A STUDY OF ENGLISH INTONATION
IN INDONESIAN EFL LEARNERS

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Abstract: This study examined the patterns of intonation and kinds of information structure that occur in EFL learners. The objectives of this study were: (1) to know the patterns of intonation that occur in EFL learners; (2) to know kinds of information structure that occur in EFL learners. The method used in this study is descriptive qualitative and the subjects of this study is a debater and also a student in English Department at one of private university in Kuningan, West Java. Techniques of collecting data used in this research were library research, observation and interview. Halliday’s theory and PRAAT Software Analysis use in this research to analyze the data. Based on the data analysis, it can be known that: (1) There were 5 kinds of intonation pattern used by the speaker: fall, rise (final), rise (non-final), fall-rise (final), fall-rise (non-final); (2) There were 158 clauses with 25 independent clauses and 133 dependent clauses from the respondent’s performance; (3) There were three systems from information structure: tonality, tonicity, and tone; (4) In tonality system, H-TS-T with the percentage 18% was the most pattern used by the respondent; (5) Given-New-Given (G-N-G) with the percentage 36% was mostly used in her performance based on tonicity system; (6) Incomplete information (rise non-final) was the most dominant intonation pattern used by the respondent with the percentage 33%.

Keywords: intonation, information structure, EFL learners

INTRODUCTION

Phonology is the study of the organization of sounds in language (Marlett, 2001, p. 2). It is different from phonetics, which is the study of the production, perception, and physical properties of speech sounds; phonology attempts to account for how they are combined, organized, and convey meaning in particular languages. Only a fraction of the sounds humans can articulate is found in any particular language. In phonology, speech sounds are analyzed into phonemes, the smallest units of sound that can change the meaning of a word. A phoneme may have several allophones relating to sounds that are district but do not change the meaning of a word when they are interchanged. In a brief explanation, phonology is the study of sound structure in language, which is different from the study of sentence structure (syntax) or word structure (morphology), or how languages change over time (historical linguistic) (Odden, 2005).
As the part of phonology, intonation is the kinds of pitch modulation found in whole utterances (Carr, 2008). The term of intonation refers to mean for conveying information in speech which is independent of the words and their sounds. Intonation is also often referred to in everyday language as speech melody or sentence melody, terms that focus on pitch variations and modulation (Chun, 2002). Central to intonation is the modulation of pitch, and intonation is often thought of as the use of pitch over the domain of the utterance. However, the patterning of pitch in speech is so closely bound to patterns of timing and loudness, and sometimes voice quality, that we cannot consider pitch in isolation from these other dimensions. The use of an inappropriate intonation pattern may give rise to misunderstandings. The misunderstanding can be major or minor depending on the context in which the intonation pattern is used. As there is no one to one correspondence between intonation and meaning, an appropriate meaning can often be found when it fits with the ‘wrong’ intonation pattern.

The aim of this research, for that reason, is not to find fault, but to find out information functions such as the segmentation of discourse that represents the speakers’ management of the total message into separate pieces of information and then after that it is located on the most prominent word in organization of information then the last is decision of status in each unit of information, focusing attention on important elements of the spoken message and also helping to regulate conversational interaction.

The interaction of intonation and stress — the patterns of relative prominence which characterize an utterance — are particularly close in many languages, including English. For those who prefer to reserve ‘intonation’ for pitch effects in speech, the word ‘prosody’ is convenient as a more general term to include patterns of pitch, timing, loudness, and (sometimes) voice quality. In recent years, “the focus has been on generative models of intonation, also form-based, that rely on metrical representatives of text, indications of stressed vs unstressed syllables, and on phrasal tunes represented by strings of two discrete tones, high (H) and low (L)” (Chun, 2002, p. 15).

In linguistics, stress is the relative emphasis that may be given to certain syllables in a word, or to certain words in a phrase or sentence. Stress is typically signaled by such properties as increased loudness and vowel length, full articulation of the vowel, and changes in pitch. From the perceptual point of view, all stressed syllables have one characteristic in common, and that is prominence; stressed syllables are recognized as stressed because they are more prominent than unstressed syllables (Roach, 1991).

Stressed syllables are often louder than non-stressed syllables, and may have a higher or lower pitch. They may also sometimes be pronounced longer. There are sometimes differences in place or manner of articulation – in particular, vowels in unstressed syllables may have a more central articulation, while those in stressed syllables have a more peripheral articulation. Stress may be realized to varying degrees on different words in a sentence; sometimes the difference between the acoustic signals of stressed and unstressed syllables are minimal.

An important role of intonation is as the ‘punctuation’ of spoken languages, marking the division between grammatical units and more generally helping the listener to follow the
utterance. The function is brought sharply into focus on occasion when the words used allow more than one grammatical parse.

Intonation in English is organized in units Halliday calls tone groups. Halliday (1970, p. 3) says of the tone group:

The tone group is one unit of information, one “block” in the message that the speaker is communicating; and so it can be of any length. The particular meaning that the speaker wishes to convey may make it necessary to split a single clause into two or more tone groups, or to combine two or more clauses into one tone group.

Tench (2005) summarized the major contribution in triple systems which is express information structure, those are: tonality, tonicity and tone. The pattern by which tone groups are distributed throughout speech, called tonality, is crucial to the sense of an utterance. The speaker divides up the stream of spoken words into groups, and this reveals to the listener how to mentally organize the information. Almost always, tonality follows a predictable course, with tone groups basically corresponding to grammatical clauses.

Tone group is one of the intonation feature of intonation that has three primary system, those are unit of information, focus of information and status of information. It is related to the number of tone group in utterance and each such tone group is seen as one ‘move’ in a speech act.

Tonality, the segmentation of discourse into individual units of intonation in sequence, represents the speaker’s perception of the number of units of information. We use clauses to convey information in grammatical terms in order to represent situation and we use intonation units to convey that information in phonological terms.

Each tone group has a tonic syllable, a place of prominence that the speaker seeks to mark as most important and that carries the most pronounced pitch change. It often carries the burden of “new information” in the clause and, as such, the normative place of a tonic syllable is on the last word in a clause. Placement of the tonic syllable in places other than this is understood to be contrastive. The placement of tonic prominence is referred to as tonicity.

Tonic segment is the most prominent stress (= tonic syllable) and carries the most significant pitch movement of the whole unit. The location of the tonic syllable relates to another sub-system, known as tonicity. In English, there is a very high level of expectation that the tonic syllable will be found on the last lexical item in each intonation unit (unit of information – tonality). This expectation is in the order of 80% probability. It usually means that all the information in the intonation unit is new; thus the focus of information is broad.

The tonic segment is usually preceded in the intonation unit by a stretch of sound known as the pre-tonic segment. In traditional terminology, the pre-tonic segment comprises a head, which consists of the first stressed syllable (the onset syllable) and all other stressed and unstressed syllables up to, but not including, the tonic syllable. Any unstressed syllables preceding the head are called the pre-head. The tonic segment comprises the tonic syllable, often also called the nucleus or nuclear syllable, and any following stressed or unstressed syllables, called the tail.

Tonality reflects the experiential function, tonicity at least one aspect of the textual function. Tone also reflects
textuality in the sense that it represents the speaker’s perception of the status of information - the relative importance of each successive piece of information (status of information). It marks the kind of activity involved, by a complex pattern built out of a simple opposition between certain and uncertain polarity. If polarity is certain, the pitch of the tonic falls, if uncertain, it rises.

Halliday (as cited in Roach, 1991) has identified five basic tones, or pitch contours, in English. Tone interacts with tonality (distribution of tone groups) and tonicity (placement of tonic prominence) to create meaning in English intonation. Following are the tones identified in Halliday’s system:

Simple Tone Groups:
tone 1 falling

tone 2 high rising, or falling-rising (pointed)
tone 3 low rising
tone 4 falling-rising (rounded)
tone 5 rising-falling (rounded)

In segmentation of tonality, there are some divisions of intonational contour. Roach (1991, p. 145) was the first one to divide the structure of tone-unit into four main segments:

1. **Head** is all that part of a tone-unit that extends from the first stressed syllable up to the tonic syllable.

2. **Pre-head** is composed of all the unstressed syllables in a tone-unit preceding the first stressed syllable.

3. **Nucleus or tonic syllable** is the most prominent syllable in the utterance or major pitch movement.

4. **Tail** is any syllables between the tonic syllable and the end of tone-unit.

Nucleus also has another name called tonic syllable. Roach (1991, p. 145) states that:

A syllable which carries a tone will be called a tonic syllable. It has been mentioned several times that tonic syllables have a high degree of prominence; prominence is, of course, a property of stressed syllables.

Chun (2002, p. 19) states that tone is “the major pitch movement within the tone unit or it can be said that the overall behavior of pitch is tone”. The total tone system to signal status of information is as follows:

1. **Low fall** : Polarity (truth value or validity) is known, stated or yes/no question. The voice falls during the word from a medium to a very low pitch.

2. **High rising** : The polarity is unknown and information is desired. The voice rises during the word from a medium to a high pitch.

3. **Rise fall** : Not doubt in order to dismiss it. The voice first rises from a fairly low to a high pitch, and then quickly falls to a very low pitch.

4. **Fall rise** : Something is known, but there is some doubt or reservation. The voice first falls from a fairly high to a rather low pitch, and then, still within the word, raises to a medium pitch.

5. **Low rise** : Imply uncertainty and that the assertion is conditional or something else. The voice rises during the word from a low to a medium pitch or a little above.

Halliday drew attention to differences between major information signalled by a falling tone and minor, signalled by a low rising tone. In this case, the theme is highlighted, as if the speaker wished to say something like *this present visit (is, in fact, my first visit to India)*. Thus the total tone system to signal status of information is as follows:

fall : \ = major information (but I saw him yesterday in the \library)
(final) rise = minor information (but I saw him yester \ day | in the /library)
(non-final) rise : / = incomplete information (but I saw him yester
/ day | in the \library)
(final) fall-rise : \ / = implication (but I
saw him yesterday in the \library)
(non-final) fall-rise : \ / = highlighting of
theme (but \ / I | saw him yesterday
in the \library)
(Tench, 2005, p. 10)

In this context of the research, the respondent is joining debate competition
that uses British Parliamentary Debate as the system of the debate competition.
Debate is a formal discussion on a particular matter in a public meeting or
legislative assembly, in which opposing arguments are put forward and which
usually ends with a vote (Simpson & Weiner, 2010, p. 2). Debaters - they who
do debate - challenge ideas, they do not attack each other. As in other sports, the
fair play is crucial.

On the basis of the background to the present study mentioned above, the
research attempted to address the following research questions: what are
the patterns of intonation that occur in EFL learner? and what are kinds of
information structure that occur in EFL learner?

METHOD
This study uses qualitative method to discover deep and whole
comprehension on the information structures that occur in EFL learner and
the patterns that exist in learner's speech when she used intonation for delivering
the message. The goal of qualitative research is to discover and develop the
new and to develop empirically grounded theories (Flick, 2009, p. 15).
Qualitative method is used for exploring, understanding and analyzing
unstructured data. This method is considered appropriate since this study
attempts to find out the kinds of information structure that occur in EFL
learners and to know the intonation patterns of the learners for delivering
their messages.

The respondent in this research was purposively chosen because she is in the
3rd grade who has followed the 4th semester of listening and speaking
classes in University of Kuningan. She also is a debater who followed English
Debate Competition in IAIN Syekh Nurjati Cirebon.

Three data collection techniques were employed in this study, which were
library research, observation, and interview. However, in collecting the
data, the researchers have to employ appropriate instuments such as library
research, observation, and interview. All data collection was recorded in order to
keep authenticity of the data.

In the library research, the researchers found some theories to support the data in this research from

In the observation, the data was analyzed in several steps. First, the
researchers transcribed the transcription of audio recorder when the respondent
followed English Debate Competition. Then, analyzing the data based on
intonation patterns and kinds of information structure by using
Halliday’s theory and PRAAT Software Analysis to analyze the data. Next,
identifying the data and interpreting the findings of the data analysis.

In the interview, the data and information were gained from the
respondent. The interview was conducted to clarify the result of data analysis from PRAAT in order to know
the respondent’s aim in delivering her speech.
RESULTS AND DISCUSSION

The findings of the study are described in three categories. The first category is unit of information. The second category is about the focus of information, and the third is the status of information. All of them complete each other reaching the objectives of the research. In first step, the respondent’s speech will be divided into different clause segmentations based on grammar level and marking the stress syllable using PRAAT software analyses.

In clause segmentation, these clauses are differentiated into two units of information using grammar level. It is because we use clauses to convey information in grammatical terms as we use intonation units to convey information in phonological terms. There are 16% or 25 independent clauses and 84% or 133 dependent clauses, with the total clauses are 158 clauses.

In stressing, the discussion can be noted that the respondent put 279 stresses that draw 222 amounts of time in a whole discourse. There are some words that did not get any stresses in that utterances. It is because the speaker decided to encode the message with stress placing. Languages differ, however, in what might be termed their prominence gradient, the steepness of change between prominent and non-prominent elements. It is because the prominence of information has relation to stress. As Chun (2002, p.148) states that “stress is the linguistic means of marking syllables or words as prominence or perceptually silent in relation to others no matter how prominence is achieved”.

Based on Halliday’s theory, there are three kinds of information structure: tonality, tonicity, and tone. Tonality is the chunking of speech into intonational phrases or tone unit. The finding of this division uses PRAAT software for accurate analysis. It is because we cannot make decision about how high the pitch or how loud the intensity with human hearing as we know that every human has different ability to hear clearly. There are eight common patterns of unit of information that are coded by different colour. The first pattern is PH-TS with 10% or there are 16 units of information, the second pattern is H-TS-T with 18% or 29 units of information, the third pattern is TS-T with 17% or 27 units of information, the fourth pattern is PH-H-TS-T with 10% or 16 units of information, the fifth pattern is TS-T with 17% or 27 units of information, the sixth pattern is PH-TS-T with 18% or 28 units of information, the seventh pattern is H-TS with 7% or 11 units of information and the last is PH-H-TS with 3% or 4 units of information.

The second system to organize information is focus of information (Tonicity). Focus of information is signaled by student’s stressing in the form of speech. Speech is produced in batches of segments that are hierarchically ordered: within any such batch except the lowest a smaller batch can be identified (Gussenhoven, 2002: 276). In the discourse, it is found four patterns of focus of information. In the first patterns is Given-New (G-N) with 20% or 31 units of information, the second pattern is New-Given (N-G) with 21% or 33 units of information in that monologue, the third pattern is Given-New-Given (G-N-G) with 36% or 58 units of information and the last pattern is only New in the utterances with 23% or 36 units of information.

The last system to organize information is status of information (Tone). Tone reflects textuality in the sense that it represents the speaker’s perception of the status of information -
the relative importance of each successive piece of information (status of information). There are five status of information in whole utterances in form of speech. The first is incomplete information (/) with 33% or 52 incomplete information in whole utterances. The second, is major information (\) with 15% or 23 major information in whole utterances. The third, there are 13% or 21 implication information (\/) in whole utterances. The fourth status information is highlighted theme (\/) with 32% or 51 in whole utterances and the last is minor information (/) with only 7% or 11 minor information.

CONCLUSIONS
From the results and discussion in the previous chapter, there are several conclusion that can be drawn. First, there are 5 kinds of intonation pattern used by the respondent: fall \ , rise (final) / , rise (non-final) / , fall-rise (final) \/, fall-rise (non-final) \/.

Second, there are three kinds of information structures: unit of information (tonality), focus of information (tonicity), and status of information (tone). In tonality, H-TS-T, the percentage was 18%. It was the most dominant pattern used by the respondent to deliver the information. It means that the respondent wanted the listener to know and understand the information from her speech, because head (H) and tonic syllable (TS) themselves are the stressed syllables which have more prominence and major pitch movement. The most unit of information used by the respondent was dependent clause. It was because the respondent didn’t prepare any written text when she delivered her speech, even she didn’t give much attention on her tone which influenced the information.

Given-New-Given was the highest formula in tonicity with the precentage 36%. It means that the respondent delivered the information in the simplest way, so that the listener would get the information easily, Given means known or at least knowable by the listener at this point in the discourse, New means unknown or non-recoverable. The respondent mostly used incomplete information [ / : rise (non-final)] as her tone means that the information is not final or needs other information to make it complete with the precentage 33%. It happened because she could not control over the content of her speech.

Third, from the interview, it can be concluded that the respondent’s aim of her speech was to convince all of the participants and audiences that presented in debaters’ hall when the debate competition began. The placement of pauses and the use of intonation that inappropriate with the aim of the respondent happened because she was in spontaneous speech and did not use any prepared text (impromptu speech). It made her very nervous so that she could not use appropriate intonation and place the stress incorrectly.

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