

ASPECTUAL CLASSES IN ADULT AND CHILD ROMANIAN

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Abstract: This paper classifies the predicates produced by young Romanian-speaking children function of lexical aspect, using the classical 4-partite Vendlerian classification of verb phrases into activities, accomplishments, achievements and states. Firstly, it discusses the tests proposed for English by Dowty (1979) in terms of their relevance for Romanian, and summarizes the useful criteria. Secondly, it provides examples of the four aspectual classes in child Romanian and investigates whether there are observable regularities in the distribution of tense morphology.

Keywords: lexical aspect, states, activities, accomplishments, achievements

1. Introduction

The aim of this paper is to arrive at a classification of some of the predicates produced by children at a young age in terms of lexical aspect. Such an endeavour is only possible if we possess reliable syntactic and semantic tests that can define the categories of predicates concerned. This paper proposes to identify the tests that are reliable for Romanian using those summarized for English by Dowty (1979). We then apply these tests to the verb phrases occurring in a longitudinal corpus of child language. The child data analysed in this paper come from: (i) the Avram corpus (for a description of the corpus see Avram 2001) of child B. (aged 1;5-2;2), recorded and transcribed by Larisa Avram in CHILDES format (MacWhinney and Snow 1985), comprising 18 1-hour recording sessions; (ii) the corpus of child I. (aged 1;11-2;0), recorded and transcribed by the present author, comprising 2 1-hour recording sessions. The longitudinal corpus is more extensive than the one used in Stoicescu (2009), hence the quantitative results presented here supersede Stoicescu (2009). We show that there is a distributional pattern in the corpus that associates atelic predicates with the present and telic predicates with the past tense and these correlations are stronger at younger ages.

2. Lexical aspect

Lexical aspect refers to the temporal organisation of the eventuality described by the verb phrase. Predicates are classified function of the duration, homogeneity or telicity of the eventualities presented. In this respect, Krifka (1998: 207, in Rothstein 2004: 2) underscores the fact that it is in fact linguistic expressions that are distinguished via lexical aspect classification, not real life situations:

It is misleading to think that a particular event can be called “telic” or “atelic”. For example, one and the same event of running can be described by *running* (i.e. by an atelic predicate, or by *running a mile* (i.e. a telic, or delimited, predicate). Hence the distinction between telicity and atelicity should not be one in the nature of the object described, but in the description applied to the object.

In this context it has been debated whether the analysis of lexical aspect should look at: (i) the verb; (ii) the verb phrase; (iii) the whole sentence (V, VP or TP). Verkuyl (1972 and 1993, in Rothstein 2004: 3) maintains that “it is minimally VPs which should be classified as telic and atelic, and that there is good evidence that telicity is really a property of sentences”. The examples in (1) are evidence in this respect. The same verb *a mânca* ‘eat’ undergoes a shift in interpretation in terms of its distribution and morphology. If the subject is a definite description, a proper noun, and the verb is devoid of a direct object and marked for the present, the interpretation of the sentence is ongoing and atelic (1a). If the verb is marked for the past and accompanied by a countable noun as a direct object, the whole sentence describes a delimited, telic event (1b). In (1c) the verb combines with a generic plural subject and a mass direct object and the clause acquires a generic, stative atelic reading. Such observations made researchers conclude that lexical aspect is essentially compositional.

- (1) a. Ce fac Ion și Maria acum?
 ‘What are Ion and Maria doing now?’
 Ion mănâncă, iar Maria doarme. (ongoing, atelic)
 ‘Ion is eating and Maria is sleeping.’
 b. Ion a mâncat o friptură. (eventive, telic)
 ‘Ion has eaten a steak.’
 c. Leii mănâncă carne. (generic, atelic)
 ‘Lions eat meat.’

The most influential lexical aspect classification of predicates is the one put forth by Vendler (1957), who distinguished between activities (*run*), accomplishments (*run to the door*), achievements (*die, reach a mountain top*), and states (*love, know*). Smith (1991) further refined this theory and proposed a 5-partite classification based on features as in the table below, adding the category of semelfactives, which are atelic, non-durative predicates.

(2)	Situations	Static	Durative	Telic
	States	+	+	
	Activity	–	+	–
	Accomplishment	–	+	+
	Semelfactive	–	–	–
	Achievement	–	–	+

For the purposes of this paper, we will retain the 4-partite Vendlerian classification, leaving the status of semelfactives in child language for future research. Next we will investigate which of the tests that serve to distinguish between the Vendlerian classes, summarized in Dowty (1979), can be applied to Romanian predicates. We will first discuss atelic predicates (states and activities).

3. States

States are non-agentive homogenous and uncountable predications. Their non-agentive status is demonstrated by the fact that they fail to pass the stativity (agentivity) tests. These tests apply to both Romanian and English stative predicates, except the progressive test. Romanian does not have a structure identical to the English progressive, but does have a past

tense clearly marked for the imperfective aspect, i.e. the *imperfect*. However, the imperfect works very well with all aspectual classes in Romanian (3c-f), so the co-occurrence with the imperfect is not a reliable test.

- (3)
- a. activity:
John is singing.
 - b. state:
*John is knowing you.
 - c. state:
Ion iubea muzica.
Ion love-3rd SG IMPERF music-the
'John loved music.'
 - d. activity:
Ion alerga.
Ion run-3rd SG IMPERF
'John was running.'
 - e. accomplishment recategorized into an activity:
Ion săpa șanțul.
Ion dig-3rd SG IMPERF ditch-the
'Ion was digging the ditch.'
 - f. achievement recategorized into an activity:
Ieri la trei Ion găsea inelul pierdut.
yesterday at three Ion find-3rd SG IMPERF ring-the lost
'Yesterday at three Ion was finding the lost ring.'

The other stativity tests are the following: states are not complements of *a obliga/a convinge* 'force/persuade' (4a), do not occur as imperatives (4b), with adverbials like *intenționat, cu grijă, cu atenție* 'deliberately/carefully' (4c) or in pseudo-cleft sentences (4d). All these distributional contexts suggest that the subject can control the eventuality described by the predicate. Whenever states felicitously appear in such contexts, they recategorize as eventives, acquiring an active reading, in which the agent has some control over the eventuality, as the paraphrase for (5) indicates.

- (4)
- a. *M-a convins să semăn cu mama mea.
'He convinced me to resemble my mother.'
 - b. *Seamănă cu ea!
'Resemble her!'
 - c. *Seamănă cu mama ei intenționat.
'She deliberately resembles her mother.'
 - d. *Ceea ce face este că seamănă cu mama ei.
'What she does is to resemble her mother.'
- (5) M-a convins să fiu bun cu dușmanii mei.
'He persuaded me to be good/to behave kindly to my enemies'

The atelicity, homogeneity and durativity of states influence the adverbials they co-occur with. Dowty argues that states may occur with adverbials like *for x time*, or as complements of *spend an hour VP-ing*. In Romanian, states may occur with adverbials like *timp de..., de...* 'for x time', *o vreme* 'for some time', *toată viața* 'his entire life' (5a-d). We note that states

do not always work well in combination with the Romanian equivalents of *spend x time*, namely *a petrece timp...* (6e).

- (6) a. Își dorește o mașină de trei ani.
'She has wanted a car for three years.'
- b. A iubit-o toată viața.
'He has loved her all his life.'
- c. O vreme a durut-o capul.
'She had a headache for some time.'
- d. O bună vreme a știut englezește, după care a uitat tot.
'For a while she knew English, but then she forgot everything.'
- e. *A petrecut multă vreme iubind-o pe Maria.
'He spent a long time loving Maria.'

States are incompatible with *în*-phrases or *i-a luat (timp)...* 'take time' (7a, b). However, when the stative predicate does not express a permanent property of the subject, it can easily recategorized into an eventive, and becomes compatible with the *în*-phrase and *i-a luat (timp)...* 'take time' (7c, d):

- (7) a. *Într-o oră apa a conținut hidrogen și oxigen.
'In an hour the water has contained hydrogen and oxygen.'
- b. *Înelul a aparținut mamei lui într-o săptămână.
'The ring has belonged to his mother in a week.'
- c. I-a luat o oră să o înțeleagă pe sora lui. (eventive, inchoative, achievement)
'It took him an hour to begin to understand his sister.'
- d. Într-o oră a înțeles care era problema. (eventive, inchoative, achievement)
'In an hour he began to see what the problem was.'

The homogeneity of states is demonstrated by the fact that they have the subinterval property (see Cipria and Roberts 2000: 303-304). This property is that, *if a predicate P is true at an interval I, then it will be true at any subinterval of I*. With a stative verb like *know*, if it is true that *Peter has known Mary since January 2007*, then it is true that *Peter knew Mary during any month in the interval from January 2007 till now*. For Romanian, see (8):

- (8) Ion a iubit-o toată viața pe Maria.
'John loved Mary all his life.'
=> Ion o iubea pe Maria în orice moment din viața lui.
'John loved Mary at any moment in his life.'

States may occur as complements of *a încetat să...* 'stopped...' (9a), but not as complements of *a terminat de...* 'finished...' (9b). This fact highlights their homogeneity. The verb *a termina* 'finish' has agentive overtones and also suggests that the eventuality has reached a completion stage, which is why it is incompatible with the atelic predicates like states. *S-a oprit din...* 'stopped...' is also agentive and does not work well with states (9c). We note that *a încetat să...* 'stopped' can only be used with states whose termination is logically and factually possible. For instance, (9d) is infelicitous because it is impossible to put an end to a permanent and inherent property.

- (9) a. A încetat să o înțeleagă.
'He stopped understanding her.'
b. *A terminat de înțeles răspunsul.
'He finished understanding the answer.'
c. *S-a oprit din vrut apă.
'He stopped wanting water.'
d. *Am încetat să semăn cu tata.
'I stopped resembling my father.'

In the case of states, *a încetat să + VP* entails the past tense of the verb phrase.

- (10) A încetat să o iubească => A iubit-o.
'He stopped loving her.' => 'He loved her.'

Dowty (1979) shows that, in English, states in the simple present do not have a frequentative reading. *He knows the answer* refers to only one occasion of knowing the answer. However, some states may have an iterative reading in the present in Romanian. Indeed (11a) is impossible, but (11b) is. The idea of iterativity is excluded in the first case, but not in the second.

- (11) a. *O iubește în fiecare zi.
'He loves her every day.'
b. Știe ce să facă în fiecare zi.
'He knows what to do every day.'

The uncountability of states is well documented for English, as demonstrated by the following example (from Ștefănescu 1988: 353):

- (12) a. *John hates liars.
*There is a hating by John of liars
There is hate by John of liars
b. Helen dominates her husband
*There is a dominating by Helen of her husband.
There is dominance of her husband by Helen

Romanian states are also uncountable, being incompatible with cardinals and frequency adverbials:

- (13) a. *Cartea asta conține multe prostii de două ori.
'This book contains a lot of rubbish twice.'
b. *Cred în yoga în fiecare zi.
'I believe in yoga every day.'
c. L-am iubit de multe ori.
'There were many occurrences when I fell love for him.'

With respect to examples like (13c), Mourelatos (1978, in Ștefănescu 1988: 353) remarks that "cardinal count adverbials do not occur in contexts of state predication – unless they refer purely to the occasions of the state rather than the state itself". The tests employable for states are summarized in the table below:

=> A vrut lapte (pisica)/A știut ce să facă.

‘He wanted milk (the cat)/He stopped knowing (what to do).’

- j. *A terminat de vrut lapte (pisica)/de știut (ce să facă).
‘He finished wanting milk (the cat)/knowing (what to do).’

4. Activities

Activities are homogeneous, atelic, durative eventualities. Being agentive, activities can be the complements of *a obliga/a convinge* ‘force/persuade’ (16a), may occur as imperatives (16b), can combine with adverbials like *intenționat, cu grijă, cu atenție* ‘deliberately/carefully’ (16c), can appear in pseudo-cleft sentences (16d). These tests distinguish between states and activities in both Romanian and English.

- (16) a. M-a convins/obligat să dansez.
‘He persuaded/convinced me to dance.’
b. Zâmbește!
‘Smile!’
c. Dansează cu grijă de temă să nu își fractureze piciorul.
‘He is dancing carefully lest he should break his leg.’
d. Ceea ce ar trebui să facă Ion este să danseze.
‘What Ion should do is dance.’

As opposed to accomplishments, activities accept temporal phrases like *timp de...* ‘for x time’ and may appear as complements of *a petrecut...* ‘spend x time...’. Unlike accomplishments, activities do not accept temporal adverbials like *în...* ‘in x time’, nor do they license the co-occurrence with verb phrases like *i-a luat o oră să...* ‘it took him an hour to...’.

- (17) a. A dansat timp de o oră.
‘He danced for an hour.’
b. A petrecut ore dansând cu Maria.
‘He spent hours dancing with Maria.’
c. *A dansat cu Maria într-o oră.
‘He danced with Maria in an hour.’
d. *I-a luat o oră să danseze.
‘It took him an hour to dance.’

Unlike accomplishments, activities marked for the *perfect compus* accompanied by the phrase *timp de...* ‘for x time’ entail that the past predicate holds at any moment of the interval denoted by the adverbial phrase (Dowty 1979: 57). This is the subinterval property, which activities share with states, both classes being temporally homogeneous.

- (18) A alergat timp de o oră. => Alerga în fiecare moment al acelei ore.
‘He ran for an hour’ => ‘At every instant of that hour he was running.’

Unlike accomplishments, an English activity in the progressive (19) entails the perfect of the activity (Dowty 1979: 57). Since Romanian does not have a progressive structure, we can use the VP in combination with the adverb *acum* which highlights the ongoingness of the action.

Similarly, since the Romanian *perfect compus* can be used both as a perfect and a deictic past, the adverbs *tocmai/deja* can serve to highlight its aspectual (perfect) value:

- (19) He is running. => He has run.
 (20) Ion aleargă acum. => Ion tocmai/deja a alergat.
 ‘Ion is running now.’ => ‘Ion has just/already run.’

Accomplishments display the opposite behaviour. A sentence in which the present and the adverb *acum* combine with an accomplishment does not entail the perfect variant.

- (21) Ion construiește o casă acum. =/=> Ion tocmai/deja a construit o casă.
 ‘Ion is building a house now.’ =/=> ‘Ion has just/already built a house.’

In English, activity verbs can be the complements of the verb *stop*. Such clauses entail the past tense of the activity verb (22). In Romanian *stop* can be translated with *a se opri din/a înceta să...* The clause with *a se opri din/a înceta să...* and an activity is felicitous and entails the past tense of the activity (23).

- (22) I stopped running. => I ran.
 (23) a. M-am oprit din cutreierat munții când am împlinit 26 de ani.
 ‘I stopped roaming the mountains when I turned 26.’
 => Am cutreierat munții (o vreme).
 ‘I did roam the mountains (for a while).’
 b. Am încetat să îi mai ascult povestea.
 ‘I stopped listening to her story.’
 => I-am ascultat povestea (o vreme).
 ‘I did listen to her story (for a while).’

In English, activities cannot accompany the verb *finish* (24a). In Romanian *finish* can be translated by *a termina*. *Finish* and *a termina* imply the existence of an end-result and as such they should not be compatible with homogeneous predications like activities. In Romanian, some activities may appear with the verb *a termina* (24b), while others do not (24c). In my analysis, (24b) is a derived accomplishment due to *a terminat de...*, which acts as a coercion operator, making visible an inherent object, as indicated by the English paraphrases.

- (24) a. *I finished walking. (Dowty 1979: 57, ex. 34b)
 b. A terminat de fumat/de vorbit/cântat/dansat.
 ‘He finished smoking/discussing/singing/dancing what there was to smoke/discuss/sing/dance.’
 c. *A terminat de alergat/de zâmbit/de râs/gesticulat/dormit.
 ‘He finished running/smiling/laughing/gesturing/sleeping’

Since accomplishments occur with *a termina* ‘finish’ as well (24a), and activities vary in their behaviour, we leave this test aside as inconclusive for the distinction between activities and accomplishments in Romanian. However, the two types of activities represented by *a fuma* and *a alerga* no longer behave differently if combined with verbal phrases like *a duce la bun sfârșit/a duce la capăt* (take something to its end), which, like *a termina* ‘finish’, imply the existence of a culminating process, but stress its final point more, and necessarily combine

with telic predicates.¹ In (25), activities, being atelic, do not combine with these phrases. The object NPs in (25) are nominal supines, a grammatical form specific to unergative verbs, e.g. *dormitul*/**dormirea* (Pană Dindelegan 2005: 485):

- (25) **A dus la bun sfârșit/la capăt fumatul/alergatul/înotatul/dormitul.*
'I took smoking/running/swimming/sleeping to its end.'

We conclude that activities in Romanian do not combine with *a duce la bun sfârșit*, *a duce la capăt* 'take something to its end' and with a caveat – see (24c) – with *a termina* 'finish'.

Dowty claims that activities and accomplishments, as opposed to states, have frequentative or habitual readings in the present simple. For instance, the clauses in (24b-c) "are understood to involve more than one event of reciting a poem or running respectively" (Dowty 1979: 56).

- (26) a. John knows the answer. (Dowty 1979: 56, ex. 26a)
(only 'one occasion of knowing the answer')
b. John runs. (Dowty 1979: 56, ex. 26b) (habitual)
c. John recites a poem. (Dowty 1979: 56, ex. 26c) (iterative)

This criterion does not function in Romanian, because the Romanian *prezent* has both habitual and progressive values. There are cases in which the Romanian *prezent* is extremely ambiguous in the absence of further adverbial determination. For instance, in (27) we do not know whether the eventuality is in progress or generic.

- (27) Ion fumează.
Ion smoke-3rd PRES
'Ion is smoking/smokes.'

Eliminating the inconclusive tests, we summarize the tests useful for Romanian activities in the table below:

Table 2

	Tests for activities in Romanian
1	can be complements of <i>a obliga/a convinge</i>
2	occur as imperatives
3	occur with <i>intenționat, cu grijă, cu atenție</i>
4	occur in pseudo-cleft constructions
5	combine with <i> timp de..., de..., a petrecut o oră...</i>
6	do not combine with <i>într-o oră, i-a luat o oră să VP</i>
7	have the subinterval property: VP [+perfect compus] <i> timp de...</i> entails VP [+imperfect] <i>în orice moment din acea perioadă</i>
8	<i>acum</i> VP [+ prezent] entails <i>tocmai/deja</i> VP [+perfect compus]
9	occur with <i>a se opri din/a înceta să...</i>
10	<i>s-a oprit din/a încetat să + VP</i> entails VP [+perfect compus]
11	do not occur as complements of <i>a dus la bun sfârșit/ a dus la capăt</i>

¹ Alexandra Cornilescu, personal communication.

These tests function in child language as well. In the child utterances at (26) the predicates marked for the present and the perfect compus are activities.

- (28) a. A: *și ce faci acum?*
 ‘and what are you doing now?’
 C: (se) *joacă* B. *cu bila* (1;11)
 play-3rd SG B. with ball-the
 ‘B. is playing with the ball.’
 b. C: *că(u)tăm Bembi.* (a story-book) (1;10)
 look-1st PL Bembi
 ‘We are looking for Bembi.’
 c. A: *ce-ai făcut cu Cătă?*
 ‘What did you do with Cătă?’
 C: (...) *a băut bere Cătă.* (2;2)
 has drink-PERF beer Cătă.
 ‘Cătă drank beer.’

The predicates in (28) pass the tests in Table 2:

- (29) a. A *convins-o să se joace cu bila/să-l caute pe Bembi/să bea bere.*
 ‘He convinced her to play with the ball/to look for Bembi/to drink beer.’
 b. *Joacă-te/Caută-l pe Bembi/Bea bere (nu vin)!*
 ‘Play/Look for Bembi/Drink beer (not wine)!’
 c. *Se joacă/Îl caută pe Bembi cu grijă/Bea bere intenționat.*
 ‘She is carefully playing/looking for Bembi/she is deliberately drinking beer.’
 d. *Ceea ce a făcut copilul este să se joace/să îl caute pe Bembi/să bea bere.*
 ‘What the child did was to play/look for Bembi/drink beer.’
 e. *S-a jucat/L-a căutat pe Bembi/A băut bere timp de o oră.*
 ‘He played/looked for Bembi/drank beer for an hour.’
 f. **S-a jucat/*L-a căutat pe Bembi/*A băut bere într-o oră.*
 ‘He played/looked for Bembi/drank beer in an hour.’
 g. *S-a jucat/L-a căutat pe Bembi/A băut bere timp de o oră.*
 ‘He played/looked for Bembi/drank beer for an hour.’
 => *Se juca/căuta/bea bere în orice moment din acea oră.*
 ‘He was playing/searching/drinking beer at any time during that hour.’
 h. *Acum se joacă/caută pe Bembi/bea bere.*
 ‘Now he is playing/looking for Bembi/drinking beer.’
 => *Deja s-a jucat/a căutat pe Bembi/a băut bere.*
 ‘He has already played/looked for Bembi/drank beer.’
 i.-j. *S-a oprit din jucat/căutat/a încetat să bea bere. => S-a jucat/a căutat/băut bere.*
 ‘He stopped playing/searching/drinking beer.’ => ‘He did play/search/drink beer.’
 k. *A dus la capăt *jucatul/?căutatul/*A terminat de băut bere.*
 ‘He took playing/searching to its end/He finished drinking beer.’

Having compared states and activities, we notice that these classes differ mainly in terms of the agentivity tests. Agentivity is a thematic, not aspectual property, and the common aspectual features of these classes are homogeneity/the subinterval property and atelicity. It is

more difficult to differentiate between temporal states and activities in Romanian than in English, due to the fact that one of the main criteria of differentiation in English was the co-occurrence with the progressive, absent in Romanian.

5. Accomplishments

Accomplishments are telic, heterogeneous, durative occurrences. They are complex predicates consisting of an activity phase and a change-of-state or resultative phase. Unlike achievements, they lexicalize the event as a whole, not just one of its stages. They are telic because they have a natural end-point. For instance, in *John ate all the food in the fridge*, there is first an *eating* stage during which Ion goes through the contents of the fridge and there is a final stage in which there is a change of state from a food-containing fridge to an empty one. The first phase of the action is activity-like, homogeneous and atelic, any subevent of *eating* is the same as the bigger event of *eating*, and no change of state occurs. But, on the whole, the predicate is not homogeneous, since its final change-of-state phase is different from the activity-like process phase. This is why accomplishments are heterogeneous events.

Dowty defines accomplishments in opposition to states and activities. In what concerns the stativity tests, Romanian accomplishments behave like activities and unlike states, like their English counterparts. Unlike states, Romanian accomplishments occur with *a obliga/a convinge* (force/persuade), accept the imperative mood, allow combinations with volitional adverbs and appear in pseudo-cleft sentences:

- (30) a. M-a convins să mănânc mărul.
'He convinced me to eat the apple.'
b. Mănâncă mărul!
'Eat the apple!'
c. Alex pictează cu atenție un tablou.
'Alex is carefully painting a picture.'
d. Ceea ce a făcut Ion că a croșetat un fular.
'What Ion did was to knit a scarf.'

Dowty (1979: 56) claims that accomplishments "only very marginally take adverbials like *for x time*", but they accept to be complements of *spend x time*:

- (31) a. ?John painted a picture for an hour. (Dowty 1979: 56, ex. 27a,)
b. John spent an hour painting a picture. (Dowty 1979: 56, ex. 29a,)

Let us compare the above with Romanian accomplishments. The accomplishments in (32a, b) are not felicitous with *timp de...* 'for x time', while they accept to combine with *a petrece/pierde (timp)...* 'spend/waste x time V-ing' (32c, d):

- (32) a. *Ion a plantat pomul timp de o oră.
'Ion planted a tree for an hour.'
b. *A croșetat puloverul Mariei timp de 10 minute.
'He knitted a sweater for ten minutes.'
c. A croșetat la puloverul Mariei timp de 10 minute.
'He did some knitting on Maria's pullover for 10 minutes.'

- d. A petrecut/pierdut o oră plantând pomul/croșetând puloverul Mariei.
'He spent an hour planting the tree/knitting Maria's pullover.'

On my analysis, the felicitous examples in both English and Romanian (31b, 32c and 32d) are evidence of a recategorization of the verb phrases, from accomplishments into activities, precisely due to the presence of the adverbial *for x time/timp de..* and the verbs *spend x time/a petrece....* In these clauses the resultative part of the event is overlooked and the middle phase – the process/activity stage of the event – is emphasized. Consequently, the referent of the predication becomes homogeneous. This is why I will exclude this test from the final list for accomplishments.

This conclusion has some bearing on the next criterion which, Dowty (1979: 60, the table) claims, separates activities from accomplishments. Dowty claims that, unlike activities, if the VP is an accomplishment, VP *for an hour* does *not* entail VP *at all times in the hour*. In other words, accomplishments do not have the subinterval property. But, accepting that the sentences in (33) below refer to homogeneous processes, being derived activities, the above entailment is possible. Therefore, this is not a valid criterion for accomplishments.

- (33) a. A citit cartea timp de o oră. => În orice moment din aceea oră el citea cartea.
'He read the book for an hour' => At any moment during that hour he was reading the book.'
b. A petrecut/pierdut o oră croșetând un fular.
'He spent/wasted an hour knitting a scarf.'
=> În orice moment din acea oră el croșeta un fular (i.e. a croșetat la fular timp de o oră)
'At any moment during that hour he was knitting a scarf.'

Unlike activities, accomplishments in English appear as complements of *take an hour to...*, or with adverbials like *in an hour*. Similarly, accomplishments in Romanian appear as complements of *i-a luat o oră să...* or with adverbials like *într-o oră* (34):

- (34) a. I-a luat o oră să învețe cântecul.
'It took him an hour to learn the song.'
b. A desenat-o pe Maria într-o oră.
'He drew Maria in an hour.'

In English, unlike achievements (35b), past accomplishments (35a) followed by an *in*-phrase entail the past progressive of the accomplishment VP during the interval denoted by the *in*-phrase. Romanian accomplishments behave similarly and entail their imperfect:

- (35) a. John painted a picture in an hour. (accomplishment)
=> John was painting the picture during that hour.
Ion a pictat un tablou într-o oră. (accomplishment.)
=> Ion picta tabloul în timpul acelei ore.
b. John reached the top in an hour. (achievement)
=> John was reaching the top during that hour.
=> John reached the top after an hour.
Ion a ajuns pe culme într-o oră. (achievement)
=> Ion ajungea pe culme în timpul acelei ore.
=> Ion a ajuns pe culme după o oră.

In English, unlike activities, progressive accomplishments do *not* entail the perfect of the accomplishment. In the absence of the progressive and a distinct perfect in Romanian, we can emphasize the ongoingness of the action with the adverb *acum* ‘now’ and its perfect nature with the adverb *tocmai* ‘just’. The accomplishment VP in the present with the adverb *acum* ‘now’ should *not* entail the *perfect compus* of the VP with the adverb *tocmai* ‘just’. This is indeed the case:

- (36) Ion acum pictează un tablou. \Rightarrow Ion tocmai a pictat un tablou.
 ‘Ion is painting a picture now.’ \Rightarrow ‘Ion has just painted a picture.’

Like activities, accomplishments in English and Romanian may occur as complements of *s-a oprit din/a încetat să...*(stop) but, unlike activities, in this context accomplishments entail only the past progressive/imperfect of the VP, not the past tense of the VP (37). In (37), the use of *stop/s-a oprit din...* highlights the activity part of the accomplishment and the only entailment possible is that of an activity: *Desenam portretul/I was drawing the portrait*. The progressive and the imperfect turn the accomplishment VP into an activity. We must note that, from (37), we cannot infer anything about the completion of the portrait. We do not know whether it was ever finished in the real world. In this sense the examples in (37) are accompanied by factual ambiguity.

- (37) a. I stopped drawing the portrait.
 \Rightarrow I drew the portrait.
 \Rightarrow I was drawing the portrait.
 b. M-am oprit din desenatul portretului.
 \Rightarrow Am desenat portretul.
 \Rightarrow Într-un moment din trecut desenam portretul.

Unlike achievements, states and most activities, Romanian accomplishments occur as complements of *a terminat de/a dus la bun sfârșit/a dus la capăt...* ‘finish’ (38):

- (38) Am terminat/dus la bun sfârșit construirea casei.
 ‘He finished building the house.’

Dowty stresses that accomplishments have a habitual interpretation in the present simple tense (39a). This is not a useful test for Romanian, where the default reading of present accomplishments seems to be the ongoing one (39b), and the habitual value is obtained if frequency adverbials are added (39c).

- (39) a. I draw a portrait every day. (habitual)
 b. Fac un desen. (ongoing)
 ‘I am drawing a picture now.’
 c. Fac un desen pe zi. (habitual)
 ‘I draw a picture per day.’

Eliminating the irrelevant tests, we conclude that, in Romanian, accomplishments can be identified via the tests in Table 3:

Table 3

	Tests for Accomplishments in Romanian
1	can be complements of <i>a obliga/a convinge</i>
2	occur as imperatives
3	occur with <i>intentionat, cu grija, cu atentie</i>
4	occur in pseudo-cleft constructions
5	occur with <i>într-o oră, i-a luat o oră</i>
6	VP [+perfect compus] <i>într-o ora</i> entails VP [+imperfect] <i>în timpul acelei ore</i>
7	<i>acum</i> VP [+ prezent] does not entail <i>tocmai/deja</i> VP [+perfect compus]
8	occur as complements of <i>a se opri din/a înceta să ...</i> but this does not entail VP [+ perfect compus]; this entails <i>într-un moment din trecut</i> VP [+ imperfect]
9	occur as complements of <i>a terminat de/a dus la bun sfârșit/a dus la capăt...</i>

The examples at (40) contain accomplishment predicates produced by children.

- (40) a. A: ai multe cuburi?
 ‘do you have many blocks?’
 C: da.
 ‘yes.’
 A: și ce faci cu ele?
 ‘and what are you doing with them?’
 C: xxx cu cubu(l).
 ‘with the block.’
 A: cubu(l).
 ‘the block.’
 C: (s)t(r)â(n)ge cubu(l) (starts putting the blocks in the bucket) (1;10)
 gather-3rd SG PRES block-the
 ‘B. gathers the block.’
- b. A1: (...) tanti Jeni ce-a făcut azi la grădiniță?
 ‘what did auntie Jeni do at nursery today?’
 A2: a făcut ciorbă?
 ‘Did she make some soup?’
 C: nu a făcut ciorbă. (2;1)
 NEG has make-PERF soup
 ‘She didn’t make any soup.’

The predicates in (40) pass the tests for accomplishments in Table 3.

- (41) a. M-a obligat să strâng cuburile/să fac ciorbă.
 ‘She forced me to gather the blocks/to make soup.’
 b. Strânge cuburile/Fă ciorbă!
 ‘Gather the blocks/Make soup!’
 c. A strâns cuburile cu atenție/A făcut intenționat ciorbă.
 ‘He gathered the blocks carefully/He deliberately made soup.’
 d. Ceea ce trebuie să facă este să strângă cuburile/să facă ciorbă.
 ‘What she must do is gather the blocks/make soup.’
 f.-g. A strâns cuburile/a făcut ciorbă într-o oră.
 ‘He gathered the blocks/made soup in an hour.’

- => În timpul acelei ore strângea cuburile/făcea ciorbă.
 ‘During that hour he was gathering the blocks/he was making soup.’
- g. Acum strânge cuburile/face ciorbă => Tocmai a strâns cuburile/făcut ciorbă.
 ‘He is gathering the blocks/is making soup.’ => ‘He has gathered the blocks/
 has made soup.’
- i. S-a oprit din strânsul cuburilor/A încetat să facă ciorbă.
 ‘He stopped gathering the blocks/He stopped making soup.’
 => A strâns cuburile/A făcut ciorbă.
 ‘He gathered the blocks/He made soup.’
 => Într-un moment din trecut strângea cuburile/făcea ciorbă.
 ‘At some point in the past he was gathering the blocks/making soup.’
- j. A terminat de strâns cuburile/de făcut ciorbă.
 ‘He finished gathering the blocks/making soup.’

6. Achievements

Achievements are telic punctual occurrences. Typical examples are predicates like *a găsi inelul* ‘find the ring’, *a câștiga cursa* ‘win the race’. These predicates express an instantaneous change of state. For instance, the verb *a găsi* ‘find’ indicates the transition from a state of not-having to one of having something. Since such predicates do point to a final state, they are telic. In this they resemble accomplishments. Yet such predicates do not describe the stage of the event which causes the change of state to take place. In this they differ from accomplishments. Their simpler structure excludes the causative stage of accomplishments and they lexicalize only the final change-of-state phase. Another feature which distinguishes them from accomplishments is the fact that they are non-durative (with the exception of degree achievements).

Let us see how Romanian achievements behave with respect to the stativity tests. In English, some achievements resemble states in that they do not accept the progressive, but this is not always the case: compare (42a) to (42b-d). Romanian achievements are felicitous with the imperfect, but so are all other aspectual classes in Romanian, as shown before.

- (42) a. ?John was noticing my mistake.
 b. My cat is dying.
 c. The post is arriving.
 d. I am beginning to hate her.

Many achievements do not appear as complements of *a obliga/a convinge* (43a, b), but some do (43c, d).

- (43) a. *M-a convins să observ ceva neobișnuit.
 ‘He persuaded me to notice something unusual.’
 b. *M-a obligat să sosesc la mare.
 ‘He forced me to arrive at the seaside.’
 c. M-a convins să câștig cursa.
 ‘He persuaded me to win the race.’
 d. M-a obligat să plec de acasă.
 ‘He forced me to leave home.’

Many achievements do not occur in the imperative (44a, b), but some do (44c-e):

- (44) a. *Observă-l pe Ion pe stradă! (with a momentary reading)
 ‘Notice Ion on the street!’
 b. *Sosește la mare!
 ‘Arrive at the seaside!’
 c. Pleacă!
 ‘Leave!’
 d. Înțelege-mă și pe mine! (derived achievement)
 ‘Try to understand me!’
 e. Câștigă cursa!
 ‘Win the race!’

Generally, achievements do not allow volitional adverbials (45a, b), but see (45c):

- (45) a. *El a adormit/s-a trezit intenționat.
 ‘He fell asleep/woke up deliberately.’
 b. *Avionul a aterizat cu grijă.
 ‘The plane landed carefully.’
 c. Curierul a sosit intenționat așa devreme.
 ‘The courier deliberately arrived here early.’

Achievements may appear in pseudo-cleft clauses, but not always:

- (46) a. Ceea ce trebuie să facă Ion este să înceapă/să reia discursul.
 ‘What Ion must do is to start/resume his speech.’
 b. *Ceea ce face Ion este că îl vede pe Petre.
 ‘What Ion does is to see Petre.’

According to Crăiniceanu (1995: 62), most achievements are not agentive, but there are some that select a [+human] subject and thus become agentive. Many researchers (see Baciú and Ionescu 2003: 65) consider that achievements are ergative verbs, which select a theme argument. This can explain the contradictory behaviour of achievements regarding the agentivity tests.² Themes are neuter, in the sense that it is not obligatory for them to have particular semantic properties. As such, the theme can be animate or inanimate, human or non-human, but these properties are suspendable, non-intrinsic to the thematic structure of the verb. By contrast, for a transitive verb like *read*, the agentivity of the subject is obligatory. Hence ergative verbs may take a wide variety of subjects. If the subject is [+human], then it is likely that agentivity effects will emerge – evident in the examples where achievements pass the stativity tests, because the semantic features of the subject can attract manner adverbials they are compatible with.

In conclusion, achievements have variable behaviour with regard to the agentivity tests in Romanian. In order to distinguish them from the other aspectual classes, we need to use aspectual tests, which are more reliable. Thus, unlike activities, achievements are non-durative and do not appear as complements of *a petrece (timp)*... ‘spend x time’ or with adverbials like *timp de*... ‘for x time’, even when the period referred to is very short.

² Alexandra Cornilescu, personal communication.

- (47) a. *A petrecut câteva clipe plecând de acasă.
 'He spent a few moments leaving home.'
 b. *A observat greșeala timp de un minut.
 'He noticed the mistake for a minute.'

Achievements co-occur with constructions like *i-a luat (timp)*... 'it took x time' or with adverbials like *într-un*... 'in x time', but the time span referred to must be short:

- (48) a. I-a luat un minut să observe greșeala.
 'It took him a minute to notice the mistake.'
 b. A înțeles ce se întâmpla într-o clipă.
 'He understood what was going on in a minute.'

The past tense of an accomplishment with an *in*-phrase entails the imperfect of that accomplishment throughout the interval denoted by the *in*-phrase. This is not true about achievements. The *in*-phrase means *after x time* for achievements and *throughout the time period x* for accomplishments.

- (49) Ion a ajuns la serviciu într-o oră.
 'Ion arrived at work in an hour.'
 =/=> *Ion ajungea la serviciu pe tot parcursul acelei ore.
 'Ion was arriving at work throughout that hour.'
 => Ion a ajuns la serviciu după o oră.
 'Ion arrived at work after one hour.'

Achievements do not occur as complements of *s-a oprit din*... 'stopped V-ing' or *a terminat de*... 'finished V-ing':

- (50) a. *S-a oprit din observat greșeala.
 'He stopped noticing the mistake.'
 b. *A terminat de văzut pe Maria.
 'He finished seeing Maria.'

English achievements acquire a habitual, frequentative interpretation in the present simple, but this is not the true in Romanian (51).

- (51) a. Observ că ești obosit. (instantaneous, not habitual interpretation)
 'I notice you are tired.'
 b. I arrive early. (habitual)

We conclude the discussion of achievements with the table below, where the valid tests for Romanian are summarized:

Table 4

	Tests for Achievements in Romanian
1	do not occur with <i>timp de o oră</i> , <i>a petrecut o oră</i> ...
2	occur with <i>într-o oră</i> , <i>i-a luat o oră</i> meaning <i>după o oră</i>
3	VP [+perfect compus] <i>într-o oră</i> does not entail VP [+imperfect] <i>în timpul acelei ore</i>
4	do not occur as complements of <i>s-a oprit din</i> ...
5	do not occur as complements of <i>a terminat de</i> ...

Test 1 indicates that achievements are not durative. Tests 2-5 indicate that achievements are change-of-state predicates devoid of an activity, homogeneous phase. The child corpus contains examples of achievements (52):

- (52) a. A: uite că începe să apară cățelu(l)...
- ‘look, the dog is starting to appear.’
- C: apa(r)e ăsta. (2;0) (they were making a puzzle)
- appear-3rd SG PRES this
- ‘This appears.’
- b. C: babau(l) a plecat. (2;1)
- bogeyman-the has leave-PERF
- ‘the bogeyman has left.’

The predicates in (52) pass all the tests for achievements in Romanian:

- (53) a. *A apărut ăsta/Babaul a plecat timp de o oră.
- ‘This has appeared/The bogeyman has left for an hour.’
- b. A apărut ăsta/Babaul a plecat în/după zece minute.
- ‘This has appeared/The bogeyman has left in/after ten minutes.’
- c. A apărut ăsta/Babaul a plecat într-o oră.
- ‘This has appeared/The bogeyman has left in an hour.’
- =/> Apărea ăsta/Babaul pleca în timpul acelei ore.
- ‘This was appearing/The bogeyman was leaving throughout that hour.’
- d. *S-a oprit din apărut/din plecat.
- ‘He stopped appearing/leaving.’
- e. *A terminat de apărut/de plecat.
- ‘He finished appearing/leaving.’

7. Aspectual classes in child Romanian

We are now equipped with tests that help us distinguish between the four aspectual classes. We applied the tests summarized in Tables 1-4 to the present and *perfect compus* predicates in the longitudinal corpus described in the introduction. Our aim was to establish the number of predicates that entered each aspectual class in order to see which classes were predominant for the present, or the *perfect compus* respectively. The corpus of child language (age range 1;5-2;2) comprises 9644 child utterances, of which only approximately 500 utterances contain verb phrases. We ignored frozen utterances and verbatim repetitions of the adult input, and we excluded imperatives, subjunctives clearly marked with *să*, indicative future forms and utterances containing the verb *a fi* ‘be’. The total number of present and *perfect compus* predicates analyzed was 370.

Table 5

Present Tense	No of predicates	Percentage
States	116	37
Activites	102	33
Accomplishments	59	19
Achievements	34	11
Total	311	

Table 6

Perfect Compus	No of predicates	Percentage
States	1	2
Activites	13	22
Accomplishments	21	36
Achievements	24	40
Total	59	

Table 5 shows that a lot more atelic predicates were used with the present (218 atelics vs. 93 telics), amounting to 70%. Table 6 shows that more telic verbs were used with the *perfect compus* (45 telics vs. 14 atelics), amounting to around 76%. These results indicate that, to some extent, tense morphology is associated by children to the aspectual class of the predicate, although not in a very strict fashion, as there are significant percentages of past atelics and present telics. This pattern of distribution has been found in a variety of other child languages (Italian, French, Turkish, English, Mandarin, Polish).

It is also interesting to note how the correlation between tense morphology and the aspectual class of the predicate varies with age. At younger ages the percentage of present atelics used by child B. is very high (100%-71%), after which it tends to go down. The first *perfect compus* utterances that the child B. uses are almost 100% telic up to the age 2;0.11. Moreover, the majority of the respective predicates are non-finite, participial, the auxiliary being excluded. Starting with age 2;1.18 (MLU 1.59) the *perfect compus*-telic correlation is no longer that strong, amounting to cca 50% of the predicates. Interestingly, at this age, very few *perfect compus* predicates are non-finite, the auxiliary being excluded quite rarely. If we compare the results for the present with those for the *perfect compus*, we see that, in B.'s case, before age 2;0 the correlation *perfect compus*-telic predicate is much stronger than the present-atelic one, coming close to 100%. Both correlations begin to relativize around the same time, but the present-atelic one slightly earlier than the perfect-telic one: age 1;10.29, MLU 1.29, for the present, age 2.1, MLU 1.59 for the *perfect compus*. For child I we only analyzed 2 files, but the patterns observed for B. seem to be preserved, although, obviously, the data are yet inconclusive. Child I. starts using the *perfect compus* at 1;11, later than child B. who starts at 1;6.

Three explanations are possible for the distributional correlations between tense morphology and lexical aspect. One explanation emphasizes the influence of the input. Shirai and Andersen (1995) believe that language acquisition relies heavily on the child's experience of the linguistic environment. The child learns what he hears and by hearing it. The cause for young children's tendency to associate the past tense with telicity and the present with atelicity is that adults too display the same preferences (for a more detailed review see Stoicescu 2009). Further research should show whether the influence of the input can account for the distribution of temporal morphology in child Romanian.

A second explanation is put forth by Olsen and Weinberg (1999) who work in a different framework from Shirai and Andersen. They believe that language development follows a path set by the child's innate endowment, a Universal Grammar which hosts the principles governing all languages. Lexical and grammatical aspects are part of Universal Grammar and interact. In some languages, such as English, Bengali, Mandarin, grammatical aspect is constrained by lexical aspect. In others, like Azerbaijani, Koine Greek, Turkish, grammatical aspect is not constrained. Since this parametric variation is evident in the languages of the world, Univesal Grammar must allow for both the more restricted and the relaxed patterns of interaction between lexical and grammatical aspects. Olsen and Weinberg

claim that children start from the most constrained option in order not to produce incorrect constructions. Thus if a child had to learn English and assumed that the non-restrictive pattern of Romanian was the right option he would produce progressive states which are unacceptable in English, but acceptable in Romanian. If the child had to learn English and he started from the very restrictive option of Chinese, where verbs in a certain lexical aspect class are not allowed with certain grammatical aspect markers, he would never produce progressive states which are prohibited in both Chinese and English. The child eventually relaxes his initial cautious options by tuning to the input. Thus the child has to make strong correlations between lexical and grammatical aspect in the beginning just in case his language has them.

Another explanation could be that the respective patterns of distribution occur due to the necessity to streamline the processing load of the child. Telicity, perfectivity and pastness all involve the notion of boundedness. It is possible that children operate with this single concept when employing past morphology. Similarly, atelicity, imperfectivity and present tense all involve the notion of unboundedness. Working with only two representations and applying them at several levels of the language seems like a good strategy to relieve the pressure on the linguistic system. What is more, it seems that the employment of this strategy does not immediately imply that children's grammars are different to adults' grammars. Adults too, when learning a foreign language, produce the types of correlations discussed in this paper (see Avram 2002).

8. Conclusions

This paper has shown that the classification of predicates function of lexical aspect in both adult and child Romanian can be done by applying specific semantic and syntactic tests. In addition, it extends the corpus of child language reported on in Stoicescu (2009) and finds similar results with respect to patterns of distribution of tense morphology. In the child corpus analyzed, the morphology of the present is associated predominantly with atelic predicates (states and activities) and the morphology of the *perfect compus* tense occurs mainly with telic predicates (accomplishments and achievements). The correlation between tense morphology and lexical aspect seems to be stronger at younger ages and is relativized by the child as he grows older. Finally, the paper reports on three possible explanations for the regularities observed in the distribution of tense morphology. Future research should determine whether the same tendencies exist in child-directed adult speech.

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