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Actionality of Nanai verbs

1. The notion of actionality

Every verb (exactly verbal lexeme) in any language has its own aspectual (~actional) semantics that may reflect on grammatical features.

[Vendler 1957] — the most well-known work on actional classes of verbs. Z. Vendler divides English verbs into 4 groups:

- States (*I know geography*)
- Activities (*He is running*)
- Accomplishments (*He is drawing a circle*)
- Achievements (*He reached the top*).

Semantics reflects on grammar: States and Achievements can't be used in Present Continuous form (* *I am knowing geography*; * *He is reaching the top*).

It is just one type of classification of English verbs which was criticized many times. Still, the basic idea remains the same in other classifications.

Such semantic groups of verbs have different names in different works[1]: actional classes [Tatevosov 2002], Aktionsart [Agrell 1908], aspectual classes [Verkuyl 1993], situation types [Smith 1991] and others.

2. S. Tatevosov's method [Татевосов 2002, 2005, forthc.]

His goal — to propose a method for identifying actional classes in any language so that it would be possible to compare actional classifications of various languages and to make typological researches on actionality.

Actional characteristic is a sum of aspectual (actional) interpretations which a verbal lexeme can have in its forms in different contexts. Each type of interpretation has a label:

- State, S (*He is sleeping*)
- (Single) process, P (*He is running*)
- Entry into a state, ES (*He wrote a letter* — entry into a state 'the letter exists')
- Entry into a process, EP (*At that moment the water boiled* — entry into a process 'boil')
- Multiplicative process, MP (*He is coughing*)
- Quantum, or point, of a multiplicative process (used in [Аркадьев 2009]), Q (*He coughed once*)[2]

Other labels also may be found in some particular languages but they are not so widespread.

S. Tatevosov proposes two different procedures of identifying actional classes in languages with inflectional aspect system and in languages with derivational aspect system.

2.1. Actional classes in languages with inflectional aspect system

Inflectional aspect system: a verbal paradigm includes forms, which express aspectual meanings (cf. English Continuous or Perfect Tenses), and (almost) every verbal lexeme can be used in any of these forms and acquire corresponding aspectual meaning.

sleep — aspectually neutral

He is sleeping — continuous (=progressive)

He has slept — perfect

Procedure of identifying actional classes in languages with inflectional aspect system:

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[1] These terms are not completely identical but they are rather close to each other.

[2] Criteria for distinguishing these types of interpretation are discussed in [Tatevosov 2002].

I — to choose two grams, in terms of [Dahl 1985], one from the perfective (or past) domain, another from the imperfective (or progressive) domain.

II — to identify actional semantics of verbs in these forms.

III — to make groups of verbs according to their actional characteristics.

Example (Balkar < Turkic, [Татевосов, forthc.]):

verb *zat-* 'lie (down)'

(1)   Perfect

    a.   *alim   irte   **zat-xan-dy.**
        Alim   early   lie.down-PFCT-3SG
        'Alim lied down early.' ENTRY INTO A STATE (ES)

    b.   *alim   on   minut   **zat-xan-dy.**
        Alim   ten   минута   lie-PFCT-3SG
        1. 'Alim was lying for ten minutes.' STATE (S)
        2. 'Alim was lying down for ten minutes.' PROCESS (P)

(2)   Imperfect

    a.   *ol   bir   aj-ny   töšek-te   tur-ma-j*
        (s)he   one   month-ACC   bed-LOC   stand-NEG-IPFV
        zat-a   e-di.
        lie-IPFV   AUX.PST-3SG
        'She was lying in a bed for one month and she didn't get up.' STATE (S)

    b.   *men   kel-gen-de   murat **zat-a**   **e-di.**
        I   come-PFCT-TEMP   Murat lie-IPFV   AUX.PST-3SG
        'When I came, Murat was lying down.' PROCESS (P)

⟹   Actional characteristics of *zat-*:
    <Perfect: {ES, S, P}; Imperfect: {S, P}>

Table 1. Part of actional classification of Balkar verbs (based on a sample of verbs)

name of class	actional characteristic	example	perfect form	imperfect form
strong telic	<ES, P>	*syn-* 'be broken'	ES 'was broken'	P 'is being broken'
weak telic	<ES P, P>	*ac-* 'open'	ES 'opened' P 'was opening (for some time)'	P 'is opening'
punctual	<ES, —>	*tap-* 'find'	ES 'found'	—
…				

2.2. Actional classes in languages with derivational aspect system

Derivational aspect system: aspectual feature is a characteristics of a verbal lexeme rather than of a verbal form. Derivational means are often used to derive new lexemes with another aspectual meaning. For example, every Russian verb can be either perfective or imperfective. The verb *pisat'* '~ be writing' is imperfective, while *napisat'* '~ have written' is perfective. Basic inflectional verbal forms are aspectually neutral, they don't express any aspectual meaning.

Procedure of identifying actional classes in languages with derivational aspect system:

I — to choose verbal cognates which differ only in actional semantics.

Example:

(3)   *pisat'* 'write' PROCESS (P)
    na-pisat' 'write' ENTRY INTO A STATE (ES)

But not *pere-pisat'* 'write **once again**' ENTRY INTO A STATE (ES)

II — to identify actional semantics of each verb (it is supposed that actional semantics of a verbal lexeme is the same in all forms), and thus, to identify actional characteristics of the actional group, i.e. a group of verbal cognates.

III — to make classes of actional groups according to their actional characteristics.

(4)   Perfective *u-videt'* 'catch sight of'
      Imperfective *videt'* 'see'
      Actional group |*uvidet' / videt'*| <ENTRY INTO A STATE; STATE> <ES; S>

Table 2. Part of actional classification of Russian verbs (based on a sample of verbs)

name of class	actional characteristic	example	perfective verb	imperfective verb
strong telic	<ES, P>	*ubit'~ubivat'* 'kill'	*ubit'* ES 'kill'	*ubivat'* P 'be killing'
weak telic	<ES P, P>	*pročitat'~počitat'~čitat'* 'read'	*pročitat'* ES 'have read' *počitat'* P 'read (for some time)'	*čitat'* P 'be reading'
punctual	<ES, —>	*najti~naxodit'* 'find'	*najti* ES 'found'	—
…				

⇨   Classes of verbal lexemes in Balkar can be compared with classes of verbal (=actional) groups in Russian.

3. The Nanai language[3]

Nanai (<Tungusic) — an endangered language (~300 speakers) spoken in the Far East of Russia.

The very first step for making actional classification of verbs is to determine a type of aspectual system: inflectional or derivational. => It's a problem for Nanai.

Inflectional aspect?

Table 3. Paradigm of verb in Nanai (indicative mood)

form	example	glosses
Present	*niru-j-ni*	write-PRS-3SG
Past	*niru-xə-ni*	write-PST-3SG
Imperfect	*niru-j bi-či-ni*	write-PRS be-PST-3SG
Prospective	*niru-j*	write-PRS
Future	*niru-ǯərə*	write-FUT

Basic forms (Past and Future) do not express any aspectual meaning. Present refers to the imperfective domain due to its semantics (actual present ~ progressive in present).

⇨   There isn't a fully-grammaticalized inflectional aspectual system in Nanai.

Derivational aspect?
   ▪ A plenty of verbal derivational suffixes. Verbal cognates could form an actional group:

(5)   *ajakta-la-*   *ajakta-če-*
      angry-PFV-   angry-IPFV-
      'become angry' ES   'be angry' S
   ▪ Some verbal lexemes can have just one aspectual interpretation:

(6)   *mora-* 'cry (be crying)'; * 'begin to cry' / * 'cry (once)'

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[3] The research is based on the data collected during fieldwork in the Far East of Russia in 2013–2015. The examples were collected during elicitation tasks: speakers translated Russian sentences into Nanai.

BUT Some verbal lexemes (~33%) can have both imperfective and perfective interpretation depending on context:

(7)   *bələči-xə-ni*
     help-PST-3SG
     'He helped.'   ES
     'He was helping.'   P
     It's difficult to use such verbs for forming actional groups.

⇨   There isn't a grammaticalized derivational aspectual system in Nanai.

? How to identify actional classes of Nanai verbs?
    — Not to lose any information: about actional characteristics inside a verbal lexeme (differences between forms) or about actional characteristics of verbal cognates.
    — To make it comparable with other languages' actionality.

4. Applying of Tatevosov's method to Nanai

Two techniques, proposed by S. Tatevosov, can be combined.

I — to choose 2 grams, from past (~perfective) domain and from present (~progressive, imperfective) domain.

II — to identify actional semantics of these forms for all verbs from a sample (with the help of questionnaires which are given to speakers).

III — to determine actional characteristics of every item:
    if a verbal lexeme doesn't have any cognates, then its actional characteristics is based on actional semantics of past and present forms;
    if there are verbal cognates which differ just in actional semantics, then they form an actional group and actional characteristic of this group is based on actional semantics of its verbs.

IV — to make classes of verbs and actional groups according to their actional characteristics.

Example of Nanai:

I — Past tense (*niruxəni* 'wrote') and Present tense (*nirujni* 'is writing')

II —

(8)   *ǯiǯu-xə-ni*   *ǯiǯu-j-ni*
     come.back-PST-3SG   come.back-PRS-3SG
     'He came back'   ES   'He is coming back'   P
     * 'He was coming back'

(9)   a.   *xoǯe-xa-ni*   *xoǯi-ni*
           finish-PST-3SG   finish.PRS-3SG
           'he finished smth.'   ES   'he finishes smth. (every day)'
                                     * 'he is finishing smth.'   —
     b.   *xoǯe-če-xa-ni*   *xoǯe-či-ni*
           finish-IPFV-PST-3SG   finish-IPFV.PRS-3SG
           'he was finishing smth.'   P   'he is finishing smth.' P

III —

	verb	past	present	actional characteristic <pfv item; ipfv item>	name of the class
1	*ǯiǯu-* 'come back'	*ǯiǯuxəni* ES 'came back'	*ǯiǯujni* P 'is coming back'	<ES; P>	strong telic
2	*xoǯe-* 'finish'	*xoǯexani* ES 'finished smth.'	*xoǯini* —	<ES; P>	strong telic
3	*xoǯeče-* 'be	*xoǯečexani* P 'was	*xoǯečini* P 'is		

	finishing'	finishing smth.'	finishing smth.'		
4	*toŋgala-* 'touch'	*toŋgalaxani* ES 'touched'	*toŋgalajni* S 'is touching'	<ES S; S>	weak inceptive-stative
5	*toŋgače-* 'touch'	*toŋgačexani* S 'was touching'	*toŋgačini* —		
6	*dəgdə-* 'fly'	*dəgdəxəni* EP 'began to fly, took off'	*dəgdəjni* P 'is flying'	<EP ES P; P>	two-telic
7	*dəgdəgu-* 'fly'	*dəgdəguxəni* EP, ES 'began to fly, took off; flew away'	*dəgdəgujni* —		
8	*dəgdəči-* 'be flying'	*dəgdəčixəni* P 'was flying'	*dəgdəčini* P 'is flying'		
	…				

⇨ Actional characteristic of a verb / actional group consists of two parts: actional semantics of the perfective item and actional semantics of the imperfective item <pfv + ipfv>.

For verbs like *ǯiǯu-* — <past + present>

For verbs like *xoǯe(če)-*; *toŋgala-/toŋgače-* and *dəgdə-/dəgdəgu-/dəgdəči-* — <perfective verb(s) + imperfective verb(s)>

Perfective verb — a verb which can have interpretation ES or EP in past form (cf. *dəgdə-*; *dəgdəgu-*). Otherwise — imperfective (*dəgdəči-*).

5. Actional classification of Nanai verbs

Table 5. Actional classes of Nanai verbs / actional groups

actional class	actional characteristics	amount of items (verbs and actional groups)	superclass
Weak telic	<ES P, P>	28	neutral
Strong telic	<ES, P>	19	perfective
Atelic	<P, P>	15	progressive
Strong inceptive-stative	<ES, S>	9	perfective
Stative	<S, S>	9	progressive
Inceptive	<ES, —>	8	inceptive
Weak inceptive-stative	<ES S, S>	8	neutral
Strong multiplicative	<Q, MP>	4	perfective
Weak ingressive-atelic	<EP P, P>	3	neutral
Strong stative-processive	<ES, P S>	2	perfective
Strong multiplicative-processive	<Q, MP P>	2	perfective
Weak stative-processive	<ES S, P S>	1	neutral
Two-telic	<EP P ES, P>	1	neutral
Weak inceptive-multiplicative	<ES Q MP, MP>	1	neutral
Weak multiplicative-telic	<ES Q MP, MP P>	1	neutral
Strong ingressive-atelic	<EP, P>	1	perfective
Ingressive	<EP, —>	1	inceptive
Weak multiplicative-	<Q P MP, MP P>	1	neutral

processive			
Weak inceptive	<ES S, —>	1	neutral
Weak multiplicative	<Q MP, MP>	1	neutral
SUM	**22**	**116**	

(10) Weak telic <ES P, P>

    a.   *buə*   *ənim-pu*   *gučkuli*   *žarem-ba*   *žari-ni.*
        1PL   mother-1PL   beautiful   song-OBL   sing.PRS-3SG
        'Our mother is singing a beautiful song.'   P

    b.   *Patalan*   *gučkuli*   *žarem-ba*   *žare-xa-ni.*
        girl   beautiful   song-OBL   sing-PST-3SG
        'A girl was singing a beautiful song.'   P
        'A girl has sung a beautiful song.'   ES

(11) Strong telic <ES, P>

    a.   *Mi*   *nəu-i*   *bičxə-wə*   *niru-j-ni.*
        1SG   younger.brother-1SG   letter-OBL   write-PRS-3SG
        'My younger brother is writing a letter.'   P

    b.   *nəu-i*   *bičxə-wə*   *niru-xə-ni.*
        younger.brother-1SG   letter-OBL   write-PST-3SG
        'My younger brother has written a letter.'   ES

(12) Atelic <P, P>

    a.   *Xajm*   *soŋgo-j-si?*
        why   cry-PRS-2SG
        'Why are you crying?'   P

    b.   *arčokan*   *soŋgo-xa-ni.*
        girl   cry-PST-3SG
        'A girl was crying.'   P

(13) Strong inceptive-stative <ES S, S>

    a.   *Mi*   *bəgži-i*   *ənulu-xə-ni.*
        1SG   leg-1SG   hurt.INCH1-PST-3SG
        'My leg began to hurt.'   ES

    b.   *Mi*   *bəgži-i*   *ənusi-xə-ni.*
        1SG   leg-1SG   hurt.IPFV-PST-3SG
        'My leg was hurting.' S

    c.   *Mi*   *bəgži-i*   *ənusi-ni.*
        1SG   leg-1SG   hurt.IPFV.PRS-3SG
        'My leg hurts.'   S

(14) Stative <S, S>

    a.   *N'oani*   *simbi-wə*   *uləsi-ni.*
        3SG   2SG-OBL   love.PRS-3SG
        'He loves you.'   S

    b.   *N'oani*   *simbi-wə*   *uləsi-xə-ni.*
        3SG   2SG-OBL   love-PST-3SG
        'He loved you.'   S
        * 'He fell in love with you.'   * ES

(15) Inceptive <ES, —>
    Sagži   *daan'a*   *buj-ki-ni.*
    old   grandmother   die-PST-3SG
    'Old grandmother has died.'   ES

    All the classes can be combined into superclasses according to their aspectual semantics:
- progressive (a verb can have only progressive interpretations in its basic forms)

- perfective (a verb has perfective interpretation in past form and progressive interpretation in present form)
- inceptive (a verb has inceptive/ingressive interpretation in past form and can't be used in present form with reference to an actual situation)
- neutral (a verb can have both progressive and perfective interpretations in past form and progressive interpretation in present form)

The division into superclasses affects some grammatical phenomena:
1) Neutral verbs rarely acquire aspectual derivational suffixes, while inceptive verbs tend to derive aspectual cognates.
2) Verbs with imperfective suffix -*či* tend to refer to the progressive superclass and never refer to the perfective or inceptive superclasses.
3) Verbs of the progressive superclass are never used in prospective form.
4) …

Conclusion
- ✓ I propose a modification of Tatevosov's method for identifying actional classification.
- ✓ Although the modification is more complicated, it makes this method applicable to languages, which don't have neither inflectional nor derivational aspect.
- ✓ Maybe, it would be better to use such a modified method for any language because languages with evident inflectional aspect may also have some derivational (although marginal) means of expression of aspectual meanings. Thus, it wouldn't be necessary to make quite a rough decision whether a language has inflectional or derivational aspect.

Abbreviations

ACC — accusative; AUX — auxiliary verb; FUT — future; INCH — inchoative; IPFV — imperfective; LOC — locative; NEG — negative; OBL — oblique; PFCT — perfect; PFV — perfective; PRS — present; PST — past; SG — singular.

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