

Analyzing the Aspect of Suprasegmental in Students' Speech

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ABSTRACT

Penelitian ini bertujuan untuk mengungkapkan sebuah analisis aspek suprasegmental pada mahasiswa khususnya intonasi ketika mereka sedang menyampaikan pidato pada *Internasional conference* (ISC). Data penelitian dikumpulkan dengan mengamati rekaman video pidato para mahasiswa dan wawancara yang dilakukan kepada seluruh peserta dari jurusan bahasa Inggris, kemudian dianalisis menggunakan metode kualitatif. Peserta pada penelitian ini berjumlah delapan peserta/mahasiswa yang telah dipilih berdasarkan kriteria tertentu. Data tersebut dianalisis setelah menemukan dan mengklasifikasi informasi khusus yang telah diungkap dari rekaman video dan wawancara. Hasil penelitian ini menunjukkan fakta bahwa intonasi naik dan turun merupakan yang paling banyak digunakan oleh mahasiswa dalam menyampaikan pidato mereka. Namun, beberapa intonasi yang dibuat oleh mahasiswa dianggap melanggar aturan intonasi bahasa Inggris. Penelitian ini juga mengungkapkan bahwa berdasarkan perbedaan-perbedaan antara sistem bunyi bahasa Inggris dan Indonesia, terkait tingkat suprasegmental, khususnya intonasi itu dipengaruhi oleh aspek bahasa pertama dan pedagogis mahasiswa. Sebagai tambahan, mahasiswa membuat intonasi paling baik ketika mengucapkan konsonan akhir yang mana mereka, dipengaruhi bahasa Indonesia, tidak bersuara meskipun konsonan-konsonan akhir tersebut disuarakan dalam bahasa Inggris.

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INTRODUCTION

Phonetic and phonology can be defined as a linguistic process on how the sound of certain words or syllables are produced by a speaker. As a set of study, Phonetic and phonology is different in some extent. According to Hickey (2003, p. 2) phonetic is defined as the study of how the sounds are produced by human in general without saying what function which sounds may have in a particular language. He further explains that the term of phonetics is often used with the reference to one language when the emphasis is on the pronunciation of the language. In the other side, phonology is defined as the classification of the sounds within the system of a particular language (Hickey, 2003, p.3). Based on the definition given by Hickey, it can be concluded that phonetic is the study of how the sound is produced, and phonology is the study of how the sound is classified into the structural system of a certain language.

Furthermore, the most crucial aspect in phonetic and phonology study deals with the suprasegmental aspect which moves the analysis beyond individual speech sounds to syllables within a given word or to intonational patterns across words, phrases, and clauses. The term of suprasegmental refers to those properties of an utterance which are not properties of any single segment (Birjandi, 2005, p. 99). It further explains that in suprasegmental, there are five major types or features, those are; (a) stress, (b) tone, (c) intonation, (d) length, and (e) syllable.

Moreover, in order to avoid misunderstanding, learners of English as foreign language should pay more attention to the matter of intonation. According to Birjandi (2005, p. 2) there are six different intonations in English, which are identified as falling, rising, falling-rising, rising-falling, take off, and level. Those six intonations with their variations can be used depending on the context. In addition, intonation is closely related to both words and sentences. Word intonation or a sentence intonation is usually applied to single words or sentences and it is held based on some general guidelines about where that intonation will fall depending on the way the word is structured (Birjandi 2005). Problems are inevitable for non-native speakers who speak English to native speakers without using word intonation especially when the native-speakers are speaking fast. On the other hand, native speakers may find it difficult to understand the non-native speakers' utterance if they do not use the proper intonation.

Furthermore, this research focuses on suprasegmental features as a part of pronunciation. Many EFL learners in English Department still neglect their pronunciation study. They spend more time on their study to focus on enriching vocabulary and mastering grammar, in order to support their speech production. Whereas pronunciation is definitely the direct thing that students notice when they are speaking English. A correct pronunciation should be one of the first things that they learn in English. People can live without advanced vocabulary as they can use simple words to say what they want to say. They can live without advanced grammar

as they can use simple grammar structures instead. However, there is no such thing as simple pronunciation on the basis of speech production.

Suprasegmental is one of the part in phonetics and phonology studies that focuses on some features of an utterance. Suprasegmental are features that appear on utterance which does not included in any single segments. Therefore, in suprasegmental there are five major types, those are; (a) stress, (b) tone, (c) intonation, (d) length, and (e) syllable.

Theory of Intonation

According to Birjandi and Nodoushan (2005, p. 113) "Intonation means when, why and how a speaker chooses to raise or lower or sustain the pitch of her or his voice at particular points while speaking". It can be inferred that intonation is the speaker's way to decide whether they should raise or lower or sustain their intonation in speech to make it more clearly, even the speaker pronounces each word obviously, but the intonation pattern are non-standard, the meaning will be possibly unclear. Beside, in terms of comprehension, the speakers will lose a great deal of information if they are listening to the definite words that are used.

Birjandi (2005, p 114) further explains that intonation in English are the rising and falling of pitch in order to deliver a variety of meanings, emotions or situations, within the limits of standard grammar and fixed word order. In general, English uses six different forms of intonation patterns. They are :

(a) Falling

Falling intonation is characterized by a clear fall of the pitch after the stressed syllable of the last content word towards the end of the sentence. In other words, the pitch will have to fall after the stressed syllable of the last content word. Falling intonation is used in many situations such as, **Statements, WH-questions, and confirmatory tag questions** (i.e., tag questions in which you expect the listener to confirm what you say) (Birjandi, et al: 2005).

(b) Rising

Rising intonation is characterized by a clear rise of the pitch after the stressed syllable of the last content word of the sentence onwards. In other words, the pitch will have to rise after the stressed syllable of the last content word. Rising intonation is used in, **yes-no questions, repeated questions, questionstatements, and tag questions** (Birjandi, et al: 2005).

(c) Rising-Falling

Rising-falling intonation is characterized by a combination of a rise followed by a fall. Rising-falling intonation is characterized by a combination of a rise followed by a fall. In this case, the pitch will go up on one part of the sentence and then fall down on another part. Rising-falling intonation is often used in **two-part statements, intro-phrases, and listings** (Birjandi, et al: 2005).

(d) Falling-rising

Falling-rising intonation is characterized by a combination of a fall followed by a rise. This intonation pattern is the reverse of the rising-falling pattern. Falling-rising intonation is often used for soothing and politeness (Birjandi, et al: 2005).

(e) Take-off

Take-off intonation is characterized by a take-off pattern after the most important contrastive stress of the sentence. In other words, the speaker begins with a regular or level tone and then gradually raises the pitch (similar to the way airplanes run along the runway before take-off). The point at which the pitch comes to a full rising pattern depends on the speaker's choice. This is normally the point the speaker finds most important. Take-off intonation is often used in statements with negatively-charged emotions (Birjandi, et al: 2005).

(f) Level

Level intonation is characterized by no or very little pitch modulation throughout a sentence. In rising or falling intonation patterns (or their combinations), the pitch would move from one level to another (i.e., a higher or lower level). In level intonation, however, the modulations of pitch are not remarkable enough to move across different pitch levels. That is, the pitch will stay within the same level throughout the statement. Level intonation has a very strict usage. It is used in places where frozen style is best. One such situation is in the church (Birjandi, et al: 2005). Therefore, level intonation usually use when the speaker read holly book and it almost never need when learning English.

Theory of Factors that influenced students' intonation

According to Birjandi there are three major factors that could be a challenge for the foreigner students when they are learning English, particularly when it deals with the intonation. Those factors are elaborated as follow:

Students' Pedagogical / Language Proficiency

According to Birjandi (2005, p. 33), language proficiency, pedagogical, intelligibility and comprehensibility can be the indicators how successful a non-native speaker in learning English. Besides that Birjandi (2005) further explains that the students' proficiency can measures the amount of understanding via orthographical transcribing whereas their comprehensibility measures the degree of understanding through a scalar rating.

First Language Influence

Birjandi (2005, p 47) states that there is a consensus that one's first language (L1) can impact on Second language (L2) development and this topic has been widely discussed in the phonological development literatures with multiple learning models. On the other hand, Birjandi (2005) points out the differences of speaker's L1 and L2 are emphasized to describe the pattern of intonation they make in speaking. Birjandi (2005) further explains that that



learners' learning difficulties and error types in L2 pronunciation and intonation may vary depending on their L1 backgrounds and intonation. Birjandi (2005, p. 51) believes that L1 differences affect the correlation between errors in linguistic features and degree of comprehensibility in term of their intonation.

Language Mode

Birjandi (2005) "*language mode* as the state of activation of the bilingual's languages and language processing mechanisms, at a given point in time" (p. 2). Birjandi described activation of the two languages as a continuum, ranging from no activation to total activation. Factors affecting where a speaker is positioned on the language mode continuum include (a) person(s) being spoken to, (b) the situation, (c) the form and content of the message being uttered or listened to, (d) the function of the language act, and (e) specific research factors.

METHOD

This research used qualitative method. Qualitative method concerns with developing explanations of social phenomena. It aims to help us to understand the social world in which we live and why things are the way they are. Moreover, this study also used the semi structure interview. Sugiyono (2008, p. 9) stated that the goal of semi structure interview is to explore a topic more openly and to allow the interviewers to express their opinions and ideas on their own words. It will explore feeling, attitude, expect and insight of the interviewers. The instruments which are needed in the interview section are audio recording, notebook and questions list. This interview describes the result if the research on what are factors that lies behind each intonation they make during their speech in International Students Conference (ISC).

The primary data of this research was the videotapes of the students' speech in International Students Conference (ISC) 2016. The primary data was collected through the results of research participants' speech videotapes. Students' speech videotapes as the main object of this research. So that, the data are students' speech or utterance which indicate the six types of English intonation as well as the interview with those students.

The site of this research is at English department of Universitas Negeri Gorontalo. This location is selected based on several requirement. Firstly, because this research is a study in the language of the particular linguistic as well as the required data must be in English. Secondly, because this study considers the data are from the students of the English department itself. This situation allows this research data collection be easier. Thirdly, the participants has a good relationship with the researcher in order to be easy to consult with them. Participants in this study are eight students of English Department who have passed several courses such as Speaking I, Speaking II, Speaking III, Introduction to Linguistics, Phonetics and Phonology with satisfied result B+ or above and have 3.5 GPA minimaly, also selected as the speaker of ISC 2016. They were selected because they have got the basics of



speaking and the role of phonetics and phonology in speech. After the researcher gets the participants' information, the researcher calls them and makes an appointment. It is necessary for the researcher to know the participants.

According to Creswell (2009, p. 178) figures out that the data collection procedures in qualitative research involve four basic types. They are: observations, interviews, documents, and audio-visual materials. But the techniques which were used in this research are observation and audio-visual materials. For observation, the researcher looked up the transcript of high academic record of the students from the operator of English Department, and then, arranging the students' grade in those subjects which is B+ minimally. After getting the list, the students who are qualified to be participant were selected as the speakers of ISC 2016 regarding the data collection of this research is students's speech when they presenting. Moreover, the researcher identified the videotapes of students' presentation and how their English intonation in that videotape. After that, determining whether the students' used proper intonation or not. Besides that, the researcher also took some note, to make it easier in analyzed the data. This research also had been observe the videotapes two or three times, in order to make sure that the correct and incorrect of students' intonation similar in every observation.

The next step is audio-visual materials. Creswell (2009, p.181) states that in audio-visual materials, the data may take the form of photographs, art objects, videotapes, or any forms of sound. Therefore, the data is students' speech when they are having presentation in ISC 2016, the research took students' videotapes which is recorded when they are presenting in ISC 2016. Creswell in (2009, p. 183) state "the process of data analysis involve made sense out of the text and image data". It involves preparing the data for analysis, representing the data, and making an interpretation of the larger meaning in that data. In analyzing the data, the procedures are as follows; First, prepared the data for the analysis. This involves transcribing the videotapes of students' speech. In this step, this research organized all the data which was collected through observation on the videotapes and transcription of students' speech; Second is representing the data. The researcher identified the types of English intonation. The Researcher compared the students' intonation between their presentation and the explanation about English Intonation in theory of Birjandi and Nodoushan (2005, p. 118-124). It aims to see the students English intonation in their speech when they presenting. Next, researcher was representing the data from each student's intonation; Third is making interpretation for all the data. The main poin on this step is to obtain a general information and reflecting on that overall meaning. Also, this step begins to detail the analysis with a coding process. Coding is the process of organizing the material into segments of text before bringing meaning to information. The last is using the coding process to generate the description of the setting theme for analysis.

RESULT AND DISCUSSION

Data of the rising intonation in students' speech

The result of the observation showed that rising intonation has been used more often than any other intonation in speech. The rising intonation was particularly used to stress or make a word powerful. The following data are the representative of the rising intonation in student's speech:

Data 1

Do you know the history or path of the language **acquisition**?

In this case, the speaker tried to emphasize the word of "acquisition" which meant that the speaker would like to let the audience understands what they were going to talk about the language acquisition instead of any other field of language study. The rising intonation was also being used in expressing the question that required yes or no answers which were suitable with this kind of sentence in data 1. The unclear syllable was spoken louder than all the others and had a characteristic change of intonation. The changes of intonation most commonly encountered in English were the rising intonation that denoted a question. Certain syllables in each multi-syllabic word obtained a relative prominence or loudness during pronunciation while the others did not. The former kind of syllables were said to be stressed as the data above when it indicated a question

Data of the falling intonation in students' speech

Word stress or intonation was usually applied to single words and it was held that there were some general guidelines about where that stress would fall depending on the way the word was structured. Problems were inevitable for non-native speakers who spoke English to native speakers without using word stress especially when the native-speakers were speaking fast. On the other hand, native speakers might find it difficult to understand non-native speakers' utterance if they did not use word stress since native speakers of English used word stress naturally.

Moreover, based on the data gained from the observation, it was revealed that the second intonation that was mostly used by a speaker in speaking was the falling intonation. It was noted that there were 117 intonations using the falling intonation during the speech of the participant. The elaborations of the data are presented as follow:

Data 8

You need public **speaking**.

In this case, the speaker used the falling intonation to stress the word of 'speaking'. This indicated that the speaker expected the audiences to confirm what she/he said. This particularly occurred in a sentence of statement. The falling intonation used by the speaker to address this sentence was a good choice since Birjandi (2005) stated that the falling intonation

was used by the English native speaker to say a statement in a conversation or in a public speaking where those both were similar to one and another.

In Indonesian, however, stress was not distinctive. There were no words containing the same sequence of vowels and consonants that differ in their stress patterns and consequently in their meanings. This made sometimes the Indonesian students who spoke English forget to put the right intonation as the native did. In addition, the difference in duration between stressed and unstressed syllables is comparatively small in Indonesian (Birjandi, 2005).

Data of the fall-rising intonation in students' speech

The result of the data analysis showed that there were several reasons why the Indonesian speakers faced problems with the word stress patterns in English.

The first obvious reason was that the word stress patterns between English and Indonesian were quite different. English word stress patterns were more complex than Indonesian word stress patterns. Word stress in Indonesia is penultimate syllable or in the final position or even stress is free (Birjandi, 2005). In contrast, stress in English could fall the first, middle, or last syllables of words. Therefore, sometimes it was quite hard for the Indonesian speaker to put the right intonation as the native English did. The data found, when the students pronounce *t*, particularly in fall-rising intonation. Those words would stress penultimate syllables or final ones or could be no stress at all. Indonesian speakers did not know if there was different stressed syllable in the same word. In short, the word stress patterns of the speakers' first language influenced the way how they placed stress on English words.

The data of the student's fall-rising intonation in speech are elaborated as follow:

Data 13

Could you please **tell me**?

The Simple falling-rising intonation had various meanings, for example when it appeared in an intonation which was coextensive with a clause. In such intonation the Simple falling-rising was independent because its meaning did not depend on a later intonation of the utterance. Falling-rising intonation as explained by Birjandi is often found in a declarative and imperative sentences of the independent falling-rising signals some kind of implication. It implied an unspoken thought. Implication could be several kinds in which one of them is warning whereas another is reservation. Yet, another emerged in negative sentences and its result was that the scope of negation did not include the main verb.

Data of the rising-falling intonation in students' speech

The data gained from the observation of the student's speech. It was revealed that rising-falling intonation was also dominant in a speech given by the student. It was noted that there

were 99 rising-falling intonations done by the student in a speech. The data elaborations of each intonation are presented as follow:

Data 17



It is a **financial, building** or **it** could be

The rising and falling intonation patterns went up and down across the utterance and end either higher or lower than they began. A third ending for an intonation pattern was heard in which the pitch was sustained, or continued, at the end. The sentence above was a statement with some listings. Therefore, mostly, the English native speakers used the rising falling intonation when uttering this utterance. The same things done by the student as the speaker. Therefore, it could be considered that the speaker has done the correct choice when using the rising-falling intonation to address this kind of statement.

Data of the take-off intonation in students' speech

It has been noted that there were not so many take-off intonation in students' speeches dealing with the suprasegmental aspect. However, most of the take-off intonation done by the speakers during the speech sounded very Indonesian and contradicted with the rule of intonation by the native speaker as explained by Birjandi. The following data are the overview of the take-off intonation done by the students' in their speech.

Data 21



The second I will **read it**

According to Birjandi (2005), the take-off intonation is usually done by the native speaker to say something which is emotionally negative. It could be something like mocking or bullying. However, most of the speakers used the take off intonation as the data above in the positive statement where they could just simply use the falling intonation in expressing those kinds of sentences. Therefore, the students might pose different meaning for the native speaker as they heard those sentences.

Data of the level intonation in students' speech

According to the data obtained from the observation of the students' speech, it was found that there were not so many level intonation done by the speakers. It was also noted only one speaker used the level intonation during her speech. The data of the level intonation was as follow:

Data 24


Going to use the **Cambridge dictionary**



The level intonation according to Birjandi (2005) is used to express something boring or routine, something that is said repeatedly and does not bring any surprising information. Sometimes, this was also used for religious situation like in a church. Therefore, this level of intonation was not quiet suitable to be used in a speech since speech needs something that could encourage the audiences to be paid attention to what was being delivered by the speaker. This intonation was not very common in English for example when they were speaking with their close friends or fellows. Therefore, it was not necessary for the speaker to use the level intonation in their public speaking like a speech.

CONCLUSION

Conclusion this undergraduate thesis focuses on the suprasegmental level which is intonation. Its aim is to summarize the suprasegmental level that are usually made by students in a speech, caused by the differences between English and Indonesian, and to find out how these suprasegmental levels are perceived by Indonesia speakers as well as by native speakers. The theoretical background is based on findings of English and Indonesian phoneticians and mainly with the help of works by Birjandi (2005) English and Indonesian suprasegmental features are compared. Based on the differences between English and Indonesian phonetic system, it is found that concerning the suprasegmental level, Indonesian students make the most remarkable intonation when pronouncing final consonants which they, under the influence of Indonesian, devoice even though these final consonants are voiced in English; what is more, they sometimes put the word stress on the syllable in a word, adapting the Indonesian habit of putting the word stress always on the first syllable, they also sometimes do not reduce the unstressed syllables enough and their speech tends to be generally mono-intonation or not dynamic enough because of the lower variety of pitch in Indonesian intonation. All these may cause misunderstanding or reveal that the speaker is not native.

However, this hypothesis is disproved. The results show that suprasegmental may also be considered less serious because the listeners may ascribe them to some paralinguistic phenomena and not only to the speaker's lack of knowledge. As far as the other hypotheses are concerned, it is confirmed that only when the Indonesian speakers are advanced, they are able to name some particular Intonation. This is caused by their concentration on vocabulary and grammar in the beginnings of their learning English. It is also shown that most of the Indonesian speakers think that they own current pronunciation of English is close to the one in the recording with suprasegmental aspect. They may think so because they are aware of the fact that English intonation is more dynamic and Indonesian speakers are usually not able to perform it properly, which is also proved by their other answers.

Therefore, this undergraduate thesis might therefore show which elements of pronunciation Indonesian speakers should focus on and remind them that every suprasegmental feature is worth mastering. It also gives ideas for the following research which could be done in the field of suprasegmentals.



REFERENCES

- Beckman, M., & Venditti, J. (n.d). Tone and Intonation.
- Birjandi, P., & Nodoushan, M. A. (2005). *AN INTRODUCTION TO PHONETICS*. Iran: Zabankadeh Publications.
- Creswell, J. W. (2009). *Research Design Qualitative, Quantitative, and Mixed Methods Approaches* United Kingdom : SAGE Publications
- Demenko, G. (n.d). *Intonation processing for speech technology*. Institute of Linguistics, Department of Phonetics Adam Mickiewicz University, Poznań.
- Gussenhoven, C. (2016). Analysis of Intonation: the Case of MAE_ToBI. *Journal of the Association for Laboratory Phonology*, 1-35.
- Hancock, B., Ockleford, E., & Windridge, K. (2009). An Introduction to Qualitative Research. *The NIHR Research Design Service for Yorkshire & the Humber*, 07.
- Hickey, Y. (2003). Examining the Segmental and Suprasegmental Correlates of the IELTS Pronunciation Scale. Birkbeck: University of London
- Jong, d. K., & Zawaydeh, A. B. (1998, December 18). Stress, duration, and intonation in Arabic. *Journal of Phonetics*.
- Keramida, A. 2009. Helping Students Overcome Foreign Language Speaking Anxiety in the English Classroom: Theoretical Issues and Practical Recommendations.
- Liu, C. K. (n.d). Stress, Rhythm, Tone . *Stress, Rhythm, Tone* .
- Mehler, J., Bertoncini, J., Dupoux, E., Pallier, C. 1995. *The role of suprasegmentals in speech perception and acquisition*. LSCP CNRS-EHESS, 54 Bd Raspail, 75006 Paris, France.
- Merrell, W. K. 2008. *Helping Students Overcome Depression and Anxiety: A Practical Guide*. Guilford Press. New York
- Minematsu, P., Nishimura, T., Murakami, T., Hirose, K. (n.d). *Speech Recognition Only with Supra-segmental Features Hearing Speech as Music*. The University of Tokyo, Tokyo.
- O'halpin, R. (2010). The Perception And Production Of. *A Dissertation Submitted To The University Of London For The* , 1-343.
- Reilly, M., Chasaide, A. N. (n.d). *Analysis of Intonation Contours in Portrayed Emotions Using the Fujisaki Model*. Phonetics and Speech Science Laboratory Centre for Language and Communication Studies Trinity College Dublin, Ireland.
- Sugiyono. (2012). *Metode Penelitian Kuantitatif dan Kualitatif dan R&D*. Bandung: Alfabeta.
- Taylor, P. (n.d). *Analysis and Synthesis of Intonation using the Tilt Model*. Centre for Speech Technology Research, University of Edinburgh.
- Trujillo, F. (n.d). Intonation. *English Phonetics and Phonology* , 1-2.
- Umar, S. (2015). Word Stress and Intonation Problems Encountered By Indonesiam Speakers in Speaking English.
- Vaissiere, J. (2004). Perception Of Intonation. *Handbook Of Speech Perception*, 1-28.



Zhang, L. J. (2004). Awareness-Raising In The Tefl Phonology Classroom: Student Voices And Sociocultural And Psychological Considerations. *Ijl International Journal Of Applied Linguistics*, 1-50.