LEXICAL AND COMPOSITIONAL FACTORS IN THE ASPECTUAL SYSTEM OF ADYGHE

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1. Introduction

This paper will focus on the interaction and resolution of different factors which contribute to the aspectual interpretation of phrases and sentences, exemplified by data from Adyghe (also known as West Circassian), a polysynthetic North-West Caucasian language spoken in Russia and in Turkey (existing sources on Adyghe include Paris 1989, Smeets 1984, Rogava & Kerasheva 1962, Kumakhov 1971)[1]. More specifically, I will argue that in order to accurately and adequately characterize aspect in Adyghe it is necessary to regard temporal adverbials as a separate layer of aspectually relevant operators with its own combinatorial properties and restrictions, which are not reducible to inherent actional properties of predicates (cf. similar proposals in Depraetere 1991, 1995; Klein 1994, Smith 1995, de Swart 1998, 2000; Bertinetto & Delfitto 2000, and especially Güven 2004, 2006). Primary attention in this paper will be paid to empirical arguments in favour of a treatment of the Adyghe aspectual system which assumes a minimally tripartite distinction among (i) the lexically specified aspectual nature of predicates, (ii) semantic and combinatory properties of temporal adverbials, and (iii) grammaticalized viewpoint aspect, all of which contribute their own information pertinent to the aspectual interpretation of sentences, and to the refinement of a non-aprioristic typological approach to lexical and grammatical aspectuality developed by Tatevosov (2002). This paper does not propose any particular formal framework for such an analysis; that must be the subject of a separate discussion.

The paper is structured as follows. In Section 2 I will briefly outline the theoretical and methodological preliminaries of this study, focusing on the discovery procedure of actional classes proposed by Tatevosov. In Section 3 I will give a characterization of the system of tense-aspect categories of Adyghe, and in Section 4 I will turn to the system of actional classes of this language. Section 5 will present the data on the interaction of Adyghe predicates belonging to different actional classes with temporal adverbials, and outline two possible accounts of this material, which I call ‘lexical’ and ‘compositional’. In Section 6 further data will be discussed, which, as I will argue, points towards the ‘compositional’

analysis. Section 7 will briefly discuss some theoretical and typological implications of the material presented in the preceding sections.

2. A Layered Theory of Aspectuality

It is commonly assumed by the proponents of the so-called 'bidimensional' theories of aspect (e.g. Smith 1997/1991, Filip 1999, Bertinetto & Delfitto 2000) that it is necessary to distinguish between 'inner aspectuality' (*eventuality type, lexical* or *situational aspect*) and 'outer aspectuality' (*viewpoint, 'grammatical' aspect*). It is also widely acknowledged that both types of aspectual information are not elementary, and consist of several interconnected components; e.g., 'inner' aspectuality is determined not only by the inherent lexico-semantic features of the verb itself, but also by the semantic and referential properties of its arguments (this phenomenon is known by the name *aspectual composition*, see inter alia Krifka 1989, 1992, 1998; Verkuyl 1972, 1989, 1993, 2005; Tenny 1994; Filip 1999).

By *actionality* I understand (following Tatevosov 2002) those components of the lexical meaning of the predicate which reflect the temporal and causal structure of the event it describes, i.e. stativity vs. dynamicity, telicity vs. atelicity etc. This means that the term 'actionality' only refers to a subset (although the core one) of the semantic factors relevant to the more general domain of 'inner' aspectuality. Other components of the 'situational' aspect interact with actionality of verbs in different but principled ways. A more precise definition of actionality will be given below.

Turning to aspectual viewpoint, two such viewpoints are traditionally distinguished: the *imperfective* vs. the *perfective*[2], which differ as to the perspective the speaker imposes upon the situation denoted by the predicate (cf. Comrie 1976, Dahl 1985, Klein 1994, Paducheva 1995). The imperfective viewpoint entails an *internal* or *synchronic* perspective on the situation, which is presented as ongoing and without regard to its boundaries. By contrast, the perfective viewpoint imposes an *external* point of view, whereby the situation is seen in its entirety as having boundaries (be they inherent, as with telic predicates like *write a letter*, or arbitrary, as with atelic predicates like *walk*). Using a common metaphor, the imperfective viewpoint allows the speaker to refer to the internal structure of the situation, whereas the perfective aspect does not.

It is important to underscore that both components of aspect are universal in the following sense: all human languages are able to describe different extralinguistic situations as static or dynamic, telic or atelic, as well as to impose upon them one of the two viewpoints

— despite the fact that the ways these notions are applied and encoded are subject to considerable cross-linguistic variation (cf. Csirmaz 2004).

Certainly, the two components of the domain of aspect I have just outlined do not exhaust the range of aspectually relevant semantic features; for instance, the whole variety of meanings that belong to the so-called 'quantificational' aspect (cf. Dressler 1968, Cusic 1981, Khrakovskij (ed.) 1997) have been left out; they constitute an important separate layer (or, probably, several layers) of aspectual meanings, which interact in a complex way with both actionality and viewpoint. The way these meaningful features are represented in the grammatical and lexical structure of Adyghe is still not clear and requires further research, therefore these issues will not be touched upon here.

Turning back to actionality, it is assumed, as I have already mentioned, to be universally available to human languages on a par with the aspectual viewpoint. Now it is necessary to clarify in which sense actional notions are cross-linguistically valid. As is more or less evident under the current state of the art, Vendler's classical quadripartition of situations into *states*, *activities*, *accomplishments* and *achievements*, as well as a whole variety of refinements proposed by different authors during the last three decades (cf. Dowty 1979, Mourelatos 1981, Smith 1997/1991, Verkuyl 1972, 1989, 1993; Bach 1986; Klein 1994, Breu 1994, Olsen 1997, Filip 1999), are not universal (cf. Ebert 1995, Johanson 1996, Tatevosov 2002, Botne 2003). Languages vary not only in that they often assign verbs with similar meanings to different actional classes, but also — and more importantly — in their whole actional systems (see especially Tatevosov 2002). This, however, by no means implies that actional meanings show no cross-linguistic consistency and do not allow typological comparison; that they vary across languages is merely an indication that linguists need more refined methods for their study.

Since actional classes are not identical in different languages, a universal system of notions is necessary which could describe them in a way that allows cross-linguistic comparison, coupled with an empirical procedure to help in the identification of actional classes in any given language. A theory of actionality which incorporates both features in question has been proposed in Tatevosov 2002. Below I will give a brief description of it (for a detailed discussion see Tatevosov 2002).

Tatevosov's theory of actionality assumes that all actional classes in human languages are composed of *universal elementary actional meanings* which constitute a small closed[3] set of semantic primitives. The universal elementary actional meanings are *state* (S; 'sleep', 'know John'), *process* (P; 'work', 'walk in the park'), *multiplicative process* (M; 'cough',

'twinkle'), *entry-into-a-state* (ES; 'fall', 'write a letter'), *entry-into-a-process* (EP; 'start running'), *quantum* of a multiplicative process (Q; 'give a cough')[4]. Among the six elementary actional meanings it is useful to distinguish between *durative* (S, P, M) and *instantaneous* ones (ES, EP, Q); the latter correspond to transitions of Pustejovsky (1991).

The method proposed by Tatevosov crucially hinges on the elementary actional meanings and the universal aspectual viewpoints. Let us call *Ipf* the set of elementary actional meanings a verb V (in a language L) is able to express in combination with the imperfective aspectual viewpoint, and *Pf* the set of actional meanings which V is able to express when combined with the perfective viewpoint. Both sets may contain more than one element, and, moreover, Ipf may be empty (as e.g. with the English verb *find*). Then the *actional characteristic* of V is defined as the pair <Ipf, Pf>. We may now define *actional class* as a set of verbs with identical actional characteristics. In order for the actional classification of verbs in a given language to be representative, the sample of verbs whose actional characteristics are studied has to be sufficiently large (no less than a hundred lexemes) and include predicates of different semantic classes[5].

Cross-linguistic research on actionality (some of its results are presented in Tatevosov 2002) has shown that the empirical procedure just outlined is a useful and effective method which allows one not only to discover actional classes in a given language in a non-aprioristic fashion, but also to compare actional classes across languages. Such a comparison has shown that among quite a large variety of actional classes attested in particular languages there is a number of classes which consistently recur in one language after another, the so-called *cross-linguistic actional classes* (see Table 1)[6]. What is most important about Table 1 is that it clearly shows that the set of cross-linguistic actional classes identified so far differs in important ways from the set of Vendlerian classes[7]. Indeed, *Stative*, *Processual* and *Punctual* classes more or less correspond, respectively, to Vendler's *states*, *activities* and *achievements*, but Vendler's *accomplishments* are further subdivided into *Weak* and *Strong telic* classes, whereas *Inceptive-Stative* and *Ingressive-Processual* classes have no corresponding Vendlerian classes at all.

Table 1. Cross-linguistic actional classes (following Tatevosov 2002: 376)

Actional class	**Actional characteristic**
Stative	<S, S>
Processual[8]	<P, P>
Strong Telic	<P, ES>
Weak Telic	<P, {ES, P}>
Punctual	<–, ES>
Strong Inceptive-Stative	<S, ES>
Weak Inceptive-Stative	<S, {ES, S}>
Strong Ingressive-Processual	<P, EP>
Weak Ingressive-Processual	<P, {EP, P}>
Strong Multiplicative[9]	<M, Q>
Weak Multiplicative	<M, {Q, M}>

The typological research on actionality, despite some important results already attained, is only in its initial phase, and it is so far premature to draw generalizations about possible types of actional systems. This paper presents the results of applying Tatevosov's procedure to Adyghe, and presents data which support the theoretical and methodological premises of this particular conception of actionality.

3. Tense and Aspect in Adyghe

Adyghe is a polysynthetic language with very complex verbal[10] morphology. Besides a powerful system of bound pronominals, which is able by itself to encode up to three clausal participants, there is a rich and extremely complex system of derivations which affect the valency of a predicate, and a whole array of locational preverbs with sometimes quite unexpected meanings. In terms of Bhat (1999), Adyghe is most probably a 'mood-prominent' language; it has a multi-layered system of affixes encoding different kinds of modality (both root and epistemic), which interacts, on the one hand, with the encoding of tense (for instance the same suffix *-šʼt* serves as a general irrealis marker and fulfils the function of the neutral future tense) and, on the other, with the system of non-finite forms used in sentential complements and adverbial subordinate clauses (cf. Gerasimov (2006) for a brief discussion of Adyghe, and Kumakhov & Vamling (1995, 1998) for a detailed discussion of the closely related Kabardian).

By contrast, the morphological tense-aspect categories in Adyghe are rather straightforward and simple. There is a tripartite system similar to those attested in many European languages and generally all over the world (cf. Dahl 1985). It consists of a general Present tense and two tenses with past time reference: the Preterite and the Imperfect.

The Present tense, which has no overt marker with the so called 'static' predicates, and is expressed by the prefix *me-/ma-/-e-* with the so called 'dynamic' predicates[11], has a whole range of meanings, such as durative, see example (1), progressive, see example (2a), habitual, see example (2b), and generic, see example (3)[12].

(1) *ç'ale-r š'ə-t.*
boy-ABS LOC-stand
'The boy is standing.' (= is now in an upright position)

(2) a. *pŝaŝe-r ǯ'ədede txələ-m j-e-ǯ'e.*
girl-ABS now book-OBL 3SG.IO-PRS-read[13]
'The girl is now reading the book.'

b. *pŝaŝe-r mafe qes txələ-m j-e-ǯ'e.*
girl-ABS day every book-OBL 3SG.IO-PRS-read
'The girl every day reads the book.'

(3) *çəg$_w$ə-r təʁe-r χ$_w$əraj-ew q-e-ḳ$_w$əhe.*
earth-ABS sun-ABS go.around-ADV DIR-PRS-travel
'The Earth goes around the Sun.'

The Preterite (suffix *-ʁe*) expresses perfective viewpoint in the past, with both terminative (4) and delimititative (5) interpretations:

(4) *pŝaŝe-r txələ-m je-ǯ'a-ʁ.*
girl-ABS book-OBL 3SG.IO-read-PST
'The girl read the book (to the end).'

(5) *ç'ale-r telewizorə-m je-plə-ʁ.*
boy-ABS television-OBL 3SG.IO-watch-PST
'The boy watched television (for some time).'

Finally, the Imperfect (suffix *-š'təʁe*[14]) has a set of interpretations which includes Durative/Progressive-in-the-Past (6a) and Habitual-in-the-Past (6b).

(6) a. *wəne-m sə-z-je-he-m ç'ale-r pŝaŝe-m de-g$_w$əš'ə?e-š'təʁ.*
room-OBL 1SG.S-SBD-LOC-go-OBL boy-ABS girl-OBL SOC-talk-IPF
'When I entered the room, the boy was talking with the girl.'

b. *ç'ale-r səhat-jə-ble čəje-š'təʁe.*
boy-ABS hour-INF-seven sleep-IPF
'The boy used to sleep for seven hours (every day).'

The range of interpretations available to particular combinations of predicates with tense-aspect forms are restricted by the actional properties of the predicates, to which we now turn.

4. Actional Classes in Adyghe

In order to determine the system of actional classes of predicates present in Adyghe, the empirical procedure outlined in Section 2 was applied. The Present in its

durative/progressive interpretation and the Preterite were used as the diagnostic forms for Ipf and Pf, respectively; the sample of predicates surveyed includes 130 lexemes from various semantic fields. The resulting system of actional classes is shown in Table 2.

Table 2. Actional classes in Adyghe

Class	**Ipf**	**Pf**	**No. of predicates**	**Examples**
Stative	S	S	32	*šʼələn* 'lie', *psewən* 'live'
Strong Inceptive-Stative	S	ES	10	*ṩen* 'know', *λeʁʷən* 'see'
Weak Inceptive-Stative	S	ES,S	1	*čəjen* 'sleep'
Processual	P	P	15	*ǯʼegʷən* 'play', *txen* 'write' (intransitive)
Strong Ingressive-Processual	P	EP	4	*ḳʷen* 'go', *bəbən* 'fly'
Strong Multiplicative	M	Q	10	*kʷəwen* 'shout', *wəẑʷəntxen* 'spit'
Weak Multiplicative	M	Q,M	1	*psken* 'cough'
Punctual	—	ES	8	*ʒən* 'throw', *qewen* 'explode'
Strong Telic	P	ES	49	*λen* 'die', *ṭən* 'dig', *jetən* 'give', *qebegən* 'swell'

The examples of predicates of all attested actional classes in both diagnostic forms follow, cf. (7) — (16).

Stative <S, S>:

(7) a. *rasʷəl ə-ŝhe me-wəzə.*
Rasul 3SG.POSS-head[15] PRS-ache
'Rasul has a headache.'

b. *rasʷəl ə-ŝhe wəzə-ʁe.*
Rasul 3SG.POSS-head ache-PST
'Rasul had a headache (for some time).'

Strong Inceptive-Stative <S, ES>:

(8) a. *ç̌ʼale-m pŝaŝe-r ṩʷə j-e-λeʁʷə.*
boy-OBL girl-ABS good 3SG.A-PRS-see
'The boy loves the girl.'

b. *ç̌ʼale-m pŝaŝe-r ṩʷə ə-λeʁʷə-ʁ.*
boy-OBL girl-ABS good 3SG.A-PRS-see-PST
'The boy fell in love with the girl ‖ *loved the girl (for some time).'

Weak Inceptive-Stative <S, {S, ES}>:

(9) a. *ç̌ʼale-r me-čəje.*
boy-ABS PRS-sleep
'The boy is sleeping.'

b. *ç̌ʼale-r čəja-ʁe.*
boy-ABS sleep-PST
'The boy slept (for some time) ‖ fell asleep.'

Processual <P, P>:

(10) a. *ç̣'ale-xe-r me-ǯ'eg$_w$ə-x.*
boy-PL-ABS PRS-play
'The children are playing.'

b. *ç̣'ale-xe-r ǯ'eg$_w$ə-ʁe-x.*
boy-PL-ABS play-PST-PL
'The children played (for some time).'

Strong Ingressive-Processual[16] <P, EP>:

(11) a. *ç̣'ale-r wəne-m ma-če.*
boy-ABS house-OBL PRS-run
'The boy is running to the house.'

b. *ç̣'ale-r wəne-m ča-ʁe.*
boy-ABS house-OBL run-PST
'The boy started running to the house ‖ *came to the house running ‖ *ran to the house for some time.'

Strong Multiplicative <M, Q>:

(12) a. *ç̣'ale-r me-wəẑ$_w$əntxe.*
boy-ABS PRS-spit
'The boy is spitting.'

b. *ç̣'ale-r wəẑ$_w$əntxa-ʁ.*
boy-ABS spit-PST
'The boy spat (once ‖ *for some time).'

Weak Multiplicative <M, {M, Q}>:

(13) a. *ç̣'ale-r ma-pske.*
boy-ABS PRS-cough
'The boy is coughing.'

b. *ç̣'ale-r pska-ʁe.*
boy-ABS cough-PST
'The boy coughed (once ‖ for some time).'

Punctual <– , ES>:

(14) a. *pŝaŝe-m ʔ$_w$ənç̣'əbzə-r q-e-ʁ$_w$etə.*
girl-OBL keys-ABS DIR-PRS-find
'The girl (always) finds the keys ‖ *is finding the keys now.'

b. *pŝaŝe-m ʔ$_w$ənç̣'əbzə-r q-ə-ʁ$_w$etə-ʁ.*
girl-OBL keys-ABS DIR-3SG.A-find-PST
'The girl found the keys.'

Strong Telic <P, ES>:

(15) a. *thamate-m ze'ʔ$_w$əç̣'e-r r-j-e-ʁa-ǯ'e.*
director-OBL meeting-ABS 3SG.IO-3SG.A-PRS-CAUS-begin
'The director is opening the meeting.'

b. *txamate-m ze'ʔ$_w$əç̣'e-r r-jə-ʁe-ǯ'a-ʁ.*
director-OBL meeting-ABS 3SG.IO-3SG.A-CAUS-begin-PST
'The director opened the meeting ‖ *tried to open the meeting but failed.'

(16) a. *mələ-r me-ṭḳ$_w$ə.*
ice-ABS PRS-melt
'The ice is melting.'
b. *mələ-r ṭḳ$_w$ə-ʁe.*
ice-ABS melt-PST
'The ice melted (completely ‖ ??partly).'

Two observations based on this data can be made. First of all, the actional system of Adyghe seems to be rather straightforward. Indeed, it includes only cross-linguistic actional classes, and, in comparison to other languages to which Tatevosov's procedure has been applied, it is not very rich: contrary to usual assumptions based on Vendler's quadripartite distinction, it is probably a norm for a language to have a score or so of actional classes, among which usually are found some with rather peculiar and unexpected features (cf. e.g. Arkadiev (submitted) for a discussion of Lithuanian); the Adyghe system with its nine actional classes of which only seven contain more than one verb looks rather poor.

The second, and more important, feature of the actional system of Adyghe is the clear predominance of 'strong' (actionally unambiguous) predicates over 'weak' (actionally ambiguous) ones. Indeed, the only Weak Inceptive-Stative predicate found so far is *čəjen* 'to sleep'; different native speakers, however, are quite consistent in allowing both the durative ('is sleeping', cf. (9a)) and the inceptive ('fell asleep', cf. (9b)) interpretations of this predicate. Rather unexpected is the non-existence in Adyghe of Weak Telic predicates, i.e. those which allow both a telic and an atelic reading of the Preterite; according to Tatevosov (2002), such predicates (which have not been thoroughly studied until recently, cf. Koenig & Muansuwan 2000, Smollett 2005, Bar-el et al. to appear, Tatevosov & Ivanov, this volume) are found in such diverse languages as Mari (Finno-Ugric family), Tatar (Turkic family) and Bagwalal (North-East Caucasian family), as well as in Thai and some Salish languages. In this respect Adyghe is superficially similar to English: neither language allows the 'non-culminating' interpretation of telic predicates (unless combined with cumulative incremental themes) in perfective aspect[17].

However, the picture presented above shows only half of the story. Things alter, and quite drastically, when temporal adverbials come into play. This will be discussed in the following section.

5. Interaction of predicates with temporal adverbials in Adyghe

Cross-linguistically, two types of temporal adverbials are usually identified as particularly relevant for discussions of aspect (cf. Bertinetto, Delfitto 2000): adverbials of

temporal duration (e.g. English *for half an hour*, *for two minutes*) and adverbials of temporal extent (e.g. English *in half an hour*, *in two minutes*). These two types of adverbials are important precisely because they serve to distinguish telic eventualities from atelic ones (see, for instance, Vendler 1967, Dowty 1979). However, as the data from Adyghe will show, the applicability of such an 'adverbial test' for determining (a)telicity is subject to typological variation, too.

In Adyghe, temporal duration is denoted by such adverbials as *səhatnəq$_w$e* 'for half an hour', *taqjəqjəṭ$_w$e* 'for two minutes', which specify the (maximal) duration of the situation denoted by the predicate and thus impose external boundaries on it. Thus, these expressions may be considered quite close equivalents of English *for*-adverbials. Temporal extent is expressed by adverbial expressions with the highly polyfunctional Instrumental case marker *-ç̌'e* suffixed to a form which sometimes is identical to the respective adverbial of duration and sometimes has a different final vowel: *səhatnəq$_w$e-ç̌'e* 'in half an hour', *taqjəqjəṭ$_w$ə-ç̌'e* 'in two minutes'. Like their English counterparts, these expressions denote the duration of a situation with a specified terminal point; however, there are certain subtleties which will be now discussed.

Let us start with adverbials of temporal extent, whose behaviour is more straightforward. The investigation has shown that expressions such as *səhatnəq$_w$e-ç̌'e* 'in half an hour' more or less freely combine with all predicates whose actional characteristic includes an instantaneous actional meaning (ES, EM, and Q). That means that they co-occur not only with genuinely Telic predicates (cf. examples (17a,b)), but also with Strong Inceptive-Stative (18), Weak Inceptive-Stative (19), Strong Ingressive-Processual (20), Strong Multiplicative (21), and Punctual (22) predicates.

Strong Telic

(17) a. *mašine-r* *taqjəq-jə-tfə-ç̌'e* *qe-wəc$_w$ə-ʁ.*
car-ABS minute-INF-five-INS DIR-stop-PST
'The car stopped in five minutes (after the driver stepped on the brakes).'

b. *pŝaŝe-m* *səhat-nəq$_w$e-ç̌'e* *pjəsme-r* *ə-txə-ʁ.*
girl-OBL hour-half-INS letter-ABS 3SG.A-write-PST
'The girl wrote the letter in half an hour.' (the whole situation of writing the letter took half an hour, and was completed)

Strong Inceptive-Stative

(18) *ç̌'ale-m* *pŝaŝe-r* *taqjəq-jə-ṭ$_w$ə-ç̌'e* *ə-λeʁ$_w$ə-ʁ.*
boy-OBL girl-ABS minute-INF-two-INS 3SG.A-see-PST
'The boy saw the girl in two minutes.' (two minutes passed before he saw her)

Weak Inceptive-Stative

(19) *ç̌'ale-r səhat-nəq$_w$e-ç̌'e čəja-ʁe.*
boy-ABS hour-half-INS sleep-PST
'The boy fell asleep in half an hour.' (after having gone to bed)

Strong Ingressive-Processual

(20) *ç̌'ale-r taqjəq-jə-š'ə-ç̌'e ča-ʁe.*
boy-ABS minute-INF-three-INS run-PST
'The boy started running in three minutes.' (after his father called him)

Strong Multiplicative

(21) *ç̌'ale-r taqjəq-jə-ṭ$_w$ə-ç̌'e wəẑ$_w$əntxa-ʁ.*
boy-ABS minute-INF-two-INS spit-PST
'The boy spat (again) in two minutes.'

Punctual

(22) *ʔeg$_w$awe-r taqjəq-jə-ṭ$_w$ə-ç̌'e qe-wa-ʁ.*
balloon-ABS minute-INF-two-INS DIR-explode-PST
'The balloon exploded in two minutes.'

By contrast, adverbials of temporal extent, as expected, never combine with Stative predicates, cf. (23a, b):

(23) a. **mə çəfə-r jəλes-jə-tfə-ç̌'e ẑə-ʁe.*
this man-ABS year-INF-five-INS old-PST
Intended meaning: 'This man grew old in five years.'

b. **s-šə jəλes-jə-tfə-ç̌'e ç̌'elejeʁeǯ'a-ʁ.*
1SG.POSS-brother year-INF-five-INS teacher-PST
Intended meaning: 'My brother became a teacher in five years.'

In order to express inceptive meaning such as the one intended in (23a) and (23b), special formal means are necessary. From some Stative verbs inceptive derivations may be formed with the multifunctional 'directional' prefix *qe-*, cf. (24a); others may form complex predicates with the inchoative verb *χ$_w$ən* 'to become', cf. (24b):

(24) a. *mə çəfə-r jəλes-jə-tfə-ç̌'e qe-ẑə-ʁ.*
this man-ABS year-INF-five-INS DIR-old-PST
'This man grew old in five years.'

b. *s-šə jəλes-jə-tfə-ç̌'e ç̌'elejeʁaǯ'e χ$_w$ə-ʁe.*
1SG.POSS-brother year-INF-five-INS teacher become-PST
'My brother became a teacher in five years.'

With the Processual predicates the situation is more complicated. It seems that there is no strict ban on their co-occurrence with adverbials of temporal extent. When elicited in isolation, examples like (25a) are judged strange and sometimes unacceptable by native speakers; however, when a subordinate clause with a temporal meaning is added, they become more felicitous, cf. (25b):

(25) a. ??*ç'ale-r* *taqjəq-jə-tfə-ç'e* *qe-ŝ$_w$a-ʁ.*
boy-ABS minute-INF-five-INS DIR-dance-PST
Intended meaning: 'The boy started dancing in five minutes.'

b. *se* *sə-qə-z-je-ha-m* *pŝaŝe-r* *səhat-nəq$_w$e-ç'e* *telewizorə-m* *je-pλə-ʁ*
I 1SG.S-DIR-SBD-LOC-enter-OBL girl-ABS hour-half-INS television-OBL 3SG.IO-watch-PST
'After I came in, the girl in half an hour started watching television.'

I would offer the following explanation of the contrast observed in (25). The semantics of adverbials of temporal extent in Adyghe, as is implied by their broad co-occurrence with various actional classes besides the Strong Telic verbs, may be formulated as 'the transition denoted by the predicate takes place at the end of the interval denoted by the adverbial', and does not presuppose any particular process coextensive with the relevant temporal interval[18]. What is important, however, is that the adverbial requires that the endpoint of the temporal interval it denotes coincided with the transitional event expressed by the verb. Those predicates which have lexically specified transition (sub)events (Telic, Inceptive-Stative, Punctual etc.) satisfy this condition and thus felicitously combine with the adverbials of temporal extent. Processual predicates like *qeŝ$_w$en* 'dance' or *jepλen* 'watch', however, do not have any lexically encoded transition, but allow a more or less natural reinterpretation (*coercion*, in terms of de Swart 1998), viz. the ingressive one: in the context of the adverbial of temporal extent they express the entry into the process they denote, just as Ingressive-Processual predicates, which specify the initial point of the process lexically. However, in order to facilitate such a reinterpretation, a contextual temporal 'anchor' is necessary, which would specify the initial point of the interval denoted by the adverbial[19]. When such a contextual temporal point is provided, like in (25b), coercion is easier.

Let us now turn to adverbials of temporal duration, whose behavior in Adyghe is more intricate.

As expected, adverbials of duration freely combine with durative (atelic) predicates, i.e. those belonging to the Stative (26), Weak Inceptive-Stative (27), Processual (28) and Weak Multiplicative (29) classes.

Stative

(26) *ɻəẑə-r* *jəλes-jə-ṭ$_w$e* *λeš'a-ʁ.*
old.man-ABS year-INF-two lame-PST
'The old man was lame for two years.'

Weak Inceptive-Stative

(27) *pŝaŝe-r* *səhat-jə-ble* *čəja-ʁe.*
girl-ABS hour-INF-seven sleep-PST
'The girl slept for seven hours.'

Processual

(28) *çəfə-r səhat-nəq$_w$e g$_w$əš'ə?a-ʁe.*
man-ABS hour-half talk-PST
'The man talked for half an hour.'

Weak Multiplicative

(29) *səmaǯ'e-r taqjəq-jə-ṭ$_w$e pska-ʁe.*
ill-ABS minute-INF-two cough-PST
'The patient coughed for two minutes.'

This, however, is just a half of the story. The co-occurrence possibilities of Adyghe durational adverbials are not restricted to the above-mentioned classes; they freely combine also with those predicates whose Preterite in isolation does not admit a durative interpretation, i.e. with Strong Inceptive-Stative (30), Strong Ingressive-Processual (31), Strong Multiplicative (32), and Strong Telic (33a), (33b) predicates.

Strong Inceptive-Stative, cf. (8)

(30) *ç'ale-m pŝaŝe-r jəλes-jə-tfe ṣ̂$_w$ə ə-λeʁ$_w$ə-ʁ.*
boy-OBL girl-ABS year-INF-five good 3SG.A-see-PST
'The boy was in love with the girl for five years.'

Strong Ingressive-Processual, cf. (11)

(31) *samoljwetə-r səhat-jə-ṭ$_w$ə krasnwedar bəbə-ʁe.*
airplane-ABS hour-INF-two Krasnodar fly-PST
'The airplane flew in the direction of Krasnodar for two hours.'

Strong Multiplicative, cf. (12)

(32) *çəfə-m čəgə-r taqjəq-jə-š'e ə-ʁe-səsə-ʁ.*
man-OBL tree-ABS minute-INF-three 3SG.A-CAUS-shake-PST
'The man shook the tree for three minutes.'

Strong Telic, cf. (15), (16)

(33) a. *ç'ale-m səhat-nəq$_w$e pjəsme-r ə-txə-ʁ.*
boy-OBL hour-half letter-ABS 3SG.A-write-PST
'The boy wrote the letter for half an hour.'

b. *mələ-r mef-jə-tfe ṭḳ$_w$ə-ʁe.*
ice-ABS day-INF-five melt-PST
'The ice melted for five days.'

The only actional class whose members normally do not combine with durational adverbials is the Punctual class (34a); however, in contexts with quantified arguments recategorization is possible, cf. example (34b):

(34) a. **?eg$_w$awe-r taqjəq-jə-ṭ$_w$e qe-we-ʁ.*
balloon-ABS minute-INF-two DIR-explode-PST
'*The balloon exploded for two minutes.'

b. *?eg$_w$awe-xe-r taqjəq-jə-ṭ$_w$e qe-we-ʁe-x.*
balloon-PL-ABS minute-INF-two DIR-explode-PST-PL
'The balloons exploded (one after another) for two minutes.'

From the data in (26) – (34) it is possible to infer the following generalization: in Adyghe, the predicates which allow combination with adverbials of temporal duration are those which have in their actional characteristic a non-empty Ipf set. Indeed, only Punctual predicates unambiguously prohibit both the co-occurrence with durational adverbials and the progressive interpretation of the Present tense, cf. (14a). Moreover, in the presence of a plural argument, which enables the predicate to denote a durative (more precisely, iterative) eventuality, Punctual predicates not only combine with adverbials of duration, cf. (34b), but, naturally, allow progressive Present, too, cf. (35)

(35) *ʔeg$_w$awe-xe-r q-e-we-x.*
balloon-PL-ABS DIR-PRS-explode-PL
'The balloons are exploding (one after another).'

Things are, nonetheless, still more complicated. At least some native speakers do not allow all of the Strong Telic verbs to combine with durational adverbials. Some of these predicates, such as *txən* 'write' (33a) or *ṭḳ$_w$ən* 'melt' (33b), do co-occur with them, but others, such as, for instance, *jeʁež'en* 'begin', do not, cf. (36a). That this predicate is not Punctual, but genuinely Strong Telic, is seen from the fact that it allows a natural Progressive interpretation, cf. (15a), repeated here as (36b).

(36) a. **txamate-m taqjəq-jə-š'e zeʔ$_w$əç'e-r r-jə-ʁe-ž'a-ʁ.*
director-OBL minute-INF-three meeting-ABS 3SG.IO-3SG.A-CAUS-begin-PST
'*The director opened the meeting for three minutes (e.g. he tried to open the meeting for three minutes, but failed, e.g. because the people were too loud).'

b. *thamate-m zeʔ$_w$əç'e-r r-j-e-ʁa-ž'e.*
director-OBL meeting-ABS 3SG.IO-3SG.A-PRS-CAUS-begin
'The director is opening the meeting.'

The question of what precisely determines the ability of certain Strong Telic verbs in Adyghe to combine with adverbials of duration is not yet firmly resolved. However, at least for those native speakers who show a contrast between such verbs as *txən* 'write', on the one hand, and *jeʁež'en* 'begin', on the other, it is mostly probable that we are dealing with the contrast between what Ivanov and Tatevosov (this volume) call *mapping to a minimal final part* and *incremental relation*. Incremental Strong Telic verbs, which presuppose a one-to-one mapping between the parts of the process subevent and the resulting state (see Krifka 1989, 1992, 1998; Filip 1999, Rothstein 2004), allow a more or less natural non-culminating interpretation in the presence of durational adverbials, viz. the following: 'the process denoted by the verb lasted for the time-span denoted by the adverbial, and was terminated without attaining its natural endpoint'. Thus (33a) means that the boy was engaged in writing a letter

for half an hour and ceased it without having written it completely, but nevertheless have written a part of it.

By contrast, non-incremental predicates like *begin* do not allow such a reading. In those languages where such predicates combine with durational adverbials (e.g. in Bagwalal, Mari and Tatar, see Ivanov and Tatevosov, this volume) they allow only a 'failed attempt' interpretation, like the one intended in (36a); this is because there is no mapping between parts of the processual subevent of eventualities denoted by such predicates and the final state: while it is normally true that the longer one writes a letter the more of the letter is written, it is not true that the longer one is engaged in opening a meeting the closer is the meeting to its start, and, consequently, if one has ceased writing a letter halfway then the letter is half-written, but if one has ceased opening the meeting before one has indeed opened it, one has not opened it at all. What is important about Adyghe is that, similarly to English, it usually[20] does not allow the 'failed attempt' interpretation of Strong Telic predicates.

These issues put aside, it is necessary to somehow account for the data presented in this section, especially for the behavior of the adverbials of temporal duration. To recapitulate, we saw that these adverbials may perfectly co-occur with the Preterite form of predicates whose Preterite in isolation does not allow a durative interpretation. How is this situation to be explained? I envisage two possible accounts.

The first one, which I call 'lexical', is in the vein of proposals made by Tatevosov (2002, 2005) in order to explain facts from Bagwalal, Mari and Tatar, which are only in some respects similar to those of Adyghe. The lexical account considers the adverbial data as diagnostic for the actional characteristic of the predicate. If the predicate allows a processual interpretation of the Preterite, regardless of whether it is observed in isolation or in the context of adverbials, it is assigned to one of the Weak classes. Under these assumptions, most of Adyghe Strong predicates are in fact Weak, i.e. inherently actionally ambiguous: their Preterite forms always allow both instantaneous (ES, EP, Q) and durative (S, P, M) interpretations, but the latter require special context which is provided precisely by the durational adverbials. Moreover, for many native speakers the counterparts of Vendler's accomplishments are split into two classes: the Weak Telic class which comprises incremental verbs which co-occur with durational adverbials, and the Strong telic class encompassing the non-incremental predicates which do not thus co-occur.

The other account, which I will call 'compositional' (cf. Depraetere 1995, Smith 1995, de Swart 1998), draws a strict division between the interpretations available to the predicate in isolation and those it admits when combined with different kinds of modifiers, and assumes

that in the latter case it is the modifiers, and not just the inherent lexical properties of the predicate which determine possible shifts in interpretation. Under the compositional account, Adyghe actional classes remain as shown in Table 2, but actional characteristics of predicates are subject to change when they are combined with certain types of modifiers. These changes in aspectual interpretation are, under such an account, fairly general and predictable from principles of semantic compositionality.

In the next section I will present some empirical arguments in favour of the compositional account of the data discussed so far.

6. Arguments for the compositional account

There are several kinds of evidence which can help choose between the two possible accounts of the behavior of Adyghe temporal adverbials which were outlined in the end of the last section. The first piece of evidence comes from cross-linguistic comparison. If we assume the lexical account, which forces us to treat almost all Adyghe predicates as Weak, we will have to explain why the alleged Weak predicates in Adyghe behave differently from corresponding Weak predicates in other languages. Let us discuss this point in greater detail.

As Tatevosov (2002) shows, Weak Inceptive-Stative and Weak Ingressive-Processual predicates in Bagwalal show their aspectually ambiguous behavior regardless of whether a durational adverbial is present. Thus, such sentences as (37) and (38) (taken from Tatevosov 2002: 383, 385) when uttered in isolation may receive both a punctual (ES, resp. EP) and a durative (S, resp. P) interpretation.

(37) *moHammad-i-la* *o-b* *zadača* *b-uhã.*
Mohammed-OBL-DAT this-N task N-understand
'Mohammed came to understand this task || understood this task for some time.'

(38) *pat'imat* *qari.*
Fatima cry
'Fatima started crying || cried for some time.'

In Adyghe, there is at least one predicate that behaves precisely in this way, i.e. *čəjen* 'sleep', see example (9b); just like the Bagwalal Weak Inceptive-Stative verb *-uhã* 'understand', uttered in isolation it allows two readings: one that denotes transition and one that denotes a durative state. However, other Inceptive-Stative and Ingressive-Processual ('initiotransformative', to use a useful cover term proposed by Johanson 1996, 2000) predicates found in Adyghe rather follow the model of the Bagwalal *hã* 'see', compare (39)

and (8b), or Tatar *kajna* ‘boil’, compare (40) and (11b), which are both unambiguously Strong Inceptive-Stative (resp. Strong Ingressive-Processual).

(39) *moHammad-i-ba ʕali hãː.*
Mohammed-OBL-AFF Ali see
‘Mohammed saw (= caught sight of) Ali ‖ *saw Ali for some time.’

(40) *su kajna-dɤ.*
water boil-PST
‘Water came to boil, started boiling ‖ *boiled for some time.’

The distinction between Strong and Weak predicates in Bagwalal and Tatar is quite well established and is evident regardless of whether durational adverbials are present; moreover, as far as I can judge from Tatevosov (2001: 251–263), Strong verbs in Bagwalal, in contrast to their Adyghe counterparts, do *not* combine with durational adverbials. However, the fact that Adyghe and Bagwalal Strong predicates behave alike in isolation but differ in combination with adverbials of temporal duration hints at a conclusion that the contrast between the two languages lies not in the properties of their verbal lexicon, but rather in those features of their syntax (or, perhaps, their syntax-semantics interface) which determine the compatibility of verbs of different classes with adverbials and the semantic outcome of such combinations.

The second type of evidence comes from Adyghe itself. It turns out that there are certain morphological forms of predicates which are sensitive precisely to the actional characteristics as shown in Table 2, but do not reflect the range of meanings which become available to predicates in combination with temporal adverbials. One such form will be discussed here in detail[21].

In Adyghe there is a whole range of different non-finite verbal forms which may be used as heads of sentential complements, sentential adjuncts, or both (see Gerasimov 2006 for an overview). The form I am going to discuss consists of a subordinating prefix *zere-* and of an adverbializing suffix *-ew*. It has two basic interpretations: the one illustrated in (41) may be called ‘punctual’ and denotes an event which occurred immediately before the one expressed by the main clause. The other interpretation, the ‘durative’ one, shown in (42), denotes a situation which serves as a sort of background against which the event of the main clause occurs; such uses of this construction often assume concessive meaning.

(41) *ə-ŝhe qə-zer-jə-ʔat-ew sə-wa-ʁ.*
3SG.POSS-head DIR-SBD-3SG.A-raise-ADV 1SG.A-shoot-PST
‘As soon as he raised his head, I shot.’

(42) *ç̌’ale-r zera-psk-ew jeǯ’aṗe-m ḳ̣ʷa-ʁe.*
boy-ABS SBD-cough-ADV school-OBL go-PST
‘The boy, (although) still coughing, went to school.’

The choice between the two interpretations of the forms in *zere-...-ew* crucially depends on the actional class of the predicate. Stative (43), Processual (44), and Weak Multiplicative (42)[22] predicates allow only the durative reading, whereas Strong Inceptive-Stative (45) and Punctual (41) predicates show only the punctual reading.

(43) *ç'ale-r zere-səmaǯ'-ew, jeǯ'apẹ-m kẹ$_w$a-ʁe.*
boy-ABS SBD-ill-ADV school-OBL go-PST
'The boy, still being ill, went to school. || *The boy went to school as soon he became ill.'

(44) *karwəselə-r ǯ'ərjə zere-č'ereʁ$_w$-ew sabəjə-r q-jə-ç'əž'ə-new feja-ʁ.*
caroussel-ABS still SBD-turn-ADV child-ABS DIR-3SG.A-get.off-SBD want-PST
'The child wanted to get off the carrousel while it was still turning || *when it started (stopped) turning.'

(45) *šakẹ$_w$e-m pŝaŝe-r zer-jə-λeʁ$_w$-ew ŝẹ$_w$ə ə-λeʁ$_w$ə-ʁ.*
hunter-OBL girl-ABS SBD-3SG.A-see-ADV good 3SG.A-see-PST
'The hunter fell in love with the girl as soon as he saw her || *still seeing her'

The most telling are the Weak Inceptive-Stative verb *čəjen* 'sleep' and the Strong Telic verbs. While Stative predicates allow only the durative interpretation in this construction (43), and the Strong Inceptive-Stative predicates allow only the punctual one (45), the Weak Inceptive-Stative predicate allows both, as (46a) and (46b) clearly show:

(46) a. *ç'ale-r zere-čəj-ew, pç'əhapẹ ə-λeʁ$_w$ə-ʁ.*
boy-ABS SBD-sleep-ADV dream 3SG.A-see-PST
'As soon as the boy fell asleep, he saw a dream.'

b. *ç'ele-çəkẹ$_w$ə-r zere-čəj-ew, wəne-m r-a-xə-ʁ.*
boy-little-ABS SBD-sleep-ADV house-OBL 3SG.IO-3SG.A-carry-PST
'While the little boy was still sleeping, they carried him out of the house.'

Thus, it is clear that the *zere-...-ew* form is sensitive to the actional characteristics predicates have in isolation: the contrast between the Strong and Weak Inceptive-Stative predicates, which is neutralized in the scope of durational adverbials, is unequivocally preserved in the non-finite form discussed here.

Similarly, the division of the Adyghe Strong Telic verbs into two types according to their ability to combine with adverbials of temporal duration is completely irrelevant to the *zere-...-ew* form: both types of Strong Telic verbs admit only the punctual interpretation in this construction, cf. (47), (48) (*λẹn* 'die' does not allow adverbials of duration) and (49).

(47) a. *ç'ale-m č'ewə-r səhat-nəqẹ$_w$e ə-ʁela-ʁ.*
boy-OBL fence-ABS hour-half 3SG.A-paint-PST
'The boy has been painting the fence for half an hour.'

b. *ç'ale-m č'ewə-r zer-jə-ʁal-ew, weŝẹ$_w$ə q-je-xə-ʁ.*
boy-OBL fence-ABS SBD-3SG.A-paint-ADV hail DIR-LOC-come.down-PST
'Just as the boy finished painting the fence, it started to hail. || *While the boy was still painting the fence, it started to hail.'

(48) *Aslan* *zera-λ̣-ew* *jə-ç̣'ale-xe-r* *zefeg$_w$əbžə-ʁe-x.*
Aslan SBD-die-ADV 3SG.POSS-child-PL-ABS quarrel.with.each.other-PST-PL
'As soon as Aslan died (‖ *while Aslan was still dying), his children started quarrelling.'

(49) *ç̣'ale-r* *txəλə-m* *zer-je-ǯ'-ew* *ǯ'eg$_w$ə-new* *jəç̣'ə-ʁ.*
boy-ABS book-OBL SBD-3SG.IO-read-ADV repast-SBD go-PST
'As soon as the boy has read the book (‖ *still reading the book), he went for a walk.'

From the data presented above it is clear that the non-finite *zere-...-ew* forms preserve the independently established distinction between the Strong and Weak Inceptive-Stative predicates, but fail to reveal any contrast between those Telic predicates which co-occur with durational adverbials and those which do not. Both these facts allow the following generalization: the interpretation of the *zere-...-ew* forms depends only on those actional meanings which the predicate (more precisely, its Preterite form) has in isolation. This is an important piece of evidence for the conclusion that it is these and only these actional meanings that belong to the lexical specification of the predicate, while the interpretations which arise in the context of temporal adverbials of duration belong to the level of 'derived situation types' (in terms of Smith 1997/1991).

Thus, we now see that the material of Adyghe is better accounted for under the assumptions of a multi-layered compositional conception of aspect, which treats temporal adverbials as a separate level of aspectually relevant operators, with its own combinatorial properties and constraints and, importantly, with an ability to affect the lexically specified actional properties of the predicate in a semantically-driven way.

7. Conclusions and implications

In the previous sections of this paper we have seen that a fragment of the aspectual system of Adyghe (in fact, the central fragment) can be described in terms of a small set of relatively simple and intuitively plausible notions. The latter include the two universal aspectual viewpoints (perfective and imperfective) and two sets of primitive actional meanings: the durative state, process, and multiplicative process, and the instantaneous entry-into-a-state, entry-into-a-process, and quantum-of-a-multiplicative-process. A tentatively universally applicable empirical procedure which crucially hinges on these notions and their interaction allows us to characterize a system of actional classes of predicates, which has a high degree of linguistic relevance, in the sense that to a large extent it determines different types of aspectual behaviour of predicates, and does so in a systematic and predictable way. That this conception of actionality can be adequately applied to material of different and

typologically diverse languages has been already shown by previous research (see Tatevosov 2002); this paper, I hope, has presented another piece of evidence in favour of Tatevosov's theory of actionality.

Another important point made in this paper concerns the interaction of predicates with different actional properties with temporal adverbials, in particular with the adverbials of temporal duration. The data discussed in Section 5 presents certain problems for a conception of aspectual compositionality which lays the whole burden of responsibility for the aspectual interpretation of sentences on the lexical meaning of the predicate (setting aside phenomena known as aspectual composition of the predicate with its arguments). As the data from Adyghe clearly show, in this language temporal adverbials constitute a separate layer of aspectually relevant operators and are able to shift the lexically specified actional properties of predicates in a predictable way. The particular mechanisms of such aspectual type-shifting and the possible ways they may be formally implemented in a given model of aspectual structure is, to my mind, of less importance than the fact that any such model which aims at descriptive (let alone explanatory) adequacy and cross-linguistic validity should be able to account for this kind of interaction between the semantic features of verbs and of adverbials (for particular proposals on that issue see the already mentioned Smith 1995, 1997/1991; de Swart 1998, 2000; and Güven 2006).

Thus, Adyghe material provides important evidence for the idea that aspectual structure has a richer architecture than is usually assumed even by the proponents of 'bidimensional' theories of aspect (cf. Sasse 2002): between the 'inner' level of lexically-driven actional properties of predicates and the 'outer' level of viewpoints there is at least one separate level of aspectual operators, viz. the temporal adverbials. The degree of prominence and importance this level acquires is subject to cross-linguistic variation; Adyghe is an example of a language where this level is, as it seems, very prominent.

The last point I would like to make pertains to the methodology of aspectual research, especially with 'exotic' languages as objects of study. One should be extremely cautious using temporal adverbials for various aspectual tests, e.g. as a routine test for determining whether a given predicate is telic or atelic: it is justified only when there is independent evidence that adverbials do not shift the lexically encoded actional meanings of predicates as they do in Adyghe.

[1] The data presented in this paper comes mainly from the author's fieldwork materials collected in 2004–2005 during field-trips to village Hakurinohabl, Republic Adygeya (Russian Federation), organized by the Russian State University for Humanities. The funding for the research was provided mainly by the Russian Foundation for Humanities, grants Nos. 04-04-18008e and 06-04-00194a, and also by the Russian Science Support Foundation, and by the Section of History and Philology of the Russian Academy of Sciences.

The author wishes to express his gratitude to Dmitry Gerasimov, Helen de Hoop, Natalia Korotkova, Yury Lander, Barbara Partee, Anna Pazelskaja, Andrej Shluinsky, Nina Sumbatova, Sergej Tatevosov, Yakov Testelets, and two anonymous reviewers, from whom this paper benefited directly or indirectly, and, last but not least, to all his Adyghe consultants.

[2] Smith (1997/1991) argues for a third viewpoint which she terms 'neutral'. See, however, Csirmaz (2004) for counterarguments.

[3] This set, however, is not wholly aprioristic: the meanings which are assumed to belong to it have proved to be necessary for the description of actionality in several languages; moreover, in case cross-linguistic research shows that more elementary actional meanings are necessary, the set will be augmented accordingly.

[4] This actional meaning was not used in the original paper by Tatevosov, who identified it with ES; I have introduced it mainly for reasons of conceptual symmetry.

[5] "In the present study of actionality <...> I use a sample of 100 predicative meanings of the following thematic groups: being and possession; motion; physical processes and changes; physiological states and processes; labor and everyday life; speech and sound production; perception, emotions, and intellectual activity; phasal and modal verbs." (Tatevosov 2002: 358). For a more detailed discussion of how actional characteristics of verbs are determined, see the same article.

[6] Needless to say, it is not the case that *any* language must have *all* cross-linguistic actional classes; however, a weaker hypothesis that in any language at least *some* of such classes will be attested, seems to hold.

[7] An anonymous reviewer has pointed out to me the possibility of treating such actional classes as e.g. Weak Inceptive-Stative as ambiguous between the classical Vendlerian *states* and *achievements*, without multiplying the number of actional distinctions. Possible though such an account may be, it is, in my opinion, by no means superior to the one proposed by Tatevosov and advocated in this paper. Indeed, if we postulate that verbs in particular languages and, more importantly, cross-linguistically, may show systematic actional ambiguities, we still have to somehow differentiate 'actionally ambiguous' verbs from 'actionally unambiguous' ones. What is crucial, however, is not the particular notational or terminological variant of an actional classification, but the empirical and theoretical necessity to distinguish more aspectual types of verbs than it was originally suggested by Vendler.

[8] I prefer this term to Tatevosov's *atelic*.

[9] This class is not identified by Tatevosov as a cross-linguistic actional class; subsequent research has shown that this class may be considered such on a par with the Weak Multiplicative class.

[10] It is necessary to bear in mind that the distinction between nouns and verbs is almost vanishing in Adyghe (see Lander & Testelets 2006 for discussion); almost any content word may appear in the predicate position and bear TAM morphology as well as occur in the argument position and combine with case markers. So, the very use of the terms 'verb' and 'verbal' with reference to Adyghe data is somewhat misleading.

[11] The verbal lexicon in Adyghe is divided into two major subclasses which are called 'static' and 'dynamic'. This dichotomy, which is common to all languages of the North-West-Caucasian stock (see Hewitt 2005), is a morphosyntactic distinction rather than a semantic one. All morphologically 'static' verbs are indeed semantically stative, but by no means all semantically stative verbs are morphologically 'static'. The majority of 'static' verbs are 'denominal', i.e. when a noun is put into the predicate position it by default assumes the morphological properties of a 'static' verb. The difference between 'static' and 'dynamic' predicates is most clearly observed in the Present tense, where 'dynamic' predicates have a prefix *me-* (*ma-*) or *-e-*, while 'static' predicates bear no overt marking. Some predicates allow both 'static' and 'dynamic' morphology (with semantic differences which partly follow from the lexical semantics of the predicate), e.g. *bzaǯ'e* means 'is a rascal' (as an individual-level property) while *me-bzaǯ'e* means 'is being naughty now'.

[12] This example is due to Natalia Korotkova.

[13] Adyghe is in general a morphologically ergative language both in dependent marking (case on argument NPs) and head marking (pronominal affixes on predicates), but many two-argument predicates in this language are morphosyntactically intransitive. Their subject is marked by the Absolutive case (suffix *-r*), and their object receives the Oblique case (suffix *-m*), which is used both for transitive subjects (A) and indirect objects and even for some locative phrases. To this large class of two-argument intransitive predicates belong quite a lot of verbs which in more familiar languages are treated as transitive agent-patient verbs, e.g. *hit*, *read* etc. The distribution of two-argument predicates between morphosyntactically transitive and intransitive is partially semantically driven (see Testelets 1998 and Malchukov 2005 for a cross-linguistic discussion), but to a large extent lexicalized and arbitrary (cf. the following pair: transitive *šxən* 'eat' and intransitive *jəsˆwen* 'drink'). What is important for our purposes is that the way arguments of a two-argument predicate are encoded in most cases does not correlate with its actional properties: the intransitive verb *jeǯ'en* 'read' is an ordinary telic verb, just as the transitive *txən* 'write'.

[14] Superficially, this suffix looks like a combination of the Irrealis suffix *-š't* with the Preterite suffix *-ʁe*. Nevertheless, the Imperfect marker does not behave as a combination of these two even in its morphophonological properties, let alone its semantics. It is probable, however, that both the Irrealis marker and the Imperfect go back to the same lexical item *š'ə-t-* 'stand' (with the most general locational preverb) which went through two different paths of grammaticalization. Some formal properties of the Imperfect forms point towards their originating from a complex predicate formed by the stem of the lexical verb and the Preterite form of the auxiliary.

[15] Possessed nouns, proper names and personal pronouns do not (usually) inflect for case.

[16] This class, to my knowledge, contains only verbs of manner of motion.

[17] However, according to Smollett 2005, even English sometimes allows the non-culminating reading of accomplishment predicates with quantized incremental themes.

[18] In this respect they are similar to English *in*-adverbials, which may also measure the time up to the starting point of the situation, as in *John ran in two minutes*. I am grateful to an anonymous reviewer for hinting on this point.

[19] Strictly speaking, such a temporal boundary is necessary for all predicates except the Telic ones to co-occur with adverbials of temporal extent. However, when the right boundary of the interval denoted by the

adverbial is provided by the lexical semantics of the verb, its left boundary may be left implicit, whereas when both endpoints must be inferred from the context the sentence sounds strange.

[20] I say 'usually' since there are native speakers who allow 'failed attempt' readings; however, among my consultants they constitute a minority.

[21] The material presented in this subsection was collected by Dmitry Gerasimov in Hakurinohabl in 2006. The idea that there is a principled link between the interpretation of the *zere-...-ew* forms and the actional classes belongs to him (see also Gerasimov & Arkadiev 2007). I am grateful to Dmitry for allowing me to use these data in my paper and for a useful discussion of it. All responsibility for possible misinterpretations is mine.

[22] In this example the predicate is clearly interpreted non-episodically; it is not entirely obvious how Strong Multiplicative verbs behave in such contexts. I have no examples of the Quantum reading of *psken* 'cough' in this construction.

Abbreviations

A – agent, ABS – absolutive, ADV – adverbializer, AFF – affective, CAUS – causative, DAT – dative, DIR – directional preverb, INF – interfix, INS – instrumental, IO – indirect object, IPF – imperfect, LOC – locative preverb, N – neuter, OBL – oblique, PL – plural, POSS – possessive, PRS – present, PST – preterite, S – intransitive subject, SBD – subordinator, SG – singular, SOC – sociative

References

Arkadiev, P. M. Submitted. "Aspect and actionality in Lithuanian on a typological background". Submitted to *Proceeding of the Balto-Slavic Symposium, Paris, April 2006*, D. Petit, H. Menantaud (eds.). Leuwen: Peeters.

Bach, E. (1986). "The algebra of events". *Linguistics and Philosophy* 9, 5–16.

Bar-el, L., Davies, H. and Matthewson, L. To appear. "On non-culminating accomplishments". To appear in *Proceedings of NELS 35*.

Bertinetto, P.-M., Bianchi, V. Higginbotham, J. Dahl, Ö. and Squartini, M. (eds.). 1995. *Temporal Reference, Aspect and Actionality*. Vols. 1–2. Torino: Rosenberg & Seiler.

Bertinetto, P.-M. and Delfitto, D. 2000. "Aspect vs. actionality: Why they should be kept apart". In Dahl (ed.) 2000, 189–226.

Bhat, D.N.S. 1999. *The Prominence of Tense, Aspect and Mood*. Amsterdam, Philadelphia: John Benjamins.

Botne, R. 2003. “To *die* across languages: Toward a typology of achievement verbs”. *Linguistic Typology* 7 (2), 233–278.

Breu, W. 1994. “Interactions between lexical, temporal, and aspectual meanings”. *Studies in Language* 18(1), 23–44.

Comrie, B. 1976. *Aspect. An Introduction to the Study of Verbal Aspect and Related Problems*. Cambridge: Cambridge University Press.

Csirmaz, A. 2004. “Aspect and aspect change crosslinguistically”. In: *Preliminary Papers of LOLA 8*, L. Hunyadi, G. Rákosi, E. Tóth (eds.). Debrecen.

Cusic, D. 1981. *Verbal Plurality and Aspect*. PhD Dissertation. Stanford.

Dahl, Ö. 1985. *Tense and Aspect Systems*. Oxford: Blackwell.

Dahl, Ö. (ed.). 2000. *Tense and Aspect in the Languages of Europe*. Berlin, New York: Mouton de Gruyter.

Depraetere, I. 1991. “On the necessity of distinguishing between (un)boundedness and (a)telicity”. *Linguistics and Philosophy* 18 (1), 1–19.

Depraetere, I. 1995. “The effect of temporal adverbials on (a)telicity and (un)boundedness”. In Bertinetto et al. (eds.) 1995: Vol. 1, 43–54.

de Swart, H. 1998. “Aspect shift and coercion”. *Natural Language and Linguistic Theory*, 16 (2), 347–385.

de Swart, H. 2000. “Tense, aspect and coercion in crosslinguistic perspective”. In *Online Proceedings of the Berkeley Formal Grammar Conference*, M. Butt, T.H. King (eds.). (http://csli-publications.stanford.edu/LFG/5/bfg00/bfg00-toc.html).

Dowty, D.R. 1979. *Word Meaning and Montague Grammar*. Dordrecht: Reidel.

Dressler, W.U. 1968. *Studien zur verbalen Pluralität. Iterativum, Distributivum, Durativum, Intensivum in der allgemeinen Grammatik, im Lateinischen und Hethitischen*. Wien: Böhlau.

Ebert, K. 1995. “Ambiguous perfect-progressive forms across languages”. In: Bertinetto et al. (eds.) 1995: Vol. 2, 185–204.

Filip, H. 1999. *Aspect, Eventuality Types, and Noun Phrase Semantics*. New York: Garland.

Gerasimov, D.V. 2006. “Clause linkage patterns in Adyghe”. Paper presented at the *Syntax of the World’s Languages-2 Conference*, Lancaster University, September 2006.

Gerasimov, D.V., Arkadiev, P.M. (2007). The peculiar resultative construction in Adyghe and what it can tell about aspectual composition in the language. Paper presented at the Conference on the Languages of the Caucasus, Leipzig, December 2007.

Güven, M. 2004. *Adverbials in Turkish: The Third Parameter in Aspectual Interpretation*. PhD Dissertation, Boğaziçi University

Güven, M. 2006. *Adverbials in Turkish: The Third Parameter in Aspectual Interpretation*. München, Newcastle: LINCOM Europa.

Hewitt, B.G. 2005. "North West Caucasian". *Lingua* 119, 91–145.

Johanson, L. 1996. "Terminality operators and their hierarchical status". In *Complex Structures: A Functionalist Perspective*, B. Devriendt, L. Goossens, Louis, J. van der Auwera (eds.). Berlin: Mouton de Gruyter, 229–258.

Johanson, L. 2000. "Viewpoint operators in European languages". In Dahl (ed.) 2000: 27–188.

Khrakovskij, V.S. (ed.) 1997. *Typology of Iterative Constructions*. München, Newcastle: LINCOM Europa.

Klein, W. 1994. *Time in Language*. London, New York: Routledge.

Koenig, J.-P. and Muansuwan, N. 2000. "How to end without ever finishing: Thai semi-perfectivity". *Journal of Semantics* 17, 147–184.

Krifka, M. 1989. "Nominal reference, temporal constitution and quantification of event semantics". In *Semantics and Contextual Expression*, R. Bartsch, J. van Benthem, P. van Emde Boas (eds.). Dordrecht: Foris, 75–115.

Krifka, M. 1992. "Thematic relations as links between nominal reference and temporal constitution". In *Lexical Matters*, I. Sag, A. Szabolsci (eds.), Stanford, CA: CSLI Publications, 29–53.

Krifka, M. 1998. "The origins of telicity". In: *Events and Grammar,* S. Rothstein (ed.). Dordrecht: Kluwer, 197–235.

Kumakhov, M.A. 1971. *Slovoizmenenie adygskix jazykov*. [*Inflection of Circassian Languages*]. Moscow: Nauka.

Kumakhov, M.A. and Vamling, K. 1998. "On root and subordinate clause structure in Kabardian". *Lund University, Dept. of Linguistics, Working Papers* 44, 91–110.

Kumakhov, M.A. and Vamling, K. 1998. *Dopolnitel'nye konstrukcii v kabardinskom jazyke*. [*Complementation Constructions in Kabardian*]. Department of Linguistics, Lund University.

Lander, Y.A. and Testelets, Y.G. 2006. "Nouniness and specificity: Circassian and Wakashan". Paper presented at the Conference *Universals and Particulars in Parts-of-Speech Systems*, University of Amsterdam, June 2006.

Malchukov, A.L. 2005. “Case pattern splits, verb types and construction competition”. In *Competition and Variation in Natural Languages: The Case for Case*, M. Amberber and H. de Hoop (eds.). Amsterdam: Elsevier, 73–118.

Mourelatos, A.P. 1981. “Events, processes, and states”. In: *Syntax and Semantics. Vol. 14. Tense and Aspect,* P. Tedeschi, A. Zaenen (eds.). New York: Academic Press, 191–212.

Olsen, M.B. 1997. *A Semantic and Pragmatic Model of Lexical and Grammatical Aspect*. New York: Garland.

Paducheva, E.V. 1995. “Taxonomic categories and semantics of aspectual opposition”. In Bertinetto et al. (eds.) 1995, Vol. I, 71–89.

Paris, C. 1989. “Abzakh”. In *The Indigenous Languages of the Caucasus. Vol. 2. The North West Caucasian Languages*, B.G. Hewitt (ed.). Delmar, NY.: Caravan, 155–260.

Pustejovsky, J. 1991. “The syntax of event-structure”. *Cognition* 41, 41–87.

Rogava, G.V. and Kerasheva, Z.I. 1962. *Grammatika adygejskogo jazyka*. [*A Grammar of Adyghe*]. Krasnodar, Majkop: Krasnodarskoe knizhnoe izdatel’stvo.

Rothstein, S. 2004. *Structuring Events: A Study in the Semantics of Lexical Aspect*. Oxford: Blackwell.

Sasse, H.-J. 2002. “Recent activity in the theory of aspect: Accomplishments, achievements, or just non-progressive state?” *Linguistic Typology* 6 (2), 199–271.

Smeets, R. 1984. *Studies in West Circassian Phonology and Morphology*. Leiden: Hakuchi.

Smith, C. 1995. “The range of aspectual situation types: Derived categories and a bounding paradox”. In Bertinetto et al. (eds.) 1995: Vol. II, 105–124.

Smith, C. 1997/1991. *The Parameter of Aspect*. 2nd ed. Dordrecht: Kluwer.

Smollett, R. 2004. “Quantized direct objects don’t delimit after all. A revised account of the role of quantized direct objects in aspectual composition”. In Verkuyl et al. (eds.) 2005, 41–60.

Tatevosov, S.G. 2001. “Aspektual’nye klassy glagolov. [Aspectual classes of verbs]”. In *Bagvalinskij jazyk. Grammatika. Teksty. Slovar’*. [*The Bagwalal Language. Grammar. Texts. Vocabulary*], A.E. Kibrik (ed.). Moscow: Nasledie, 255–264.

Tatevosov, S.G. 2002. “The parameter of actionality”. *Linguistic Typology* 6 (3), 317–401.

Tatevosov, S.G. 2005. “Akcional’nost’: tipologija i teorija. [Actionality: Theory and typology]”. *Voprosy jazykoznanija* 1, 108–141.

Tenny, C. 1994. *Aspectual Roles and the Syntax-Semantics Interface*. Dordrecht: Kluwer.

Testelec, Y.G. 1998. "On two parameters of transitivity". In *Typology of Verbal Categories. Papers Presented to Vladimir Nedjalkov on the Occasion of his 70th Birthday*, L. Kulikov, H. Vater (eds.). Tübingen: Niemeyer, 29–46.

Vendler, Z. 1967. "Verbs and times". In Z. Vendler. *Linguistics in Philosophy*. Ithaca, New York: Cornell University Press, 97–121.

Verkuyl, H. 1972. *On the Compositional Nature of the Aspects*. Dordrecht: Reidel.

Verkuyl, H. 1989. "Aspectual classes and aspectual composition". *Linguistics and Philosophy* 12(1), 39–94.

Verkuyl, H. 1993. *A Theory of Aspectuality. The Interaction between Temporal and Atemporal Structure*. Cambridge: Cambridge University Press.

Verkuyl, H. 2005. "Aspectual composition: Surveying the ingredients". In Verkuyl et al. (eds.) 2005, 19–40.

Verkuyl, H., de Swart, H. and van Hout, A. (eds.). 2005. *Perspectives on Aspect*, Dordrecht: Springer.