

Viewpoint Aspect in Bulgarian-English Interlanguage

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1. Research questions

Recent research into the nature of interlanguage (IL) grammar representations has focussed on properties of functional categories (FC) like Infl, Comp, Det, etc., investigating whether functional categories are acquirable in the second language (L2). With respect to the accessibility of formal features, researchers appear to be divided into two basic positions. There are those who argue that full functional representations (including semantic features and feature strength) are in principle attainable by adult learners (Duffield and White 1999, Lardiere 1998, Schwartz and Sprouse 1996). The other position rejects the attainability of new functional categories in the L2. Hawkins and Chan (1997), Licerias *et al.* (1997), Smith and Tsimpli (1995), among others, have argued that adult learners only have access to those features available from their native language (L1) and thus functional categories not instantiated in the L1 will be impossible to acquire.

Related to the accessibility question is the question of how exactly the L2 acquisition of functional categories proceeds? The acquisition of a FC may comprise at least three different types of knowledge: 1) target-like usage of inflectional morphology (if any); 2) knowledge of feature strength, which would result in movement prior to or after spell-out; 3) knowledge of the semantic properties of the FC, or what meanings are computed when the FC is checked. In this paper, I investigate the acquisition of semantic features of FCs by looking at the acquisition of viewpoint (also known as grammatical, or sentential) aspect. The specific research question of the study is: Are Bulgarian native speakers capable of learning the semantic implications of an English aspectual FC?

2. The English facts and a possible explanation

English differs from German and Romance with respect to the semantics of the present tense. It is well-known that the English simple tense cannot denote ongoing events.

- (1) a. *She eats an apple right now. #ONGOING EVENT
 b. She is eating an apple right now. ONGOING EVENT
 c. She eats an apple (every day). HABITUAL EVENT

With stative predicates, however, the ongoing reading of the English present is possible.

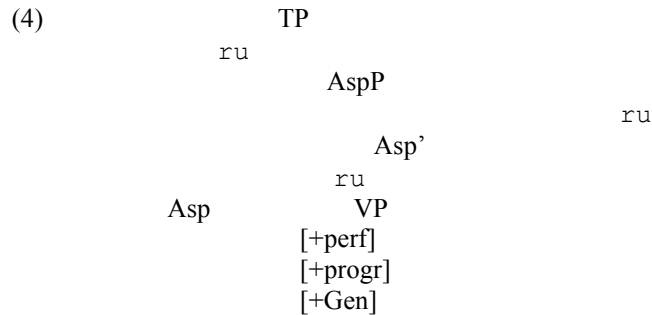
- (2) a. Mike is lazy. CHARACTERISTIC STATE
 b. Mike is being lazy today. TEMPORARY STATE

Furthermore, the English bare infinitive denotes not only the processual part of an event but includes the completion of that event. English accomplishment and achievement predicates in the infinitive (without any aspectual morphology) have only complete events in their denotations.

- (3) a. I saw Mary cross the street. COMPLETION ENTAILED
 b. I saw Mary crossing the street. NO COMPLETION ENTAILED

In trying to explain the relationship between the facts illustrated in (1a) and (3a), many researchers have noticed that English verbal morphology is impoverished (Bennett and Partee 1972, Giorgi and Pianesi 1997, Landman 1992, Zucchi 1999.) Giorgi and Pianesi's recent proposal, for example, states that the only way for the English verb to acquire categorial features is by being associated with the aspectual feature [+perfective]. Perfective predicates are incompatible with speech time adverbials (see [1a] above) since they are not punctual, while the speech time is punctual. As a consequence of this aspectual marking, English bare forms entail closure of the event (see [3a] above). These semantic properties of English and their entailments are not taught explicitly to the learners tested in this study.

A possible syntactic analysis, following Giorgi and Pianesi (1997) (irrelevant details omitted) is given below. The [+perfective] feature is a lexical feature of all eventive verbs. This analysis, then, entails that non-finite forms like bare verbs and *-ing* participles also check that feature, in addition to others.



The logical question that arises is: How are the habitual and the progressive interpretations in English at all possible if eventive verbs are punctual (associated with a feature entailing topological closure)? In the case of the present tense habitual interpretation, Giorgi and Pianesi propose that the present simple tense is associated with a generic operator, hypothesized by Chierchia (1995), which gives it its habitual interpretation. In the case of the progressive, the progressive morphology contributes an intensional operator (Dowty 1979,

Landman 1992) and thus it refers to an intensionally perfective (i.e. closed) event.

3. The native contrast

Unlike English, Bulgarian has no present progressive tense and the present simple tense is ambiguous between a habitual and an ongoing event or state. This is true of eventive verbs as in (5) and of stative verbs as in (6) below. The example in (6c) is a (rare) case of deadjectival verb formation with a stative meaning, also expressed with the present tense.

- | | | |
|--------|---|----------------------|
| (5) a. | Maria sega jade jabǎlka
Maria now eat-PRES apple
'Mary is eating an apple right now.' | SIMULTANEOUS EVENT |
| b. | Maria jade jabǎlka vseki den
Maria eat-PRES apple every day
'Mary eats an apple every day.' | HABITUAL ACTIVITY |
| (6) a. | Maria e mǎrzeliva.
Maria is-PRES lazy
'Mary is lazy.' | CHARACTERISTIC STATE |
| b. | Maria v momenta e mǎrzeliva.
Maria at this moment is-PRES lazy
'Mary is being lazy.' | TEMPORARY STATE |
| c. | Maria sega mǎrzeluva
Maria now be-lazy-PRES
'Mary is being lazy.' | TEMPORARY STATE |

Bulgarian verbs do not need to be marked [+perfective] in the lexicon. Consequently, Bulgarian equivalents to bare infinitives do not entail completion of the event.

- | | | |
|-----|--|------------------------|
| (7) | Ivan vidja Maria da presicĥa ulicata
Ivan saw Maria to cross street-DET
'John saw Mary crossing the street.' | NO COMPLETION ENTAILED |
|-----|--|------------------------|

Thus, Bulgarian and English exhibit a contrast in the present viewpoint aspect (Smith 1997). The Bulgarian present tense neutrally expresses simultaneous events and states; in order to denote habitual events, adverbials (e.g., *every day*) or habitual context are needed.

4. The learning task

The research question this study asks is whether learners are aware of the simple and progressive aspect semantic entailments. The learning task of

Bulgarian speakers is, generally speaking, acquiring the functional category of AspP in English (grammatical, viewpoint aspect) with all its semantic entailments. In particular:

- 1) Learning that all English eventive verbs are marked in the lexicon with a [+perfective] feature and have to check it in the functional category AspP, consequently, English bare verbs denote a closed event;
- 2) Learning that the present tense in English is associated with a generic operator, checked in the same functional category;
- 3) Learning that the progressive morphology associates the continuous interpretation with the processual part of the event, leaving its eventual closure unspecified; in other words, learning that progressive morphology is needed for a simultaneous interpretation.

As mentioned above, of these three properties, the second and third are discussed and drilled in language classrooms. The first one, however, is not explicitly taught. I hypothesized that learners will acquire the three properties together, no matter that two of them are taught and one is arguably underrepresented in the input.

5. Methodology

5.1. Participants

A hundred and twelve Bulgarian learners of English took part in the experiment, as well as 24 native speaker controls. Testing was done Iowa City and in Varna, Bulgaria. All participants with two exceptions were students. Their mean age was 18.3 years, and they had all started learning and/or using English for communication after puberty.

5.2. Test Instruments

Part One of Michigan Test was used for establishing the learners' proficiency levels. It consists of a multiple-choice grammatical test, comprising 40 sentences with one blank each. Participants had to choose the appropriate word(s) to fill in the blank, out of four choices. Based on the results of this test, learners were divided into Low Intermediate, High Intermediate, and Advanced groups.

The second task of the study was an Elicited Production task. Participants had to write compositions describing two pictures, designed to elicit present simple and progressive morphology. Lexical items and expressions to use in the compositions were supplied on the test sheet.

Finally, a Truth Value Judgment task (Crain & Thornton, 1998) with written stories was used. 60 story-sentence combinations were arranged in quadruples as follows. The Bulgarian native speakers saw the story in Bulgarian, and the sentence in English.

(8) Example of a test quadruple:

Whenever I decide to go to the seaside, my car breaks down. This happened last year, and the previous one, too. It is such a pain to start fixing the car in the middle of the trip. But I don't like calling for road assistance, I am a self-help guy. Will I be unlucky this year, too?

I am fixing my own car. True False

Whenever I decide to go to the seaside, my car breaks down. This happened last year, and the previous one, too. It is such a pain to start fixing the car in the middle of the trip. But I don't like calling for road assistance, I am a self-help guy. Will I be unlucky this year, too?

I fix my own car. True False

Tony is a good mechanic. However, he rarely gets the chance to show his skills. His mother's car broke down yesterday. He has decided to fix it before school this morning. Look, he is almost late for school.

Tony is fixing his mother's car. True False

Tony is a good mechanic. However, he rarely gets the chance to show his skills. His mother's car broke down yesterday. He has decided to fix it before school this morning. Look, he is almost late for school.

Tony fixes his mother's car. True False

The Research Design of the TVJT was as follows: Condition A included 16 story-sentence combinations with eventive predicates, crossing simple and progressive present tense with habitual and simultaneous context; Condition B included 16 story-sentence combinations with stative predicates; Condition C included 16 story-sentence combinations combining perceptual reports with bare infinitives and *-ing* forms. Condition D comprised 6 true and 6 false distractors. The research design is illustrated in (9).

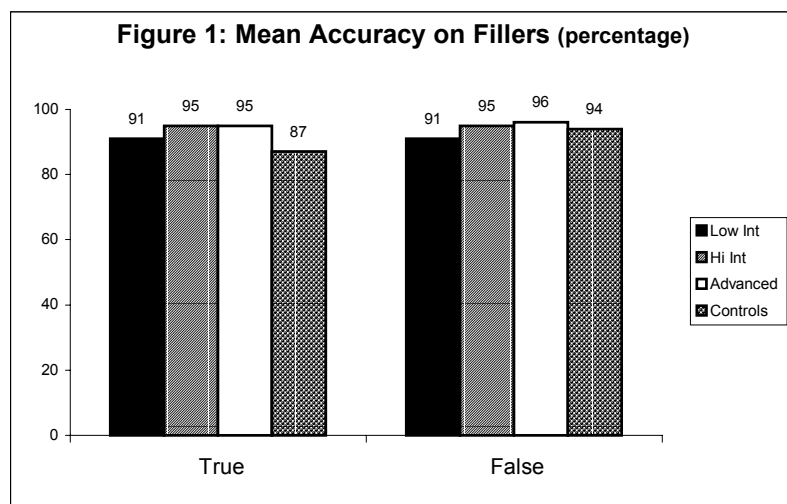
(9)	Eventive Verbs		Stative Verbs		Perceptual Reports		
	3		3				
	3						
	Habitual	Simultaneous	Habitual	Simultaneous	Atelic	Telic	
	3	3	3	3			
	Pro	Simple	Pro	Simple	Bare vb	<i>-ing</i>	Bare vb <i>-ing</i>
	T	F	F	T	F	T	T

5.3. Results

5.3.1 Results on Elicited Production task

All but 11 learners in the Low proficiency group produced target-like inflectional morphology in the present simple and progressive tenses. Of those 11 participants, none omitted inflectional morphology altogether. Error rates vary between 23 and 87% of obligatory contexts.

5.3.2. Group Results on the Truth Value Judgement task



All groups were roughly equally accurate on the fillers, and there is no effect of proficiency level in the data. Thus, one can be certain that the subjects were paying attention and are capable of fulfilling the requirements of the test. All further differences are due to the groups' different knowledge of aspectual tense properties.

The rest of the data were subjected to a repeated measures ANOVA, with group as between factor and condition (A, B, C), truth (T, F) and Aspect (simple, progressive) as within factors. Table 1 summarizes the results. The lack of significant effect for truth ($p = .1$) indicates that participants were not biased towards a True answer.

Table 1: Statistics of Difference in Experimental Conditions

Effects and Interactions	<i>F</i>	<i>df</i>	<i>p</i>
Group	5.21	2, 134	.002*
Condition	4.16	2, 134	.017*
Truth	2.56	1, 134	.1
Aspect	58.46	1, 134	.0001*
Condition x Truth	16.46	2, 133	.0001*
Condition x Group	2.89	6, 268	.009*
Aspect x Group	2.02	3, 134	.12
Truth x Group	9.1	3, 134	.0001*
Condition x Aspect	17.24	2, 133	.0001*
Aspect x Truth	.000	1, 134	.99
Cond x Asp x Truth x Group	2.94	6, 268	.009*

* significant at the $p < .05$ level

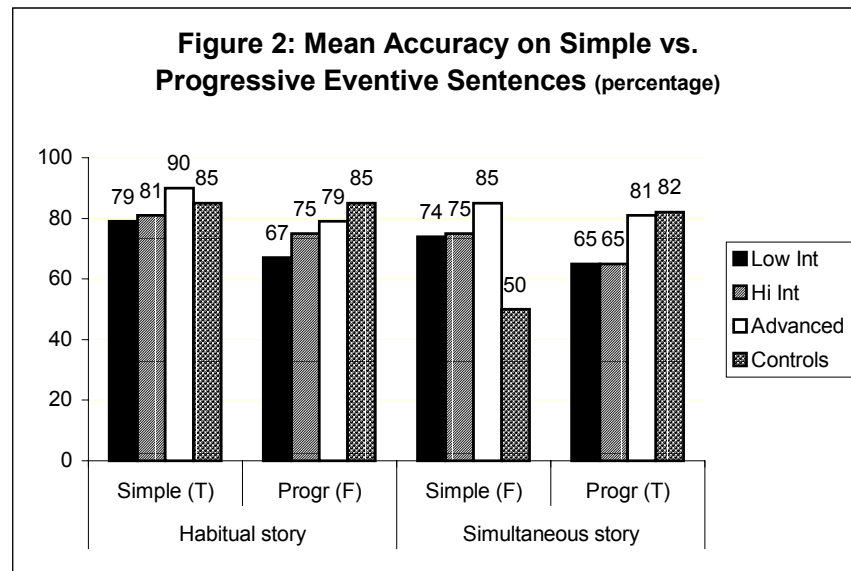


Figure 2 presents the mean accuracy (in per cent) on eventive sentences. In this condition, there were significant effects of story (habitual vs. simultaneous context) and aspect (simple vs. progressive). There was no effect of group. The unexpected finding is the low accuracy (50%) of native speakers on the

combination of simultaneous story and simple present tense sentence. This goes against the predictions of the literature on English grammatical aspect, and is most probably an effect of the particular test. Recall that the English simple tense has another, restricted reading usually called “reportive present” or “commentator’s present”. This reading can be found in stage directions, in radio and television sports commentaries and the like, where an observer describes a sequence of events simultaneous with the speech time. The native speakers participating in this experiment are clearly accessing this restricted reading in half of their answers.¹ Note also that none of the learner groups are aware of this reading.

Figure 3 presents the mean accuracy (in per cent) on stative sentences. There were significant effects of story (habitual vs. simultaneous) and group. There was no effect of aspect (simple, progressive).

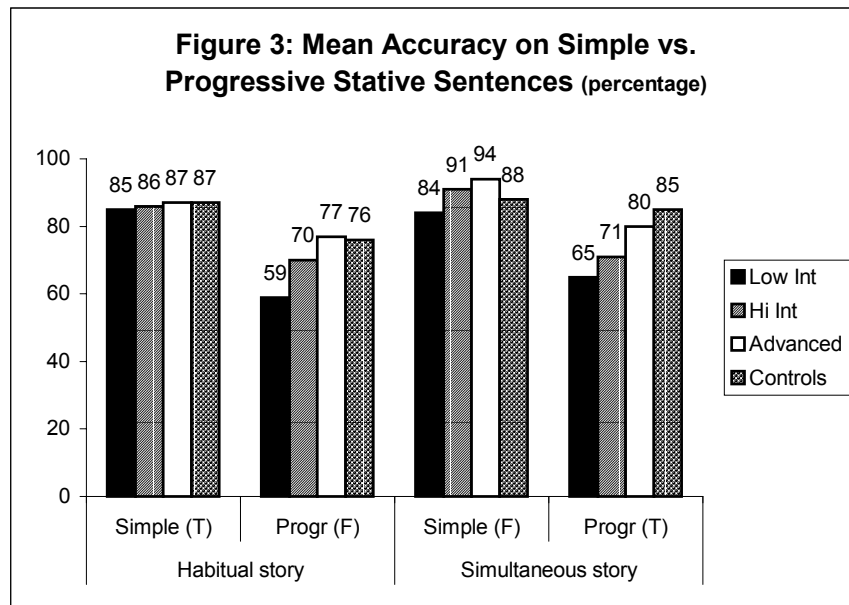
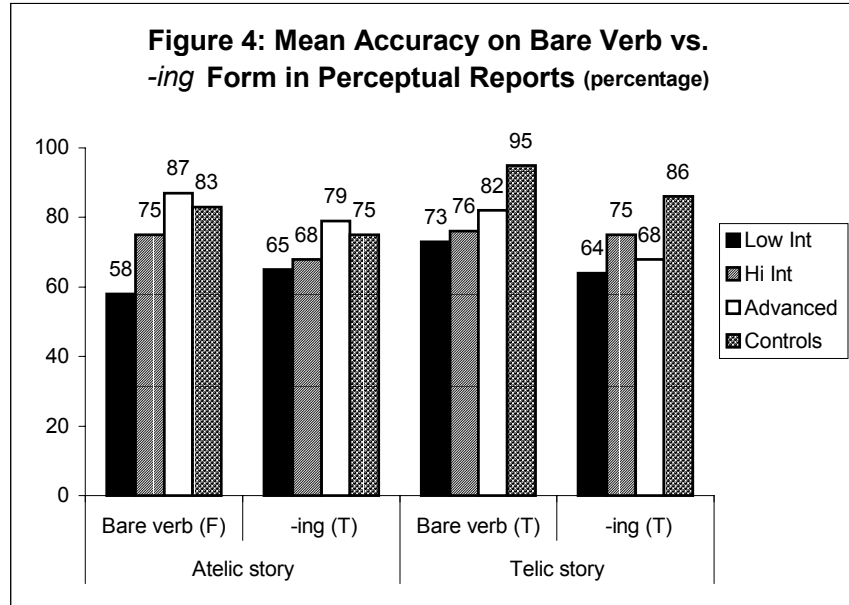


Figure 4 presents the mean accuracy on bare verbs versus *-ing* forms combined with telic or atelic context. The most significant finding is reflected in the first group of columns. Advanced learners are even more accurate than the native speakers in their knowledge that an English bare verb denotes a complete event, and consequently is incompatible with an atelic story. Note also that both native speakers and advanced learners prefer to combine telic stories with a bare verb form, although the *-ing* form is not ungrammatical. In other words, both groups focus on completion in the context of a telic event. There was a significant effect

of group, but no significant effects of story (telic, atelic) and aspect (simple, progressive).



5.3.3 Individual Results on the Truth Value Judgement task

3 out of 4 (75%) correct answers was the cut-off point for accepting that a participant is accurate on a certain construction. Tables 2 – 4 present individual accuracy on the three experimental conditions.

Table 2: Individual Accuracy on Simple versus Progressive Eventive Sentences (percentage in brackets)

Group	Simple-HAB	Progr-HAB	Simple-SIM	Progr-SIM
Low (n=32)	24 (75%)	18 (56%)	20 (63%)	17 (53%)
High (n=41)	34 (83%)	30 (73%)	30 (73%)	24 (59%)
Adv (n=39)	36 (92%)	27 (69%)	33 (85%)	30 (80%)
Contr (n=24)	21 (88%)	19 (79%)	9 (37%)	19 (79%)

Table 3: Individual Accuracy on Simple versus Progressive Stative Sentences (percentage in brackets)

Group	Simple-HAB	Progr-HAB	Simple-SIM	Progr-SIM
Low (n=32)	32 (100%)	19 (59%)	29 (90%)	20 (63%)
High (n=41)	40 (98%)	28 (68%)	41 (100%)	32 (78%)
Adv (n=39)	37 (95%)	31 (80%)	39 (100%)	34 (86%)
Contr (n=24)	24 (100%)	21 (87%)	24 (100%)	19 (79%)

Table 4: Individual Accuracy on Bare Verb versus *-ing* Form in Perceptual Reports (percentage in brackets)

Group	Bare-ATEL	<i>-ing</i> -ATEL	Bare-TEL	<i>-ing</i> -TEL
Low (n=32)	14 (44%)	20 (62%)	23 (72%)	19 (60%)
High (n=41)	34 (83%)	25 (61%)	22 (53%)	32 (78%)
Adv (n=39)	36 (92%)	32 (82%)	31 (80%)	25 (64%)
Contr (n=24)	20 (80%)	20 (80%)	24 (100%)	21 (84%)

Individual results roughly follow and confirm the group accuracy percentages.

6. Discussion and Conclusion

Results on the Elicited Production task show that all learners are aware of the functional morphology signaling present simple and progressive tense in English. 89% of all participants were target-like in their use of *-s* and *-ing* endings. The rest of the learners demonstrated some omissions of inflectional morphology, but no errors of commission. This is hardly surprising since present inflectional morphology is the first grammatical feature learners of English in an institutional setting face from the start. Thus, we can safely assume that all participants in the experimental study had already engaged the functional category AspP in their IL grammar. However, learning a language crucially involves mapping the semantic features of target FCs onto their grammatical (morpho-syntactic) encoding. The question, then, is whether knowledge of inflectional morphology translates into knowledge of semantic properties.

Let us summarize the findings of the Truth Value Judgement task. Bulgarian advanced and high intermediate learners are quite accurate in their knowledge that, in the case of eventive predicates, progressive morphology encodes an ongoing event, and present simple morphology encodes a habitual event. This knowledge does not come from their native language. The contrast between eventive and stative verbs is also part of their IL grammar. They are aware of the fact that the present simple tense in English *can* encode characteristic states. They are also highly accurate in their rejection of a simple sentence and a temporary state combination (see Fig. 3), thereby demonstrating knowledge of the contrast between sentences like *She is lazy* vs. *She is being lazy*.

Finally, advanced and high intermediate learners perform accurately in rejecting bare verb and atelic story combinations. In other words, they are aware

of the fact that English bare verbs denote only closed events (see Fig. 4.) They also follow native speakers in their preference for combining bare verbs with telic stories, thus indicating that the endpoint of the event and not its progress is salient for them.

Clearly, the semantic properties of the functional category AspP investigated in this study have been acquired successfully by Bulgarian learners of English. This finding argues against predictions of, for example, *the failed features hypothesis* of Hawkins and Chan (1997), whereby the IL grammar is restricted only to formal features transferred from the L1. Furthermore, while the aspectual properties of present simple and progressive English verbs are explicitly taught in language classrooms, the semantic property of bare verbs encoding only closed events is not explicitly taught and is arguably very rare in the input to the learners. Thus, the present findings suggest that properties of FC underrepresented in the input and not transferred from the native language are accessible to second language learners.

An interesting question remains to be investigated: whether learners who have not acquired the inflectional morphology associated with a functional category are also aware of its semantic properties (see Montrul and Slabakova, to appear, for some possible answers.) Unfortunately, this study could not address this question, since a very small number of participants had problems with the morphology. However, even the lowest proficiency learners demonstrate comparatively high accuracy on the crucial aspectual properties of AspP. This result is compatible with a conclusion that morpho-syntax and semantics of a FC are engaged at the same time in the IL grammar. Once a FC has been engaged in the grammar, morpho-syntax and semantics operate successfully in computing linguistic meaning and comprehending language.

Endnotes

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1. To the best of my knowledge, this meaning of the present simple tense is still awaiting its semantic and syntactic analysis.

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