic alignment (Fluid-S) where one morphosyntactic pattern is used to denote the first phase of the event, and the other morphosyntactic pattern, the second phase of the event?

1

CROSS-REFERENCE SYSTEM:

- agreement in person and number with the subject
- agreement in number with object
- cross-reference system is realized through verbal inflection: right-most suffixes (but before past postfix -s'O)
- four sets of cross-reference suffixes: two for transitives (I and II), two for intransitives (A and B)
- each set of cross-reference affixes goes with an appropriate stem: neither stem is associated with a single set

Table 1. *Verbal stems*

Set A (intrans.)	general finite stem (GF)
Set I (trans.) (singular object)	general finite stem (GF)
Set II (trans.) (dual object)	general finite stem (GF)
Set II (trans.) (plural object)	special finite stem (SF)
Set B	special finite stem (SF)

- TRANSITIVES: I = SINGULAR OBJECT VS. II = NON-SINGULAR OBJECT

(1a)manJ weneko-mh tJorJe-**w**.
 I dog-ACC cry.GF-**1SGI**
I called the dog.

(1b)manJ wenJeko-xoq tJorJe-**Na-xayu-n**.
 I dog-DU.ACC cry.GF-DU-**1SGII**
I called two dogs.

(1c)manJ wenJeku tJorJe-**j-n**.
 I dog.PL.ACC cry-SF-**1SGII**
I called the dogs.

Set I <singular object>

	SG	DU	PL
1	-w	-mJih	-waq
2	-r	-rJih	-raq
3	-da	-dJih	-doh

Set II <dual&plural object>

	SG	DU	PL
1	-n	-nJih	-naq
2	-d	-d'ih	-daq
3	-da	-dJih	-doh

- INTRANSITIVES: NO CLEAR DISTRIBUTION BETWEEN A AND B

(2a)Naciki pJilJipt tJorJe-Ø.
 child always cry.GF-3SGA
The child always cries.

Set A:

	SG	DU	PL
1	-m(O)h	-nJih	-waq
2	-n	-dJih	-daq
3	-Ø	-x(O)h	-q

(2b)NacJeki tJor'e-j-q.
 child cry-SF-3SGB
The child gave a scream.

(3a)jiq loxom-da-na-Ø.
 water boil.intr-CAUS-IPFV.GF-3SGA
The water is starting boiling.

Set B:

	SG	DU	PL
1	-w(O)q	-nJih	-naq
2	-n	-dJih	-daq
3	-q	-x(O)h	-d(O)q

(3b)jiq loxom-da-ni-q.
 water boil.intr-CAUS-IPFV.SF-3SGB
The water is almost boiling.

NB: (3a) describes a situation closer to the moment of boiling than (3b)

If for accounts of this study Transitive Set I and Transitive Set II represent the same morphosyntactic object and will be referred to as to a single Transitive Set

Thus, Tundra Nenets does not encode intransitives subjects either as transitive subjects or transitive objects:

- it is not the S-split system as those in Americas,
- but it does have an intransitive split: there are 2 sets of cross-reference affixes for intransitive verbs;
- moreover, Tundra Nenets S-system is fluid, as there are plenty of verbs that are able to take both sets of cross-reference suffixes.

2

some verbs can take all three sets of cross-reference affixes (<trans, A, B>)
 some only two of them (<trans, A>, <trans, B>, <A, B>)
 some only one (<trans>, <A>,)

Choice of one of two possible theoretical approaches:

Approach 1: for verbs taking more than one set, the choice of a particular set is equivalent to a 'derivational device'

(cf. 'derivation by template' in Ket [Vajda 2003])

- easy to treat from compositional point of view: the function of a set of cross-reference affixes is clear – aspectual/valency derivation
- BUT difficult to define which set is 'basic' and which are 'derived':
 must it be the same for all verbs?
 (e.g. Set A is always basic, and B and transitive are always derived from A)

OR

does the 'basicness' of a set depend on some feature(s) of verb semantics?
 (e.g. for some verbs Set A is basic, and B and transitive are derived from A; for other verbs Set B is basic, and A and transitive are derived from B, etc.)?

- (actually, there is an additional argument against the ‘derivational hypothesis’, but it’s too long to present here; in principle, it’s based on the theoretical assumption of monotonicity of verb’s meaning – a derivation isn’t allowed to delete anything, only to augment; however, each set of cross-reference affixes has some features lacking in all the others)

Approach 2: lexical semantics of verbs taking more than one set is a composite made up from several ‘event-templates’ (‘event-shapes’), and the sets of cross-reference affixes function as realization devices for each of these event-templates

- difficult to study ‘verbal lexical semantics’ that can be seen only when filtered through a set of cross-reference affixes (perhaps non-finite verbal forms could help here?..)
- BUT it could account for the ‘unpredictability’ of the modification of the verb meaning by each of three cross-referential sets: the concrete meaning of a verbal form with a given cross-referential set depends both on the verb itself and on the set chosen, not only on the latter (cf. quite different ‘derivational’ mechanisms of Set A and Set B in (2) and (3))

I choose Approach 2.

If so, it’s necessary to always keep both factors separate and to track independently their impact on the whole:

verbal semantics vs. functions/semantics of a cross-reference set;

NOW, LET’S LOOK AT AN EXAMPLE OF VERBAL SEMANTICS INFLUENCING THE CHOICE OF A CROSS-REFERENCE SET (3) AND AT AN EXAMPLE OF CROSS-REFERENCE SET’S OWN SEMANTICS INFLUENCING THE CHOICE OF A CROSS-REFERENCE SET (4).

(5)-(6) WILL REPRESENT AN EXAMPLE OF VERBAL SEMANTICS AS WELL, BUT A MORE COMPLICATED CASE: ACTUALLY, A CASE OF FLUID S-SPLIT.

3

Verbal semantics: the ‘**event-templates**’ are defined by the combination of two parameters

1. set of participants/arguments
2. actional type of the event: state, process, entry into a state, entry into a process, etc.

Notes on Parameter -1: should we consider

- a set of participants (in terms of semantic roles: Agent, Patient, Experiencer, etc.)?

OR

- a set of arguments (in terms of syntactic positions: Internal Argument, External Argument, Adjunct, etc.)?

The basic opposition in the system of Nenets finite verbal forms is syntactic: transitive clauses vs. intransitive clauses, i.e. situations with 2 participants vs. situations with 1 participant (semantic roles do not matter).

E.g., 2-place verbs with non-accusative case frames (<Nom, Dat>, or <Nom, Abl>, etc.) pattern together with 1-place verbs, treating a non-nominative argument as an adjunct.

Table 2. *Syntactic transitivity*

menJe- ‘to love’ <Exp: Nom; St: Acc> =	vs.	mOjO- ‘to be glad’ <Exp: Nom; St: Dat> =
ladO- ‘to beat’ <Ag: Nom; Pat: Acc>		to- ‘to come’ <Ag: Nom> t’im- ‘to rot’ <Pat: Nom>

⇒ it seems advantageous to speak in terms of syntactic positions:

event-templates with Internal Argument only

vs.

event-templates with both Internal and External Arguments

NB: I speak of event-templates, not verbs, as a single verb may have several templates.

Rule 1 “basic correspondence between lexical semantics and sets of cross-reference affixes”:

- event-templates with Internal Argument only are realized by *Set A* and/or *Set B*;
- event-templates with both Internal and External Arguments are realized by the *Transitive Set*.

4

Does this mean that knowing the argument structure of an event-template, we can always predict the set of cross-reference affixes it will take?

No. There is a further complication originating not in verbal semantics, but in the properties of the sets of cross-reference affixes themselves.

Set A is used as a discourse counterpart of the Transitive Set:

in the case of a 2-Argument event-template, **referential properties of the Internal Argument can be encoded by the use of Set A.**

NB: These properties seem to be basically the same as the properties governing differential object marking in many languages: whether the direct object is definite/indefinite, given/new, specific/non-specific, etc. (see [Körtvély 2003] for more details).

(4a) wasJa kniga-mh me-Ø /??me-da.
Wasja book-ACC take.GF-3SGa /take.GF-3SGi
{What did Wasja take? -} Wasja took a book.

(4b) kniga-mh wasJa me-da /??me-Ø.
book-ACC Wasja take.GF-3SGi /take.GF-3SGa
Wasja took the book.

(4c) wasJa Ø me-da /??me-Ø.
Wasja take.GF-3SGi /take.GF-3SGa
Wasja took it.

(5a) manJ xar-mhjuxu-pta-w.
I knife-ACC get_lost-CAUS.GF-1SGi
I have lost the knife.

- (5b) wasJa juxu-pta-Ø.
 Wasja get_lost-CAUS-3SGa
Wasja always loses everything (~that's his character).

The use of Set A in these examples comes not from verbal semantics, but from the properties of the Set A itself:

In fact, **this use of Set A is impossible for a given verb if the verb doesn't have a 2-Argument event-template**, i.e. if the use of the Transitive Set is impossible.

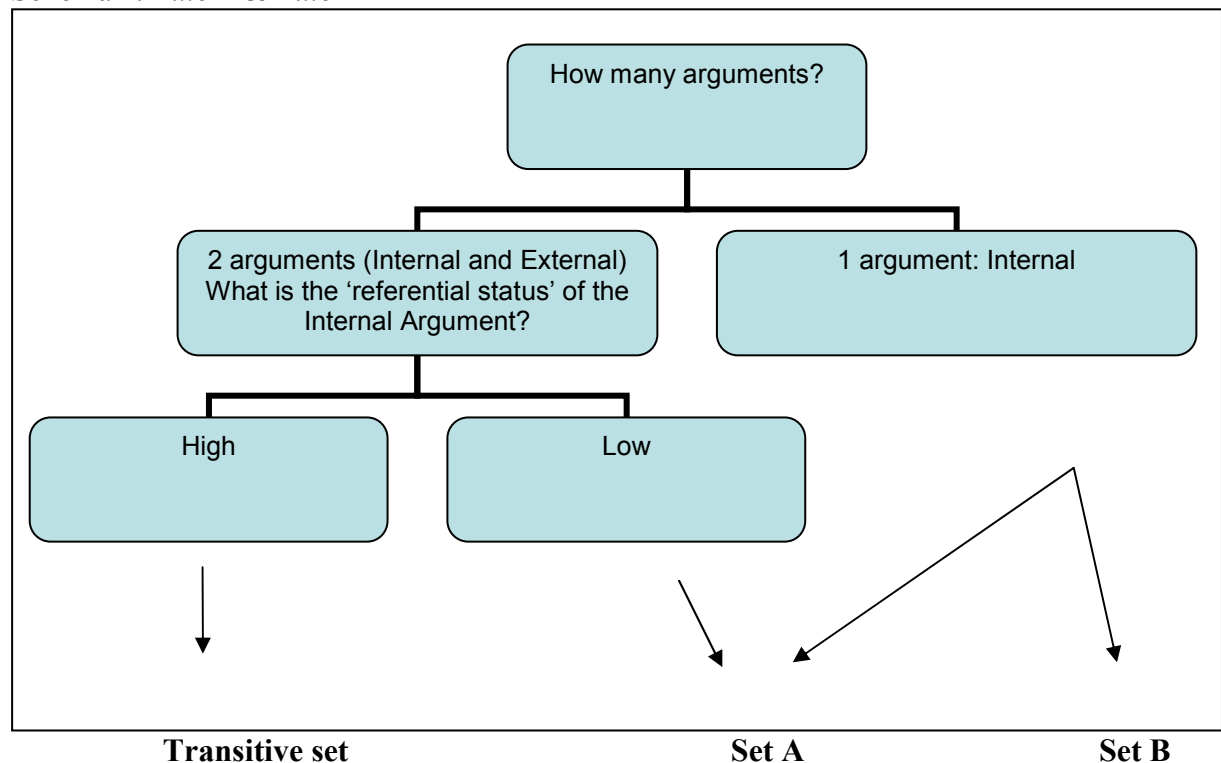
⇒ for 2-Argument event-templates, the choice between Set A and the Transitive Set does not depend on verbal semantics. It depends on the 'referential status' of the Internal Argument, and one of the functions of Set A cross-reference affixes is to encode some values of this parameter.

Rule 2 "encoding of 'referential status' of Internal Argument by means of Set A":

if the Internal Argument of an event-template with both Internal and External Arguments has low 'referential status' (i.e. is indefinite, non-specific, etc.), this event-template is realized by Set A.

NB: Following the principles of Nenets syntax, the 'Internal Argument of an event-template with both Internal and External Arguments' is always the direct object of the verb.

Schema 1. *Rule 1 & Rule 2*



NB: in practice, the ambiguity of Set A is always resolved by the overt presence/absence of the External Argument.

5

But how can we explain the choice between Set A and Set B for 1-Argument event-templates?

Let's look at **the class of verbs that use both Set A and Set B**, i.e. those verbs that have at least two different event-templates available from their verbal semantics

NB: some of these verbs also have the 2-Argument event-template, and some don't; this parameter is not important in the present discussion of the 1-Argument event-templates.

None of the traditional parameters of stativity/activity, telic/atelic, controlled/uncontrolled, agentive/patientive, etc. governs the distribution, if we take it separately from the others.

Cf. Set A patientive usage in (5) and agentive in (6):

- (6) wasJa pJilJipt radio-ninzJelJe-l-**Na-Ø**.
Wasja always radio-DAT listen-INCH-**GF-3SGa**
Wasja listens to the radio every day.

for many verbs, both sets can be used for atelic interpretation (ex.(3)), or both for telic (ex.(7)):

- (7a) wasJa jibJedo-l(O)-pta-Ø.
Wasja think-INCH-CAUS-**GF-3SGa**
Wasja has begun to think.

- (7b) wasJa jibJedo-l(O)-pte-**j-q**.
Wasja think-INCH-CAUS-**SF-3SGb**
Wasja has begun to think.

NB: (7a) describes a situation where the thinking has been going on longer than in the situation of (7b).

Rather, these parameters work **together** to shape the exact profile of the event.

<although it's premature to make final judgments, the following logic is found in 90% of the cases...>

Rule 3 "usage of Set A and Set B within a single verbal lexeme":

within a single verb, the event realized by Set B takes place earlier in time than the event realized by Set A and entails the latter:

<event>Set B ⇒ <event>Set A

i.e. events described by the verbs of the class discussed here are always subdivided into two phases: the first comes first temporally, and causes the second.

6

Table 3. Correspondence between event-templates realized by Set A and Set B (in terms of different frameworks)

Set B			Set A		
event-templates	event-templates in terms of [Vendler 1957] (slightly modified)	event-templates in terms of [Levin, Rappaport Hovav 1998] (slightly modified)	event-templates	event-templates in terms of [Vendler 1957] (slightly modified)	event-templates in terms of [Levin, Rappaport Hovav 1998] (slightly modified)
1 entry into a state	achievement	[BECOME[x<STATE>]]	⇒ state	state	[x<STATE>]
2 entry into a state (intermediate stage of the state)	achievement.interm	[BECOME[x<STATE.INTERM>]]	⇒ entry into a state (final stage of the state)	achievement.fin	[BECOME[x<STATE.FIN>]]
3 entry into a process	inchoative process	[BECOME[xPROC<MANNER>]]	⇒ process	process	[xPROC<MANNER>]
4 entry into a process	inchoative process	[BECOME[xPROC<MANNER>]]	⇒ entry into a state	achievement	[BECOME[x<STATE>]]
5 process	process	[xPROC<MANNER>]	⇒ state	state	[x<STATE>]
6 process (intermediate stage)	process.interm	[xPROC.INTERM<MANNER>]	⇒ process (final stage)	process.fin	[xPROC.FIN<MANNER>]

1: B <entry into a state> ⇒ A <state>

(8a) wasJa wenJeko-xOd p'ina-Ø.
 Wasja dog-ABL be_afraid.GF-3SGA
Wasja is afraid of the dog.

(8b) wasJa wenJeko-xOd p'ini-q.
 Wasja dog-ABL be_afraid.SF-3SGb
Wasja became afraid of the dog.

2: B <entry into a state (interm.stage of the state)>
 ⇒ A <entry into a state (fin.stage of the state)>

(9a) manJ majam-la-da-mh.
 I become_glad-CAUS-CAUS.GF-1SGA
I have become glad.

(9b) manJ majam-la-d-ej-(u)wq.
 I become_glad-CAUS-CAUS-SF-1SGb
I have become glad.

NB: (9a) describes a situation where the state of joy has lasted longer than in the situation of (9b).

3: B <entry into a process> ⇒ A <process>

(10a) tJirtJa tJi-Ø.
 bird fly.GF-3SGA
The bird is flying.

(10b) tJirtJa tJi-j-q.
 bird fly-SF-3SGb
The bird has flown up (into the air).

4: B <entry into a process>
 \Rightarrow A <entry into a state>

(11a) jimbyt Nadara-Ø.
 dress be_torn.GF-3SGA
The dress has torn.

(11b) jimbyt Nadari-q.
 dress be_torn.SF-3SGb
The dress has begun to tear.

5: B <process> \Rightarrow A <state>

(12a) Naciki majm-la-Nga-Ø.
 child be_glad-CAUS-ITER.GF-3SGA
The child is glad.

(12b) Naciki majm-la-Ngi-q.
 child be_glad-CAUS-ITER.SF-3SGb
The child is starting to become glad.

6: B <process (intermediate stage)>
 \Rightarrow A <process (final stage)>

(13a) sarJo xamda-na-Ø.
 rain pour-IPFV.GF-3SGA
It is raining.

(13b) sarJo xamda-ni-q.
 rain pour-IPFV.SF-3SGb
It is starting to rain / It is going to rain (something is going on in the clouds).

Thus, the following can be claimed about that part of verbal lexical meaning which contains 1-Argument event-templates:

the lexical information in the verb is of two types:

‘**semantics**’ = propositional content of the verb (*what does it mean*)

‘**metasemantics**’ = structural organization of the propositional content
 (*how this meaning is ‘syntactically’ packaged by Tundra Nenets*)

the ‘semantics’ includes the denotation, i.e. a real-world situation that this verb refers to

the ‘metasemantics’ includes (at least)

- the information about whether the event is seen as divided into two phases (i.e. whether the verb will allow the use of both Set A and B, or only one of these);
- and if yes, the information about the location of this division in the development of the event (cf. Table 3 showing six different ways to make the division).

This has been an example of a class of verbs that can take both Set A and Set B and thus realize at least two different event-templates.

Further, the same type of statement will have to be made about the choice of either Set A or Set B in the situation when a given verb has only one 1-Argument event-template. These statements might be different for verbal lexemes having a 2-Arguments event-template (i.e. for <trans, A> and <trans, B>) and for verbal lexemes having only one event-template, i.e. a template with one Argument (i.e. for <A>,).

7

When we understand the principles governing the choice of a possible set for a given event-template, we need to address the next question:

how the separate event-templates are integrated within a single verbal lexeme?

Which event-templates are actually co-occur in a single verb and which do not; why do these restrictions on the co-occurrence exist?

What does the verb semantics look like when neither set of cross-reference affixes is used, so that all event-templates possible for the verb must be ‘activated’ at the same time (cf. non-finite forms or aspectual/argument derivations from the verbal stem)?

P.S.

Other Tundra Nenets studies ([Salminen 1997, 1998], [Tereschenko 1956, 1965]) have not notice the phenomenon of semantic alignment!

They recognized the existence of only these verbs: <A>, , <trans>, <trans, B>, but not <trans, A>, <A, B>, <trans, A, B>.

While this might have been a simple oversight, as neither of the studies above meant to be really exhaustive, there is another possibility:

- My study is based on field research conducted in a community that is no longer using the language in their everyday life. There are parts of the language structure that are already gone, e.g. complex clauses once formed through highly elaborated system of non-finite forms (cf. [Tereschenko 1956, 1990]).
- Can't it be the case that **the system of verbal agreement has been restructured by the speakers of the dying language from that based on the standard Uralic intransitive-transitive opposition to one based on a surprisingly more refined semantic alignment principle?** It's worth noting that [Tereschenko 1979: 193-196] mentions some evidence that could count as an early stage of semantic alignment development in Nenets and closely related Nganasan...
- Is this one more puzzle that language death proposes to linguists?.. (cf., among others, [Aikhenvald 2002], [Broderick 1999], [Campbell, Muntzel 1989], [Dorian 1999], [Schmidt 1985])

- Aikhenvald A. (2002). Language obsolescence: progress or decay? The emergence of new grammatical categories in 'language death' // Bradley D., Bradley M. (eds.). *Language endangerment and language maintenance*. London: RoutledgeCurzon, 144-155.
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The examples are cited in a simplified notation based on [Salminen 1997, 1998]. In traditional Tundra Nenets terminology, Set A = 'subjective conjugation', Set B = 'reflexive conjugation', Transitive Set = 'subjective-objective conjugation'.

GF – general finite stem, SF – special finite stem, 3SG – 3rd person singular, NOM – nominative, ACC – accusative, GEN – genitive, LOC – locative, DAT – dative, ABL – ablative, SG – singular, DU – dual, PL – plural, NEG – negative verb, IMPFV – imperfective, NARR – narrative, PROBAB – probabilitive, CONNEG – connegative (verb form dependent on negative verb), INCH – inchoative, CAUS – causative, ITER – iterative.