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Transfer, fossilization and prosodic drift in Foreign Language Learning

This article aims to shed light on the processes governing the development of prosodic competence in Italian learners of English as a Foreign Language (EFL). We have analysed the intonational contours of yes-no questions read by five groups of speakers (A, B, C, E, and P). Groups A, B, and C are learners of EFL at three different levels (beginner, intermediate, and advanced), who have never spent significant periods of time in English-speaking countries. Group E includes advanced learners who have English language experience in the UK. Group P includes Italian professors of EFL, who represent a sample of speakers with both acquisition experience and high proficiency in English. Our results highlight the total lack of improvement from Group A to C, allowing us to suggest the occurrence of prosodic transfer and drifts. On the contrary, speakers who have acquired the language in natural environments show improvements in their FL prosodic competence, but this is identified only in some of the prosodic cues analysed. The cues for which we did not observe improvements are thought to be more vulnerable to fossilization.

Key words: prosodic transfer, yes-no questions, English as a Foreign Language.

Introduction

Prosody is responsible for conveying information at three different levels. Firstly, it carries *linguistic* information, that is information about the pragmatics of the utterances, their information structure, the placement of stresses and accents, and so on; secondly, it conveys *paralinguistic* information, concerning the attitude and the emotional state of the speaker; and finally it communicates *extralinguistic* information about the speaker's identity, such as sex, age, and so on (Wagner, 2008).

Prosody plays a role in every spoken utterance, regardless of its length or the language in which it is produced. Since prosody is an inherent component of speech, the acquisition or learning of prosodic phenomena (such as intonation, stress, and rhythm) and how they are uniquely realized in a given language is essential in order to master a second language (L2) (Mennen, De Leeuw, 2014). The literature about second language acquisition (SLA) amply attests the difficulties that learners have to face when dealing with phonetics and phonology. These difficulties concern not only the reproduction and the perception of segments that differ from the learners' native language (L1), but also prosody. Indeed, several studies have documented that non-native prosody is highly

responsible for the perception of foreign accent as well as affecting negatively the intelligibility and comprehensibility of speech (Rasier, Hiligsmann, 2007; Derwing, Rossiter, 2003; Munro, Derwing, 1995). Moreover, some articles have also argued that prosodic deviations have a stronger effect on comprehensibility and accentedness than segmental errors (Anderson-Hsieh, Johnson & Koehler, 1992).

Nevertheless, researchers have so far focused mostly on the acquisition of segmental categories, while studies on the acquisition of prosody have been somewhat scarce (Mennen, 2004). Furthermore, the studies that have concentrated on prosody have failed to reach a good understanding of prosodic aspects of SLA, because most researchers have monitored the acquisition of intonational patterns in learners from different linguistic backgrounds, making it impossible to understand the processes governing the development of L2 prosodic skills (Mennen, Chen & Karlsson, 2010).

One common reflection emerging from these studies is, however, the occurrence of *prosodic transfer* in learners' interlanguages (IL), which means that learners' L1 has a strong influence on their productions in L2. Most studies demonstrating prosodic transfer in L2 have been carried out within the Autosegmental-Metrical (AM) approach. They attest that learners' L1 can influence interlanguages at different levels: phonological (that is the transfer of phonological categories of intonation) and phonetic (influence in how speakers realize a given category in terms of alignment, slope, shape of the contour, etc.). Additionally, transfer may involve the use of prosodic cues to express linguistic and paralinguistic meaning (Rasier et al., 2007; Mennen, 2015).

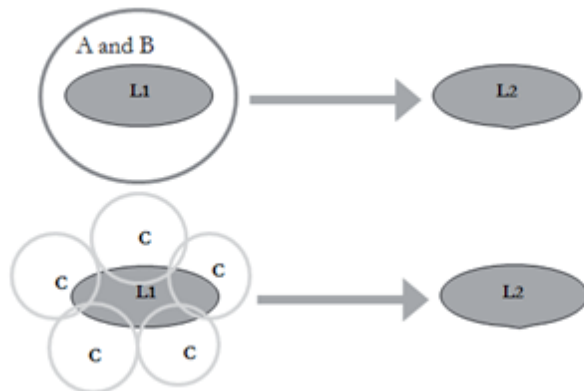
The concept of transfer has always been considered a major factor in the field of SLA, and not only with reference to phonology. Selinker (1972) extensively deals with *language transfer*, which implies that rules and systems at *all* linguistic levels are transferred from L1 to L2. The author includes this phenomenon among the processes that lead to linguistic errors in a learner's interlanguage and that keep the vast majority of learners from acquiring a native-like competence. Language transfer, along with other processes, is held responsible for the occurrence of fossilization. The concept of fossilization was first introduced in Selinker (1972), who argues that "fossilizable linguistic phenomena are linguistic items, rules and subsystems which speakers of a particular NL [native language] will tend to keep in their IL [...] no matter what the age of the learner or the amount of explanation and instruction he receives in the TL [target language]" (215). In other words, as pointed out by the same author some years later, "fossilization is the permanent cessation of IL learning before the learner has attained target language norm" (Selinker, Lamendella, 1978: 187). Since Selinker's theorization, various authors have dealt with fossilization, two of whom are particularly worth mentioning in the framework of the present study. The first is Long (2003), who invites researchers to exercise caution when talking about fossilization. The author states the difficulties related

to the testability of this phenomenon, since it is not easy to ascertain whether or not a learner is going to improve further. The second author is Han (2009; 2014). In her Selective Fossilization Hypothesis, Han states that fossilization is a phenomenon that does not affect all learners in the same way (inter-learner differential success or failure) and, most importantly, it does not affect all the linguistic structures of IL, i.e. only certain linguistic properties are vulnerable to fossilization (intra-learner differential success or failure). The vulnerability of a linguistic property to fossilization depends on the markedness of that property in the learner's L1 and on the robustness of the same property in the L2 input. The less marked the property is in L1 and the less robust it is in the input, the higher the likelihood that it will fossilize (Han, 2014).

Therefore, transfer and fossilization represent two phenomena of great importance in the process of language learning and acquisition. Linguistic interference between L1 and L2 affects every level of linguistic analysis, including prosody. While prosodic transfer has been extensively documented in the literature, to the best of our knowledge fossilization at the prosodic level has not been equally considered in L2 acquisition research. Even so, since fossilization is an inevitable stage of the learning process (Han, 2014: 52) and is closely linked to the phenomenon of transfer, we can argue that the subsequent stage of prosodic transfer is prosodic fossilization.

These assumptions constitute the starting point of the present contribution. The purpose of our study is to monitor the development of L2 prosodic competence in learners of English as a Foreign Language (EFL), whose linguistic competence has developed only in the classroom environment. As mentioned above, the idea underlying this project is that learners fail to reproduce the right intonational patterns in FL, transferring their L1 prosody into their interlanguages. The hypotheses we aim to test in this study stem from the results of previous research on FL prosody learning in Spanish by Italian students (Savy, Luque Moya, 2015). Results from Spanish show that none of the productions of the students heads towards the prosodic system of the TL. In particular, learners at earlier stages of language acquisition rely solely on their L1 prosodic system, while, productions spoken by more advanced learners shift from the L1 system, heading in different directions. The movement from L1 recorded in higher levels might denote an early sign of the development of a meta-prosodic awareness. However, the fact that they are not getting closer to the TL might be linked to the fact that they are not being given enough input or instructions necessary to reach a native-like prosody. We refer to this phenomenon as *prosodic drift*, in the sense that speakers move away from their L1, but in an aimless way and with a centrifugal movement (see Figure 1).

Figure 1 - Expected pattern of FL prosody learning. *A* (beginner), *B* (intermediate), and *C* (advanced) refer to the levels of linguistic competence in FL. *A* and *B* gravitate around the L1 prosodic system; *C* randomly shifts towards different directions, but not towards L2



1. Methods

We asked several Italian students from the University of Salerno to read two sets of questions, one set in their L1 and the other in English (the students' language of learning). The productions read by the students were then analysed with reference to both their mother tongue and productions of the same utterances read by English native speakers.

In this section of the paper we will discuss the dataset of productions analysed, the participants and the methodology used to carry out the analyses.

1.1 Dataset

We have analysed a small dataset of English and Italian questions taken from a larger corpus. The dataset consists of yes-no questions with the subject placed after the verbal phrase (henceforth VS yes-no questions), such as "Is there a millionaire?/C'è un bambino?". Each speaker repeated the same question several times, with different target words as the subject. The target words were chosen according to their stress patterns, the number of syllables and the structure of the syllables (only in the case of monosyllabic words). The choice of different target words was made in order to verify whether the intonational patterns changed along with the structure of the word.

In Italian, we chose 9 trisyllabic target words:

- 3 trisyllabic words with the stress on the antepenultimate syllable (*rondine, albero, dondolo*);
- 3 trisyllabic words with the stress on the penultimate syllable (*balena, bambino, budino*);
- 3 trisyllabic words with the stress on the last syllable (*pedalò, colibrì, lunedì*).

In English, we used trisyllabic and monosyllabic words, which were added since they are very frequent in English. For monosyllables, we chose words with different syllabic structures, one with multi-consonant coda (VCC) and one with multi-consonant onset (CCV):

- 1 monosyllable VCC (*wolf*);
- 1 monosyllable CCV (*crow*);
- 3 trisyllabic words with the stress on the antepenultimate syllable (*rectangle, triangle, pullover*);
- 3 trisyllabic words with the stress on the penultimate syllable (*December, September, fiancée*);
- 3 trisyllabic words with the stress on the last syllable (*millionaire, engineer, orangeade*).

To elicit the corpus, we made up situations in which the questions could be used in real life, as exemplified in the Figure 2 below. The speakers had to imagine themselves in those situations and read the questions.

Figure 2 - *Example of context. The speakers had to read the situation silently and then the underlined question out loud*

WOLF

You are at school during the science class. It is the day before a school trip to the zoo and your classmates are asking the teacher about the animals they are going to see. All of a sudden, you stand up and ask:

And the wolf?

The teacher is quite surprised since everybody else was asking about lions and tigers and she did not expect such an interest in wolves, so she asks:

The wolf?

You nod and ask:

Is there a wolf?

This method was used in order to increase the spontaneity of the productions and to keep the participants from misinterpreting the pragmatic structure of the questions.

Before the recording session, the students were asked to read carefully all the questions and the contexts in which they had been inserted, and were encouraged to ask clarifications about words or contexts. Then, they would start the recording with a dummy test, to make sure that the exercise had been understood as well as to test that the recording equipment was working properly. After that, the real recording would start.

The recording sessions took place at the Applied Linguistics Laboratory (LabL.A.) at the University of Salerno.

1.2 Participants

We chose five groups of Italian participants. All the participants were female.

The criteria used for the selection of the participants were the level of FL competence and their FL learning experience:

- Group A: beginner EFL students;
- Group B: intermediate EFL students;
- Group C: advanced EFL students;
- Group E: advanced EFL students with at least six months experience of the Erasmus Programme in English-speaking countries;
- Group P: Italian professors of EFL.

The participants in the first three groups are students at different FL levels and whose linguistic competence has developed by means of a *learning* process; the other two groups include participants who have had the opportunity to *acquire* the language in English-speaking countries, in addition to learning it at school and university.

In particular, the speakers in groups A, B, and C are all EFL students at the University of Salerno. All of them have lived in Salerno since childhood (as have their parents), so their L1 was Salerno Italian. The assessment of their FL level of competence in was based on their results in EFL exams. We selected 10 students from Group A, 7 from Group B, and 6 from Group C.

The students in Group E have the same requisites as the students in Group C, with the difference that they studied for at least one semester in an English-speaking country. We were able to select 7 Erasmus students. We chose these students as a Control Group, which allowed us to take into account the differences between FL classroom learning and acquisition in natural environments.

The 3 participants in Group P are professors of EFL at the University of Salerno. The participants of this Control Group ideally represent speakers with the highest EFL competence (learning experience abroad plus high levels of grammatical and communicative competences).

Group E and Group P were selected for a twofold purpose. On the one hand, they allow us to make considerations about the effects of the acquisition in natural contexts following the learning process. On the other hand, they add information about the possible development of a learner's prosodic competence from the earlier stages to the highest. Moreover, Group P was essential to verify the possibility of fossilization in higher stages.

The productions of these participants have been analysed with reference to the productions of native speakers of English (English L1). This was the group of reference used to verify the potential development of prosodic skills. English L1 speakers do not represent models of the entire language variety they speak, but just the model of

reference of the students chosen for the purpose of the research, since they were the teachers of those students. We had 3 speakers in this group.

1.3 Methodology

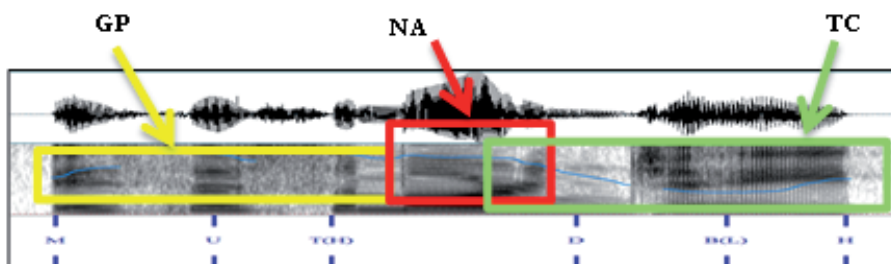
The data were analysed using the INTSINT labelling system¹ (Hirst, Di Cristo, 1998) and employing a phonetic approach based on the description of the fundamental frequency (f_0) of the utterances.

Adopting a phonetic point of view when approaching the analysis of L2 prosody is a good option for the sake of data comparability, as well as for labelling and analysing interlanguages, whose variable nature implies the need to approach the study starting from the realization level. Since our goal was to have homogeneously labelled data in two different languages (English and Italian) and in the students' ILs, the INTSINT international labelling system was used. After the phonetic description of the curve of the productions, we proceeded to a more theoretical description of the utterances, by relating the phonetic realizations described to conceptual categories of the f_0 curve. Since these theoretical categories refer to a more abstract level of representation, they allowed us to make generalisations in the description of the observed data.

The categories considered are (Figure 3):

- *Global Profile* (GP), which is a description of the f_0 curve trend from its beginning to the nuclear accent. Several GP realizations are possible: rising, falling, flat, or combinations of such trends (for example rising-falling or falling-rising);
- *Nuclear Accent* (NA), which is the most prominent accent of the utterance, described according to whether it is a peak (H) or a valley (L), or whether it follows a rising (LH) or falling trend (HL). Again, the description of the accent is based on a phonetic approach, which provides information about its trend, without the description of its alignment to the syllable;
- *Terminal Contour* (TC), which is the terminal portion of the curve, from NA to its end. Three possible realizations of TC may occur, which are rising (H), falling (L), or flat (S).

Figure 3 - Subdivision of the F_0 curve into the three parameters of GP, NA, and TC



¹ The software used for pitch track analyses was Praat, using the script Prosomarker (Origlia, Alfano, 2012).

The study started by building the L1 models, both English and Italian, following the procedure described above.

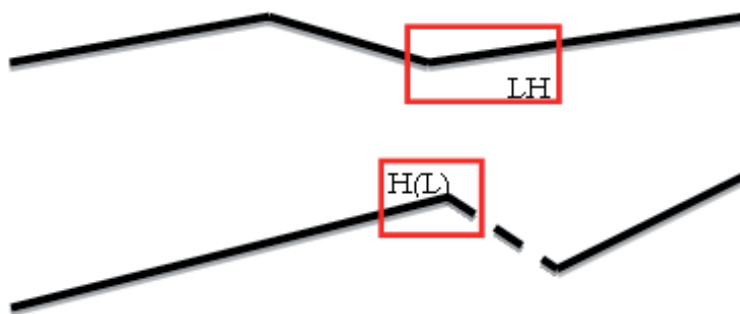
The VS questions are syntactically organised with the presence of a postponed subject, placed at the end of the utterance, after the verbal phrase, and with the expletive (*ci/there*) placed in the position of the subject. This particular question structure might have different prosodic realizations, both cross-linguistically and intra-linguistically, on the basis of its information and pragmatic interpretation. In particular, this utterance might allow at least two different interpretations based on the *presupposition* that speakers assume they share with the hearer².

In Italian, the question *C'è x?* ('Is there *x*?'), where *x* can represent any noun, can have a twofold interpretation: on the one hand, it can be uttered with the presupposition of the existence of the item *x*, which the speaker takes for granted is also assumed by the hearer. On the other hand, the utterance might be spoken without the assumption of the existence of *x* (zero-presupposition). On the contrary, the question *Is there x?* in English is appropriate only in the zero-presupposition case, when the presence of *x* is the purpose of the question, not the presupposition³. We analysed only those utterances that could be found in both languages (zero-presupposition).

Figure 4 shows the two stylised models of the utterances analysed. The L1 model of reference can be described as follows:

- P: Rising
- NA: H(L)
- TC: H

Figure 4 - Stylization of L1s productions, Italian (top) and English (bottom)



² Stalnaker (1978: 321) gives a definition of presupposition, stating, “a proposition is presupposed if the speaker is disposed to act as if he assumes or believes that the proposition is true, and as if he assumes or believes that his audience assumes or believes that it is true as well.” From this definition, we can assume that speakers rely on the belief that there exists some common knowledge among those involved in the conversation, which does not need to be asserted and which can affect the information and the pragmatic status of the speech acts.

³ As pointed out by Ward and Birner (2001), English existential *there*-sentences (*i.e.* *there*-sentences containing *be* as the main verb) are the result of the postposition of the logical subject, which has to be both hearer-new and discourse-new in order to be felicitous.

The label in brackets refers to the fact that in some cases the H tone of English NAs may be followed by a low tone. As a rule, the f_0 curve falls after the high accent and then rises again before the end; in cases where the target word is either monosyllabic or oxytone (that is when the NA occurs on the last syllable of the utterance), this fall begins within the accentual portion of the curve. This happens because of the lack of linguistic material between NA and TC, which causes the intonational phenomena to contract into a far shorter time interval, as shown in Figure 5a and 5b.

Italian L1 model is:

- P: slightly rising-falling
- NA: (L)H
- TC: H

Figure 5a - Example of HL accent in an oxytone (*Is there an engineer?*)

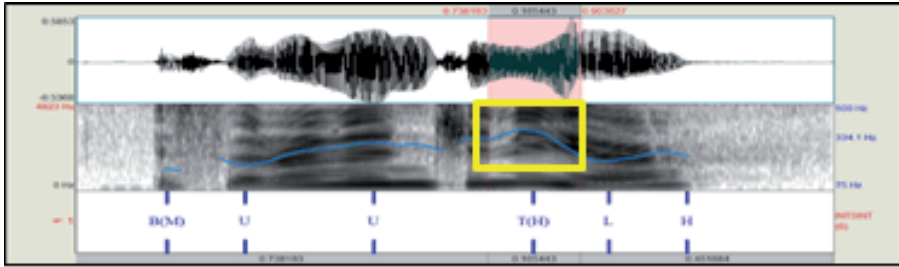
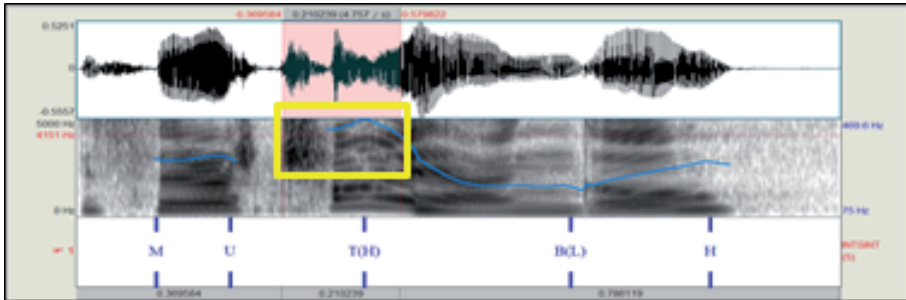


Figure 5b - Example of H accent in a proparoxytone (*Is there a triangle?*)



Besides the realization of the three parameters of P, NA, and TC, we noticed that the frequency range of the f_0 curves was systematically different from one language to another. In particular, utterances in English had an average range twice as wide as the utterances spoken in Italian. For each sentence, we calculated both the range of the whole phrase and the range of the TC; the mean values divided for languages are reported below:

English:

- Range: 226,9 Hz
- Range TC: 110,9 Hz

Italian:

- Range: 111,1 Hz
- Range TC: 58, 4 Hz

After the description of the models, we analysed the productions of the students' interlanguages, comparing them with both models, focusing on the aspects that appeared to differ systematically from one language to another, as reported in the following section.

2. Results

We have mainly focused on language-specific aspects, in order to verify whether or not prosodic transfer occurred in the students' IL. This contrastive comparison was always made with reference to the L1 learning models (both English and Italian) and to the control groups P and E.

The aspects taken into account are:

1. The information structure: presupposition vs zero-presupposition;
2. The trend of GP;
3. The range of frequencies of the utterances;
4. The realization of the accentual target.

In this paper, we will not present results regarding TC. In most of the cases, the terminal contour had the same trend (*i.e.* rising) in the two L1s, but with a much higher excursion in English. For now, this aspect will be accounted for in the section dealing with range. A similar, yet much more complicated situation is the realization of NA. The question of the nuclear accent has yet to be sufficiently analysed and the results shown in §2.4 are, therefore, not final.

2.1 Presupposition vs zero-presupposition

This aspect is not a purely prosodic one, but it greatly involves the prosodic realization of the utterances. As explained above, in Italian two prosodic realizations are allowed: questions with zero-presupposition structure, which have the NA on the subject and questions with the presupposition of the subject, which are realized with the NA on the verbal phrase. English, on the other hand, only allows questions with zero-presupposition and, therefore, only with the occurrence of NA on the subject (which is also the rightmost element). Whenever students realized the questions in English with NA on the expletive, it has been considered as prosodic transfer. The results for this aspect are reported in Table 1.

Table 2 - *Choice between the two possible informative interpretations*

	<i>NA on the Noun phrase</i>	<i>NA on the Verbal Phrase</i>
Group A	50.9%	49.1%
Group B	71.4%	28.6%
Group C	59.1%	40.9%
Group E	67.5%	32.5%
Group P	84.8%	15.2%

Results show that the prosodic cues related to this aspect are learned over time and even in FL classes. Indeed, these results point to a consistency between the level of FL competence and the correct use of these cues. Only the values registered in Group B do not follow this pattern. However, the high percentages of this group stem from the productions of only two speakers, without which we would have an average value of 51.5% of NAs placed on the subject. The positive results regarding this aspect might depend on the fact that the placement of the nuclear prominence is not a matter of prosody alone, but is closely linked to the informative-pragmatic interpretation of the utterance, of which prosody is only the phonetic interface.

Results presented below refer only to the utterances with NA on the subject.

2.2 Frequency range

The range of frequencies used to speak a language differs cross-linguistically and a narrower pitch range is a common mistake made by English language learners with different language backgrounds (Mennen, 2007).

Table 3 reports the results registered in the L1 models and in the interlanguages spoken by non-native-speakers of English.

Table 3 - *Values of the F_0 range registered in the different groups*

	<i>Range</i>	<i>Standard deviation</i>
English L1	226,9 Hz	60,3
Italian L1	111,1 Hz	36,2
Group A	155,2 Hz	56,7
Group B	136,1 Hz	47,5
Group C	134,4 Hz	54,4
Group E	234,4 Hz	82,0
Group P	251,7 Hz	80,5

We observed a striking contrast between native speakers of Italian and English in the use of frequency range, showing that the two languages are different in this perspective.

Groups A, B, and C show that the range of frequencies they use in their inter-languages is only slightly wider than the range they use in their L1 and far narrower than the results registered for their FL models. This result, which roughly equates all the students regardless of the level of competence, proves the occurrence of prosodic transfer from their L1 to L2. Therefore, we can argue that, although they might perceive higher peaks of frequencies (and lower valleys), they fail to reproduce them when speaking English, using the range of frequency they would use in Italian.

On the contrary, results from the control groups (P and E) give proofs of the fact that this prosodic feature can be acquired over time, and probably thanks to the immersion of the learner in a context where the language is spoken as L1. Groups P and E, indeed, implement ranges of frequencies that go even beyond the level of native-speakers (though the standard deviation shows that the phenomenon is not consistent among the speakers and their utterances).

This might allow us to conclude that the range of frequencies used in a language is a highly salient prosodic feature, noticed by learners when faced with a great deal of input language.

2.3 Realization of GP

Another contrastively significant aspect is the *Global Profile*, which, as explained above, gathers all the intonational phenomena of the curve before the nuclear accent, and is essential to describe the global trend of the curve in the whole utterance.

Table 4 - *Realization of GP*

	<i>Rising</i>	<i>Rising-falling</i>	<i>Flat</i>	<i>Falling</i>	<i>Others</i>
English L1	42.9%	28.6%	28.6%	–	–
Group A	28.6%	–	64.3%	7.1%	–
Group B	32.7%	9.1%	56.4%	1.8%	–
Group C	29.3%	14.6%	41.5%	14.6%	–
Group E	14.8%	13.0%	55.6%	7.4%	9.0%
Group P	32.1%	–	50.0%	17.9%	–

We encountered four main patterns in the realization of GP: rising, rising-falling, flat, and falling.

English L1 speakers realize their utterances with a rising GP in most of their productions (42.9%), while non-native speakers prefer a relatively flat pattern, regardless of their level of proficiency, or whether or not they have acquired English in natural contexts. These results might appear surprising, since we reported that control groups E and P used a wider range of f_0 than native speakers did. In any case, what we can deduce from this is that the realization of GP is a less salient feature of the curve, perhaps the salient one, and even when a proper range of frequencies is used, it is restricted to the final portion of the curve (NA and TC).

2.4 Nuclear accent

As mentioned above, the results registered from the realization of NA are not definitive and still require an in-depth examination.

The results found so far point to a complicated situation, which is nevertheless interesting from a researcher's point of view. Table 5 reports the frequency of the use of an H-targeted NA or an L-targeted NA in the different groups.

The H and L labels refer only to the accentual target; in other words, they refer to the main NA tone, regardless of the alignment to the syllable.

In contrast with the analyses of the L1s (both English and Italian), which showed more consistent realizations of NA, interlanguages had a much higher variation both among and within the groups. This additional and more general classification of NA, therefore, was needed in order to add greater homogeneity to the results and to facilitate their comparison.

Table 5 - *Realization of the target of the NA*

	H	L
English L1	83.3%	16.7%
Group A	39.2%	60.8%
Group B	47.3%	52.7%
Group C	48.8%	51.2%
Group E	74.1%	25.9%
Group P	67.9%	32.1%

As shown in the table above, in over 83% of the cases, the target of the accents in English L1 productions is H, while among non-native speakers both realizations can be found. Students A, B, and C realize a low-targeted NA, regardless of the level of English language proficiency, while Groups P and E, in most cases, have a high-targeted NA.

Accents in the Salerno Italian variety are phonetically realized as a rise from a low tone that aims to an H target; in English L1 NA aims to a high target. Thus, we did not expect L-targeted NA to occur frequently.

In most cases, NA in students' interlanguages, regardless of the level of FL competence, differs from both L1 and L2. In addition, no consistency in its realization has been found within the groups or within the different productions of one speaker (which is the reason why we opted for a more generalised description of NA). This phenomenon has been accounted for as *prosodic drift*: learners want to *leave* their L1, but they are not sure about what they should do because of the paucity of the input and the lack of direct instructions; thus, they drift away from the L2 norm in the attempt to reproduce something they believe is different from their L1.

As for the realization of NAs registered in the control groups, it is fairly close to the way native-speakers realize it. Nevertheless, it is not yet possible to state that they are realizing an "English" nuclear accent. A deeper analysis would be neces-

sary in order to state if this outcome represents a real movement towards the TL. However, by considering the study as pseudo-longitudinal, in which lower levels give a hint of how the higher ones used to speak and, symmetrically, higher levels represent the way lower ones will most probably speak, we can suppose that they realize the accent in a way that is closer to the native-speakers.

3. *Discussion*

Results show a twofold classification of the speakers. On the one hand we have students whose linguistic input come from their FL teachers alone (A, B, and C) and whose productions reveal either the occurrence of prosodic transfer in the realization of GP, use of a range of frequencies and prominence placement, or an opposite prosodic drift, in the case of NA. Either way, this confirms that students rely enormously on their L1. We expected this to happen, but what was not expected is the fact that it occurs regardless of the time of their exposure to the classroom input. The lack of improvement from one level to the next might be linked to the fact that current FL teaching methods do not impart the necessary prosodic knowledge, or even some sort of guidelines, to their students, and not even at higher levels.

On the other hand, there are Groups P and E, who either shift from their L1 and move towards L2, as in the case of the range of frequencies and prominence placement, or they transfer prosodic cues from L1 to IL, as in the case of the realization of GP or, perhaps, NA.

From this framework, we can assume that the different parameters analysed might not carry the same weight in terms of how they are perceived, whether they are noticed, and how they are employed when speaking in FL. For instance, GP is the one aspect that we can assume most people do not notice, since it is not implemented correctly by a large percentage of the informants. The range of frequencies, on the contrary, is mostly noticed and some speakers increase their own, in order to imitate native-speakers. However, this occurs only when they are faced with considerably more input than that restricted to the five-year English class at university. Moreover, the speakers do not seem fully aware of the use of this cue, since they widen the range of frequencies only in a portion of the curve. As for the accent, this is realized either incorrectly or ambiguously, which leads us to think that speakers perceive it as being different from their L1's, but they are not given enough instructions or input to move towards the target language norm.

The improvements made by students over the five-year classes do not regard prosody: the results are basically the same from level A to level C, meaning that a teaching programme for prosody needs to be developed. Secondly, some improvements are made when the learners spend time in the country where the language they are learning is spoken as L1. However, the lack of direct instructions makes them rely on what they perceive as important, leading to an erroneous use of prosodic cues in FL. In addition, these initial errors concerning some of the prosodic aspects are not improved over the years. This, might be considered a proof of prosodic fossilization.

Nevertheless, several studies on fossilization (Selinker, Mascia, 1999; Long, 2003) have argued that longitudinal studies are required in order to demonstrate the occurrence of fossilization. Since our study is only pseudo-longitudinal, we cannot state that speakers at the highest levels, namely Group P, are fossilized. However, it is safe to claim that those cues which are erroneously implemented by all the speakers regardless of the level of FL competence (GP and, in an ambiguous way, NA) are items which might be considered vulnerable to fossilization. On the contrary, aspects that improve over the years, such as the range of frequencies and the placement of the NA are items that are less likely to fossilize.

4. Conclusion

This study has aimed to monitor the process of prosody learning in EFL students. Results have shown that learners who have never had the opportunity to acquire the language in natural environments do not learn FL prosodic cues, even if they improve their general FL competence. Signs of improvement are registered only after they spend at least a semester in an English-speaking country.

This outcome clearly shows the link between the lack of improvement in prosodic competence and the FL teaching methods, which notoriously do not include instructions on phonetics or, least of all, prosody (Dalton, 1997; Munro, Derwing, 1999; Isaacs, 2009). Derwing, Rossiter (2003) demonstrate that general prosodic instructions positively affect the productions of non-native speakers, in terms of comprehensibility, accentedness, and fluency, which suggests that teaching prosody is useful and necessary.

Therefore, this article wants to stress the need for the development of such methods, which might represent the only way that FL learners have to improve their prosodic proficiency. This, however, is no simple task. In order to include prosody in the current teaching programmes, researchers need to gain a better understanding not only of the processes governing the acquisition/learning of prosodic structures but also of the prosodic cues which are primarily responsible for undermining the success of communication.

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