

The Role of Noticing in L2 Learners' Production of Intonation Patterns

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Abstract

This study was an attempt to explore the role that the increased perceptual saliency of L2 input features or output flaws and hereby promoting L2 learners' noticing (through planned instructional activities) can play in the learners' use of correct English intonation patterns. The participants were 80 Iranian EFL students attending four intact classes, two low-intermediate and two upper-intermediate levels, in a language institute in Shahrekord. The classes at each level were assigned to control and experimental groups. The experimental groups received the noticing-enhancing instruction while listening to native speakers' English audio-recorded on a CD and through in-class intonation assessment tasks, repeated activation of intonation patterns in both L2 input and output, metalinguistic explanations, picture descriptions, and interactive role-playings. An English native-speaker instructor was then hired to rate the learners' audio-recorded data at both pretest and posttest times. The results of the statistical data analysis demonstrated that both the 'noticing groups' achieved significant improvement from their pretests to their posttests.

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Complementary gain score analysis indicated that the attainment of the lower-level group was relatively more than that of the higher-level group, perhaps due to the fact that they initially had more room for improvement. It is finally discussed that selective attention, or noticing, can influence the processing of the commonly neglected aspects of L2 input and thus leads to more learning. The findings also suggest that L2 practitioners include in their pedagogy activities that aim to increase the prominence or saliency of such intrinsic features of L2 input and communication in order to make them available for processing and internalization.

Keywords: noticing, perceptual saliency, planned instructional activities, and intonation patterns

1. Introduction

Pronunciation, according to Fraser (2006), is of vital importance to the second or foreign language (L2) learning due to at least three reasons. First, it enhances comprehensibility. Second, when the finite number of sounds, sound clusters, and intonation patterns is mastered, it enables infinite use. Third, it is of great assistance to those who have integrative motivation since with native-like pronunciation they will not be marked as foreigners. It can also be added that just as rich vocabulary, fluent reading, speech, and perfect grammar are essential for learners who wish to be highly proficient in the L2, so is good pronunciation important since it is part and parcel of successful L2 communication. Pronunciation comprises segmental features (i.e., vowels and consonants) and suprasegmental (i. e., prosodic) features such as stress, intonation, pitch, and rhythm (Jones, 2002). Similarly, L2 learners' knowledge and use of correct intonation patterns are essential to effective communication since appropriate intonation can direct the listener's attention to the important information in the discourse, reflect or reinforce the interactional affective overtones, attitudes, or status of the interlocutors, and help them establish reciprocal cultural harmony. Despite its felt prominence, intonation (or, in general, pronunciation) has not received due attention in L2 classrooms. In this regard, Kelly (2000) maintains that

pronunciation is the Cinderella area of L2 education, and even western linguists have studied grammar and vocabulary more than pronunciation.

With the advent of the functional movement in language teaching, prosodic features have come out more from the shadow due to the fact that learners' attitudes, purposes, moods, and emotions, which are conveyed by stress and intonation in a language like English, are high on agenda for this approach (Boyle, 1997). Intonation is the earliest communicative means a child acquires in his or her first language (L1). That is, small children who are yet unable to speak their L1 to express their wants and emotions develop an early command of major L1 intonation patterns when they synchronize these meaning-making patterns with connected chains of sounds to serve their basic communicative purposes. As noted above, despite its intrinsic function in L2 communication, intonation has been ignored in L2 pedagogy, in the sense that there has been no sufficient attempt to teach L2 intonation patterns on the side of teachers and most L2 learners tend to stop short of acquiring these patterns.

Meanwhile, SLA research has shown that the use of planned instructional activities increases the perceptual salience of commonly ignored L2 input (or output) features, focuses the learners' attention, promotes their noticing the gaps within their own L2 knowledge, and thus engages them in repairing their faulty systemic structures or features. This in turn is argued to promote L2 learning and development (Doughty, 2001, 2004; Ellis, 2002; Hauser, 1999; N. Ellis & Sagarra, 2011; Norris & Ortega, 2000; Schmidt, 1990, 1993, 2001; Soleimani, Ketabi, & Talebinejad, 2008; Swain, 1998; Yang & Zhang, 2010). Specifically, Schmidt's 'noticing hypothesis' indicates that conscious awareness is necessary for SLA and that "intake is the part of input that the learners notice" (1990, p. 139). Yet, Robinson (1995), admitting the necessary role of awareness in converting input to intake, argues that "it is not sufficient and that some planned instructional activities are still needed to fill the gaps between what is produced by learners and what is produced by the speakers of the L2" (p. 285).

Most ESL teachers have begun to realize that promoting learners' noticing the gaps in their knowledge and use of L2 prosodic features through planned instructional activities is essential. Balanced focus on meaning and prosodic patterns through planned tasks in L2 instruction can deepen students' awareness of such forms and make them understand the relationship between meaning, forms, and function in a highly context-sensitive situation (Fraser & Perth, 1999; Murphy, 2003; Muranoi, 2007). For instance, Hebert (2002) emphasizes giving pronunciation instruction and presents a procedural approach for incorporating phonological elements into an ESL syllabus. His procedural approach consists of setting the purpose of learning, showing the students how to do, and guiding them on applying new items. Motivated by a similar orientation, this study aims to practically investigate the effectiveness of promoting learners' noticing through a program of planned instruction in intonation patterns of Yes/No questions, information/Wh questions, and statements on a group of EFL learners. Another purpose of this study is to examine whether students' level of language development plays any role in the effectiveness of planned instruction of intonation patterns.

2. Background

Dalton and Seidlhofer (1994) view pronunciation not as an end in itself but as a means to negotiate meaning in discourse. They go on and define pronunciation as "the production of significant sound in two senses" (p. 3). Sound is significant because, first, "it is used as part of a code of a particular language" and, second, "it is used to achieve meaning in contexts of use" (p. 3). There is general consensus that pronunciation is an integral aspect of communicative competence that combines with other factors to make communication possible. It can influence the desire to use the language as well as the quantity and quality of the input received and the output produced. Pronunciation is normally seen as a multifaceted experience, affected by biological, social, and psychological factors which result in complexity of this skill (Derwing & Munro,

2006). Being able to speak an L2 like English includes most of the sub-skills among which pronunciation is no less important than other sub-skills of vocabulary, grammar, and pragmatics. It is argued that, with good pronunciation, a speaker is more intelligible despite other errors; with poor pronunciation; on the other hand, he can be very difficult to understand, despite accuracy in other areas (Fraser, 2000).

In practice, however, pronunciation receives no such consideration as it deserves and remains relatively neglected in most language curricula (Setter and Jenkins, 2005). According to Richards and Renandya (2002), there are two major contradictory perspectives towards teaching pronunciation within the field of language teaching. The proponents of the first perspective (e.g., Hall, 1997; Samuda, 1993; Purcell & Suter, 1980) assume a small role for teachers to influence the natural course of L2 phonological development and believe in the ineffectiveness of teaching pronunciation. This assumption originates in the claims made by the critical period hypothesis (CPH) or Krashen's (1982) study on naturalistic language acquisition. CPH-oriented researchers claim that it is virtually impossible for adults to acquire native-like L2 pronunciation (Burrill, 1985). In a similar vein, Krashen (1982) insists that pronunciation is a naturally acquired skill and that focused instruction is at best useless and at worst detrimental; therefore, pronunciation cannot be affected by planned practice and the teaching of formal rules. In other words, this view holds that factors that most affect the acquisition of L2 phonology such as native language, aptitude for oral mimicry, interaction with native speakers, and motivation seem to be those on which teachers and classrooms have the least influence (Jones, 2002). The corollary has been that pronunciation was pushed to the sidelines (in materials and classrooms) with the proposal of Natural Approach at a time when Communicative Language Teaching (CLT) was just on the rise. Pronunciation teaching was then reduced to the general concerns addressing the issues of motivation and exposure to comprehensible L2 input without any further intervention or focus on form.

In contrast, the promoters of the second perspective (e.g., Couper, 2006; Dalton & Seidlhofer, 1994; Derwing, Munro, & Wiebe, 1998; Harmer, 2001; Jones, 2002) believe that teaching pronunciation not only makes students aware of different sounds and sound features but can also improve their speaking immediately and help them to shape their attitudes toward the nature and importance of pronunciation. Some researchers (Pica, 1984; Jones, 2002) even go further and argue that pronunciation teaching not only seems necessary, but it should also incorporate a more communicative dimension in the design of materials, tasks, and activities.

In general, this renewal of interest in the effectiveness of instruction or focus on L2 form (here, L2 phonology) was associated with a simultaneous renewed interest in the role of awareness and attention in the processing of L2 input (or output) and the subsequent L2 learning. Related research on the role of consciousness in second language acquisition (SLA) demonstrated that conscious cognitive effort involving the subjective experience of noticing is a necessary condition for the conversion of L2 input to intake, “as it does in the acquisition of other cognitive skills” (N. Ellis, 2007, p. 20). Specifically, L2 practitioners working within content-based immersion programs have observed that comprehensible input was not “the only true cause” (Krashen, 1984, p. 61) of SLA and that planned focus on meaning and form in L2 instruction can help students notice a form in L2 input that is different from their interlanguage (i.e., ‘noticing a hole’) and also notice a form in their L2 output that is different from that of the competent speakers of the target language (i.e., ‘noticing a gap’). This noticing in turn triggers important cognitive processes such as selective attention and cognitive comparison, which are seen as crucial processes in language acquisition (Swain, 2005; Muranoi, 2007; Sakai, 2010; Truscott & Sharwood Smith, 2011).

It is important to point out that this renovated ‘focus on form’ (FonF) movement (Long, 1991; Doughty & Williams, 1998; Fotos & Nassaji, 2007; Yang & Lyster, 2010) and its conception of the role of

noticing are markedly distinct from the traditional 'focus on forms' instruction that is well-known for its concern to raise learners' awareness of L2 disjointed forms through the use of decontextualized and often meaningless grammar drills. In modern FonF trend, explicit instruction (or explicit focus on linguistic form) is supposed to be integrated into the meaningful, often task-based, communication and is oriented towards students' errors (N. Ellis, 2007). Considering the status of pronunciation in the traditional L2 curricula, McCarthy (1991) observes that most pronunciation teaching in the past has drawn on the structural linguists' findings who have analyzed language sounds in terms of discrete elements called 'phonemes' which, when used in constructing words, produce meaningful contrasts with other words. Fraser (2000) views teachers' isolated treatment of segmental and suprasegmental features of pronunciation in their teachings as an 'unfortunate' event and cautions that it is not appropriate from a communicative approach to teaching pronunciation.

Similarly, Florez (1998) notes that pronunciation teaching has often concentrated on the mastery of segmentals through discrimination and production of target sounds via drills. She then defines segmental features as the basic inventory of distinctive sounds and the way that they combine to form a spoken language. Suprasegmental features, on the other hand, refer to the prosodic features of speech and consist of stress, rhythm, prominence, and intonation (Cruttenden, 2001).

Recently and with the inception of more communicative approaches to language teaching, the importance of suprasegmental features for appropriate communication is generally acknowledged (Jones, 2002). Many teachers and educationalists (e.g., Celce-Murcia, Brinton, & Goodwin, 2010; Field, 2005; Grant, 2001; Hall, 1997; Levis & Grant, 2003; Morley, 1991) rank the importance of suprasegmental features even higher than individual sounds. Their rationale is that prosodic features of language convey affective meanings (e.g., interests, attitudes, mood, or status), provide a framework for utterances, direct the listener's attention to the important information in the discourse, and help him

establish cultural harmony with the speaker. In addition, an improvement L2 learners' knowledge of suprasegmental features has a close correlation with their enhanced intelligibility, which is defined as how much a listener actually understands. Intelligibility depends to some extent on the context of the utterance which can be highlighted through intonation (Derwing & Munro, 2006; Morley, 1999).

One of the English suprasegmental features is intonation, or in Gilbert's (2006) term, "the music of English" (p. 8). Intonation can be defined as a change in a pitch contour across the duration of a sentence or other large units of language to which linguists attach familiar labels describing levels (e.g., high/low) and tones (e.g., falling/rising) (Liddicoat & Curnow, 2004). Some researchers (Brazil, Coultard, & Johns, 1980; Levis, 2005; Tench, 2006) believe that intonation has grammatical and discursal functions, for instance, used to express attitudes and emotions, to signal that speakers are about to finish a turn, or to make a distinction of sentence types, i.e. questions or statements. Ranalli (2002) suggests that most of the communication impasses or misinterpretations that result in offence are due to lack of enough competence in using appropriate intonation patterns.

Given the renewed interest in the importance of suprasegmental features in language learning and communication, L2 research has over the years witnessed some attempts that have sought to systematically examine how L2 suprasegmental features are learned or identify what factors influence their learning. For instance, some studies investigated the effect of explicit instruction on the perception and production of suprasegmental features (e.g. Anderson, 2000; Champagne-Muzar, Scheneideran, & Bourdages, 1993; Derwing, Munro, & Wiebe, 1998; Hall, 1997; Yanli, 2008). Their findings generally acknowledge that pronunciation training can foster the acquisition of new suprasegmental representations especially in the case of learners with fossilized errors. In the case of intonation, there is also some empirical evidence that awareness-raising activities and explicit focus on intonation patterns of other languages are necessary for learning since every language has its

own intonation patterns. For example, students whose first language is syllable-timed (e.g., Korean) will inevitably find mastering a stress-timed language (e.g., English) a very daunting task. In this regard, O'Grady (2003) points out that the improvement of awareness is helpful for successful learning of the L2 learners who encounter a new phonological system in one language. Studies on the role of awareness provide evidence for the following two points: (1) higher levels of awareness are associated with more (planned) explicit conditions and activities and (2) learners with greater awareness are more capable to recognize and produce target forms than those with lesser awareness (Laufer & Hulstijn, 2001; Leow, 2000; Philp, 2003; Simard & Wong, 2001). Overall then, through planned instructional activities, learners can increase their awareness of the complexity of the cognitive processing underlying the learning of L2 intonation patterns and how they should go about it (Chan & Siegel, 2001).

To round off this section, some studies (e.g., Acton, 1987; Aufderhaar, 2004; Chun, 2002; Couper, 2006; Gilbert, 2006; Jull, 1987; Levis, 2005; Meyers, 1981; Morley, 1999; Prator & Robinette, 1985; Ramirez Verdugo, 2005) insist that intonation be taught from the outset in the classroom. They also suggest a series of pedagogical guidelines such as teaching in context, giving adequate examples, using authentic audio literature such as radio shows, interviews, poetry readings, combining a discourse intonation model, and computer technology for teaching intonation. There are also several techniques for teaching intonation. Among them are using 'kazoo' which takes the students' attention off of the meaning of a word or sentence and helps them focus on the intonation, hand movements, musical stimulation, songs, shadow talking, imitation, whispering, humming, tapping, clapping, the use of rubber bands as a visual image for length variation in syllables, drawing intonation contours or pitch graphs, free recording, and editing software application. Of course, these techniques are particularly practical in the case of EFL teaching-learning situations where language input is limited to the classroom setting (Tench, 2006).

3. The Study

Given the growing interest in the application of the findings of noticing research to the teaching of different L2 features, this study intended to examine the effect of promoting noticing through planned instruction on the EFL learners' production of intonation patterns while using Yes/No questions, information/Wh-questions, and statements in dialogues. The study also sought to investigate whether the learners' level of language development played any part in the effectiveness of the planned instruction of intonation patterns for different learners. Therefore, the following research questions were addressed:

1. Does promoting noticing through planned instruction have any effect on Iranian EFL learners' production of intonation patterns in Yes/No questions, Wh-questions, and statements?
2. Do students with different levels of language development respond differently to noticing through planned instructional activities in English intonation patterns?

4. Method

4.1 Participants

The participants of this study were 80 Iranian EFL learners attending a language-learning institute in Shahrekord in the form of four intact classes. Two of the groups or classes enrolled at the low-intermediate level and two others at the upper-intermediate level based on a placement test administered before by the institute. All were females whose age ranged from 15 to 20. They attended English courses in summer, and received approximately 10 hours a week of EFL instruction. The four intact classes at the institute were initially assigned to two control and two experimental groups to investigate the influence of their level of L2 education on the effectiveness of noticing (or heightened salience) on their subsequent use of intonation patterns. It is important to point out that in this institute, intonation patterns were not taught due to the time constraints, and the main goal was making students able to communicate and to get their messages across. In other words, fluency was considered

more important than pronunciation accuracy, and this fact ensured us that students had not had instruction in this respect before. A female native English speaker from Bradford England, who comes to Shahrekord in summers and teaches English in institutes, rated (or judged) the recorded data.

4.2 Materials and planned instructional activities

Some contextualized dialogues were selected from an English Book (Intro written by Richards, 2005) below the students' level to ensure that they did not have any problem in understanding the vocabulary and grammar. The dialogues contained some Yes/No questions, information questions, and statements. In the treatment part, both of the experimental groups (i.e., low-intermediate and high-intermediate level groups) were taught the intonation patterns explicitly using a CD containing the audio-data produced by English native speakers. More important, some in-class instructional activities such as repeated activation of native-like intonation patterns, picture descriptions, interactive role-playings, metalinguistic explanations related to the pitch graphs, and discussions were planned to first engage the learners in meaningful task performance and then to increase the salience of L2 intonation patterns and promote their noticing. It should be mentioned that the teachers, who were the researchers but not the raters, had not taught intonation patterns in questions and statements before in the classes.

4.3 Data collection procedure

In the first session, before explicit teaching of intonation, the researchers asked the L2 learners in both the control and the experimental groups to read or pronounce the dialogues in the best way they could. Their voices were audio-recorded as pretest data. No awareness-raising was done at this phase. After that, the L2 instruction in the control groups went on as it was normally expected based on the textbook. But, the experimental groups were taught the intonation patterns in different questions and statements explicitly during three sessions of instruction. It is important to note that the students were primarily required to focus on meaning and

interaction and then attend to the use of intonation patterns (or contours) to signal different imports and attitudes in communication. First, some metalinguistic explanations were provided focusing on the general intonation patterns used by the native speakers in the conversations in the CD and the relevant pictures in the accompanying books (see the appendix) were shown to reinforce the communicative dimension of the patterns. According to Ellis (2003), audio or video recording of native speakers are some input-based activities that can be used to increase the salience of certain ways language is used. Then, some graphs and displays representing different intonation contours on the same structure but for different communicative purposes were used to emphasize the primacy of the context of use and the intended meanings in determining the intonation patterns in communication. The instruction went on with posing some topics for real interactions, and discussions arose. They were also asked to play some roles. The first role-playings were script-based that turned into freer ones at the end. As to the metalinguistic explanations, the teacher also used some examples of Persian with similar intonation patterns and then made the students practice those patterns in both languages. In repeated activation of native-like intonation, the students received focused recasts (Lyster, 2004) or reformulations in response to their faulty intonation productions. In this way, students were made aware of the fact that Yes/No questions generally have rising intonation, Wh/Information questions falling intonation, and statements are normally said with the falling one if no additional attitude is to be conveyed (Richards, Null, & Proctor, 2005). Ellis (2003) assumes that activities such as role-playing and free discussion can help learners organize their ideas before expressing them and at the same time focus their attention to notice forms (Ellis, 2003).

After three successive instructional sessions, students were asked to read some dialogues containing some questions and statements similar to those at the pretest, but this time with correct intonation. Their voices were again audio-recorded as the posttest. The native-speaker rater was completely informed of the aim of the study. She awarded one point to

the sentences pronounced with correct falling or rising intonation, and zero (no point) to those with wrong or without intonation (i.e., monotonous ones). One important point is that, in scoring, any wrong pronunciation or stress on individual words was ignored; the main point was just rising or falling intonation.

To make sure about the rater's consistency in rating the data in both pretest and posttest, 20 students' audio data rated at the posttest were again given to the rater two weeks later to be rated and then Kappa Measure of Agreement was run. As Table 1 shows, the Kappa Measure of Agreement value is 0.773 ($p < 0.05$). According to Peat (2001), a Kappa value above 0.7 represents a good agreement and thus a good measure of intra-rater consistency.

Table 1: Kappa measure of rater's consistency in scoring

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement Kappa	.773	.216	3.549	.000
N of Valid Cases	20			

a. Not assuming the null hypothesis

b. Using the asymptotic standard error assuming the null hypothesis.

5. Results

A mixed within-between subjects Analysis of Variance (ANOVA) was run, using SPSS 17, to assess the impact of explicit instruction on participants' scores across two time periods (pretest and posttest) and to know the existence of any significant differences between the participants' performance with different developmental levels of language learning. The Mauchly's test was not significant, denoting that the sphericity assumption was met. The results of the mixed within-between subjects ANOVA for the within-subjects effects (Table 2) indicate a significant difference for the within-subjects variable of time, implying that the participants' mean performance and change from one time (pretest) to another (posttest) were significant ($F = 8.780, p < 0.05$).

Besides, there was a significant interaction between group and time [Pillai's Trace = 0.081, $F(1, 76) = 6.7$, $p = 0.01$, partial eta squared = 0.081]. Using the commonly used guidelines proposed by Cohen (1988), these results suggest a large effect size. In other words, there was not the same change in scores over time for the different groups (i.e., experimental and control groups). As Table 2 shows, there was a substantial main effect for time [Pillai's Trace = 0.104, $F(1, 76) = 8.7$, $p < 0.05$, partial eta squared = 0.104].

Table 2: Results of the mixed ANOVA for the within-subjects effects

Source	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial Eta Squared
Time	1.600	1	1.600	8.780	.004	.104
Time * Level	.225	1	.225	1.235	.270	.016
Time * Group	1.225	1	1.225	6.722	.011	.081
Time * Level * Group	.100	76	.100	.549	.461	.007
Error (Time)	13.850	76	.182			

* $p < 0.05$

The results of the mixed within-between subjects ANOVA for the between-subjects effects of group (Table 3) supported the finding that there was a significant difference between the experimental and control groups ($F = 4.423$, $p < 0.05$, partial eta squared = 0.05).

Table 3: Results of the mixed ANOVA for the between-subjects effects of group

Source	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
Intercept	44.100	1	44.100	159.221	.000
Level	.625	1	.625	2.257	.137
Group	1.225	1	1.225	4.423	.039
Level * Group	.000	1	.000	.000	1.000
Error	21.050	76	.277		

* $p < 0.05$

To know where exactly the significant change between the groups occurred, post hoc pairwise comparisons (using the Bonferroni test to adjust the stated probability value of $p = 0.05$ due to making multiple comparisons) were run. Table 4 reveals that the experimental group outperformed or improved significantly better than the control group from the pretest time to the posttest time.

Table 4: Results of post hoc pairwise comparisons for the variable of group

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
Exp. Grp	Control Grp	.175*	.083	.039	.009	.341

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Bonferroni.

Table 5 shows the results of the post hoc pairwise comparisons for the variable of time (Mean Difference = 0.200, $p < 0.05$), meaning that there was a significant change or improvement over time.

Table 5: Results of post hoc pairwise comparisons for the variable of time

(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
2	1	.200*	.004	.066	.334	.067

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Bonferroni.

Table 2 indicates that the interaction effect between time and level was not significant ($F = 1.235$, $p < 0.05$). It means that there was not a

significant difference between the two groups with different levels of language development over time. The results of the mixed within-between subjects ANOVA for the between subject variable of level in Table 3 supported this finding ($F = 2.257, p < 0.05$). Although level was not a significant factor in applying explicit instruction of intonation, descriptive statistics revealed that the lower level group's score (0.5) was higher than that of the higher level group (0.25), meaning that the lower level group has more room for acquiring L2 suprasegmental features. This apparently indicates that although both of the experimental groups had improvement over time, the lower level group benefited the explicit instruction much more than the higher level group.

6. Discussion

The results indicated that there was a significant difference between the students' performance before and after raising the L2 learners' awareness about English intonation patterns. In other words, noticing and awareness-raising can be influential in acquiring intonation patterns in different questions and statements. Most students who could not initially produce the statements and questions with correct intonation patterns, after promoting their noticing via the planned instructional activities, improved in their performance. Therefore, the findings suggest that the learners' noticing the gap in their knowledge and ability to produce intonation patterns not only makes them aware of the meaning-making functions of different patterns but it can also improve their speaking immediately and help them in reshaping their attitudes towards the nature and importance of pronunciation (Anderson, 2000; Champagne-Muzar, Scheneideran, & Bourdages, 1993; Chan & Siegel, 2001; Couper, 2006; Derwing, Munro, & Wiebe, 1998; Hall, 1997; Harmer, 2001; Laufer & Hulstijn, 2001; Leow, 2000; O'Grady, 2003; Philp, 2003; Simard & Wong, 2001).

This study joins the abundant literature against the CPH that claims that it is virtually impossible for adults to acquire native-like pronunciation in a foreign language, and that explicit teaching of

pronunciation is useless. In fact, much earlier, Fledge (1987) argued against the hypothesis that the results of many empirical studies are inconsistent with its expectation and that the hypothesis itself is difficult to test. Others such as Leather and James (1991) have suggested that sociocultural and maturational variables are influential factors. It is thus argued that although the participants had passed the Critical Period, they still managed to achieve competency in producing English intonation through noticing and awareness-raising.

The results also run counter to Krashen's (1982) belief which is against the explicit teaching of pronunciation and believes that pronunciation is an acquired skill which cannot be affected by focused practice and the teaching of formal rules (Krashen, 1982). Proponents of this idea (e.g., Hall, 1997; Samuda, 1993; Purcell & Suter, 1980) also claim that teachers and classrooms have the least influence on the factors which mostly affect the acquisition of L2 phonology, like native language, aptitude for oral mimicry, interaction with native speakers, and motivation. This study, along with Jones (2002), holds that the problem with such studies is that they have focused on the acquisition in the second language environment not in the foreign language environment. Moreover, they may underestimate the fact that teachers, classrooms, and focused instruction can increase L2 learners' motivation, exposure, and awareness.

Moreover, the results showed that the variable of level was not a determinant factor and most students with different developmental levels of language learning welcomed the noticing-promoting instructional activities focusing on intonation patterns. Nevertheless, further analysis showed that lower level learners' gain score over time was, to some extent, higher than that of the higher level learners, and apparently the lower level group benefited more from the instruction than the other group. It may be due to the fact that since high-intermediate experimental group had already developed some level of competency in using suprasegmental features, their gain score was lower than that of the low-intermediate experimental group. This result is in line with the claim

made by Hebert (2002) who believes that, even and especially for low level learners, teachers should focus on improving the learners' intelligibility through working primarily at the suprasegmental features. It also supports the suggestions made by the researchers who say that intonation should be taught from the beginning levels in EFL classrooms using some examples, planned activities, and authentic input provided by noticing the L2 features (e.g., Morley, 1979; Meyers, 1981; Prator & Robinette, 1985; Acton, 1987; Jull, 1987; Levis, 2005; & Gilbert, 2006). In fact, the focus on explicit instruction of suprasegmentals taken in this study follows Jones (2002) and Hebert (2002) who believe that suprasegmental features of pronunciation are no less important than the segments. They suggest that communicative aspects of pronunciation which are conveyed by prosodic aspects of phonology (e.g., stress, intonation, pitch) be included in the teaching program from the outset.

7. Pedagogical Implications

Based on the benefits of increasing learners' noticing the gap between their production of intonation patterns and the target patterns (Couper, 2006; Derwing, Munro, & Wiebe, 1998; Harmer, 2001) evidenced in this study and others in the literature, language teachers should explicitly teach L2 suprasegmentals to the learners employing some relevant pedagogical activities and tasks. They can make students aware of the importance of the role of suprasegmental aspects of phonology in conveying message and thus increase the saliency of these commonly ignored prosodic features or patterns, what Carrol (2006, p. 18) refers to as "prosodic prominence." For instance, they can raise the students' awareness that if they fail to convey intelligibility because of incorrect stress or intonation patterns, then it does not matter how correctly they articulate a particular segment and, as a result, no communication would occur since correct intonation patterns help the learners pay attention to the important parts. This demonstrates that intelligibility entails more than simply producing appropriate lexical items and correct word order, since the affective meaning, interests, attitudes, mood, and status are

conveyed through the suprasegmental features (e.g., stress, intonation, and rhythm) (Edwards & Zampini, 2008). Similarly, the findings related to the developmental level may suggest that language teachers teach and make learners, especially those at the beginning levels, aware of the suprasegmental features of phonology. The teachers can thus start explicit teaching of intonation patterns from the early levels.

To this end, L2 practitioners can employ some tasks and activities to make the prosodic features of the L2 input perceptually more prominent. They can begin by providing the class with metalinguistic explanations on the general L2 intonation patterns associated with different structural configurations. Metalinguistic information should accompany natural L2 input presented through audio- and video-recorded conversations or movie episodes played primarily for communicative purposes. This metatalk phase can also benefit from some pictures, graphs, and displays representing different intonation patterns permissible for the same L2 structure to convey different imports or attitudes in different contexts. In the output phase of the instruction, the learners can be engaged in some communicative tasks (such as picture descriptions and script-based or free role-playings) that necessitate the use of the patterns. The teacher can sometimes ask different pairs or groups to perform the task in class and promote their noticing of the holes or gaps in their L2 knowledge through consciousness-raising recasts, reformulations, comprehension checks, clarification requests, and still further metatalk. Finally, teachers can engage the whole class or groups into metalinguistic assessment activities of other students' performances.

8. Conclusions

To conclude, this study showed that raising the learners' consciousness and prompting their noticing the gap within their knowledge of L2 suprasegmental feature of intonation had a significant effect on their pronunciation. Students' production improved after becoming aware of the intonation patterns through some planned instructional activities inside the classroom. Further, the study revealed that although all

language learners benefited significantly from the focused instruction, the lower level group's gain score was relatively higher. Although this can be taken as empirical evidence that promoting noticing and awareness-raising activities improve learners' pronunciation, questions remain as to the long term effects of different approaches and their quantities on different types of learners (Couper, 2006). Therefore, it is better to design a kind of delayed posttest in the future attempts to know whether enhancing noticing through explicit instruction of intonation will have any long-lasting effect. Besides, learners of different ages may respond differently to different types of instruction, both emotionally and cognitively. In sum, students with logical-mathematical or verbal-linguistic intelligences may respond well to structured presentation or planned instruction of new material, but, for those without these intelligences, similar forms of explicit teaching might be frustrating and ineffective (Lynch, 2005). These are issues which demand further research.

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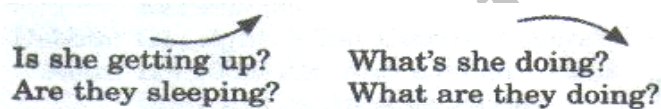
Appendix:

Here are sample tasks and activities adapted from *Interchange-Intro* (Richards, 2005), *American Accent Training* (Cook, 2000), and Anderson-Hsieh's *paper* (2002) and used in the study.

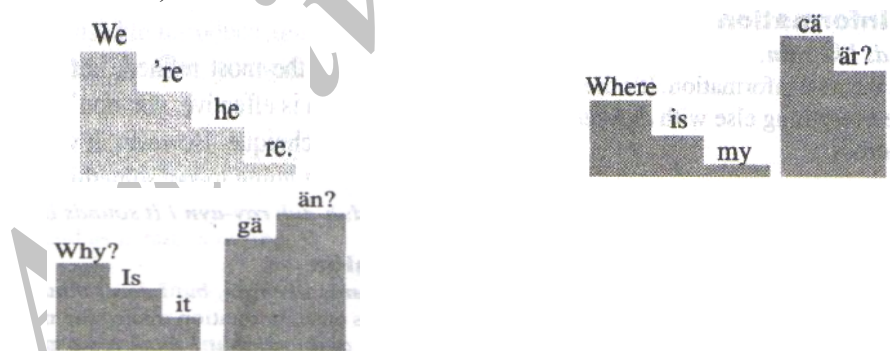
1. Metalinguistic Tasks

The audio-recorded tasks on the CD were played in the class and the related metalinguistic explanations on different intonation patterns for different communicative purposes were given using the following graphs (arrows and staircase pictures), (pitch) displays, and highlighting:

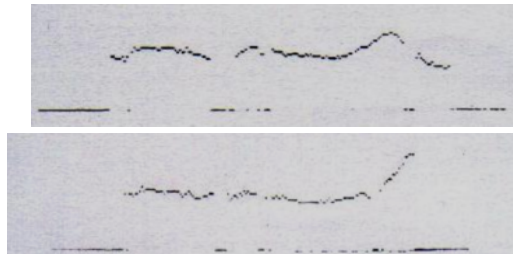
a. Arrows (Richards, 2005)



b. Staircase Intonation: downward and rising staircase (Cook, 2000)



c. Pitch Displays (Anderson-Hsieh, 2002)



Ron is leaving on Monday. (Statement) Ron is leaving on Monday?
(Question)

d. **Highlighting** (making some parts **bold**; Richards, 2005)



What's Célia doing?
She's **going** to work.



What are James and Anne doing?
It's noon, so they're **having** lunch.



What's Andrei doing?
He's working.

2. Picture Description

Students were given some pictures and asked to talk about them using the information given.



Los Angeles 4:00 A.M.



Mexico City 6:00 A.M.



New York City 7:00 A.M.

What's Victoria **doing**? Who's sleeping now?

What's Marcos **doing**? What's he wearing? What time is he **getting up**?

What are Sue and Tom **doing**? What are they eating? Who's having **breakfast**?

3. Script-based and Free Role-playings

The students were engaged first in the script-based role-playings (such as the one given bellow) and then in freer role-playings.

Linda: Guess what! I have a new apartment.
Chris: That's great! What's it like?
Linda: It's really beautiful.
Chris: Is it very big?
Linda: Well, it has a big living room, a small bedroom, a bathroom, and a kitchen.
Chris: Where is it?
Linda: On Lakeview Drive.
Chris: Oh, nice! Does it have a view?
Linda: Yes, it does. It has a great view of another apartment building!



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