# TESTING THE INTERFACE HYPOTHESIS: THE CASE OF AUXILIARY CHANGE UNDER RESTRUCTURING IN L2 ITALIAN

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ABSTRACT: This paper investigates whether the purely syntactic aspect of auxiliary change under restructuring in Italian can be fully acquired in the L2. Restructuring constructions in Italian involve modal, aspectual or motion verbs that take infinitival complements. The main verb in these constructions normally takes avere ('have'). However, when the embedded verb is unaccusative and requires essere ('be'), the main verb can shift to essere. In the presence of clitic climbing, the shift from avere to essere is obligatory. Constructions with the clitic in situ exhibit optionality as well. The optionality or obligatoriness of auxiliary change in restructuring constructions with embedded unaccusatives thus hinges on a purely syntactic factor: clitic presence and placement. In the paper, findings are reported of an experimental study in which a group of highly proficient (possibly near-native) adult L2 learners, who are native speakers of Croatian (a language with clitic climbing, but without auxiliary selection), and a group of adult native speakers expressed their auxiliary preferences in restructuring constructions with unaccusative complements by means of Magnitude Estimation. The L2 learners proved not to know under which syntactic conditions auxiliary change is obligatory and under which it is optional. Contrary to the native speakers, they exhibited optionality in auxiliary choice in all cases, revealing incomplete knowledge of the phenomenon. Such findings do not support the hypothesis that purely syntactic properties are fully acquirable in the L2. Possible reasons for the incomplete acquisition of auxiliary change under restructuring in L2 Italian are discussed in the paper.

*KEYWORDS: Interface Hypothesis; narrow syntax; auxiliary selection; restructuring constructions; unaccusative verbs* 

## 1. Introduction

The properties of very advanced and near-native second language (L2) grammars have been a topic of much research in recent years (e.g. Belletti et al., 2007; Borgonovo and Prévost, 2003; Kraš, 2009a, b; Montrul and Sla-

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bakova, 2003; Sorace and Filiaci, 2006; Valenzuela, 2006). One product of this study has been the observation that purely syntactic properties and properties involving syntax and another domain within the language faculty, such as semantics, are associated with different linguistic behaviours at the end state than properties involving syntax and another domain outside the language faculty, such as discourse-pragmatics. More specifically, while the former seem to be target-like and stable in end-state grammars, the latter are often associated with first language (L1) transfer effects and different kinds of instability. This observation has provided the basis for the proposal, known as the Interface Hypothesis, stating that properties pertaining to narrow syntax and internal interfaces can be completely acquired in the L2, whereas this is not necessarily true of properties relating to external interfaces (Sorace, 2005; Sorace and Filiaci, 2006; Tsimpli and Sorace, 2006; White 2006).

The study presented in this paper investigates to what extent the above proposal holds for the purely syntactic aspect of auxiliary change under restructuring in Italian. The ultimate attainment of this phenomenon in L2 acquisition was formerly studied in Sorace (1992)<sup>1</sup>. In this study, L1 English and L1 French near-native speakers of Italian took part in a timed acceptability judgement task, in which they used the Magnitude Estimation technique<sup>2</sup> (Bard et al. 1996) to express their judgements. Contrary to the predictions of the Interface Hypothesis, Sorace found that the properties under scrutiny had not been fully acquired by the L2 learners. The two groups of L2 learners proved to have different representations also proved to be different for the two groups of L2 learners.

The current study involves highly proficient (possibly near-native) L2 learners with a different L1, Croatian. By means of a methodology similar to Sorace's (1992) (see below), it examines whether native-like representations of auxiliary change under restructuring in Italian can be established for another L1 population. A negative answer to this question would further suggest that narrow syntactic properties are not immune to problems at the end-state, in contrast to what the Interface Hypothesis predicts.

The paper is structured in the following way. In Section 2 we describe auxiliary change under restructuring in Italian and the relevant properties of Croatian. We provide more details about Sorace's study (1992) in Section 3. Section 4 is devoted to the present study, its methodology and results. The paper ends with the discussion of research findings and some directions for future research in Section 5.

<sup>&</sup>lt;sup>1</sup> The aspect of Sorace's study which concerns us here was published in Sorace (1993).

<sup>&</sup>lt;sup>2</sup> This technique requires subjects to express numerical judgements of acceptability relative to the first sentence they are presented with, the so-called modulus. The numbers they assign to sentences are supposed to reflect proportional acceptability of sentences compared to the modulus sentence and to each other.

## 2. Auxiliary change under restructuring in Italian and the relevant properties of Croatian

Restructuring constructions in Italian are complex verbal constructions consisting of a tensed verb and an infinitival complement. The main verb in these constructions belongs to the group of modal (*dovere* 'must, have to', *potere* 'can, be able to', *sapere* 'know', *volere* 'want, wish'), aspectual (*continuare* 'continue', *cominciare* 'begin', *stare per* 'be about to') or motion verbs (*andare* 'go', *tornare* 'come back', *venire* 'come') (Rizzi, 1978). An example is given in (1).

(1) Guido ha dovuto dormire in albergo. Guido has had-to sleep in hotel 'Guido had to sleep in a hotel.'

Rizzi (1978) observes that restructuring constructions differ from other constructions with infinitival complements in several respects, including auxiliary selection and clitic climbing. In auxiliary selection, the main verb in these constructions normally takes *avere* ('have')<sup>3</sup>. However, when the embedded verb is unaccusative and requires *essere* ('be')<sup>4</sup>, the main verb can shift to *essere*. This is illustrated in (2). The change from *avere* into *essere* is not possible in other constructions with embedded infinitives.

(2) Guido ha/ è voluto andare al supermercato. Guido has/is wanted go to-the supermarket 'Guido wanted to go to the supermarket.'

As for clitic climbing, an unstressed clitic pronoun originating in the embedded verb can cliticise either to the main or to the embedded verb, as shown in (3). In other constructions with infinitival complements, only the second option is available.

- (3) a. Michele vuole darle un regalo. Michele wants give-CL a present 'Michele wants to give her a present.'
  - b. Michele le vuole dare un regalo. Michele CL wants to-give a present 'Michele wants to give her a present.'

<sup>&</sup>lt;sup>3</sup> The exception to this are motion verbs, *stare per, cominciare* and, in some cases, *continu-are*, which take *essere*.

<sup>&</sup>lt;sup>4</sup> Essere-selection is a distinguishing property of unaccusatives. Unergatives, on the other hand, take avere. The choice of auxiliary in compound tenses, a phenomenon known as auxiliary selection, is the best-known manifestation of unaccusativity in Italian.

In restructuring constructions with embedded unaccusatives, there is an interaction between auxiliary selection and clitic climbing. Specifically, clitic climbing leads to an obligatory change of auxiliary from *avere* into *essere*, but the reverse is not true: the auxiliary can change from *avere* into *essere* with the clitic remaining *in situ*, i.e. attached to the main verb. Constructions with the clitic *in situ* thus behave in the same way as constructions without clitics: they allow both auxiliaries. See (4).

- (4) a. Guido ci \*ha/ è voluto andare. Guido CL has/is wanted go 'Guido wanted to go there.'
  - b. Guido ha/ è voluto andarci. Guido has/is wanted go-CL 'Guido wanted to go there.'

According to Cinque (2004), auxiliary change is obligatory in the presence of clitic climbing only in more careful styles of Italian, while it is optional in more colloquial speech. However, the optionality of auxiliary change in the presence of clitic climbing in colloquial styles applies only to the elided uses of the clitic. When the full form of the clitic is used, auxiliary change is obligatory in these styles as well<sup>5</sup>. This is illustrated in (5).

- (5) a. Guido c' ha/ è voluto andare. Guido CL has/is wanted go 'Guido wanted to go there.'
  - b. Guido ci \*ha/ è voluto andare. Guido CL has/is wanted go 'Guido wanted to go there.'

To summarise, in standard Italian, which is the focus of the present study, auxiliary change is either obligatory or optional in restructuring constructions with embedded unaccusatives, depending on the presence and the position of the clitic. Specifically, the change is optional when the clitic is absent or when it has not moved from its base-generated position, but obligatory when the clitic has climbed to the main verb. Note that the choice of auxiliary in constructions in which both auxiliaries are possible does not have any effect on the interpretation of the sentence: the two sentences with different auxiliaries have exactly the same meaning.

We regard the presence and the position of the clitic as a purely syntactic constraint on auxiliary selection in restructuring constructions. We thus

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<sup>&</sup>lt;sup>5</sup> The use of elided clitic forms is, however, preferred to the use of full forms in colloquial speech.

believe that there is a syntactic and a lexical-semantic aspect of auxiliary change under restructuring in Italian. The former aspect is related to the conditions governing the optionality vs. obligatoriness of auxiliary change, and the latter to the factors determining the possibility of change. Recall that auxiliary change is possible only in a subset of restructuring constructions, i.e. those in which the embedded verb is unaccusative, so it is determined by the lexical properties of the verb. In this paper we limit ourselves to considering only those constructions in which this change is possible and focus on the syntactic constraints on auxiliary choice in these constructions.

Auxiliary change under restructuring is not instantiated in Croatian, the L1 of the L2 participants in our study. This necessarily follows from the fact that Croatian does not offer a choice of auxiliary in compound tenses<sup>6</sup>. Clitic climbing, however, does exist in Croatian, and it is obligatory out of infinitival clausal complements or after causatives and verbs of perception (Franks and King, 2000). Clitic climbing out of infinitival clauses is illustrated in (6).

(6) Majka ga hoće pozdraviti. mother CL wants to-greet 'His mother wants to greet him.'

In Serbian, a language closely related to Croatian, clitics can also optionally climb out of finite clausal complements (the so-called da + prezentconstructions) when the matrix verb is a modal, aspectual or motion verb, but these cases are marked and possibly dialectal (Franks and King 2000). An example of such constructions is given in (7).

(7) Majka ga hoće da pozdravi.
mother cl wants to greet
'His mother wants to greet him.'

#### 3. Previous L2 research: Sorace (1992)

As already stated, the representations of auxiliary change under restructuring in end-state L2 grammars of Italian were previously investigated in Sorace (1992). The study involved 24 L1 English and 20 L1 French nearnative speakers of Italian, as well as 36 adult native controls. The acceptability judgement task used in the study comprised 48 test items which featured three types of restructuring construction with unaccusative complements: without a clitic, with the clitic *in situ* and with clitic climbing. Six modal and aspectual verbs were used in all types of construction, once with

<sup>&</sup>lt;sup>6</sup> Of the two auxiliaries which are used to form compound tenses in Croatian, *htjeti* ('want') and *biti* ('be'), the former is used in the so-called Future First, while different tensed forms of the latter are used in all other tenses (Barić et al. 1995). The two auxiliaries are thus never used in the same tense.

*essere* and once with *avere*. Two verbs were used twice in all constructions. Test items were divided into four lists.

The study revealed non-target-like knowledge of auxiliary change under restructuring by the two groups of L2 learners. The French speakers had a categorical preference for one of the auxiliaries in all three types of construction. In constructions with clitic climbing they preferred essere and in constructions without clitics and with the clitic *in situ* they preferred *avere*. They thus proved not to be aware of the possibility of auxiliary change in the latter two types of construction. The English speakers, on the other hand, did not prefer one auxiliary over the other in any of the three types of construction. In this way they showed not to know that clitic climbing triggers obligatory auxiliary change. Sorace characterises the representations of the French speakers as *divergent* and those of the English speakers as *incomplete*. The former differ from the native ones in a systematic way, while the latter lack certain properties compared to them. According to Sorace, these different representations derive from the interaction between the L2 properties under scrutiny and general properties of the learners' L1: English has neither auxiliary selection, nor clitics; French has both, but it does not have clitic climbing.

## 4. The study

## 4.1. Research question and hypothesis

The present study aims to test the aspect of the Interface Hypothesis which predicts that properties relating to narrow syntax should be completely acquired in the L2. It addresses the following research question: can the purely syntactic aspect of auxiliary change under restructuring in Italian be fully acquired in the L2? More specifically, can L2 learners acquire target-like knowledge of the constraints on auxiliary selection in Italian restructuring constructions with embedded unaccusatives? Recall that these constraints are related to the presence and the position of the clitic and that they determine whether the change of auxiliary from *avere* into *essere* is optional or obligatory in the constructions under consideration. Despite contrary evidence coming from previous L2 research, we predict that full attainment of the purely syntactic aspect of auxiliary change under restructuring is possible in L2 Italian.

#### 4.2. Participants

The study comprised 28 participants, between 21 and 34 in age. They were divided into two groups: a group of 16 L2 learners and a group of 12 native speakers of Italian. All participants were students at Italian universities. The native speakers studied translation and interpreting in Trieste, while

the L2 learners studied architecture (n=6), translation and interpreting (n=4), communication studies (n=2), diplomacy (n=1), electrical engineering (n=1), film studies (n=1), and modern languages and literature (n=1) in Trieste, Venice, Bologna and Rome. The L2 learners were native speakers of Croatian, with the exception of three learners, who were native speakers of Serbian<sup>7</sup>.

All L2 learners were fully immersed in Italian after puberty; the age of immersion ranged from 15 to 24. This was the main reason for treating them as adult L2 learners. Their age of immersion in Italian did not coincide with their age of first exposure to it, as they all first learned the language in the classroom context in their home countries. All except two L2 learners started learning Italian after puberty. The two exceptional learners were first exposed to Italian at the age of  $10^8$ .

All L2 learners were very advanced in Italian and were possibly nearnative in it. They qualified for the study based on two proficiency criteria. The first was a score above 75% in a non-standardised C-test (for procedure, see Klein-Braley & Raatz, 1984), which was used as a measure of general language proficiency. The second was native-like accuracy, fluency and lexical choice in Italian, as judged by the experimenter (a highly proficient non-native speaker of Italian) in the course of the experiment, conducted fully in Italian. Despite their undeniably high proficiency in Italian, the L2 learners selected nevertheless scored significantly lower in the C-test than the native speakers, as shown by the results of the independent-samples *t*-test (t = 4.139, df = 20.070, p < .05). Detailed information on the participants is given in Table 1.

| Group | Age of testing |       | Age of first<br>exposure |       | Age of immersion |       | Proficiency<br>score (%) |        |
|-------|----------------|-------|--------------------------|-------|------------------|-------|--------------------------|--------|
|       | Mean           | Range | Mean                     | Range | Mean             | Range | Mean                     | Range  |
| L1    | 24.5           | 21-34 | N/A                      | N/A   | N/A              | N/A   | 97.25                    | 92-100 |
| L2    | 25.38          | 21-30 | 15.44                    | 10-19 | 18.88            | 15-24 | 90.63                    | 79-99  |

Table 1: Participant characteristics

<sup>&</sup>lt;sup>7</sup> Serbian speakers were included in the study due to problems with finding enough Croatian speakers of the necessary profile. The inclusion of the Serbian speakers was possible owing to the fact that (standard) Croatian and Serbian do not differ in the aspects relevant for this study.

<sup>&</sup>lt;sup>8</sup> We included their responses in the analysis as they fell within the range of the other L2 learners.

#### 4.3. Materials and procedure

The testing instrument employed in the study was a self-paced acceptability judgement task with Magnitude Estimation as the elicitation procedure. The task consisted of 24 test items and 196 distractors, divided into four lists. Among the items classified here as distractors, there were in fact items testing other linguistic phenomena related to unaccusativity in Italian, including auxiliary selection in simple predicates. For the purposes of the present study, it is important to mention that the L2 learners tested had native-like representations of auxiliary selection in simple predicates: they knew that unaccusative verbs select *essere* and unergative *avere* (for detailed findings on auxiliary selection, see Kraš, 2009a). Note that the same was found for the L2 learners in Sorace (1992).

All test items featured restructuring constructions. Finite verbs belonged to the class of modal verbs, while non-finite verbs were all common unaccusative verbs of change of location. The following modal verbs were used: *dovere* ('must, have to'), *potere* ('can, be able to'), *sapere* ('know') and *volere* ('want, wish'). The used unaccusatives included *andare* ('go'), *arrivare* ('arrive'), *tornare* ('return') and *venire* ('come'). Each list contained three different combinations of a modal and an unaccusative verb.

Restructuring constructions in test sentences were of three main types: (a) without a clitic, (b) with the clitic attached to the infinitive, (c) with the clitic preceding the tensed verb. For each type, there were sentences with *essere* and sentences with *avere*. All sentences, apart from sentences with clitic climbing and *avere*, were acceptable. All sentences contained a place adverbial alongside the subject, the predicate and the clitic, which was used in types (b) and (c). The lexical material used in pairs of sentences of the same type with the same verb combination but with different auxiliaries was minimally different. Sentences without a clitic, with the clitic *in situ* and with clitic climbing are illustrated in (8), (9) and (10) respectively.

- (8) a. I turisti sono dovuti tornare in albergo. the tourists are had-to return to hotel 'The tourists had to return to the hotel.'
  - b. Gli impiegati hanno dovuto tornare in ufficio. the employees have had-to return to office 'The employees had to return to the office.'
- (9) a. In albergo, i turisti sono dovuti tornarci. to hotel the tourists are had-to return-CL 'To the hotel, the tourists had to return.'
  - b. In ufficio, gli impiegati hanno dovuto tornarci. to office the employees have had-to return-CL 'To the office, the employees had to return.'

- (10) a. In albergo, i turisti ci sono dovuti tornare. in hotel the tourists CL are had-to return 'To the hotel, the tourists had to return.'
  - b. \*In ufficio, gli impiegati ci hanno dovuto tornare. in office the employees CL have had-to return 'To the office, the employees had to return.'

The task was implemented with SuperLab Pro 2.0 and run on a laptop computer. The sentences were presented in the centre of a 14.4" screen in black font against a white background. Each subject received the sentences in a different randomised order. The modulus sentence was on display throughout the task on a piece of paper placed on top of the screen. The task was self-paced, in the sense that no time limit was imposed for judging the sentences: the subjects would read a sentence, write down their numerical judgement on the answer sheet and then press a key on the keyboard to see the next sentence<sup>9</sup>. The experimental session was preceded by examples and a practice session. The average duration of the task was 10-15 minutes.

Acceptability judgements were prepared for statistical analysis in the following way. For each subject, numerical values were first divided by the value that the subject had assigned to the modulus sentence (a process known as normalisation), and then transformed by taking the decadic logarithm. After normalising and log-transforming the judgements, we calculated the mean differences between the values pertaining to each sentence in a pair of sentences with the same verb combination and featuring the same construction. In such a way, we obtained mean auxiliary preferences for each verb combination in each construction. Differences were calculated by subtracting the values pertaining to the sentences with *avere*. The resulting positive values indicate a preference for the sentence with *avere*. Bigger values indicate stronger preferences. Mean auxiliary preferences were subjected to statistical analysis.

## 4.4. Results

Mean auxiliary preferences of both subject groups in the three types of restructuring construction are shown in Figure 1.

<sup>&</sup>lt;sup>9</sup> Recall that, by contrast, the task used in Sorace (1992) was timed.

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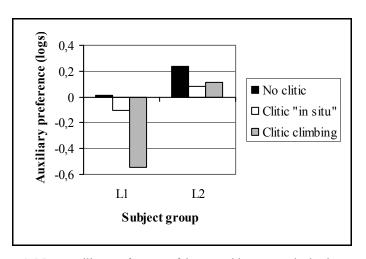


Figure 1: Mean auxiliary preferences of the two subject groups in the three types of restructuring construction

The figure shows rather different patterns of auxiliary preference for the two subject groups. While the values of auxiliary preference for the L2 group are all positive, possibly indicating an overall preference for *avere*, the values of auxiliary preference for the L1 group are negative for two out of three constructions and possibly suggest a predominant preference for *essere*. A repeated-measures ANOVA, conducted on the mean auxiliary preferences of the two subject groups in the three types of construction, yields a significant main effect of construction type in the by-subject analysis ( $F_1(2,52) = 4.136$ , p < .05), a significant interaction between construction type and subject group in the by-item analysis ( $F_2(2,9) = 11.837$ , p < .05) and a significant main effect of subject group in both by-subject and by-item analyses ( $F_1(1,26) = 8.721$ , p < .05;  $F_2(1,9) = 64.621$ , p < .001). These effects suggest that the three types of construction are judged differently, that the two subject groups differ in the way they judge individual constructions, and that the judgements of the two subject groups are different overall.

Given that the values of auxiliary preference of the two subject groups are close to zero, we need to establish whether the subjects' judgements on different constructions actually differ from zero. In other words, we need to establish whether their judgements indicate a preference for one of the auxiliaries, or rather indeterminacy between the two syntactic options. For this purpose, a series of one-sample *t*-tests was conducted on the mean auxiliary preferences of the two subject groups for all construction types with zero as the test value. The only significant difference yielded by the tests was the one for the L1 group in the construction with clitic climbing (t = -2.531, df =11, p < .05). This indicates that the native speakers (correctly) prefer one of the auxiliaries (i.e. *essere*) in only one of the constructions (i.e. the one with clitic climbing), while the L2 learners do not have a clear preference for either auxiliary in any of the constructions. The L2 learners' absence of auxiliary preference in the construction without clitics and with the clitic *in situ* cannot be characterised as ungrammatical as both auxiliaries are permitted in this context. However, their indeterminacy between *essere* and *avere* in the construction with clitic climbing is clearly ungrammatical as the change from *avere* into *essere* is obligatory in this construction.

In order to find out which constructions the two subject groups differentiate between, for each subject group we conducted a series of by-subject pairwise *t*-tests among the mean auxiliary preferences in all types of construction. We obtained a significant difference between the construction with clitic climbing and the other two constructions for the L1 group (no clitic: t =2.885, df = 11, p < .05; clitic *in situ*: t = 2.310, df = 11, p < .05), but no significant effects for the L2 group. This suggests that the native speakers differentiate the construction with clitic climbing from the other two constructions, while the L2 learners do not differentiate between different construction types. This finding is another piece of evidence that the native speakers know that the construction with clitic climbing is different from the other two constructions tested in the sense that it allows only *essere*, while the other two constructions allow both auxiliaries, and that the L2 learners do not know that the three constructions differ in terms of auxiliary selection.

To summarise, evidence from acceptability judgements suggests, contrary to expectations, that the L2 learners do not distinguish between different types of restructuring construction. What they exhibit is optionality in auxiliary choice in all three types of construction despite the fact that *avere* is not permitted in the construction with clitic climbing. They are thus shown not to know that auxiliary change is obligatory in the presence of clitic climbing, a fact that the native speakers clearly do know. This points to an incomplete knowledge of auxiliary change under restructuring on the part of the L2 learners.

### 5. Discussion

The present study was designed to test the claim contained in the Interface Hypothesis that properties pertaining to narrow syntax are completely acquirable in the L2. The specific phenomenon it focused on was a purely syntactic aspect of auxiliary change under restructuring in Italian, or more precisely, the constraints on auxiliary selection in Italian restructuring constructions with embedded unaccusatives. Recall that in these constructions the change of auxiliary from *avere* into *essere* is optional when the clitic is absent or *in situ*, but obligatory when the clitic has climbed to the main verb. Our prediction was that evidence would be found for full attainment of the phenomenon under scrutiny in L2 Italian. This hypothesis was not confirmed

as the L2 learners in our study were shown not to distinguish between conditions for optional and obligatory auxiliary change, and to allow both auxiliaries in all cases.

One possible objection is that, owing to the possibility that the learners in our study are not at the end state of L2 acquisition, the findings of the study do not necessarily have implications for the Interface Hypothesis. For this reason, we believe that it is important to consider them in combination with the findings of Sorace (1992). Recall that the near-native speakers in Sorace's study also demonstrated non-target-like representations of auxiliary change under restructuring in Italian. The responses of the L2 learners in our study patterned with those of the English-speaking learners in the previous study: both groups of learners allowed for optional auxiliary change in all three types of restructuring construction, including those in which the change is obligatory due to clitic climbing. The representations of both groups of learners could be characterised as incomplete compared to those of the native speakers. Crosslinguistic evidence from the two studies thus suggests that narrow syntactic properties are not necessarily completely acquired in the L2, as the Interface Hypothesis predicts. However, before reaching any firm conclusions on the aspect of the Interface Hypothesis concerning narrow syntax, more linguistic phenomena need to be considered.

The fact that the L2 learners in our study pattern with the English-speaking and not the French-speaking learners in Sorace (1992) enables us to look at the role of the L1 in the acquisition of auxiliary change under restructuring in L2 Italian. The relevant properties of the three languages acting as the L1s in the two studies are summarised in Table 2.

|          | Auxiliary selection | Clitics | Clitic climbing |
|----------|---------------------|---------|-----------------|
| French   | Yes                 | Yes     | No              |
| English  | No                  | No      | No              |
| Croatian | No                  | Yes     | Yes             |

Table 2: The relevant properties of French, English and Croatian

The table shows that of the three languages, French is the only one with auxiliary selection and Croatian the only one with clitic climbing. French, however, does have clitics, while English does not. With respect to the relevant properties, Croatian and English overlap in the domain of auxiliary selection, in the sense that neither of them exhibits it. The reason for the fact that Croatian and English speakers end up with similar representations of auxiliary change under restructuring in L2 Italian is thus perhaps related to the non-instantiation of auxiliary selection in Croatian and English. However, the way in which the (non-)instantiation of auxiliary selection in the L1 might determine the type of non-native-like representation of auxiliary change under restructuring in L2 Italian is certainly not trivial, as evidenced

by the fact that the learners both with and without auxiliary selection in their L1 successfully acquire auxiliary selection in simple predicates.

Focusing now on the incomplete representations of auxiliary change under restructuring in L2 Italian in the mental grammars of Croatian- and English-speaking learners, several reasons could be responsible for the fact that the learners in question do not seem to know that clitic climbing leads to obligatory auxiliary change. In the first place, the fact that the change of auxiliary is not obligatory in two out of three types of restructuring construction with embedded unaccusatives might lead the learners to consider optional auxiliary change as a default option in these constructions, especially in the absence of negative evidence (in the form, for instance, of explicit correction) for the existence of constructions with clitic climbing and avere. The reason why we believe that the language production of these learners is not explicitly corrected is that they are acquiring the language in a naturalistic environment. Secondly, the fact that clitics are not salient in the input might prevent the learners from noticing the link between clitic climbing and auxiliary change. The possibility that the relevant input is rather limited in this case, i.e. that the constructions in question are not encountered very frequently in the input, might additionally contribute to this. Finally, the fact that auxiliary change is not obligatory in the presence of clitic climbing in colloquial Italian when the elided form of the clitic is used might induce the learners to believe that the same holds for standard Italian. Indeed, since the learners in question are acquiring the language by total immersion, they are probably exposed to different stylistic registers of the language. The above hypothesis is, of course, based on the assumption that the learners fail to notice that the form of the clitic (full or elided) plays a role in auxiliary change under restructuring in colloquial Italian. The explanations we propose for the lack of success in acquiring the interaction between auxiliary selection and clitic climbing in restructuring constructions with embedded unaccusatives in L2 Italian are not mutually exclusive, so they might be working in tandem.

If any of the above explanations are on the right track, this implies that properties within narrow syntax are not immune to the effect of experience in language use and acquisition. The perceptual properties of a phenomenon, its input frequency and the way it is realised in different stylistic registers of the language, among other factors, might all interact with the phenomenon's structural properties in determining how probable it is that this phenomenon will be successfully acquired in the L2. In a recent paper, Sorace and Serratrice (2009) list experience, encompassing both the quantity and the quality of the input received by bilingual speakers, as one of the factors determining the learnability of interface phenomena. We believe that the same might apply to phenomena within narrow syntax. It is clear that more research is needed to arrive at a better understanding of the complex interplay of structural and experiential factors in bilingual language development.

#### References

- Belletti, A., E. Bennati & A. Sorace (2007). Theoretical and developmental issues in the syntax of subjects: Evidence from near-native Italian. *Natural Language* and Linguistic Theory 25 (4), pp. 657-689.
- Bard, E. G., D. Robertson & A. Sorace (1996). Magnitude estimation of linguistic acceptability. *Language* 72 (1), pp. 32-68.
- Barić, E., M. Lončarić, D. Malić, S. Pavešić, M. Peti, V. Zečević & M. Znika (1995). *Hrvatska gramatika*. Zagreb: Školska knjiga.
- Borgonovo, C. & P. Prévost (2003). Knowledge of polarity subjunctive in L2 Spanish. In B. Beachley, A. Brown & F. Conlin (eds.) Proceedings of the 27th Annual Boston University Conference on Language Development. Somerville, MA: Cascadilla Press, pp. 151-161.
- Cinque, G. (2004). "Restructuring" and functional structure. Unpublished manuscript, University of Venice.
- Franks, S. & T. H. King (2000). A Handbook of Slavic Clitics. Oxford: Oxford University Press.
- Klein-Braley, C. & U. Raatz (1984). A survey of research on the C-test. *Language Testing* 1 (2), pp. 134-146.
- Kraš, T. (2009a). Native-like attainment of the lexicon-syntax interface in the L2: Converging evidence from different methodologies. In J. Chandlee, M. Franchini, S. Lord & G.-M. Rheiner (eds.) Proceedings of the 33<sup>th</sup> Annual Boston University Conference on Language Development. Somerville, MA: Cascadilla Press, pp. 278-289.
- Kraš, T. (2009b). The Lexicon-Syntax Interface in L2 Italian: Ne-Cliticisation with Intransitive Verbs. In M. Bowles, T. Ionin, S. Montrul & A. Tremblay (eds.) Proceedings of the 10th Generative Approaches to Second Language Acquisition Conference (GASLA 2009). Somerville, MA: Cascadilla Proceedings Project, pp. 220-230.
- Montrul, S. & R. Slabakova (2003). Competence similarities between native and near-native speakers: An investigation of the preterite/imperfect contrast in Spanish. *Studies in Second Language Acquisition* 25 (3), pp. 351-398.
- Rizzi, L. (1978). A restructuring rule in Italian syntax. In S. J. Keyser (ed.) *Recent Transformational Studies in European Languages*. Cambridge, MA: MIT Press, pp. 113-158. (Reprinted in Rizzi, L. (1982) *Issues in Italian Syntax*. Dordrecht: Foris.)
- Sorace, A. (1992). Lexical conditions on syntactic knowledge: Auxiliary selection in native and non-native grammars of Italian. Unpublished PhD dissertation, University of Edinburgh.
- Sorace, A. (1993). Incomplete vs. divergent representations of unaccusativity in non-native grammars of Italian. *Second Language Research* 9 (1), pp. 22-47.
- Sorace, A. (2005). Selective optionality in language development. In L. Cornips & K. Corrigan (eds.) Syntax and Variation: Reconciling the Biological and the Social. Amsterdam/Philadelphia: John Benjamins, pp. 55-80.

- Sorace, A. & F. Filiaci (2006). Anaphora resolution in near-native speakers of Italian. Second Language Research 22 (3), pp. 339-368.
- Sorace, A. & L. Serratrice (2009). Internal and external interfaces in bilingual language development: Beyond structural overlap. *International Journal of Bilingualism* 13 (2), pp. 195-210.
- Tsimpli, I. M. & A. Sorace (2006). Differentiating interfaces: L2 performance in syntax-semantics and syntax-discourse phenomena. In D. Bamman, T. Magnitskaia & C. Zaller (eds.) Proceedings of the 30th Annual Boston University Conference on Language Development. Somerville, MA: Cascadilla Press, pp. 653-664.
- Valenzuela, E. (2006). L2 end state grammars and incomplete acquisition of Spanish CLLD constructions. In R. Slabakova, S. A. Montrul & P. Prévost (eds.) Inquiries in Linguistic Development: In Honor of Lydia White. Amsterdam/Philadelphia: John Benjamins, pp. 283-304.
- White, L. (2006). Interfaces and L2 knowledge. Paper presented at *EUROSLA 16*, held in Antalya, Turkey, 13-16 September.