

The Acquisition of Aspect in English and Russian

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Abstract

The aim of this paper is to test the validity of Hoekstra and Hyams's (1998) Eventivity Constraint hypothesis vs. Gavrusseva's (2003) Underspecification of Aspect Hypothesis with respect to the interaction between the acquisition of finiteness and aspect on the basis of data from child English and child Russian. A more general aim is to determine to what extent aspect influences the acquisition of finiteness.

The paper is divided into three sections as follows: the first section consists of a theoretical framework, providing information on the main differences between the English and the Russian aspectual systems, the second section presents the hypotheses to be tested with respect to the acquisition of aspect and finiteness and the third section presents the case study and the results confirming or contradicting the hypotheses tested.

Keywords

acquisition, root infinitives, case study, methodology, results

1. Theoretical Framework

Two of the many ways in which temporality is encoded in natural language are the grammatical categories tense and aspect. They are both functional categories, which delimit the lexical category verb and express the semantic notion of time in languages. Tense and aspect are related morpho-syntactically, that is, they are realized by verb inflections and auxiliaries, and semantically, as they share the notion of time, though in different ways. While tense represents the chronological order of events in time as perceived by the speaker at the moment of speaking and it locates the time of the event relative to "NOW", aspect gives information about the contour of the event as viewed by the speaker at a given moment in time.

Aspect is a parameter which is realized differently across languages. Aspect concerns the different perspectives which a speaker can take and express with regard to the temporal course of some event, action, process: the speaker may view it as completed, as on-going, as imminent and possibly in other ways. This view is

independent of the time which the event, action, process occupies on the time axis. (Klein 2003:16) The most important ways of expressing aspect are verb morphology, adverbials and specific particles.

In current approaches, aspect covers two perspectives; it is still used to refer to the presentation of events through grammaticized viewpoints such as the perfective and the imperfective, but in addition to this, it refers to the inherent temporal structuring of the situations themselves, the internal event structure. Both viewpoint aspect and situation-type aspect convey information about temporal factors such as the beginning, the end and the duration of a situation. However, they are realized differently in the grammar: situation type is signaled by the verb and its arguments, viewpoint is signaled by a grammatical morpheme, usually part of a verb or verb phrase. In framing a sentence, the speaker chooses situation types and viewpoints, subject to the pattern of the language.

Situation type aspect or lexical aspect classifies events and states at a general and abstract level. All the situations have specific verb constellations, specific structures. The typology identified by Vendler (1957) represents the point of departure in many subsequent studies. According to this classification, there are four classes of predicates: states, activities, accomplishments and achievements. Smith (1991) adds semelfactives.

The situation types are distinguished by a cluster of conceptual temporal properties, as shown in the table below, taken from Smith (1991):

Situation type	+/- stative	+/- durative	+/- telic
<i>States</i>	+	+	-
<i>Activities</i>	-	+	-
<i>Accomplishments</i>	-	+	+
<i>Achievements</i>	-	-	+
<i>Semelfactives</i>	-	-	-

Table 1: Main features of situation type aspect

Russian has two distinct verb forms that correspond to the perfective/imperfective aspect, while in English the simple present and preterite can both be used as either imperfective or perfective (Huddleston 2002).

The English perfective viewpoint permanently interacts with the situation type. Therefore, the perfective viewpoint presents the

endpoint properties of each situation type schema: for activities it includes an arbitrary final endpoint, for accomplishments a natural final endpoint, for achievements and semelfactives it focuses on single-stage events and for states there is no endpoint included.

The English imperfective viewpoint, same as the perfective, cannot be separated from the situation types, but on the contrary, they are deeply connected. Although viewpoint aspects preserve their general characteristics, when interacting with situation types, they tend to behave slightly different, according to the characteristics of each situation type.

Unlike English, the Russian viewpoint aspect shows certain features that are typical of Slavonic languages. First of all, Russian verbs are presented with the perfective/imperfective variants in the lexicon, as each aspect has its own verbal form or verb, in the case of suppletive pairs, as they are from the very beginning classified as perfective or imperfective. Although Russian verbs have two aspectual forms, which usually come in pairs (perfective/imperfective), the verbs can be divided into three categories (Iurac 2008):

- verbs of binary aspectual oppositions: one form for the perfective and one for the imperfective viewpoint; the imperfectives have past, present and periphrastic future, while the perfectives only have past and future simple;
- biaspectual verbs: verbs that have a single form for both the imperfective and the perfective and their aspect is determined by the context in which they are encountered;
- monoaspectual verbs: verbs are those verbs that are either perfective or imperfective;

While the last two categories contain a limited number of verbs each, the verbs of binary aspectual opposition are the most numerous in Russian, carrying two forms, one for the imperfective and one for the perfective.

All the predicates in English can be categorized as belonging to a certain situation type. Therefore, there are five aspectual categories, with both common and specific features: states, activities, accomplishments, achievements and semelfactives.

Russian grammar only distinguished the perfective and the imperfective in terms of aspect. Therefore, we cannot say that Russian verbs can be separated and divided in five aspectual classes, like the English verbs. However, this classification is not irrelevant to a

language with this kind of aspectual system, even if it does not exist in the grammar. The classification may not exist, but situation types do. Russian verbs differ from English ones in the fact that these situation type differences arise once with the change of the viewpoint aspect: when a verb becomes perfective, usually the situation type changes as well, thus the perfective viewpoint has additional properties.

Braginsky and Rothstein (2008) claim in their paper on *Vendlerian Classes and the Russian Aspectual System* that the semantics of lexical classes is fully exploited in Russian and that lexical classes cut across the perfective/imperfective distinction

Summing up, it can be said that the lexical aspect, as seen in English, is rendered in Russian by the prefixes that form the perfectives. As mentioned above, these prefixes usually have double function: they form the perfective and also add certain nuances to the verb, focusing on the initial, final or other stages of the event. In Russian, as in English, situation type aspect cuts across the perfective/imperfective distinction and as a result, the two, lexical and viewpoint aspect cannot be analyzed separately.

2.The Acquisition of Tense and Aspect

2.1. Root Infinitives, Tense and Aspect

In the early stage of language acquisition, children go through a period when they use both finite and non-finite forms in contexts that require finite forms. Studies on root infinitives (RI) have tried to investigate how aspectual markers can provide temporal information, as RIs can be interpreted as past, present or future in the absence of any temporal markers.

For instance, the data provided by child Russian (Brun and Babyonyshev 2003) support this hypothesis that the temporal interpretation of early RIs is given by the aspectual system; they also support the hypothesis according to which aspectual markers emerge before temporal markers, but temporal interpretation is already available. In Russian, RIs can have past, present or future temporal interpretation. However, this interpretation depends on how the child uses the aspectual information of the verb. Furthermore, children seem to be sensitive with respect to the structure of events and will mark verbs denoting states and verbs denoting processes differently from the very beginning of language acquisition (Avram 2003).

There is evidence in favor of the early existence of lexical aspect in child languages coming from Dutch and English. Wijnen's

(1998 in Avram 2003) analysis of early Dutch, reveals that event-denoting predicates occur in both finite and non-finite sentences, while states are restricted to finite contexts, but that 93% of the RIs are eventive and the temporal interpretation of the predicate depends on the context.

For English, Olsen and Weinberg (1999 in Avram 2003) argued that children are be sensitive to associations between lexical and grammatical aspect. They claim that children tend to correlate the *-ed* morpheme with telic verbs and the *-ing* imperfective marker mainly with [+dynamic] and [+durative] verbs in the early stages, proving that aspectual markers emerge earlier than tense markers.

Cross-linguistic studies on typologically different languages (English, Portuguese, Turkish, Greek, Japanese, Chinese, Italian, German, Hebrew) show that in child languages tense markers encode lexical aspectual information, thus leading to the *Aspect-before-Tense Hypothesis*, according to which “early Tense markers are used to refer to aspectual distinctions and not to temporal location” (Avram 2003).

However, the fact that during the RI stage the structures can receive past, present or future interpretation although tense markers are absent, leads to the conclusion that children do seem to have a basic temporal orientation before the onset of tense marking, so they appear to have some time concepts independent of the tense marking and inflection. Further evidence also shows that children are able to understand and/or use past tense morphology even in the absence of an end result. This has led researchers to formulate the *Deficient Tense Hypothesis*, according to which “the early temporal system is simpler: it lacks RT, but it is deictic” (Avram 2003). Thus, children’s temporal system is underspecified, as RT is missing and tense morphology refers to the ET-ST relationship, as opposed to the adult’s, which refers to the RT-ST relationship. So as long as RT is missing, the use of tense morphology is optional, explaining the existence of the RI stage in the early stages of language acquisition.

2.2. Root Infinitives: Two Conflicting Hypotheses

The root infinitive phenomenon has received a lot of attention in the literature, as it can offer a wide range of evidence with respect to the acquisition of finiteness, to the acquisition of tense and aspect. In the following sections I will present two conflicting hypotheses regarding RI and the acquisition of tense and aspect, that is, the study of Hoekstra & Hyams (1998) and that of Gavrusseva (2003).

2.2.1. Root Infinitives and the Eventivity Constraint

According to Hoekstra & Hyams (1998), RIs are subject to the Eventivity Constraint (EC) and the EC is related to the Modal Reference Effect (MRE), as RI do not have a deictic tense reading, but a modal interpretation. Furthermore, they claim that while this is true for languages such as Dutch, German, Swedish or French, English seems to lack both EC and MRE. Hoekstra & Hyams (1998) investigate the occurrence of the RI phenomenon in different languages and conclude that RIs do not reflect the lack of knowledge of the finite morphology, or because of the lack of knowledge of the Spec-head agreement requirements. In languages such as Dutch, German, Swedish or French, RIs do not lack the infinitive markers, therefore, children's lack of knowledge of this kind is not an argument.

However, in English, children produce utterances where they drop the *-s* when they have a 3rd person singular subject. Wexler (1994) takes this as an argument for the existence of a RI stage in English. According to him, young English speaking children do not make agreement errors, given the weak inflectional system of the language. Why would English speaking children have difficulties, drop finite morphology, make agreement errors, while children acquiring other languages do not? This cannot be the case.

The EC on the RI seems to be present in child Russian as well. Although the number of RI in Russian is relatively small, the RIs which children use are event-denoting verbs (Hoekstra and Hyams 1998). This only proves that in typologically different child languages, RI are subject to the EC.

Another important observation made by Hoekstra & Hyams is that RI typically have a modal interpretation. This observation is supported by data from child French, Swedish, German and Dutch, therefore it allowed them to formulate the Modal Reference Effect: "With overwhelming frequency, RI have modal interpretation". (Hoekstra and Hyams 1998:91)

As far as English is concerned, Hoekstra & Hyams note that neither the EC nor the MRE are relevant to the bare form phenomenon. They compare child English with child Dutch; using UdDeen's (1997 in Hoekstra and Hyams 1998) analysis of finiteness in eventive and non-eventive verbs in child English, they conclude that while in English 25% of the non-finite verbs are non-eventive, as

compared to only 5% in Dutch; English non-eventive verbs occur mostly as bare forms, 89%, as compared to Dutch, where 79% of the non-eventive verbs are finite.

Hoekstra & Hyams reach the conclusion that the RI stage is dependent on the inflectional properties of the adult language, therefore “languages that mark number exclusively show on RI stage, while tense and person-marking languages do not” (Hoekstra and Hyams 1995).

However, Hoekstra & Hyams claim that the English bare forms are ambiguous, thus they can be interpreted in two ways: either as infinitives, that is unanchored structures, or as finite forms, that are not marked as infinitives or finite forms, but that are compatible with both syntactic positions. This accounts for the fact that in English bare forms occur with all types of subjects, as well as for the fact that bare forms are more frequently encountered than RI. Furthermore, Hoekstra & Hyams argue that the interpretation of English bare forms is influenced by the absence of infinitive morphemes.

Finally, Hoekstra & Hyams argue that it is the aspectual value of [-realized] that represents the basis for modal interpretation. Finite utterances describe actual states of affairs, while RIs do not refer to actual eventualities, but to those that are not realized and thus are interpreted as statements of desire.

2.2.2. Root Infinitives and Aspect

Gavruseva (2003) puts forth a hypothesis that contradicts that of Hoekstra & Hyams (1998). She claims that MRE is not the source of the Eventivity Constraint. She suggests that the verb’s inherent aspect is deeply connected to the acquisition of finiteness, thus predicting that certain subtypes of eventives will appear as RI in certain child languages. In her view, the EC is the Aktionsart based semantic property of RI, as the Aktionsart determines the patterns of finiteness. She is interested in finding an explanation for the fact that although at least certain finiteness features are clearly acquired, children keep using RI, and this option must be accounted for. Considering the fact that finiteness markings are consistent on statives and optional on eventives, Gavruseva argues that the verb’s aspect represents the key to explaining the patterns of finiteness during the RI stage. Furthermore, Gavruseva claims that she would add the aspectual projection as well, for the AspP is an essential part of the T-chain and without it, the T-chain can only anchor an eventuality to

temporal domains such as past, present and future, through TO. The existence of an AspP would also allow the anchoring of the eventuality in a temporal interval, beginning, middle, end phase, and without it there would not be any aspectual interpretation available for the eventuality.

However, an interesting question is whether this unspecified AspP hypothesis holds for languages such as Russian. In Slavic languages, verb stems are specified as perfective/imperfective, so this distinction does not account for the manner in which finiteness is acquired. In such languages there is no need to find a counterpart for the AspP because the verb's arguments do not contribute to the aspectual specification of the predicate. With respect to this, one prediction that Gavrusseva makes is that AspP will be specified earlier in Slavic child grammars than in Romance and Germanic languages, so a lower RI rate is expected in the case of Russian.

3. Case Study

In the following section I will test the hypothesis put forth by Hoekstra and Hyams(1998) and Gavrusseva (2003), on the basis of longitudinal data collected from one monolingual English child and one monolingual Russian child, available in the ChILDES database.

3.1. Methodology

In order to test these hypothesis, I analyze the data collected from two monolingual corpora for: English (Becky) and Russian (Varvara, age) children. The data comes from the CHILDES database, from the Manchester corpus for child English, which contains 7 files of 30 minute recordings each, and Protassova corpus for child Russian, also containing 7 files of recordings; all recordings were transcribed in CHAT format. The recordings contain unstructured, natural conversations, particularly during play time.

For a more accurate study, imitations, repetitions, poems and songs were excluded, and copula verbs, as well as 1st, 2nd and 3rd person verbs were included.

In the case of child Russian, the aspectual category of states does not contain the equivalents of the English verbs *to be* and *to have*, because they are not overtly expressed in Russian in the present tense, but possession and existence are rendered mainly by case markers and prepositions, rather than verbs, as in the examples below:

(1) a. У меня красивая кукла. (*U minjakrasivajakukla.*)

At me beautiful doll.
English: I have a beautiful doll.
 b. Это моя сестра. (*Etomojasestra.*)
 This my sister.
English: This is my sister.
 c. Девочка в комнате. (*Devočka v komnate.*)
 The girl in the room.
English: The girl is in the room.

Tables 2 and 3 contain the verbs uttered by the children. They are primarily divided into two main categories, based on the [+/-state] aspectual feature, then the class of eventives, [-state] verbs, are divided into two groups, with respect to the [+/-punctual] feature.

Table 4 contains the verbs uttered by the Russian child Varvara, where they are divided into several groups, first according to their [+/- finite] feature, then, according to the aspectual category the verbs belong to, perfective/imperfective. The purpose of this table is to highlight both the differences between the manner in which aspect interacts with tense and finiteness in child English and child Russian, the peculiarities Russian verbs present and how they can guide the acquisition of finiteness so that it occurs earlier than in other languages, such as English, for instance.

3.2. Results

The results of the study confirm the hypothesis put forth by Hoekstra and Hyams (1998) and Gavrusseva (2003) according to which RI in Russian are less frequent than in other languages. From a total of 316 verbs in English, 44 (14%) are RI, as compared to Russian, where from a total of 558 verbs, 44 (8%).

Therefore, the prediction is borne out, as the percentage of RI found in child Russian is lower than that found in English. The prediction made by Gavrusseva (2003), that finiteness emerges earlier in Russian, as TO can bind tense features in such languages is true, according to the data presented in the Tables 2 and 3.

File	States		Events				Total	
			Non-punctual		Punctual			
	+Finite	-Finite	+Finite	-Finite	+Finite	-Finite	+Finite	-Finite
B 2;0.07	8	0	8	0	4	3	20	3
B 2;0.28	3	0	3	10	9	8	15	18
B 2;1.24	8	5	6	3	2	3	16	11

B 2;2.15	18	0	12	1	6	2	36	3
B 2;3.06	28	0	13	2	11	0	42	2
B 2;4.19	55	1	10	1	11	0	76	2
B 2;5.01	44	1	15	1	8	3	67	5
Total	164	7	67	18	51	19	272	44

Table 2: child English, Becky

File	States		Events				Total	
			Non-punctual		Punctual			
	+Finite	-Finite	+Finite	-Finite	+Finite	-Finite	+Finite	-Finite
V 1;6.05	18	0	18	5	12	3	48	8
V 1;7.13	11	0	18	7	5	2	34	9
V 1;8.24	31	0	42	10	10	6	83	16
V 1;10.14	29	0	32	0	22	3	83	3
V 2;0.01	27	0	39	2	11	2	77	4
V 2;4.14	36	0	36	0	24	0	96	0
V 2;10.14	30	0	44	4	19	0	93	4
Total	182	0	229	28	103	16	514	44

Table 3: child Russian, Varvara

Table 3 shows that all the 182 verbs having the [+state] feature occur in finite forms, meaning 100%, therefore all the RI found are actually event-denoting verbs. Therefore the results support their hypothesis that although they are not as frequent as in other languages that have been studied from this perspective, Russian RI are subject to the EC.

However, Hoekstra and Hyams (1998) also argue that English is not one of the languages that are subject to the EC, and this theory is actually contradicted by the data shown in Table 2. Only 19% of the RI found in Becky's transcript are states, while the other 81% are event-denoting verbs. Their study included only those verbs with subjects in the 3rd person singular, in order to get a clear view of the interaction between aspect and finiteness, but, as Gavrusseva (2003) noticed, this procedure does not render a clear and complete view on the matter because the tense morphology in English creates certain ambiguities in terms of [+/-finite] interpretation.

While it is true that 3rd person singular verbs may be more conclusive, the others cannot be ignored, as they might as well contain an important number of finite verbs. The results confirm Gavrusseva's theory, that the EC does exist in English, but it is "obscured due to coding procedures". Therefore, she proposes that bare stems with NOM subjects should be counted as finite verbs as well.

Out of 44 RI found in Becky's transcripts, only 7 have the [+state] feature, while the rest are eventive verbs. This supports Gavrusseva's hypothesis that the EC does hold for English.

One of the main differences between Russian and English in terms of the acquisition of aspect is the fact that Russian, as Gavrusseva mentioned, is specified for grammatical aspect, so the features of finiteness are expected to emerge earlier. Her observation checks out, as there is a strong connection between tense and grammatical aspect in Russian, which is typical of languages with this typology.

The same data analyzed for Table 3 were reanalyzed and reorganized from a different perspective in Table 4. The data shows that due to the fact that all the verbs in Russian are specified for grammatical aspect, the child instinctively knows, in the vast majority of cases, which verb of the pair to use in order to express temporal relations even at a very early stage of language acquisition.

In adult Russian, perfective verbs have two tenses, past and future, while imperfective verbs have three: past, present and future. Therefore, in the adult language, present tense only occurs with imperfective verbs. The data collected from Varvara's transcripts shows that every time she wanted to express the present tense, she would use imperfective verbs, as in adult Russian – out of a total of 338 verbs in the present tense, all of them are imperfective.

Furthermore, in terms of the past tense, it can be expressed by both perfective and imperfective verbs, but while perfectives express actions that are completed and seen as [+realized], imperfective verbs focus on the stages of the action, beginning, middle or end. The data shows that in the beginning, children tend to use only perfective verbs with past tense and the imperfectives increase in number gradually, as the child manages to distinguish between the two and use them according to the meaning they want to render.

Futurity can be expressed by both perfective and imperfective verbs as well, therefore the results are not statistically relevant.

File	RI		Finite forms						Total	
			Past		Present		Future			
	Perf.	Imp.	Perf.	Imp.	Perf.	Imp.	Perf.	Imp.	Perf.	Imp.
V 1;6.05	6	2	6	0	0	35	4	3	16	40
V 1;7.13	6	3	3	0	0	24	3	3	12	31
V 1;8.24	9	7	9	1	0	54	18	1	36	63
V 1;10.14	2	1	18	8	0	51	6	0	26	60

V 2;0.01	3	1	17	5	0	54	0	1	20	61
V 2;4.14	0	0	18	9	0	56	2	11	20	76
V 2;10.14	2	2	16	8	0	64	2	3	20	77
Total	28	16	87	31	0	338	35	22	15	40

Table 4: child Russian

Therefore, unlike English, where the acquisition of finiteness seems to be guided by lexical aspect (Gavruseva 2003), Russian children may rely on grammatical aspect as well, as a bridge between tense and the acquisition of finiteness, predicting that finiteness is more easily acquired in child Russian than in English. The data from Table 4 shows how similar child Russian is to the adult language in terms of the correlation between the expression of temporality and that of aspect.

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