The Interface of Information Structure and Unmarked Intonation Pattern: A Comparative Study of English and Persian

Masoud Raee-Sharifabad
Sharif University of Technology

Abstract

The issue of unmarked intonation pattern in English has always baffled non-native (or even native) ES/FL teachers and students as to how intonation changes both inter- and intrasententially. This may partially be accounted for in terms of Halliday's (1994) and Collins' (1995) notion of *Information Structure*. However, almost all novice language learners are bereft of such specialist knowledge. The present paper looks into this issue from both theoretical and experimental perspectives and attempts to identify sources of such incompetence. It draws upon the previous literature and discusses the experimental study conducted for this paper on the acquisition of unmarked intonation pattern by 60 Persian senior students of English at AUCB (Azad University Central Branch) to see how close their performance would fall to the native speakers vis-à-vis the intonation pattern. A set of 60 utterances representing 17 types of the English moods was given to the subjects to read out as their voices were recorded. Using SPSS, a *Chi*-square was conducted to measure the frequency of correct and incorrect responses. The results are discussed and suggestions made.

Key words: unmarked, intonation, information structure: thematic structure, theme, rheme, Given, New,

List of Phonetic Symbols

š	as 'sh' in she	e	as 'e' in yes	
ā	as 'a' in guitar	u	as 'u' in moon	
æ	as 'a' in bad	ɤ	as 'r' in raisin (French)	
iː	as 'ee' in meet	Ø	Empty Category	
óʊ	as 'oo' in oops!	X	as in the Persian for xiābān (street)	
y	as 'y' in yes			
o	as 'o' in no			

INTRODUCTION
The present study is concerned with the concept of information structure and how it is realized through intonation. In doing so, it presents a précis of the previous literature and then discusses the experimental study conducted on the mastery of the English intonation pattern by Persian advanced learners of this language.

The serious study of information structure was first initiated by scholars of the Prague School (Vachek, 1966; Firbas, 1974), whose work was based on the notion of FSP (Functional Sentence Perspective), a type of linguistic analysis dealing with the distribution of information in the sentence (Brown and Yule, 1996). It was mainly different from the earlier traditional views in its distinction between the subject-predicate and the Theme-Rheme. Thus, earlier models made no distinction between the grammatical role of 'John' in this pair of sentences:

1. *John*   *sat in the front seat.*
   Subject   Predicate
   Theme   Rheme

2. *In the front seat*   sat   *John.*
   Predicate   Subject
   Theme   Rheme

However, from a thematic perspective, 'John' serves different functions in the two sentences for, while in 1 it is the Theme, it represents Rheme in 2- hence the advantage of FSP over a purely structural view.

The Theme-Rheme dichotomy, however, was soon overridden by the Given-New split (Halliday: 1963, 1976, 1985, 1994) as the former was still a structural property not capable of accounting for *tone* changes in speech, and as such, was only good for written language. Yet discourse analysis, a more recent development of linguistics concerned with spoken language needs a kind of criteria that could account for all speech peculiarities, tone being one of them.

Halliday agrees with the Prague School in assuming that one of the functions of intonation in English is to mark off which information the speaker is treating as New, and which as Old such that while New information has tonic prominence, Given information does not. However,

he believes this holds true only from the speaker's point of view. For the listener, the part of utterance that is not stressed is Given, or else it is New. Thus, the two dichotomies have different orientations:

> "Other things being equal, a speaker will choose a Theme from within what is Given and locate the focus, the climax of the New, somewhere within the Rheme. But although they are related, Given+New and Theme+Rheme are not the same thing. The Theme is what I, the speaker, choose to take as my point of departure. The Given is what you, the listener, already know about or have accessible to you. Theme+Rheme is *speaker-oriented*, while Given+New is *listener-oriented*. But both are, of course, *speaker-selected*. (P. 7; capitalizations, symbols etc. all in original).

3. It was Mary who left.
whereby to Halliday the Given information is *'someone left'* and the New information is *'The someone who left was Mary.'* However, as Sanford and Garrod (1981:92) argue, this sentence is naturally read as:
4. It was Mary //who left. //
(the original text utilizing capitalization to depict tonicity). This purports to the fact that 'Mary' and 'left' are given stress and so, treated as New information, whereas 'It was' and 'who' do not receive stress and so, are treated as Given.

Prince (1981), however, presents a new impression of the concepts of Given and New. She suggests that New entities are of two types. 'Brand new' entities, which are those assumed not to be in any way known to the speaker and typically introduced into the discourse by an indefinite expression like:
5. A man I know

The second type of entity, i.e., 'unused entity', is assumed by the speaker to be known to the hearer, in his background knowledge, but not in his consciousness at the time of speaking. Prince's example is from Chafe (1976:30):
6. I saw your father yesterday.

Prince also considers an intermediate stage between Given and New, and calls it 'inferable'; entity the speaker assumes the hearer can infer

from another discourse entity that has already been introduced, as 'driver' in the following example:

7. *There was a car approaching the junction+but the driver did not stop at the give-way sign.* (Brown and Yule, 1996: 183)

Prince's third set of discourse entities is the evoked class, divided into situationally evoked and textually evoked, the former concerning discourse and the latter text.

Brown and Yule (1996) introduce a further dichotomy into Prince's category of textually evoked entity: 'current' and 'displaced entities', where the latter is introduced before the former.

Collins (1995:41) refers to Prince's 'evoked' as 'accessibility', ranging on a continuum of Given, Accessible and New- hence following Halliday's campaign in the definition of Given and New.

A more recent view of information structure is proposed by Birner (1994). She introduces the concept of 'discourse familiarity', not much different from Collins's 'accessibility'. Studying inversion in English, she maintains that this phenomenon is the best realization of her concept of 'discourse familiarity'. She discusses the previous literature on why the inversion phenomenon occurs in English and cogently rejects all the reasons so far presented. Finally she maintains that the notion of discourse familiarity can tenably account for the phenomenon of inversion in English as discourse-old information always appears before discourse-new information. This, as she explains, constitutes the core of the inversion phenomenon in English.

In the spoken language, information units are realized as 'tone groups', or 'breath groups' (Halliday, 1994). The tone groups in turn carry one (or more) tonic syllable(s), characterized as having the maximal unit of pitch (Brown and Yule, 1996). As we shall see below, this notion of a *definite tonic syllable* is taken over as the primary reason why the subjects in the present study were required to mark *one single word* as the peak of intonation[1]. Moreover, as Brown and Yule (1996) explain, the position of the tonic syllable in the unmarked case (the commonest way of uttering a particular utterance) is always definite in that it is realized through "the

last lexical item in the tone group, which will generally be the head-word of the constituent containing New information" (p. 156). However, it does not mean that there is only one focal element in each stretch of discourse (Thompson, 1995).

The importance of the present work with respect to teaching is obvious. A chronic problem with Persian speakers of English is their inability to master English intonation genuinely. This is mostly because of the inadequate training they receive in intonation. Roach (1983, pp.114-5) believes that "foreign learners of English at advanced levels…should be given training to make them better able to recognize and copy English intonation". He then states that:

> …the only really efficient way to learn the intonation of a language is the way a child acquires the intonation of its first language and the training … should help the adult learner of English to acquire English intonation in a similar (though much slower) way.

He adopts a pessimistic view of teaching pronunciation and more specifically, the intonation pattern. Later he maintains that although intonation is of great importance, "the complexity of the total set of sequential and prosodic components of intonation and of paralinguistic features makes it an impossible thing to teach… . Relying on a textbook could lead to hilarious consequences" (Roach, 1983, pp. 141-2). Elsewhere he states "the learner might use an intonation suitable for expressing boredom or discontent when what was needed was an expression of gratitude and affection (ibid, p. 138). Further despair can be found in Van Els & De Bot (1987:149), who believe more light has to be shed on the learnability and teachability of intonation; Thompson (1995), who believes intonation is difficult to teach; and on top of all this, Kingdon (1948: 85), who maintains that a study of intonation, "however conscientiously carried out, results neither in a sound grasp of the intonation of the language, nor in much greater ability to intone correctly… One reason is that a very special skill is required in the recognition of tones."

Such desperate views lead field practitioners nowhere! In fact the reason extensive works on intonation (except for English) are only few and far between could be due to hopeless opinions of this kind. My own experience of teaching stress and intonation to Iranian speakers of English tells me that this pessimism holds true only for beginners. At elementary levels, the learners are not even able to realize the differences between a correct and an incorrect stress pattern. However, once they learn about these notions, they begin to progress steadily. I personally have not encountered any age factor at work as far as the university student population is concerned.

Through studies such as the following we can find out which types[2] of utterances prove to be easy and which difficult for Persian learners of English with respect to intonation. This would then allow us to tailor our course materials to meet the needs of our students in areas that prove to be more difficult, thereby reducing the volume of drills emphasizing on patterns that are easily learnt by such students. This is a serious problem that we are now facing. Yarmohammadi (2002:7) studies the two aspects of discourse, i.e., pronunciation and language functions (treated in the present study) in pre-university textbooks of Iran's Ministry of General Education, and finds a lot of shortcomings. For example, he realizes that "the frequency of commissive and declaration functions [in such textbooks] is zero" (p. 6). Moreover, "lack of meaningful context is taken to be one of the most important shortcomings of the dialog.[3] ...Stress and intonation are not treated systematically and are not integrated with the texts. No explanations are provided either. ... Contrastive points in explaining and teaching sound features are neglected" (ibid, p.17).

Methodology plays a crucial role in teaching intonation (Jenkins, 1998, Okamura, 1995). Eliot (1995) for example, believed that the methodology he used for teaching pronunciation related significantly to the improvement on the part of his subjects in the experimental group.

One so-called methodology, which actually formulated the data collection design of the present work, is emphasis on the *unmarked intonation pattern*. This model of teaching intonation is similar to Currie

and Yule's (1982, cf. Chela-flores, 2001: 90) which is "based on a recognition of stressed vs. unstressed syllables. In this model a basic unmarked intonation contour is suggested to indicate stressed and unstressed syllables", and then attention and practice is focused on the unmarked pattern to the exclusion of all others. Thus, a good advantage of such a model is that it saves the reader the need to delve into an infinite multitude of possible readings of utterances (Munro & Derwing, 2001). When segregating the unmarked from the marked, the teacher will be concerned only with the most recurrent melody of an utterance, irrespective of all other readings, which the teacher can label as *marked.*

We believe an acceptable level of pronunciation and more specifically intonation can be obtained through extensive work on these important modules of language. Courses that are tailored to the specific needs of a population can pave the way to such achievements, and textbooks teaching speech functions could indicate contexts of use (Roberts, 1983). As for the Persian population for example, the findings of the present study could be very helpful.

The present study was an attempt to see to what extent advanced Persian speakers of English are familiar with variability of the English intonation in an utterance depending on the position of the tonic word. Thus, the following utterance could give various types of new information under different circumstances depending on whether the speaker wants to emphasize that it was 'John' who went on a camping holiday and nobody else, or to emphasize that 'John' went on a 'camping' holiday, not say, a surfing holiday.

9. John went on a camping holiday.

In all types of utterances, however, there is one *unmarked intonation pattern,* which is the commonest, and to which this study is limited, to the exclusion of all other possible intonations. Thus, this paper sets out to investigate the following queries:

   1.   Are Persian students of English able to recognize unmarked intonation pattern in decontextualized utterances?⁴

Two points have to be mentioned. First, the emphasis of the present study on the unmarked intonation pattern, such that no other patterns would be studied. Second, the word 'decontextualized' is used to emphasize that this study is concerned with sole utterances only. The reason for this is clear. Intonation as it occurs in everyday speech is so complicated that it would be virtually impossible to study its variation vis-à-vis the context. Therefore, we have tried to collect a more discrete set of data by focusing on single utterances only. If we believe, as stated in the literature, that every utterance has an unmarked intonation pattern, and that the position of the tonic syllable is always fixed, then it would be logical to assume that each of the utterances that we have collected in our sample should accordingly have such a pattern. This unmarked intonation pattern for every utterance is the first reading that crosses a native speaker's mind. Now the point is if this reading is also the first reading that occurs to a Persian learner of English. If yes, then our Persian speaker is capable of reproducing the exact English intonation, and if not, which so often is the case, then the learner falls short of such reproduction.

The first question, therefore, entails the null hypothesis that:
*Persian speakers of English are **not** aware of the intonation pattern of English!*

The second query posed in the present work is as follows:

2. If intonation is difficult for Persians, what is the order of difficulty for the 17 types of moods studied? Which category is the most difficult? Which the least, etc.?

The second question requires a hierarchy, so it can not be developed into a hypothesis, and must be answered directly. Thus, this study sets out to answer one consequential and one sequential question.

METHOD
Subjects
30 Persian students of English doing their senior year in the field of

translation were selected from AUCB (Azad University Central Branch) for the present study. To obtain a more homogeneous sample, it was ensured that English was the second most fluent language for the subjects after Persian. It was not, however, reasonable to select an equal number of female and male subjects as the former had a larger population than the latter at the time of sampling, and if we claim our sample to be truly representative of the population, we should remember that the university students body *is* the intended population[5].

Instrumentation

To evaluate the queries posed above, a set of sixty English sentences was collected from the two volumes of the book *"Stress and Intonation"* (Sheeler, 1973); all uttered by native speakers of English in natural life circumstances (hence unmarked intonation pattern). The utterances were chosen from the three primary moods of indicative, imperative, and subjunctive (and their subdivisions) simply because this taxonomy was found to be the most all-inclusive and the least patchy! Moreover, as distinguished in the pilot run of this study, (sub) classes that proved more difficult for Persian speakers of English were given a greater proportion on the test, as working on easy categories was considered frivolous.

Three professional raters were also selected for this study. Their job was to listen to the recorded database of the subjects and decide where in each utterance the subjects placed the tonic prominence. The three of them were then teaching English at Azaad University. As the coefficient of inter-rater reliability was found to be .78, it was decided that our raters were homogeneous.

Procedures

The sixty utterances prepared earlier were formed into an intonation test[6]. The sentences, although from the three moods of indicative, interrogative, and imperative, were put in a scrambled order to prevent recognition of a clear-cut categorization of the (sub-) mood classes on the part of the

subjects, which could have affected their performance. Below is a tabulation of the numbering of utterances for each category on the test.

To keep the variable of dialect and accent constant, only sentences in the GA (General American) accent were included in the test.

The test was then given to the subjects, who were required to simply read out the utterances while their voices were recorded. The recordings were then played back to our three selected raters to identify where in each utterance the students placed the tonic prominence. However, in this process, only selections of single words were considered correct. The why of a *single* word was explained earlier. The subjects were not required to find the specific syllable that carried the highest pitch as this was deemed too difficult. Besides, such a practice would be more appropriate in a study of stress rather than intonation.

Table 1. Distribution of the Categories on the Test

Categories		Utterance numbers
Declaratives		1, 3, 5, 7, 9
Nouns After Frequent Adjectives		4
Complex	With that	11, 13, 15, 17
Sentences	With others	19, 20, 21, 25
Contracted Sentences		23, 27, 38, 53, 56
Verbs after to-full Infinitives		2, 26, 29
Particle Verbs (Separable, Inseparable)		12, 22, 24
Compound Nouns		18, 30
Final Adverbials		8, 14, 32, 36, 41
Possessives		43, 45, 51
Yes-No Questions		16, 35, 47, 49, 50
Vocative Yes-No Questions		37, 44, 46, 54, 60
Tag Questions		28, 40, 52, 59
Limited Choice Questions		10, 34, 42
Wh-Questions		39, 58
Imperatives		33, 57
Subjunctives		6, 31, 48, 55

RESULTS
The following table shows the Persian subjects' performance on the test. To have a clear understanding of the phenomenon, the utterances are analyzed in terms of their respective categories. This will help us base our arguments on a class, not on an "out of the blue" sentence.

One point deserves attention with respect to the class of Declaratives. Because this group comprised a category of 5 sentences each containing 2 clauses and therefore requiring two choices, the results doubled. Thus, they were then divided to 2, giving a total of 60 to be on a par with the other categories.

Using SPSS 8.0, a *Chi*-square was conducted to see if the difference between the total of correct (585.5) and incorrect (422.7) responses is significant. As the *Chi*-square observed value of 20.52 at 16 *df* (degrees of freedom) and .05 level of significance turned out to be smaller than the critical value of $x^2 = 26.30$, the null hypothesis was confirmed, meaning that Persian speakers of English were found be unaware of the correct intonation patterns in English.

This means that Persian speakers of English, even at advanced levels, cannot reproduce the correct unmarked intonation pattern (at least) in decontextualized utterances.

Now is time to deal with the second query posed for this study, i.e., if the Persian speakers of English are not good at reproducing the correct intonation pattern, which categories are difficult for them? Which are not, and to what extent?

To answer this question, we should consider the percentages of correct and incorrect responses for each category as given in Table 2. This will render the following hierarchy, which proceeds from the most difficult to the least with the percentages of correct and incorrect answers given in parentheses respectively[7].

Subjunctives (25%. 75%)> Nouns After Frequent Adjectives (31%, 69%)> Complex Sentences With *'that'* (37%, 63%)> Compound Nouns (42%, 58%)> With *others* (42%, 58%)> *Wh*-Questions (49%, 51%)> Possessives (53%, 47%)> Verbs after *to*-full Infinitives (56%, 44%)> Contracted Sentences (56%,

43%)> Particle Verbs (Separable, Inseparable 57.1%, 42.9%)> Final Adverbials (58.6%, 41.4%)> Yes-No Questions (58.5%, 41.5%)> Declaratives (65%, 35%)> Vocative Yes-No Questions (83.8%, 16.2%)> Limited Choice Questions (84.5%, 15.5%)> Tag Questions (85%, 15%)> Imperatives (90%, 10%).

Table 2. Tabulation of the Performance of the Entire Persian Sample

Categories		Correct	Percentage	Incorrect	Percentage
Declaratives		39.1	65.1	20.9	34.9
Nouns After Frequent Adjectives		18.7	31.1	41.3	68.9
Complex	With 'that'	22.3	37.1	37.7	62.9
Sentences	With 'others'	25.7	42.8	34.3	57.2
Contracted Sentences		34	56.6	26	43.4
Verbs after to-full Infinitives		33.7	56.1	26.3	43.8
Particle Verbs (Separable, Inseparable)		34.3	57.1	25.7	42.9
Compound Nouns		25.4	42.4	34.6	57.6
Final Adverbials		35.1	58.5	24.9	41.5
Possessives		32.1	53.5	27.9	46.5
Yes-No Questions		35.1	58.5	24.9	41.5
Vocative Yes-No Questions		50.3	83.8	9.7	16.2
Tag Questions		51.7	86.1	8.3	13.9
Limited Choice Questions		51.6	86	8.4	14
Wh-Questions		29.8	49.6	30.2	50.4
Imperatives		54.7	26.7	5.3	73.3
Subjunctives		12.2	20.4	36.3	79.6
Total		585.8	58	422.7	42

As the hierarchy demonstrates, *Imperatives* are found to be the easiest and *subjunctives* the most difficult category for Persians as far as intonation is concerned. The means of correct responses on these categories are 54.7/60 and 12.2/60 respectively.

Below we shall present a brief review of all the categories with possible explanations as to why they behave so.

Imperatives are easy maybe because their Persian counterparts are intoned in more or less the same way. Thus, in sentence 33 on the test, we have:

33. Be quick!

The Persian counterpart for this utterance is:

zud   bāš[8]

Quick   be

Thus, the same words in the English and Persian of the same proposition are given primary stress. In such languages the imperative verb must always be prominent as it is the part that requires the most attention from the interlocutor.

Thus, we conjectured that the reason for such a superb performance on imperatives could be due to the similarity of the intonation patterns across the two languages. We formulated this tendency into a hypothesis called MTRH (Mother Tongue Resort Hypothesis), which maintains that *good* or *poor* performance of Persian speakers on the unmarked intonation pattern of English could be attributed to the influence of their mother tongue melody. The words *good* or *poor* must be emphasized here as the impact is not always bad. In the case of imperatives, for example, this influences is not interference (a term used by contrastive analysts to show negative intrusion) as it helps the Persian learner in reproducing the English intonation9.

Tag questions were found to be the second easiest category for the Persians. Utterance 28 of this mood category reads:

28. *Mrs. ..., didn't she[10]?*

The Persian for the tag clause will be:

næ - kærd - Ø[11]

no - did - s/he

So, the functional element 'næ' akin to 'didn't' in English[12] is stressed in the Persian-hence a close match between the counterparts in either language. The slightly lower performance on this category could be because the tag element comprised two words, and as one of the two elements is a lexical one, it could have attracted undue attention. This could be a reason why Persians performed slightly lower on such items.

Limited Choice Questions were the third easiest category for the Persians. The relatively high performance on this category may also be attributed to MTRH. Sentence 10 of this mood reads:

10. Does she play the piano, the harp, or the violin?

Thus, the choices that are open to the listener are stressed. The same would be true in Persian if its counterpart were produced:

āyā	óʊn (zæn)	**pi:yāno,**	**chæng**	yā	**vi:yolon**
mi:zæn-e?					
Does	she	piano	harp	or	violin
	play				

Thus, the MTRH proposed above is still maintained.

Still a little more difficult than tags are *Vocative Yes-No Questions.* Let us consider sentence 37 of this category for our analysis:

37. Can you see, John?

Here the correct response is when 'see' and 'John' are both stressed. The Persian for such an utterance would be:

mi:tuni:	bebi:n-i:	**John?**
Can	see-you	John?

Hence a clear mismatch between the counterparts across the two languages! While, 'John' is stressed in both languages, the intonation peak falls on the auxiliary 'mi:tuni:' in Persian whereas in English the peak of intonation is placed on the main verb 'see'.

Of the next difficult category, i.e. *Declaratives*, we consider 1:

1. He watches television, but he doesn't like it.

The Persian for such an utterance would be:

óʊ	televi:zi:yun	**negāh**	mi:kon-e	æmmā	dus-eš	**næ-**
dār-e						
S/he	television	watch	does-S/he	but	like-it	not-
have-S/he						

As can be seen above, in the first clause the Persian and English counterparts are clearly different, but not in the second, where the Persian for 'like' is the compound word 'dust dāshtæn' inflected above for the right person. This makes it difficult to figure out which word to take as the match for 'like'. However, it is interesting to know that in 'dust dāshtæn' when meaning 'to like/love', the first word cannot come alone or be used in other collocations[13]. This suggests that 'dust dāshtæn'

should be taken as an entire lexical entry not a collocation, in which case the aforesaid proposition of MTRH is even further supported.

Still a more difficult class of utterances is *Yes-No Questions*. As opposed to *Wh-Questions*, this category has a rising intonation. Thus, 35 reads as follows:

*35. Do we have to work **tomorrow**?*

Where the Persian counterpart would read:

āyā	færdā	bāyæd	**kār**	kon-i:m?
Do	tomorrow	have to	work	do-we

The stressed words in the two languages do not match-hence further proof for the MTRH.

Final Adverbials proved to be even more difficult for the Persians in this study. Of these, we consider 8 here:

*8. See you at seven **a.m.***

Where the Persian would read:

hæft-e	sobh	mi:bi:n-æm-et
Seven	a.m.	see-you

There is a clear distinction between the two counterparts, for while the sentence stress is on the adverb in English, in Persian it is on the word 'haft'. Thus, this category also supports the MTRH.

Particle Verbs (Separable, Inseparable) were still even more difficult for the Persian subjects. The reason could be that, unlike Persian, prepositions are very important in English, not only for conveying meaning but also for their figurative or idiomatic usage. Consider 12:

*12. This... . I made it **up**[14].*

The Persian for such an utterance would read like[15]:

mæn	sāxt-æm-eš
I	made-I-it

The two structures are in clear mismatch with each other-hence further proof for the MTRH model.

Contracted Sentences, of which we consider 23, are the next difficult category:

*23. I **told** you so.*

Here, the Persian would be:

mæn	beh-et	**goft-æm**	óʋn	chi:z-o
I	to- you	tell-I	that	thing- about

To our surprise, although there is a close affinity between the Persian and English counterparts of such utterances, the Persian sample's performance was not remarkably good on this class of utterances. This means that the *Contracted Sentences* do not conform to the MTRH in that although the structures are similar across the two languages, the subjects' performances were unexpectedly low!

Verbs after to-full Infinitives posed even more problems for the Persian subjects in the present study. In 2, we have:

2. *I hope to see him, ...*

Where the Persian would normally be:

Omi:dvār-æm-Ø	bebi:n-æm-eš
Hopeful-am-I	see-I-him

As the patterns are clearly different ('see' in English and 'omidvār' for 'hopeful' in Persian), the MTRH is once again supported.

Next in the hierarchy of difficulty is the category of *Possessives*, In 43 of this class we have:

43. *It's my book.*

However, Persians normally stress the possessive adjective as in:

i:n	ketāb-e	**mæne**
this	book-of	me

Hence there is a clear difference between the two patterns, which renders further support for the MTRH. Nevertheless, poor performance on this category may be attributed to other factors such as culture. For example, it can be argued that for Persians, the concept of possession is more important than the object possessed! Therefore, they stress the possessor rather than the possessee as the latter is an object and is possessed anyway. So what should be important now is who possesses it.

Wh-Questions are the next problematic category for the Persians. Like statements, *Wh*-Questions have a falling intonation, which often troubles

Persians. Accordingly, they tend to intone the *Wh*-word in such questions. For instance, consider sentence 39:

39. Where did you go?

This utterance has a falling intonation, for which Persians tend to produce a counterpart like:

kojā   ræft-i:?
where   went-you

Where there is a distinct mismatch between the two patterns, and as the subjects in the present study applied the mother tongue pattern to English, their performances were considerably low. This, again, lends further support for the MTRH.

Complex Sentences with 'Others' (as opposed to *Complex Sentences with 'That'*, which constitute another distinct category in this study) posed even more problems for the Persians in the present study. In 19 we have:

19. I'll tell him when he comes.

The Persian for this utterance would normally be:

væ̧ti: bi:yā-d   beh-eš   **mi:g-æm**
when   comes-he   to-him   tell-I

Once again the two patterns establish a clear disparity between the Persian and the English, which renders more support for the MTRH.

Compound Nouns proved to be the next difficult class of moods for Persians in this study. Let us consider 18 for our analysis.

*18. He is an **airplane** mechanic.*

Where the Persian would be:

óυn   ye   mekāni:k-e   **hævā-peymā-st**
S/he   one   mechanic-of   airplane-is

As the two words roughly match, it is surprising why this category has been so difficult for the Persians in the present study-hence nonconformity with the MTRH proposed above.

Complex Sentences with 'That' constitute still a more difficult category for Persians. Sentence 11 of this category reads:

11. I hope that he doesn't come.

Thus, in English, it is the verb inside the main clause that receives the primary intonation. However, in Persian the subordinate verb takes up the sentence stress:

omi:dvār-æm	ke	**næ-yā-d**
Hopeful-am-I	that	not-come-s/he

As with most of the previous categories of moods, the two patterns are again different, which means that the MTRH is once more confirmed.

The second most difficult category for the Persians was the category of *Nouns after Frequent Adjectives*. Sentence 4 in this category reads:

4. *She has a nice black cat.*

Where the Persian would normally be:

óʊn	ye	gorbe-ye	si:yāh-o	**nāz**	dār-e
She	one	cat-of	black-and	nice	have-she

Hence, there is a very vivid distinction between the two intonation patterns of Persian and English on this category, which of course highly conforms to the MTRH.

Subjunctives were found to be the most difficult mood for the Persians in this study. Sentence 6 of this category reads:

6. *If ... , I would do this*[16].

The Persian for this utterance would read:

æge ..., **mæn**	i:n	kār-o	mi:kærd-æm
if ... , I	this	job	do-I

Once again, the disparity is quite evident, which is why this category should prove to be the most difficult rubric for the Persians, and of course once again, strongly supportive of the MTRH. Another reason for the difficulty of this class of utterances could be their infrequency of use. This is to say as these utterances are not common, students are less likely to be exposed to them. Therefore, such utterances strike them as new.

DISCUSSION

In this study it was found that advanced Persian speakers of English are not able to identify unmarked intonation patterns (at least) in decontextualized utterances of this language although their performances

fluctuated between good and poor on different categories of the English moods. For example, *Imperatives* were found to be the easiest category for such learners (with 90% correct against 10% incorrect responses). Yet, the subjects' performance fell to its lowest on the *Subjunctives* category (with only 25% correct against 75% incorrect responses)!

Except for a few categories, most of the correct and incorrect answers were accounted for in terms of the mother tongue, meaning that the subjects showed a high degree of resort to their background language on all types of utterances. Such reference to the mother tongue was often a successful conjecture, and at certain times an unsuccessful one! This tendency on the part of the Persian subjects was formulated into the MTRH (Mother Tongue Resort Hypothesis), which states that learners of a second or foreign language, at least Persians in the present study, resort to their mother tongue to guesstimate the intonation pattern of the target language.

CONCLUSION

Persian speakers of English even at advanced levels are not able to reproduce the intonation pattern of this language (at least in decontextualized sentences as this study was limited to such discourse only). Different types of English utterances (mood-wise) pose different degrees of difficulty for such learners. This would allow us to develop the following hierarchy running from the most difficult to the least for such learners. The means of correct and incorrect responses are given in parentheses respectively.

Subjunctives (25%. 75%)> Nouns After Frequent Adjectives (31%, 69%)> Complex Sentences With '*that*' (37%, 63%)> Compound Nouns (42%, 58%)> With *others* (42%, 58%)> *Wh*-Questions (49%, 51%)> Possessives (53%, 47%)> Verbs after *to*-full Infinitives (56%, 44%)> Contracted Sentences (56%, 43%)> Particle Verbs (Separable, Inseparable 57.1%, 42.9%)> Final Adverbials (58.6%, 41.4%)> Yes-No Questions (58.5%, 41.5%)> Declaratives (65%, 35%)> Vocative Yes-No

Questions (83.8%, 16.2%)> Limited Choice Questions (84.5%, 15.5%)> Tag Questions (85%, 15%)> Imperatives (90%, 10%).

This study can contribute a great deal to the field practitioners as well as students. First of all, it suggests to the teachers to tailor their programs to the needs of the students such that utterances of a more problematic nature for Persians would be given a larger portion of the instructional material and time, thereby reducing the volume of home and class-work that focuses on categories found to be easy for such learners in the present study.

As for the students, the present study can tell where they are likely to be weaker in their intonation so that they can allocate more time to those categories.

Discussions of the concept of information structure should also be embedded in language lab classes for the students to realize why emphasis on the melody of a language is of paramount importance.

Like grammar, vocabulary and other components of a language, "the learner should be gradually immersed into pronunciation" and this should be done "from the very beginning levels ... in context" (Chela-flores, 2001:85). At present, this is done "in almost all communicative courses; formal pronunciation is included, with students repeating after their teacher, but on a word-by-word basis ... independent...of the lexical and syntactic content" (Acton, 1984:126, cf. Chela-flores, 2001:87).

Drills should move from lexical to a more discoursal level, interpolating authentic chunks of a language in their totality to preserve the assets. Kaltenboeck (1994:18, cf. Chela-flores, 2001:88) refers to the advantages of focusing on large stretches of speech rather than segments or words from the beginning:

> The student learns from the beginning to deal with *fully fledged meaningful* utterances and it reduces the problem of transfer from the segment to larger units...we can relativise the importance of the otherwise too dominant segments which hamper people's performance because-by concentrating too much on

individual sounds-fluency, speech rhythm and intonation become completely disordered."(Italics in original)[17]

As Fangzhi (1998:38) explains, good pronunciation is "closely linked with clear oral communication"; therefore, students should be exposed to unperturbed pieces of language "... in a meaningful and contextual situation, rather than [in] ... a series of isolated sentences" (ibid).

Emphasis, from the very beginning "should be on native-like production of both stressed and unstressed vowels to enhance the communicative potential of the learner's speech" (Schairer, 1992: 318); the more of this, the better (Jones & Evans, 1995).

Moreover, attempts should be made to develop the learners' positive attitude as it can relate "significantly to pronunciation", meaning that those who are "more concerned about their pronunciation ... tend ... to have higher GPAs" (Eliot, 1995: 366). The author supports Suter (1976) who believed students who were "more concerned about their pronunciation, did in fact have a better pronunciation of English as a[n] L2" (249).

Speed is another factor to consider. Zhao's study (1997) showed that reducing the speech rate increases listening comprehension on the part of the subject. Moreover, this can leave the learner with more time to focus on the input melody (Borrás and Lafayette, 1994, Buck, 1989, Dekeyser, 1993). However, too slow a melody can give the learner the false impression that target language is always like this, or it may accustom him/her to this rate of speed such that at higher rates the learner would be at loss (Lush, 1997)!

Reading aloud could be another good strategy as it has been shown to provide valuable practice for learners as far as rhythm is concerned (Adams, 1979, cf. Taylor, 1993).

ENDNOTES

1. Nevertheless, the subjects were not required to mark off the specific *syllable* that carried the main stress (i.e., the tonic syllable) as it was deemed too difficult.

2.   Obviously different typologies exist for English utterances. As we shall see later, the one adopted here is mood-wise.
3.   Of course, as Yarmohammadi (2002:14) further continues, contextualization is also a problem. How can we prepare a single set of *contextualized* material for "users with … diverse cultural backgrounds"?
4.   This paper, therefore, is based on Halliday's model of Given vs. New, which associates the representation of the information structure with the intonation pattern such that as the latter changes, the former changes too.
5.   As reported by Iran's General Secretary of the National Examination Bureau, the number of female students choosing English as their major was by larger than boys (70% against 30%) at the time of sampling.
6.   This test appears in the Appendix.
7.   Minor differences have been rounded off to the closest integer. As for the tied scores, original means were considered in the ordering (rather than the percentage). As we never claim perfect accuracy of the results such categories may be considered as equally difficult or easy.
8.   Courtesy of SIL (Summer Institute of Linguists) International Publishing Services User Support's online distribution of phonetic symbols. Please visit: www.sil.org
9.   A more detailed discussion on where MTRH is helpful and where it is not is well beyond the tolerance and space of this paper, the reader may consult the PhD dissertation of the first author (Masoud Raee-Sharifabad) upon which this article is based.
10. Only the Tag clause is studied here.
11. For the Persian counterparts of the utterances, a group of five native speakers of Persian including the authors, two readers and one external examiner all agreed on the unmarked intonation pattern.
12. The argument as to why 'didn't' and not, say 'n't' in 'didn't' is the match is that the tag can be expanded to 'didn't she do it?' which clearly demonstrates that 'didn't' and 'næ' are cooreferential.
13. The combination can also mean making friends, but this meaning is not of our concern here.
14. Only the prepositional clause is considered for investigation here.
15. For the prepositional clause of course.
16. Only the subjunctive clause is considered for analysis here.
17. However, there are certain contradictory views here. Kingdon (1948: 86), for example, believes the most practical way of grasping the essentials of intonation is to break up utterances into their tonal elements and study these, instead of trying straightaway to classify complete tunes. Since this view discourse analysis and teaching of pronunciation has developed.

REFERENCES

Birner B. (1994). Information Status and Word order: An Analysis of English Version. *Language*. Vol. 70, no. 2.

Borrás, Isabel and Robert C. Lafayette (1994). Effects of Multimedia Courseware Subtitling on the Speaking Performance of College Students of French. *The Modern Language Journal*. Vol.78, no. 1. pp. 61-75.

Brown, Gillian and George Yule (1996). *Discourse Analysis*. New York: Cambridge University Press.

Buck, Gary (1989). Written Tests of Pronunciation: Do They Work? *English Language Teaching Journal*. Vol. 43, no.1. pp. 50-56.

Chela-flores, Bertha. (2001) Pronunciation and Language Learning: An Integrative Approach. *International Review of Applied Linguistics in Language Teaching*. Vol. 39, no.2. pp.85-101.

Collins, Peter (1995). The Indirect Object Construction in English: An Informational Approach. *Linguistics*. Vol. 33. pp. 35-49.

Dabir-Moghaddam, M. (1992). On the (In)Dependence of Syntax and Pragmatics: Evidence from the Postposition –*rā* in Persian". Cooperating with Written Texts: The Pragmatics and Comprehension of Written Texts. ed. by D. Stein, 549-573. Berlin: Mouton De Gruyeter Publishers.

Dekeyser, Robert M. (1993). The Effect of Error Correction on L2 Grammar Knowledge and Oral Proficiency. *The Modern Language Journal*. Vol. 77, no.4, pp. 501-513.

Eliot, Raymond A. (1995a). Field Independence/Dependence, Hemispheric Specialization, and Attitude in Relation to Pronunciation Accuracy in Spanish as a Foreign Language. *The Modern Language Journal*. Vol. 79, no. 3. pp. 356-371

Fangzhi, Chen (1998). The Teaching of Pronunciation to Chinese Students of English. *English Teaching Forum*. No. 1 (Jan.- March). pp. 37-39.

Firbas J. (1992) *Functional Sentence Perspective in Written And Spoken Communication*. Cambridge: Cambridge University Press.

Halliday, M.A.K. (1963). Some Notes on 'Deep' Grammar. *Journal of Linguistics"*, Vol. 2, No.1. pp.57-67.

-----------------------(1967). Note on Transitivity and Theme in English: Part 2. *Journal of Linguistics*. Vol. 3.

---------------------- (1994). *An Introduction to Functional Grammar*. 2nd ed. Cornwall: Edward Arnold publishers.

Jenkins, Jennifer (1998). Which Pronunciation Norms and Models for English as an International Language. *English Language Teaching Journal*. Vol. 52, no. 2. pp. 119-126.

Jones, Rodney H., and Stephan Evans (1995). Teaching Pronunciation Through Voice Quality. *English Language Teaching Journal*. Vol. 49, no. 3. pp. 244-251.

Lush, B. (1997). Gender And Teaching: A Study of Teacher Gender And Verbal Interaction Patterns In Same-Sex And Mixed-Sex Groups In The Classroom. *The Internet TESL Journal.*

Kingdon, Roger (1948). The Teaching of Intonation. *English Language Teaching.* Vol. II, no. 4. pp. 85-91

Munro, Murray J. & Tracey M Derwing (2001). Modeling Perceptions of the Accentedness and Comprehensibility L2 Speech. *Studies in Second Language Acquisition.* Vol. 23, no.4.pp. 451-468.

Okamura, Akiko (1995). Teachers' and Nonteachers' Perception of Elementary Learners Spoken Japanese. *The Modern language Journal.* Vol. 79, no. 1. pp. 29-40

Prince, E. F. (1981). Toward a Taxonomy of Given-New Information. In (ed.) P. Cole, *Radical Pragmatics.* New York: Academic Press.

Roach, Peter (1983). *English Phonetics and Phonology: A Practical Course.* New York: Cambridge University Press.

Roberts, Jon (1983). Teaching with Functional Materials: The Problem of Stress and Intonation. *English Language Teaching Journal.* Vol. 37, no. 3. pp. 213-220.

Sanford, A. J. and Garrod, S. C. (1981). *Understanding Written Language.* Chichester: Wiley Publications.

Schairer, Karen Earline (1992). Native Speaker Reaction to Non-Native Speech. *The Modern Language Journal.* Vol. 76, no. 3. pp. 309-19.

Sheeler, W. D. (1973). *Drills and Exercises in English Pronunciation Stress and Intonation.* Rev. Part 1 and 2. Washington D. C. English Language Services.

Thompson, Susan (1995). Teaching Intonation on Questions. *English Language Teaching Journal.* Vol. 49, no. 3. pp. 235-243.

Vachek, J. (1966). *The Linguistic School of Prague.* Bloomington: Indiana University Press.

Van Els, Theo and Kees De Bot (1987). The Role of Intonation in Foreign Accent. *The Modern Language Journal.* Vol. 71, no. 2. pp. 147-155)

Yarmohammadi, L. (2002). Reflections on the Treatment and Contextualization of Pronunciation Practices and Language Functions in the Pre-University EFL Textbooks in Iran. *Language Teaching Quarterly.* Vol. 1, p.7.

Zhao, Yong (1997. The Effects of Listener's Control of Speech Rate on Second Language Comprehension. *Applied Linguistics.* Vol. 18, no.1. pp. 49-67.