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Acquisition of Structures at Syntax-Discourse Interface: Post-Verbal Subjects in L2 English

Abstract

The present study explores the acceptability of postverbal subjects by intermediate and advanced L2 English learners with L1 Macedonian, a pro-drop Slavic language with rich verbal morphology. The two languages differ regarding the distribution of subject-verb inversion (SVI): in Macedonian, it is a default pattern in thetic sentences, but English severely restricts SVI to specific contexts. To test the hypothesis that Macedonian learners encounter difficulties in acquisition of English SVI because of crosslinguistic influence, a grammaticality judgement and correction task was administered to two groups of Macedonian learners of English and a control group of English native speakers. The results revealed that L2 learners find English VS sentences and VS + *it*-insertion examples more acceptable than the native speakers, but the performance of the advanced group is closer to the native speakers than to the intermediate learners. Both non-native groups accept more readily inappropriate English sentences that conform to typical L1 structures.

Keywords: subject inversion, information structure, word order, interface hypothesis

This paper reports the findings of the investigation into the acquisition of post-verbal nominal subjects by L2 English learners with L1 Macedonian. We examine the presence of inverted subjects in the interlanguage of Macedonian learners of English. Although both languages typologically belong to SVO languages, English has a rigid word order which restricts SV inversion to specific contexts. In Macedonian, a Slavic language with rich verbal morphology

and null referential subjects, the word order is more flexible. The mapping of arguments to syntactic positions is conditioned by the universal cognitive principle that old information precedes new information (Comrie 1989, p. 127) to facilitate its processing. This results in a much higher frequency of postverbal subjects in Macedonian, compared to English (Mitkovska & Bužarovska, 2023).

In view of these cross-linguistic differences, the paper aims to determine whether Macedonian learners of English at intermediate and advanced proficiency levels have become aware of the subject-verb inversion restrictions in English. Assuming that L2 learners rely on pragmatic knowledge from their L1 system in building their interlanguage (Gómez Soler, 2013), we attribute the presence of inappropriate postverbal subject constructions in the English interlanguage of Macedonian L1 learners to cross-linguistic influence from L1. At lower proficiency stages, learners experience syntactic deficiencies related to subject realization. They tend to transfer null and postverbal subjects relying on the information structure of such constructions in L1 (cf. Oshita, 2004; Lozano & Mendikoetxea, 2010; Judy & Rothman, 2010; Prentza & Tsimpli, 2013; Mitkovska & Bužarovska, 2018, among others). Since Macedonian requires postverbal subjects, learners of English expand the use of VS in contexts unacceptable for native speakers following the pragmatically-driven word order of their L1. Partial overlap between parallel structures in L1 and L2, as is the case with VS, leads to the overuse of postverbal subjects in the initial stages of L2 acquisition because learners assume complete equivalence between these structures. This is especially true if the L1 structure has a broader functional scope compared to the corresponding L2 structure. Once learners notice the divergence, which typically occurs when they reach a more advanced level of L2, the tendency for overgeneralization of the syntactic rules of L1 subsides and learners approximate native speakers' use of this structure.

The examination of students' academic works in English and in the Macedonian English Learner Corpus (MELC) shows that L1 Macedonian learners of English encounter difficulties with the English word order. The attested atypical VS structures are presented below: type (a) contains intransitive unaccusative verbs (1 and 2) and transitive verbs in passive voice (3), type (b) contains transitive verbs in active voice (4), while in type (c) a dummy *it* is inserted in subject position (5 and 6). The use of SVI in passive voice sentences dominates, very often with an inserted dummy *it*.

(a) Adjunct + VS
    (1) On the position of post-modifiers **can stand** *either phrases or clauses.*
    (2) A week before in my class **came** *a new girl by name Mila.*
    (3) In both texts **is also raised** *the question of directionality in conversion.*

(b) (Adjunct) + OVS
    (4) The most important role in producing a vowel **has** *the tongue.*

(c) (Adjunct) + it + VS
    (5) *It* **should be used** *"these"* because the noun is in plural.
    (6) I promise that this time *it* **won't happen** *anything that will postpone our deal.*

In this study we set out to examine intermediate and advanced level learners' acceptance rate of the attested types of deviating sentences. We attempt to answer the following research questions:

1. Are Macedonian learners of English sensitive to the constraints of subject-verb inversion (SVI) in contemporary English in the same way as native speakers (NS)?
2. Do these learners understand that the pronoun *it* cannot fill the subject position if the subject NP is postposed?
3. Is there a difference between the advanced and the intermediate learners in these respects?
4. In what ways does the learners' L1 affect their judgement of such constructions?

The paper is organized as follows: the next section introduces the theoretical prerequisites of our investigation based on the contrastive analysis of SVI in the two languages. The third section briefly explains the research methodology applied in the analysis of obtained results which are presented in the "Results" section of this paper. The following section is devoted to the discussion of the results. The last section summarizes the findings of the investigation and draws final conclusions.

Theoretical Background

Subject-Verb Inversion in English and in Macedonian

From a typological perspective, subject-verb inversion is a syntactic manifestation of theticity realized by presentational constructions and event reporting sentences. In "presentational sentences proper the newly introduced element is an entity (a discourse referent), while in event-reporting sentences it is an event, which necessarily involves an entity" (Lambrecht 1994, p. 144). This discourse function triggers a wide focus reading in presentational constructions reflected in the following constituent order: the adverbial carrying presupposed

information occupies the sentence-initial position, followed by the verb and the focused subject. By placing the subject in focus, the speaker asserts the presence of a discourse-new subject referent at a given location. The fronted adverbial, known as stage topic (Erteschik-Shir, 2007; Lahousse, 2007), sets the spatio-temporal frame for the appearance or existence of the new participant on the stage of discourse. Stage topics may be covert when contextually understood, but without them the whole sentence is in focus. No inversion occurs in English event-reporting sentences with sentence focus information structure.

Languages display different levels of sensitivity to the discourse-syntactic and lexicon-syntactic constraints that regulate word order. In generative approaches these variations are linked to the so-called null subject parameter (NSP). It is claimed that languages that allow null pronominal subjects (e.g., Italian, Spanish, and Greek) exhibit fewer restrictions on SVI than non-null subject languages, such as English and French (e.g., Teixeira, 2018; Agathopoulou, 2009; Lozano & Callies, 2018; Lozano & Mendikoetxea, 2008). English and Macedonian are positioned at the opposite ends of this typological continuum: English rigorously sanctions the omission of referential subject pronouns[1] and permits non-referential dummy subjects. Macedonian, on the other hand, disallows dummy subjects while the distribution of referential pronominal subjects is entirely regulated by discourse principles (Mitkovska & Bužarovska, 2018). Consequently, SVI, though encountered in both languages, displays important differences in the analysis of parallel texts (Macedonian-English and English-Macedonian).[2] Research results reveal sharp distributional differences between the languages: Macedonian texts contained 5.23 examples of SVI per 1000 words compared to only 0.46 examples in corresponding English texts. This testifies to a considerably wider distribution of this phenomenon in Macedonian than in English. The infrequent use of SVI in English was confirmed in corpus studies (Biber et al., 1999). Yet, the analysis of the attested Macedonian and English clauses with SVI showed that they share some structural properties. Thus, proportionally, SVI structures in both languages are more often encountered in main clauses headed by an element which is otherwise placed towards the end within predicate focus. These elements usually code locative circumstances (stage topics), while other types (temporal, manner, instrument or reason) are seldom found in both languages.

It has been noticed that the discourse function of the presentational construction imposes semantic constraints on the choice of verbs, as well as on the length of the inverted subject. Studies on the English SVI show that it overwhelmingly occurs with unaccusative verbs. Informationally "light" unergative

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[1] Except in some colloquial registers (Haegeman, 2007).
[2] This research was done by Mitkovska and Bužarovska on selected texts in two written genres: prose fiction and academic texts, translated in both directions (Macedonian to English and English to Macedonian).

verbs with impoverished semantics are admitted in certain contexts (Levin & Rappaport Hovav, 1995, pp. 251–260). These verbs lose their noteworthiness and informativeness in contexts in which their relation with the subjects is highly predictable (Mendikoetxea, 2006; Teixeira, 2018). It should be noted that the same verb may oscillate between SV and VS order depending on the communicative goal of the sentence, namely whether it expresses a thetic or a categorical statement.[3]

Regarding the type of verb in the predicate, Mitkovska and Bužarovska (2023) found that in both languages SVI occurs with copula verbs, intransitive verbs and passivized transitive verbs.[4] SVI with these three verbal forms are not equally distributed in the two languages. Thus, inversion with the copula *be*[5] is more frequent in English, while SVI clauses with passive verb forms dominate in Macedonian (both *be* and reflexive *se*-passives). Similar disproportion characterizes the distribution of intransitive verbs in SVI structures: 73.36% of the Macedonian examples contain intransitive verbs compared to 38.46% in English. The English construction typically limits the range of verbs to the "core" unaccusatives, that is, verbs of existence, appearance, and directed motion which imply existence or appearance at a location (*lie*, *stand*, *appear*, *come*). This constraint has been pointed out in the literature (Levin & Rappaport Hovav, 1995; Birner, 1995; among others), along with the conditions for SVI occurrence with change of state unaccusative verbs and "core" unergatives (Teixeira, 2018, pp. 67–81). In Macedonian, the construction tolerates all types of unaccusative verbs (including decausative and pseudo-passive constructions) and even core unergative verbs. This has also been observed in Italian and Spanish, which use inversion as "focalisation device" with all verb types (Lozano & Mendikoetxea, 2008; Lozano & Callies, 2018).

In both Macedonian and English, the discourse-new inverted subjects in the examined texts refer either to brand new or accessible participants from the previous discourse (as claimed for English, e.g., in Birner, 1994). However, the syntactic complexity of the subject does not seem to impact equally the inversion in the two languages. Only a third of the inverted subjects in the Macedonian sample comply with the end-weight principle, which indicates that this principle is not decisive in triggering SVI in this language. For English, corpus studies have shown that in 70–80% of the examples the inverted subjects are heavy (Prado Alonso, 2011, p. 79).

The distributional constraints of SVI in English in comparison to Macedonian (and other languages with a flexible word order) may be attributed

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[3] Categorical statements have a topic-comment information structure.

[4] Transitive verbs are allowed in their passive form in English (Teixeira, 2018, p. 77).

[5] The copula *be* has been reported to be the most frequently occurring predicate in the English locative inversion sentences (e.g., Teixeira, 2018, p. 67; Biber et al., 1999, p. 954; Levin & Rappaport Hovav, 1995, p. 240).

to its pragmatic function. In English, SVI creates rhetorical effects in narrative and descriptive discourse. These effects are described under different terms: camera movement (Dorgeloh, 1997, p. 104), vividness (Prado-Alonso, 2011, p. 55), immediate observer effect (Kreyer, 2006), dramatic effect (Quirk et al., 1985, p. 522), suspense and tension effects (Chen, 2003, p. 234). Mitkovska and Bužarovska (2023) attribute the distributional contrast between Macedonian and English SVI to the differences in the discourse-pragmatic properties of SVI in the two languages, arguing that in Macedonian VS is the default order for presentational function, characteristic of thetic statements, while in English this discourse function is restricted by the rigid SV(O) word order. The small number of English presentational constructions is stylistically marked, occurring in special discourse contexts. In unmarked uses their translational equivalents lack SVI, as shown in examples (from Macedonian prose) with an unaccusative verb (7), *se*-passive (8), and an ergative verb (9).

(7) Na edna leska **stoeše** *bel polžav.*
     '*A white snail* **was sitting** on a hazel tree.'

(8) Od nivnata vreva, […] ne **se sluša** ni *telefonot*, ni *domofonot*.
     'Because of their racket, […] neither *the telephone*, nor *the speaker-phone* […] **can be heard**.'

(9) Po sviocite **frčat** *koli* so mladi majki izbrzani od rabota. Preku uličkite **pretrčuvaat** *mački* […].
     '*Cars* with young mothers hurrying from work **speed** around the curves. *Cats* **run** across the alleys […].'

The above contrastive analysis leads to the following conclusions. The application of SVI in English is highly limited in comparison to Macedonian. In English, theticity is coded only in presentational constructions which are stylistically marked and restricted to special contexts. In Macedonian, SVI in presentational constructions, as a default word order, is unable to produce dramatic effects. Therefore, we assume that the differences in the functional scope of SVI and its rhetoric load may affect the acquisition of English SVI by Macedonian learners.

Second Language Acquisition Research on Subject—Verb Inversion

Acquisition of the null subject and related structures, including subject inversion, has received a great deal of attention in the literature. In some frameworks VS structures are considered to belong to interface phenomena which

result from the interaction between syntax and discourse. Regarding language acquisition, especially SLA, the syntax-discourse interface is claimed to be a problem area even for near-native speakers (Teixeira, 2018, p. 152). Numerous studies investigating such features use the Interface Hypothesis to account for the prolonged developmental difficulties in the acquisition of L2. The Interface Hypothesis (IH) claims that properties resulting from the interaction of grammar internal domains (e.g., syntax-lexicon) with grammar external domains (e.g., syntax-discourse interface) are more difficult to acquire than the properties within the grammar itself. Moreover, properties depending on the interaction between syntax and grammar-external domains (discourse and pragmatics), can never be fully acquired due to processing limitations. Therefore, they display permanent optionality (Tsimpli & Sorace, 2006; Sorace, 2011), that is, they cannot be completely acquirable in a second language, in contrast to "narrow grammar" structures. Consequently, developmental problems manifested at the syntax–discourse interface are not attributed to formal features but to "inefficient processing strategies to coordinate syntactic and pragmatic knowledge" (Sorace & Filiaci, 2006, p. 345).

The IH was tested in a number of studies involving interface features. Indeed, studies focusing on distribution of pronominal subjects and SV inversion in the interlanguage of advanced Spanish and Italian learners with English L1 (non-null-subject L1 > null-subject L2) suggest that morphosyntactic properties are acquired before discourse properties and the properties interacting with discourse create persisting difficulties (Lozano, 2006, 2014; Belletti et al., 2007). However, experimental studies involving the reverse direction of acquisition: null-subject L1 > non-null L2 (English) could not give definitive answers whether interface properties are ultimately acquirable in L2 (Prentza & Tsimpli, 2013). They suggest that the acquisition of syntactic properties depends on the directionality of acquisition, that is, whether L1 constitutes a subset or a superset in comparison to L2 for a given property (Judy & Rothman, 2010; Judy, 2011).

Research findings on SVI show that advanced speakers of null-subject L1 allow inversion structures with frequent unaccusative verbs predominantly with structurally complex subjects (Oshita, 2000; 2004; Prentza & Tsimpli, 2013). Some studies attribute an equal role to the three interfaces (lexicon-syntax, syntax-discourse, and syntax-phonology) in production of VS structures in L2 English (Lozano, 2006; Lozano & Mendikoetxea, 2008, 2010), although the impact of subject heaviness as a feature of the syntax-phonology interface has not been fully confirmed (Agathopoulou, 2014). While acknowledging that VS with unaccusatives is conditioned by discourse factors, such as the principle of end focus, it is not always clear what is more prevalent in triggering inversion in L2 English. It is suggested that "the syntax of subjects" is more difficult to acquire in null subject L1–L2 English pairings as they cause more devel-

opmental problems (Teixeira, 2018, p. 174). These problems are manifested in the overuse of SVI, as observed by Lozano and Mendikoetxea (2010) regarding Spanish learners of L2 English and Prentza (2014) for Greek learners. Similar problems are detected in Macedonian learners.

We think that the optionality of VS/SV order in presentational constructions can be explained if the notion of "discourse constraints" subsumes stylistic choices between alternative word orders. Authors of various texts, especially fiction, subjectively decide whether to choose one of the alternatives. It has been noted that even native speakers of English disagree on particular uses of SVI (see Agathopoulou, 2014). These unwritten rules of stylistically-based syntactic choice of otherwise infrequent VS structures are not explicitly taught in schools. Their rare use and paucity of input are factors that contribute to the developmental difficulties (Slabakova, 2015),[6] which explains why their distribution cannot be fully acquired by advanced or near native learners.

Hence, it can be assumed that these problems may not stem from "processing inefficiencies," as the IH predicts, but from restricted distributional properties of English VS structures due to their typological differences and predominantly marked stylistic status. The former factor causes syntactic problems (Prentza & Tsimpli, 2013) which lead to transfer. Thus Prentza (2014, p. 1775) argues that "L1 transfer in the process of L2 acquisition amounts to an incorrect application of L1 syntactic properties in structures where L1 and L2 abstract syntactic features differ." Similarly, Lozano and Mendikoetxea (2010) suggest transfer and input as possible explanations for difficulties in acquisition of subject inversion.

Drawing on the ideas presented above, we assume that L2 learners with null-subject L1 (Macedonian) use and accept postverbal subjects inappropriately due to crosslinguistic influence of discourse-syntax properties of SVI in L1. This influence is manifested at two levels: as deficits regarding the "syntax of subject" at earlier stages of acquisition (*it*-insertion) and as discourse-pragmatic deficits at advanced stages (reflected in SVI overproduction).[7] Failure to acquire the stylistic-pragmatic functions of inversion in English causes difficulties in discriminating the acceptable from unacceptable discourse contexts.

To test the main hypothesis that intermediate and advanced Macedonian learners of English overuse SVI in their L2 because of the wider use of SV inversion in their L1 we put forward the following sub-hypotheses:

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[6] Slabakova (2015) challenges the IH, arguing that the only unattainable properties at syntax-discourse interface at advanced level are those that are different in L1 and L2, and that are underrepresented in the input.

[7] That the acquisition of purely syntactic properties precedes the acquisition of discourse constraints on syntax is shown in some studies referred to in Teixeira (2018, p. 175).

1. Native speakers' acceptance of VS structures is lower than that of the learners of both levels, but the advanced learners perform closer to the native speakers than the intermediate ones.
2. Native speakers do not accept the inserted *it* in VS constructions in contrast to Macedonian learners.
3. Acceptance is generally lower for sentences where the post-verbal subject is given/old information.
4. The least acceptable examples are those with short post-verbal subjects, which violate the end-weight principle.

Research Methodology

The participants of this study formed an experimental group of L1 Macedonian learners of English and a control group of English native speakers. A grammaticality judgement and correction task (GJCT) was administered to both groups in order to test the respondents' acceptance of post-verbal subjects in English. The Macedonian-speaking L2 English learners were 138 university students of English, aged between 18–28 years. Of those, 66 students were at an intermediate level of L2 English, comprising level B1 and B2 according to The Common European Framework of Reference for Languages (CEFR), and 72 students at an advanced to proficiency level, comprising CEFR's C1 and C2. Students were tested by means of a short placement test used for determining the proficiency level of the Macedonian L2 English learners participating in data collection for MELC. One hundred adult native speakers of English (66 American, 23 British, 8 Canadian, 3 Australian) were also asked to complete this test so that a comparison could be drawn between the results produced by the native speakers' and the students' judgement regarding the acceptability of the test items.

The GJC task consisted of 30 sentences, of which the sentences with SV inversion (as examples 1 to 4 above) and SV inversion with *it*-insertion (examples 5–6) were the central focus of the investigation. In designing the GJC task, we tried to make it representative of the types of VS examples attested in students' written works. We tried to balance the choice of VS sentences in GJC task considering the semantics of their predicates: they are represented by unaccusative verbs (*come*, *appear*, *happen*, *belong*), copular predicates, transitive verbs in passive and one in active voice. In terms of information structure, the majority of the VS sentences express thetic statements with the subject in focus; for sentences in which the subject referent is given information (sentence 8 in Table 2) a preceding sentence is provided. VS sentences with an expletive

it placed in initial position feature prominently in students' works, which was the reason for their inclusion in the task. They are referred to as *it*-insertion (cf. Lozano & Mendikoetxea, 2008, 2010; Agathopoulou, 2014). Two more types of sentences were chosen for the task: sentences with non-referential null subjects (10) and sentences with referential null subjects (11). The former type was meant to check whether there is a correlation between null subjects and *it*-insertion in VS constructions, while the latter served as distractors.

(10) For pronunciation _ is very important to practice as much as we can.

(11) I have classes in the morning so _ could come at two o'clock.

In addition, two types of grammatically correct sentences were included: SV sentences with unaccusative and passive verbs (12) and SV sentences with non-referential *it* (13).

(12) Suddenly two faces appeared at our window.

(13) In English it isn't always easy to know how to pronounce the words.

The following research procedure was applied: respondents were instructed to judge the sentences as 'correct' or 'incorrect' and then explain or correct the error in the allotted time (20 minutes). The answer was counted as 'incorrect' if the error they indicated was related to subject position, subject omission or unnecessary *it*-insertion.

In cases when the respondents specified other reasons for their judgement of a sentence as 'incorrect' (articles, tense, prepositions, etc.) the answer was counted as 'correct.' For each sentence, scores (expressed in terms of percentages of the respondents' judgements of a sentence as 'correct') were calculated and compared between the two groups (students and native speakers) and between the two learner levels within the students' group.

Results

Overall Results

The overall results are presented in Table 1. Percentages indicate attained levels of acceptance of the following structures examined in this study: (a) sentences with VS word order, (b) sentences with VS order and *it*-insertion,

(c) correct task sentences with SV word order, and (d) sentences containing a required non-referential *it*. Native speakers of English largely rejected the VS sentences, while about 60% of intermediate learners did not find them unusual. The acceptance level of the advanced learners, which scored somewhere in-between the two groups, corroborate the sub-hypothesis 1. Indeed, the NS' acceptance of VS structures was lower than that of the learners and intermediate students were more likely to accept such structures than the advanced students.

The results related to *it*-insertion support the sub-hypothesis 2 even more strongly. NS demonstrate a strong rejection of inserted *it* in VS constructions. The score of 3.20% acceptance could be caused by oversight or fatigue. At intermediate level, the acceptance rate of inserted *it* is quite high (64.84%), as expected, but this rate drops significantly at the advanced level (24.16%), signaling that these learners have mostly overcome the *it*-insertion developmental phase.

Table 1

Overall Results

Types of constructions in the GJCT	**B** *n* = 66	**C** *n* = 72	**NS** *n* = 100
	%	%	%
VS	62.12	30.75	12.71
VS with *it*-insertion	64.84	24.16	3.20
SV with unaccusatives and passives	96.21	99.30	98.75
SV with expletive and anticipatory *it*	93.56	98.26	96.25

Key: B – Macedonian students at intermediate level of English proficiency, C – Macedonian students at advanced level of English proficiency, NS – Native speakers

Single factor ANOVA results show a significant difference of $p < 0.002$ between the three groups for VS, whereas for VS with *it*-insertion, there was a significant difference of $p < 0.000$. Based on one-tailed *t*-test, the difference between the intermediate and advanced learners for these two variables together is much greater than the difference between advanced learners and NS. More specifically, the test revealed significant pairwise differences of $p < 0.004$ between groups B and C, and $p < 0.038$ between groups C and NS.

Results obtained for correct sentences present a different picture. Even though a large number of learners did not correct the less acceptable VS constructions, most of them accepted the SV sentences with the same type of verb forms. Sentences with non-referential subjects were also well accepted. In both types of sentences, the learners did not differ significantly from the NS group.

Results for SV Inversion

The acceptability results obtained for each of the seven task sentences with VS word order are presented in Table 2. In this type of constructions, all groups show different levels of acceptance for the individual sentences, as they differ regarding the verb meaning and form, the information status and the length of the postposed subject NP.

Table 2

Results for Sentences with SV Inversion*

GJCT sentences	**B** $n = 66$		**C** $n = 72$		**NS** $n = 100$	
	Nr	%	Nr	%	Nr	%
24. Later <u>came</u> **a world of disorder**, during and after the First World War. (unaccusative)	58	87.88	58	80.55	67	67.00
4. In the group of non-finite clauses <u>belong</u> also **the past participle clauses**. (unaccusative)	43	65.15	31	43.50	11	11.00
27. Here we can see that the action is completed and <u>should be used</u> **past simple.** (passives)	45	68.11	20	27.78	4	4.00
30. At the reception <u>are invited</u> **only close family members and some friends.** (passive)	44	66.67	19	26.39	5	5.00
1. In dictionaries usually <u>is given</u> **the class of the word**. (passive)	46	69.70	14	19.44	0	0.00
18. In the production of vowels important role <u>plays</u> **the tongue.** (transitive)	24	36.36	8	11.11	0	0.00
8. This tense is also used for immediate future. In the following examples <u>is illustrated</u> **this function.** (passive)	27	40.90	5	6.94	2	2.00
Total:	287	62.12	155	30.75	89	**12.71**

*Numbers of the sentences in the tables correspond to the numbers they had in the test. The sentences in the tables are ordered according to the C level results from most to the least acceptable.

As shown above, the single factor ANOVA for the overall results revealed a significant difference between the three groups. One-tailed t-test was conducted to examine the difference between the groups. It pointed to a significant difference between groups B and C ($p < 0.009$) and groups B and NS ($p < 0.000$), while the difference between groups C and NS was not significant ($p < 0.097$). This may indicate that advanced level learners have attained native speaker knowledge of the English subject verb inversion structures. However, a careful examination of the data obtained for each sentence reveals that all respondents, including the NS, rated sentence 24 as the most acceptable of all. Although the percentage of acceptance is higher in the learners' groups, the difference rate between the scores of NS and intermediate and advanced learners is much smaller than for the other sentences. This sentence skewed the results and distorted the relations between the groups, especially between the group of advanced learners and NS. Upon removing sentence 24, the significance coefficient increased ($p < 0.007$) indicating a significant difference between these two groups.

Results for SV Inversion + *it*-insertion

The data obtained for the five sentences containing SV inversion + *it*-insertion are presented in Table 3. Results for individual sentences show similar differences as the overall scores, which proved to be statistically significant ($p < 0.000$). While NS almost completely rejected these sentences, a large number of learners accepted them as accurate. The acceptance rate is especially striking in the intermediate learners' group, where all the sentences, except sentence 16, were rated acceptable by 70–80% of the learners. These results were expected in light of the fact that the strategy of *it*-insertion in SV inversion structures was largely noticed in the language of intermediate level learners. In fact, most of our collected examples come from upper-intermediate learners. The high acceptance rate for sentence 9 corresponds to the frequent use of the structure 'it should be used NP' in intermediate students' works.

Advanced learners accepted the VS + *it*-insertion much less frequently than the intermediate ones. At this level, they seem to have come to grips with the use of expletive and anticipatory *it*, feeling more confident of its correct distribution. Intermediate learners' acceptance rates were considerably higher than those of the other two groups. However, the advanced learners' acceptance rate clearly differs from the NS rate, which indicates that some learners are still confused. The one-tailed t-test yielded significant difference between all groups: $p < 0.003$ between groups B and C, $p < 0.006$ between groups C and NS, and $p < 0.000$ between groups B and NS.

Table 3

Results for Sentences with SV Inversion + it-insertion*

GJCT sentences	**B** _n_ = 66		**C** _n_ = 72		**NS** _n_ = 100	
	Nr	%	Nr	%	Nr	%
29. Then in front of us it <u>appeared</u> **a dark creature with red eyes**. (unaccusative)	45	68.11	29	40.28	6	6.00
9. Instead of plural form 'were' it <u>should be used</u> **the singular form 'was'**. (passive)	53	80.3	23	31.94	3	3.00
23. It <u>is quite obvious</u> **the omission of the definite article "the"**. (copula)	50	75.76	20	27.78	6	6.00
19. In both texts it <u>is also raised</u> **the question of definite articles.** (passive)	47	71.21	13	18.05	1	1.00
16. On the second day of my holiday it <u>happened</u> **an accident**. (unaccusative)	19	28.79	2	2.78	0	0.00
Total:	214	64.84	87	24.16	16	3.20

*Numbers of the sentences in the tables correspond to the numbers they had in the test. The sentences in the tables are ordered according to the C level results from most to the least acceptable.

Discussion

The findings of this study indicate that Macedonian learners of English encounter difficulties in acquisition of the English SVI constructions up to high levels of proficiency, thereby confirming our hypothesis that they accept sentences with subject inversion more often than native speakers. Though advanced learners performed better than the intermediate ones, still they differed significantly from the control group of native speakers. Considering the differences between the learners' L1 and L2, we suggest that learners are constrained by the discourse-syntactic rules of their first language. A number of researchers point out that learners' failures in production and reception of SVI (and other Null Subject Parameter properties) are caused by crosslinguistic influence (e.g., Prentza, 2014; Prentza & Tsimpli, 2013) imposed by the syntactic differences between L1 and L2. Lozano and Mendikoetxea (2010) found that Spanish learners produced significantly more ungrammatical postverbal structures than native English speakers. Given that VS sentences occur more frequently in Spanish, these results could be attributed to L1 transfer. However, if that was the only reason learners would be expected to produce many more

incorrect VS sentences. They conclude that the reason why learners cannot fully acquire L2 grammar "may be largely attributed to problems at integrating different types of knowledge at the interfaces" (p. 494).

We assume that Macedonian learners fail to judge SVI sentences correctly because of the differences in their functional scope and rhetoric load in L1 and L2. As observed in the section on subject-verb inversion in English and Macedonian, a number of studies have pointed out the particularly marked nature of the English construction and its restriction to specific contexts (Quirk et al., 1985; Dorgeloh, 1997; Chen, 2003; Kreyer, 2006). Even if all conditions for SVI were met, often it would not be considered fully appropriate.[8] Sentence 24 in the research task was accepted only by 67% of the NS, even though the verb *come* is the second most frequently occurring verb in VS sentences in English, following the copula *be* (Levin & Rappaport Hovav, 1995, p. 240) and the subject phrase is rather heavy.[9] The other unaccusative verb (*belong*) in sentence 4, reached only 11% acceptance. The discrepancy in the learners' judgements is not pronounced. In the advanced group, the acceptance rate is reduced by half (80.55% for 24 vs. 43.50% for sentence 4) and the difference is rather small in the intermediate group (87.88% vs. 69.70). This suggests that a substantial number of learners at B level failed to perceive subtle differences between the SV inversion sentences, since in both sentences inversion would be the more natural word order in their L1.

Another strong evidence for L1 influence is the use of VS with passive sentences. Though they are possible in both languages,[10] Macedonian passives are more prone to presentative interpretation: the *be*-passive is rather resultative and the *se*-passive has mainly agent defocusing functions. NS generally rejected VS in passive constructions even when the dislocated subject was quite long and complex, as in sentence 30. Contrary to the NS' judgement, about 65–70% of the intermediate and about 20–30% of the advanced learners rated most sentences with passive verbs acceptable, irrespective of their length (sentence 30) and complexity (sentence 27). However, the rates for sentence 18, containing subject—direct object inversion, suggest that learners do not treat active transitive constructions in the same way as intransitive and passive ones, demonstrating lower acceptance (intermediate 36.36%, advanced 11.11%), though this construction is also possible in their L1. The total rejection of this sentence by NS indicates stronger typological divergence between the two languages, which reduces the L1 influence effects.

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[8] According to Kreyer (2006), the language user as a creative writer (apart from syntactic complexity and information status) influences the use of SVI in English.

[9] Moreover, the sentence-initial adverb (*later*) resembles enumerative listing conjuncts, which trigger SV inversion and usually co-occur with the copula *be, go,* and *come* (Prado-Alonso, 2011, p. 140).

[10] According to Birner (1995), this is quite rare.

It should be noted, though, that sentence 8, where the subject referent is anaphorically related to the previous discourse, was accepted by fewer learners (40.9% intermediate and 6.94% advanced). This evidence proves the sub-hypothesis 3 that learners are sensitive to the information status of the inverted subject. Information-packaging is an important aspect of the English SVI (Birner, 1994; 1995), but the decisive factor for these results seems to be the fact that the discourse properties regulate the Macedonian VS structures. This indicates again a strong L1 influence on the learners' acceptance of the English SVI. Furthermore, the length of the inverted subject does not seem to play an important role: sentence 30, in which the inverted subject is rather long, was deemed slightly less acceptable than sentence 27, with a two-word subject (*past tense*). This goes counter to the sub-hypothesis 4. The advanced learners' results follow the same pattern, though at much lower degree.

Figure 1

Results for VS Sentences in the Three Groups of Respondents
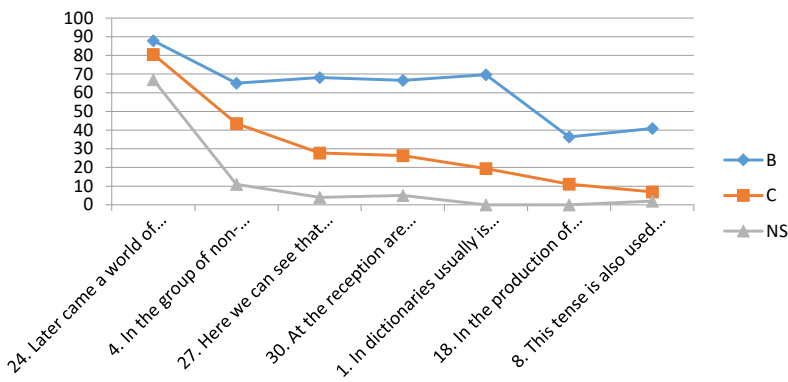
Regarding L2 development, our results confirm our sub-hypothesis concerning improvement in the advanced learners' group. The diagram in Figure 1 shows graphically that the advanced group's acceptance rates were in most cases closer to the NS' scores than to the intermediate learners' ones. However, we observe a noticeably higher level of acceptance in this group, compared to the NS' rates. Still, we cannot prove whether native-like attainment is constrained by the interplay of discourse-syntactic factors, since our advanced learners were not near-native speakers.

It seems that the infelicitous use of inverted structures is to be sought in discourse-pragmatic constraints of English, while the use of ungrammatical *it*-insertion belongs to syntactic deficits. Lozano and Callies (2018, p. 427) observe that: "Learners can eventually attain native-like competence of the discourse constraints that regulate word order in English but show some residual optionality in producing ungrammatical preverbal expletives (*it/*Ø), which is

argued to be a purely grammatical problem." Our results displayed in Table 2 corroborate the findings that English learners with null-subject L1 resort to inserting a dummy *it* when inverting the subject (e.g., Oshita, 2004; Judy & Rothman, 2010; Lozano & Mendikoetxea, 2010; Prentza, 2014). The diagram in Figure 2 illustrates a clear developmental trend towards improvement in the advanced group.

Figure 2

*Results for VS + it-insertion Sentences in the Three Groups of Respondents*
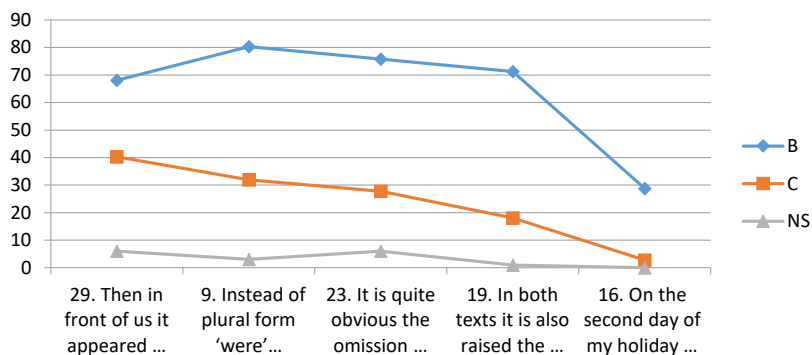
What motivates the learners' use of *it*-insertion in SVI is a puzzle worth investigating. As Lozano and Mendikoetxea (2010, p. 487) have pointed out, this construction "is neither in their L2 input nor directly a result of L1 transfer." NS' reactions in our study strongly indicate that VS + *it*-insertion is not characteristic of English. Agathopoulou (2014, p. 178) reports similar rejection of this construction by the native English speakers she consulted. However, Oshita (2004, p. 121) attributes the occurrence of such structures in the Spanish and Italian learner language corpora to the pro-drop typology of their L1s, which allow null expletives. On the other hand, the speakers of topic-drop languages (Japanese and Korean), which lack null expletives, produce considerably fewer *it*-insertions. This explanation is challenged by the following asymmetrical findings: only one *it*-insertion was found in the L1 Greek learner corpus (Agathopoulou, 2014) compared to 38 and 27 occurrences in the Spanish and Italian learner corpora, respectively (Lozano & Mendikoetxea 2008, 2010).

Agathopoulou (2014, p. 182) allows for some possible L1 effects in the Italian data, suggesting, however, that the reasons for the Spanish–Greek data discrepancies should be sought in students' proficiency. Namely, Greek students whose contributions were included in the corpus were at advanced level, while the Spanish ones were intermediate learners of English. This explanation is strongly supported by our findings, which display a sharp difference between intermediate and advanced learners' acceptance rates.

We argue that the occurrence of *it*-insertion in L2 English of learners with a pro-drop L1 is in correlation with both the acquisition of non-referential *it* and the constraints of SVI in English. In our data, we observe parallel development of non-referential *it* omission, SV inversion and SV inversion plus *it*-insertion, shown in Figure 3, as the values for all three categories drop equally from intermediate to advanced level.

Figure 3

Comparison of Acceptance Rates in Three Categories among the Learners' Groups

	B	C
■ Non-referential it omission	62,37	23,84
■ SV inversion+ it-insertion	64,84	24,16
■ SV inversion	62,12	30,75
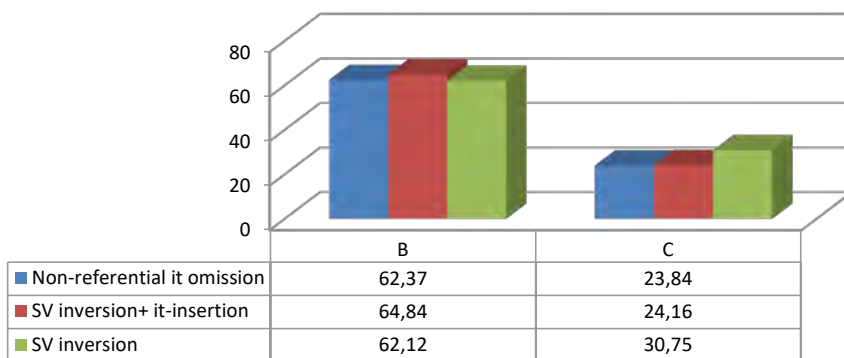
Results show that there is a developmental correlation between *it*-insertion and the acquisition of null subjects. Numerous studies report that null-subject L1 learners of English have more difficulties in acquiring non-referential rather than referential subjects in English (e.g., Oshita, 2004; Judy & Rothman, 2010; Prentza & Tsimpli, 2013; Prentza, 2014). Mitkovska and Bužarovska (2018), analyzing data from learner corpus materials by L1 Macedonian speakers between 8 and 14 years of age, observe a steady decrease in omission of the expletive *it* from about 70% at A2 to about 30–40% at B1 and B2 level. This means that learners at intermediate level start becoming aware that the syntactic subject position is obligatorily filled with *it* in the absence of a referent. At that stage, intermediate learners receive exposure to input involving extraposition of clausal subjects and the "filler" function of the non-referential, cataphoric *it*. It is possible that learners may equate extraposed subject clause with postposed NP subjects, especially if the latter are longer.

Concluding Remarks

The results of this research show that Macedonian learners generally find English VS sentences, as well as VS + *it*-insertion examples, more acceptable than native speakers of English, but the extent of this acceptance is variable depending on students' level of English proficiency. The differences between the groups proved statistically relevant confirming the sub-hypotheses 1 and 2.

The native speakers' results support the general opinion that VS sentences are not readily acceptable and that speakers' sensitivity to word order alterations displays variability. Yet, it is obvious that unaccusative verbs are more acceptable than verbs in passive voice. The sensitivity to subject information status and syntactic complexity is difficult to judge, as NS equally rejected sentences with long and short subjects, expressing both new and old information. The degree of learners' acceptance of VS structures depends on verbal semantics and the information status of the subject referent, but not on the syntactic complexity of the subject constituent.

The observed results reflect typical properties of SVI in Macedonian: acceptance of a wide range of verbs, especially in passive or passive-like constructions, equal acceptance of inversions with short and long subjects that have discourse-new information status. In both groups, the learners' high acceptance rate of postverbal subjects in sentences with VS pattern, unacceptable for English speakers, reflects the adherence to the pragmatic principle in Macedonian to place the discourse-new subject in focus. As noted by Prentza (2014), L1 transfer is most likely to occur "in structures where L1 and L2 abstract syntactic features differ" (p. 1775). This is most probably responsible for lingering syntactic deficits at syntax-discourse interface even at advanced level.

The sensibility to *it*-insertion marks the developmental stage when English learners become aware of expletive subjects in L2 but the word order is still regulated by the discourse rules of L1. The increase in expletive subject acquisition and greater awareness of VS constraints in English at advanced proficiency level parallels the decrease in acceptance of *it*-insertion.

The results of our investigation confirm the main hypothesis that L1 transfer effects are mainly responsible for the acceptance of post-verbal subjects in learner English. These effects stem from the information structure of the L1 sentences expressing thetic statements. In Macedonian, these constructions are realized by unaccusative verbs and *se*-passive or passive-like constructions whose unmarked word order is VS. In English, VS sentences are stylistically marked since subject inversion is restricted to certain registers and performs specific pragmatic functions. Moreover, the functional scope of SVI is much narrower in English because its use depends on author's narrative goals and stylistic preferences. The low distribution of SVI due to its rhetoric nature is

compounded by the fact that learners in formal educational settings do not receive sufficient evidence for the appropriate use of VS structures. All these factors cause difficulties in discriminating the acceptable from unacceptable discourse contexts and complicate the acquisition of SVI by learners whose L1 has a discourse-driven word order.

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Erwerb von Strukturen nach Syntax-Discourse Interface: Postverbale Subjekte in L2-Englisch

Zusammenfassung

Die vorliegende Studie untersucht die Akzeptabilität von postverbalen Subjekten durch L2-Englischlerner der Mittel- und Oberstufe mit Ll-Mazedonisch, einer slawischen Nullsubjektsprache mit reicher Verbalmorphologie. Die beiden Sprachen unterscheiden sich hinsichtlich der Verwendung von Subjekt-Verb-Inversion (SVI): im Mazedonischen ist die SVI ein Standardmuster in thetischen Sätzen, während sie im Englischen ausschließlich in bestimmten Kontexten verwendet wird. Um die Hypothese zu überprüfen, dass mazedonische Lernende aufgrund des sprachübergreifenden Einflusses auf Schwierigkeiten beim Erwerb der englischen SVI stoßen, wurde eine Aufgabe zur Beurteilung der Grammatikalität und Korrektur an zwei Gruppen mazedonischer Englischlerner und eine Kontrollgruppe englischer Muttersprachler gestellt. Die Ergebnisse zeigen, dass die L2-Lerner englische VS-Sätze bzw. VS-Beispiele mit dem eingefügten *it* akzeptabler finden als die Muttersprachler. Allerdings liegen die Sprachkenntnisse der fortgeschrittenen Gruppe näher bei den Muttersprachlern als bei den Lernern der Mittelstufe. Beide Nicht-Muttersprachler-Gruppen sind mehr bereit, inkorrekte englische Sätze zu akzeptieren, die den typischen Ll-Strukturen entsprechen.

Schlüsselwörter: Subjektinversion, Informationsstruktur, Wortstellung, Interface-Hypothese