

**Semantics Affectation during the Developmental Sequence as a Result of the
Pronunciation Variations of the Foreign Language Learners: Universidad Nacional**

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Abstract

Connected Speech is part of the communicative competence that foreign language learners should develop during their acquisition or learning process. Additionally, aspects such as knowing what to say, when to say it and how to say it are relevant when variations in pronunciation appear during the developmental sequence. This case study is focused on analyzing how the variations of speech produced by students from different levels of the English Teaching major affect semantics while considering users' choices regarding elements such as lexicon, social context and structure, which in turn limit variables to define their performance.

Keywords: Communication, pronunciation, variations, connected speech, learning process.

Resumen

El discurso en contexto es parte de la competencia comunicativa que los estudiantes de un segundo idioma deben desarrollar durante su proceso de adquisición o aprendizaje. Por otra parte, aspectos como el saber que decir, cuando decirlo y como decirlo son relevantes cuando las variaciones en pronunciación aparecen durante el desarrollo progresivo del idioma. Este estudio de caso se enfoca en analizar como las variaciones del discurso, producidas por los estudiantes de diferentes niveles de la carrera, afectan la semántica. Se consideraron sus elecciones en cuanto al léxico, contexto social y la estructura del idioma que a su vez limitan las variables para definir su desempeño.

Palabras claves: Comunicación, pronunciación, variaciones, discurso en contexto, proceso de aprendizaje

Introduction

The learning of a foreign language in a formal environment implies effective communication as its final goal. The developmental sequence for foreign language learners is assessed based on the guidelines of different standardized tests, as for Costa Ricans, TOEFL/TOEIC, the latter serving for those interested in becoming teachers of English. Proficiency on how well students improve from basic structures to the desirable level of comprehension is closely related to semantics as the primary concern of encoding and decoding. Both, the interpretation and meaning of words, are at the same time conditioned by the variations on pronunciation during the developmental sequence and it is even more observable in a foreign language learning process in a formal environment.

From the functional perspective of language, pragmatics, semantics, and perceptual strategies should be conveyed to achieve communication. According to Fitch & Sanders (2005), “language pragmatics takes an axiomatic that when people speak, what is said (sentence meaning) is a factor in but not a determinant of, the meaning of saying that sentence (utterance meaning; p. 17). Communication has to do with meaning and understanding of the speakers who play both roles at the same time, listeners and speakers to reach effective communication. In a formal learning environment, variations on pronunciation might affect the semantic development of communication, taking into account that students are exposed to differences in the production of sentences because of their level of proficiency in linguistic competence and performance as well. Therefore, input plays an important role within the interactive exchange of meaning stemming from both professors-students and students-students. In fact, Wilson & Mihalicek (2011) stated that “a word’s meaning is determined by the people who used that word, not ultimately by a dictionary” (p.187). From that perspective, it is important to know how much language variations in pronunciation affect the intended semantics and its development on foreign language learners.

Language encompasses phonemes, morphemes, lexemes, syntax, and context which along with grammar, semantics, and pragmatics mesh to create meaningful communication among individuals. Also, linguistic semantics deals with the conventional meaning carried by the use of words and sentences of a language, and within a foreign language learning process interpretation of what is said becomes most relevant in the communicative act as

meaning should exist in every word, every phrase, every sentence and in every single utterance. Regardless of pronunciation variations, which in a formal environment can happen because of performance, competence or the process itself, meaning should occur to have communicative competence. On the other hand, as social variations in speech differ in at least three major ways such as vocabulary, syntax and phonology, it is relevant to identify what affectations in semantics occur when there are variations of the foreign language in terms of interpretation among foreign language learners.

General Objective:

Identify the semantic affectations when interpreting the meaning of language as a result of pronunciation variations.

Literature Review

Pronunciation

Cook (1996, as cited in Pourhosein Gilakjani, 2016) defined pronunciation as the production of English sounds. He explained that pronunciation is learned by repeating sounds and making corrections when they are produced inaccurately. To complement the previous definition, it is relevant to mention Yates (2002, as cited in Pourhosein Gilakjani, 2016), comments that pronunciation is the production of sounds that is used for making meaning and that those sounds are going to be interpreted and contextualized by the listener. On the other hand, Richard and Schmidt (2002) stated it as the method of producing certain sounds, and in this case, pronunciation seems to be limited to a specific sound production. According to James (2010, as cited in Pourhosein Gilakjani, 2016), the aim of learning pronunciation for some learners is the native-like accent. However, it cannot be the final goal of teachers who intend to improve their learners' foreign language proficiency. Morley (1994) mentioned that if a speaker has a heavy English accent, this may cause negative judgments about his/her personality and competence, and the interpretation of the previous assumption could lead the learners and professors as well to perceive that trying to sound native-like is not the primary goal of sound production, i.e., pronunciation.

Pronunciation and Semantics. Related to the relationship between pronunciation and semantics (Chen, Q., & Mirman, D. 2015) explained based on simulation that the spoken word recognition required only the phoneme and lexical levels to occur. On the other hand, real-world spoken word recognition requires listeners to not only activate the word-form but also access its meaning stating the relationship between pronunciation, word recognition and meaning when speaking. They also explained how processing at different levels semantics processing begins as soon as there is input to the semantic level, without waiting for lexical (or even sub-lexical) processing to complete. Particularly relevant to the study of neighborhood effects, one recent study showed that phonological neighborhood density influences the activation of semantic neighbors during spoken word comprehension.

Here it is important to mention that there are different ways for two words to be related. The ones which share the same pronunciation are phonologically related and for a foreign language student in a formal environment context might lead or mislead meaning. Furthermore, words are also semantically related and their meanings are connected to the way how they are perceived by the listeners. Dawson and Phelan (2016) explained that relationship by using an example “The word pot is intuitively more closely related semantically to the word pan than it is to the word floor. The reason clearly is that both pot and pan have meanings that involve being containers used for cooking, while floor does not” (p.253). There might be an affectation in the original intention of the speaker if the utterance produced intends to say floor and not pan.

Vowels and Consonants

Production and perception of vowels and consonants. According to Flege (1995) the speech learning model (SLM) generates specific predictions concerning the production and perception of L2 vowels. He also states that adult L2 learners are likely to discern the phonetic differences between certain L1 and L2 vowels, especially if the L1 has fewer vowels than the L2 (e.g., the 5-vowel system of Spanish in comparison to the 15-vowel English system). The author mentions that when this change occurs, new phonetic categories will be established for the L2 vowels, and the L2 vowels will ultimately be produced as specified in their phonetic category representations over a learner’s life span. He also stated that the greater the perceived distance of an L2 vowel from the closest L1

vowel, the greater is the likelihood that a new category will be established for the L2 vowel. The same scenario happens for consonants as learners try to discern the phonemic differences but may approach and render realizations as close as possible to an allophonic variant of an L1 consonant. As for this research, the aim is to identify how the variations in pronunciation of both, vowels and consonants affect semantics within conversation. The model predicts different effects of L2 learning on the production of L2 vowels, depending upon whether or not a new category has been established for an L2 vowel. For example, using an orthographic classification task, Flege (1991c) showed that Spanish speakers with little or no experience in English tend to identify English /æ/ tokens as realizations of their Spanish /a/ category.

Also, evidence obtained by Flege (1991c) suggested that some of the NS subjects may have identified endpoints of this continuum (/ɛ/ and /æ/ in terms of two distinct Spanish categories /e/ and /a/) by relying on “readily available auditory property (duration) rather than by referencing incoming stimuli to two distinct long-term memory representations” (p. 244). This premise for foreign accentedness is important as it reveals language development of the learner in terms of L2 proficiency or experience. Oddity discrimination tasks have been used in L2 research to determine if learners can discriminate various L2 sounds (e.g., Weiher 1975; Lamminmaki 1979), and might be used to test for category formation (p. 243). Nonetheless, it is important to remark that most studies pertain to sound discriminations at the phonetic level, generally in one of two cases: auditorily (i.e., non-native speakers listening to native speakers) and orally (natives assessing the dissimilarity of non-native speakers oral production). Although these contribute to both auditory and articulatory phonetics, by researching the features and characteristics of phonetic inventories, the cross linguistic similarities and dissimilarities, the overall semantics and pragmatics should not be overlooked. Hence, this research aims to evaluate the production of consonant and vowel sounds of foreign language learners and the affectation of semantics in oral discourse, as assessed by teachers as language experts, which, in turn raises, the question as to how familiarized a language instructor must be in terms of the intralinguistic variations of phonetic properties of the L2 to assess isolated “incorrect” utterances.

Semantics

Semantics is defined as the study of the relation between form and meaning, and it deals with word/morpheme and sentence meaning. In other words, semantics is the study of the meaning of morphemes, words, phrases and sentences. Dawson and Phelan (2016) state that “semantics is a subfield of linguistics that studies linguistic meaning and how expressions convey meanings. It deals with the nature of meaning itself, what exactly linguistic meanings are and what the relationship to the language user on the one hand and the external world on the other is (p. 246)”. This research deals directly with the semantics variations as the effect of pronunciation which are produced because of the different levels of performance and competence students have.

Semantics input. As Gor and Long set forth (2009) “without question, L2 learners derive their information about L2 from the aggregate of all their input, which includes (in the classroom) teacher talk, textbooks and materials, the output of other students, and audio, visual/technological input, all of which are usually controlled, positive samples of language” (as cited in Hassanzade, & Narafshan, 2016, p. 71). Input is provided by means of conscious or unconscious process. The environment created around the foreign language learner reinforces his competence of the language and encourages the development of the performance by either repeating or creating meaningful conversations which should be enriched through conversational competence until attaining quality communicative competence.

Semantic affectations. To understand the affectations in semantics that can occur when using a foreign language first the concept of language should be clearly stated. Algeo & Butcher (2013) say “A language is a system of conventional vocal signs by means of which human beings communicate” (p. 2). Another important aspect is to deal with the fact that the learning of a foreign language is directly affected by the first language and its production during the developmental sequence. Semantics, which links denotative usage of words to their connotative context, is affected by pragmatics, syntax and phonology when the learning of the language is developed in a formal environment. Different from a native second language process semantics affectations in terms of reference, truth, mental lexicon affect meaning not only by the structural usage of language but also the production of sounds and their combination in every sentence and in every utterance. And some of the

affections relevant to this research are the accuracy of the vowel sound, the consonant sound, the words in context and every utterance within the conversation.

Meaning

Meaning is the key to establish successful communication because the encoding-decoding process reaches its goal when meaning is achieved. Bates (1976) stated that meaning is a set of mental operations carried out by the speaker, which the speaker intends to create in the mind of the listener by using a given sentence. Whether or not the speaker actually succeeds is a separate issue (as cited in Seliger, 1985, p. 4).

Meaning and reference. As defended in his thought experiment, the philosopher Putnam stated that meanings are not in the head. He intended to illustrate his argument for semantic externalism, or the view that the meanings of words are ultimately not purely psychological which oppose Chomsky's theory. Taking that position into account, it can be claimed that meaning comes from the intention of the encoder and it is produced by the perception of the decoder, an expert's understanding or the nature of the term itself. The view is, rather, that the intension may be determined by the narrow psychological states of the speaker or a semantical stereotype (Cohen, 2008). Thus, one might more accurately claim that the thesis is: meanings are entirely determined in the environment, which could be deemed as linguistic environment regarding pronunciation for this research.

Consequently, semantic externalism states that the meanings of words as used by a speaker partially depends on his relations to the physical or social environment. It then follows that externalism is correct regarding semantic knowledge. Nevertheless, many philosophers and linguists as Chomsky would insist that the study of a speaker's semantic knowledge is the study of a purely internal psychological state. In having two opposing theories, Chomsky's internal faculty to produce meaning and Putnam's theory that meaning depends on environmental factors, this research tries to convey the affectation that pronunciation in a foreign language affects meaning whether it is internal, from the speakers' intention, or whether it is in response to the input produced in the language itself.

Meaning and sense. Meaning and sense is related to the perception of a word and its nature and the understanding of that word into context. Even dictionaries cannot be considered the true sources of word meanings because the mental representations speakers have about that word is influenced by their particular schema. Dawson and Phelan (2016)

explained that “words are associated with senses – mental representations of their meaning” (p. 249). The standard pronunciation of the words allows foreign language students to understand the word and immediately establish a mental representation to have the meaning of the utterance. Dawson and Phelan (2016) provide an example about the word <mother> in isolation and they suggest that listeners might think of their own mothers; however, if one hears the same word in context like “mother Teresa” the representation will come easier or have a default or absent mental representation whether one knows Mother Theresa or not. They conclude that the sense of a word cannot be found in dictionaries since words can be used to signify a wide range of ideas any of which may or may not be commonplace.

Meaning and mental lexicon. Meaning cannot be separated from mental lexicon. In fact, the mental lexicon is defined as the storage of words (mental representations) that contains the semantic and conceptual information, the syntactical information and the lexical units as well. Other researchers state similar definitions because they consider that it has to do with the language processing integration center due to the fact that it contains the abstract units that mediate between the acoustic phonetic information (even orthographically) and the semantic-syntactical interpretation at the discourse level (Aitchison, 2003; Garnham, 1992; Marslen-Wilson, 1989; as cited in Ferreira & Echeverría, 2010). This has led research to conclude that when a word in the mental lexicon is activated, so are others which are similar, or that may be considered as subcategories of the word. Ferreira and Echeverría (2010) provide the examples of the word <politics> and the subcategory <political parties> to illustrate this point. For instance, a learner may produce <tourism>, <tourist>, <touristic>, or even <touristical>* and the listener may interpret the meaning correctly. Thus, in this research it is possible to examine semantic productions that are closely linked but not entirely relevant for a given context, in which the meaning is not entirely altered or lost, as they may still be somewhat related and may allow the language expert or listener to determine the meaning intended although the extension is not completely accurate.

Competence

Brown (2014) states “competence refers to one’s underlying knowledge of a system, event, or fact. It is the non-observable ability to do something-to perform something. P.34. He also mentions “In reference to language, competence is one’s underlying knowledge of

the system of a language-its rules of grammar, vocabulary, all the pieces of a language, and how those pieces fit together. (p.34) In other words competence has to do with the comprehension and production of the language in the four basic skills.

Performance

Brown (2014) states "It is the overtly observable and concrete manifestation, or realization, of competence. It is the actual doing of something: walking, singing, dancing, speaking. In reference of language, performance is actual production (speaking, writing) or the comprehension (listening, reading) of linguistic events (p. 34).

Methodology

Case Study. This research is done to identify the semantics affections due to variations in pronunciation produced by foreign language students who are at a different level of the major English Teaching whose competence and performance may vary. The variables being investigated are semantics affections related to language level accuracy in pronunciation, the understanding of the information and interpretation of the conversation. To study the variables at a time, a semi-structured interview is setup to establish whether a variable has a direct causal relationship on another.

Participants. The Participants in this research are sixteen students from different levels of the English Teaching major of Universidad Nacional. Four students from every level i.e., freshmen, sophomores, juniors, and seniors, all of whom speak Spanish as their L1, are chosen randomly to participate in different pair work conversations. The professors are going to be non-participant agents during the conversations.

Stage 1. First there is a random selection of students. Both professors choose four students from each level of the major to have a total of 16 students participating in the research. The aim and purpose of the research is explained to them. Students are separated into pairs, so that freshmen are paired together, sophomores as well, and so on to avoid mixing proficiency levels as learners become more experienced language users during their development sequence.

Stage 2. Application of the instrument. A pair work conversation is recorded in a natural setting with only recording to avoid having the students restart or reorganize their thoughts. The topics used in the interview are health, sports, society/economy, tourism and education, and the grammar structure includes basic tenses like present, past and future

structures because the most relevant aspect is pronunciation and its influence on semantics. Each topic has three questions to guide students in their conversation. These questions are mandatory, and each pair will ask the questions back and forth though students may also further probe as in a casual conversation. In addition, each topic is the start of a new recording (this is for ease of comparison). Interview times can vary, and students must be encouraged to answer all questions, partially or fully, even if it is a short utterance.

Stage 3. Collecting of the information. Both professors analyze the audios by levels and extract the information by using the pronunciation of the vowel and consonants sounds based on the variables being investigated which are semantics affectations in language level, understanding of the general conversation and interpretation of the utterances as well. The pronunciation of vowels and consonants and words as well will be analyzed to determine which words are the most affected ones and the semantics affectations resulting from the pronunciation uttered.

Finding and Results

The following information will illustrate the data gathered from the recordings of the conversations held between the subjects of the study. It is important to note that the data for levels 1 and 2, freshmen and sophomores, were grouped together as they are the beginning of the developmental sequence and have not yet had university courses given in the L2, with the exception of an 8-hour course of Integrated English. However, level 3, juniors, and level 4, seniors, were analyzed individually.

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Table 1. Pronunciation affectations of sophomores of the English Teaching major at Universidad Nacional de Costa Rica across vowels, consonants and semantics.

Vowel Alteration	Consonant Alteration	Language Interference	Meaning and Sense	Meaning and Reference	Meaning and Mental Lexicon
[æ] to [a] e.g. cat	[v] to [b] e.g. very	Article the before general nouns. e.g The education is important.		* could be better.	Base/basis
	[z] to[s] e.g. is			I have had the opportunity of see	Interesting/Inte restings
[ʌ] to [æ] e.g. but	[s] omission e.g. whats to what				Have not/ does not have
	[tʃ] to [ʃ]	[th]/ to [ð] e.g they			
	[ju] to [dʒu:] e.g you				
[ʌ] to [ɔ:f] e.g of	[θ] to [t] e.g. <u>think</u>				

Note. Data gathered from the recordings of conversations in student pairs. * indicates a missing word or phrase. Underlined segments indicate an alteration of pronunciation. Underlined segments plus an asterisk indicate an ill-formed utterance or use in combination with other segments.

At this level of the major, the four speakers participating in the interviews substituted the vowel [ʌ] to [a]. In this case, even though the L1 features produced insignificant changes in the case of vowels, the context provided the listener with enough information to understand the utterances. Another L1 example, included the pronunciation of the diphthong [ju] to [dʒu:] as in the personal pronoun < you > and other examples starting with the same sound. The Alteration of the consonant sound [z] to [s] after vowel sounds, plural nouns and some verbs was also a very common variation of first level students and sophomores. Meaning and reference affectations occurred because the participants omitted the subject pronoun at the beginning of the utterances as in the

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example “could be better” as an interference of the L1. Finally, words such as < very> being pronounced [b] represents a common consonant substitution at this level of the major.

Table 2.

Pronunciation affectations of juniors of the English Teaching major at Universidad Nacional de Costa Rica across vowels, consonants and semantics.

Vowel Alteration	Consonant Alteration	Language Interference	Meaning and Sense	Meaning and Reference	Meaning and Mental Lexicon
[ɪ] to [eɪ] e.g. Foreign	[v] to [b] e.g. ayoid, vocation	That made me wonder or ask <u>me</u> * some questions	We as a <u>Costa Rican</u> *	Me too / me neither	Beautiful / beauty
[ə] to [u] e.g. focus	[z] omission e.g. exercise, gives	<u>make</u> * you some questions	If we don't care * our health	Are the ones _* are part of the government	Chauvinism / chauvinistic
[ə] to [a] e.g. encompass	[θ] to [t] e.g. things	It actually helps <u>to</u> * the economy of Costa Rica	Not all of * people like to play soccer	Two places that I can say I fell in love _*	In <u>canal siete</u> *
[ɛ] insertion e.g. /ɛspɔrts/	[s] insertion e.g. debts	do* an effort	We devalue* other sports	I want to continue on* this field	I want to continue on this field*
[o] to [ou] e.g. Antonio		Touch* a little bit the topics		The people who work on* the system	We have to continue educate* ourselves
[æ] to [a] e.g. advantage		They also effort*		To have someone else to practice *	I want to get a <u>nurse</u> * in psychological issues.
					Sometimes your health is <u>decreasing</u> *
					Take care <u>for</u> * our people

Note. Data gathered from the recordings of conversations in student pairs. _* indicates a missing word or phrase. Underlined segments indicate an alteration of pronunciation. Underlined segments plus an asterisk indicate an ill-formed utterance or use in combination with other segments.

The L1 features produced insignificant changes in the case of vowels, for instance, in a word such as <focus> the sound was closer to the back vowel [u] than a centralized schwa in the utterance “people focus on soccer,” yet did not affect meaning. Words such as

<avoid> being pronounced [b] was such an example. Even though the learner produced the utterance “avoid eating too much” with a bilabial, voiced stop, as cited before, it did not affect the meaning intended, nor could it have rendered another possible extension in that context. The same occurred in the phrase “foreign people” where the diphthong [ei] was being pronounced as opposed to [i], with no change in the meaning. A clear error was heard in “We, as *a Costa Rican**” where there is no subject number agreement between <we> and <a Costa Rican>. Nonetheless, the meaning in context is just as clear as the lack of agreement in the phrase, clearly referencing the collective group of Costa Ricans. The same occurred in the case of “That [situation] made me wonder or ask *me** some questions” where a reflexive pronoun <myself> was due, yet the erred form <me> did not alter the meaning.

In another case, a learner omitted the [z] in the word <exercise>; such an omission did not affect the overall message of “People should do exercise.” The phrase “They don’t take advantage of that” the sound is being pronounced as an [a] instead of an [ae], but it does not affect meaning or reference. In the phrase “They don’t have vocation for that,” the word <vocation> was pronounced with a [b] instead of the [v] sound, but this did not affect meaning. A learner placed the stress on the third syllable of the word <encompasses> though the stress should fall on the second. Here, the difference in stress placement cannot render a minimal pair that may alter the meaning, making it easy to understand despite the irregular intonation. Another case was for the word <hotel> which was accented on the first syllable as opposed to the second syllable.

Some examples of insertion included utterances such as “I could see the beautiful* that is our country” and “It [tourism] actually helps to the economy of Costa Rica.” Both cases illustrate L1 interference; while the former is trying to communicate “Puede ver lo hermoso que es nuestro país” the syntactical category before the “that” clause should have corresponded to a noun phrase, as in “the beauty.” In the former, the same pattern is repeated but with an inserted prepositional phrase that responds to the L1 structure, where <help> or <ayudar> may be followed by the prep <a> which renders <to> before the direct object, which is absent in the L2, excepting infinitival cases. Another learner uttered that “The government has a lot of debts*” which is pluralizing an otherwise singular non count noun by adding [s], but once more it does not alter meaning. Another case was “The main

sports* in Costa Rica” with the pronunciation /'ɛs.pɔrts/ due to L1 interference, where the same consonant cluster in Spanish <sp> is preceded by <e> and is a CCC cluster as in <esp>. A positive case was the pronunciation of the second word in the place name <Manuel Antonio>, where learners strayed from the L1 pronunciation for the [o] vowel and favored the [ou] diphthong of the L2. Another example was “sometimes your health is decreasing* in an important way” where the lexical item is not the most suited for the term, and judgement on the utterance could warrant “declining,” “waning” or such specific terms for the context even though this same message is implied in “decreasing.” The same concept could be applied to the statement “I want to continue [studying] on* this field [education]” where the grammatically sound preposition should have been <in> as the word “field” is not making reference to a grassy surface; nonetheless, the meaning was clear.

Other instances included “We have to take care for* our physical health” and “They [government/society] just take care of soccer.” In the former, the preposition should have been <of>, yet the meaning is unaltered. In the latter, although it is not common to emotionally value an abstract noun, as in this case, i.e., the sport that is soccer, this only serves to communicate that culturally it is so. Another culturally relevant finding is that students tend to pronounce both “soccer or football” as part of the same utterance. This occurs because in the L1 soccer is <fútbol> or <futbol> and, even though one could argue another term as in <balompié>, the semantic meaning does not change as may occur in English with “American Football” or the British English “Football” terms. Hence, the drive to correctly extend meaning ordains the learner’s intention to avoid any ambiguity.

Another L1 example, included the transfer of “*make** you some questions” as L1 collocates the verb <make> or <hacer> with <questions> or <preguntas> whereas the L2 requires <ask> or in the case of “*do** an effort” which collocates <esfuerzo> or <effort> with the verb <hacer> which is transferred as <do> as opposed to <make>, yet it essentially encompasses the same message; a similar transfer occurred but without the collocation, in the phrase “They also *effort**” where the phrase “ellos también se esfuerzan” does not require a collocation in the L2 in the given context. In the conditional “If we don’t *care** our health, no one will,” L1 interference is affecting the omission of the preposition <about> in the L2 although the message can be deciphered without the proper grammatical structure. In a similar fashion, the utterance “There are two places that I can say that I fell

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in love*” is missing the preposition or collocation for “fell in love”, i.e., <with> so the reference to the direct object is not immediately clear, but a learned listener can associate the meaning to “two places.”

Table 3. Pronunciation affectations of seniors of the English Teaching major at Universidad Nacional de Costa Rica across vowels, consonants and semantics.

Vowel Alteration	Consonant Alteration	Language Interference	Meaning and Sense	Meaning and Reference	Meaning and Mental Lexicon
[ə] to [u] e.g. products, supports	[z] to[r] e.g. exercising	I don't like _* either	Aren't the <u>better</u> * ones	For my case	Right / Healthy
[ɪ] to [i] e.g. rich	[s] insertion e.g. can offers, peoples	<u>Sports avoid teenagers*</u> to be on drugs	I know that <u>anybody*</u> is perfect.	Focused only <u>to*</u> expensive products	We need to <u>unify*</u> each other
[əz] omission e.g. sources	[əz] insertion e.g. advices*	<u>Benefitiating*</u>	<u>Get apart*</u> from one corner, one extreme to another	Something difficult <u>to*</u> everybody	Trying to <u>riding*</u>
	[s] omission e.g. it need* time	Looking __* benefits for themselves	<u>Feel*</u> that experience from another <u>perspective*</u>	<u>Many*</u> of the money that Costa Rica <u>makes*</u> is from tourism.	<u>Feel*</u> that <u>experience</u> from another perspective
	[n] omission e.g. badminton	<u>Make*</u> cardio	How to be <u>together*</u> with animals		Our activities are very <u>distant*</u> from other countries
	[d] to [r] e.g. badminton	I <u>made*</u> Superman I <u>played*</u> superman	Graduating from this <u>career*</u>		We are <u>representant*</u> in that kind of experiences
	[tʃ] to [t] e.g. situation	Have to be <u>surround of*</u> the language	Because <u>those*</u> sports are <u>exercises*</u>		<u>Plan fiscal*</u>
	[t] to [r] e.g. Golfito				__* many languages as possible

Note. Data gathered from the recordings of conversations in student pairs. * indicates a missing word or phrase. Underlined segments indicate an alteration of pronunciation. Underlined segments plus an asterisk indicate an ill-formed utterance or use in combination with other segments.

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In this interview, the only other utterance that varied in terms of vowel quality was the word <sources> where the learner omitted the morphonemic rule for the plural insertion of [əz] after a sibilant, in short. Consonants displayed slightly more variation, some of which are common given the developmental sequence of learners. For instance, omission of [s] in the phrase “it need time” exemplifies third person singular verbs, or subject -verb agreement which is cumbersome even for experienced users of the language.

A change like [z] to [r] in the word <exercising> only occurred once, which does not suffice to explain an underlying cause, and once again does not affect meaning in the utterance “I am not good at exercising.” The same case occurred in the word badminton where the sound [d] was substituted for [r] and the [n] before the voiceless alveolar stop [t] was omitted, which could be problematic for anyone who has not stored meaning or a mental representation of the word in the mental lexicon, but that otherwise could not misinterpret given the pronunciation variations. A common error found in Spanish learners of English is reflected in the word <situation> where the [t] often replaces the affricate [tʃ], a sound for which even phoneticians differ in terms of defining its features as alveolar, fricative or affricate. As has been the norm, the variation should not confuse a listener, especially in the utterance “worried about the situation” regardless of the sound change. Furthermore, another positive case, as with <Manuel Antonio>, where the [o] was rendered as an [ou] in juniors, the word <Golfito> changed the [t] for an alveolar tap [ɾ] which suggests the application of phonological knowledge of the L2 on behalf of seniors, in trying to adhere to the sound patterns of the L2.

In terms of semantics, most of the variations were labeled as mental lexicon, followed by meaning and sense, on par with language interference, and, lastly, meaning and reference. As can be seen in Table 4, examples like “I don’t like either” suggests that the speaker had options and did not like either one of the choices. Nevertheless, the meaning intended was affected due to the lack of a pronoun or direct object, as per transitivity in the L2, whereas the L1 structure does not require the direct object, as long as the referent has been mentioned in a previous context, usually as a response to the other person’s utterance. In the phrase “sports avoid teenagers to be on drugs,” the intended message was that “practicing sports helps teenagers to avoid being on drugs,” whereby an expert can decode the message, but a low proficient listener may not. The case of <benefitiating> is a false

cognate of the gerund form in the L1, or <beneficiando>, in which case the decoder, given linguistic knowledge of the L1, even a low proficient learner, may infer the meaning, and a language expert could possibly relate the term to the L2 word <benefit>. Just as with the junior, the seniors have also managed to confuse the word <make> with its counterpart for activities <do>. However, despite straying from a native-like production of “do cardio,” the phrase “make cardio” is readily understandable as such in context.

Conclusions

1-The primary concern of communication is meaning and the affectations found in the analysis of the interviews in terms of sense were related to the words perceptual abstraction, the representation of the sounds in those words and the sense of the whole utterances within context. In terms of reference, the analysis reflected the intension versus extension of meaning and stereotypes of the language pronunciation.

2- Meaning and mental lexicon in this case study reflected the semantical subcategories present in every level of the major English Teaching as explained in Tables 1, 2, and 3.

3- The examples of insertion illustrated L1 interference; affecting the syntactical category of words, but not the mental lexicon.

4-Related to meaning and reference, the cultural element implied within the foreign language places its role into the meaning not only of the word but the complete utterance.

5- A common error found in Spanish learners of English is where the [t] often replaces the affricate [tʃ], a sound for which even phoneticians differ in terms of defining its features as alveolar, fricative or affricate; the variation did not mislead the listener because the context was explicit enough as in the interview.

6- Most of the alterations of bilabial, voiced, stop, /b/ sound to /v/ did not affect either the representation of the word or the perceptual abstraction when happening in first level students. In the interview said by fourth level students, even though their pronunciation was not accurate by any of the speakers, it did not interrupt meaning.

7- Fourth year students or seniors are expected to have reached a high degree of proficiency in the L2. As such proficient learners, they are expected to make fewer errors than learners of other levels, as they can range anywhere in between the B2 to C1 score bands for the

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TOEIC, although research for this has not yet been conducted for students of the English Teaching major at Universidad Nacional.

8- In terms of vowels, a main alternation was [ə] to [u] as in the words <products> and <suuports> for the respective contexts “focused only to expensive products” and “supports only international business.” The only case that may have troubled a learned listener or a listener with low language proficiency was in the utterance “our nature and biodiversity is very rich” where the [ɪ] was changed to [i] in the word <rich> and may have been confused with <reach>.

9- As learners progress, to almost their last year of university, language proficiency is expected to be higher and should be further developed. Thus, mastery of grammar, syntactical and phonological knowledge is expected to be high as well. To this end, pronunciation affected meaning on few occasions in the case of juniors, as illustrated in Table 3.

10- The misuse of certain words because of the language interference at the end limited the meaning of the utterances and their reference; however, they did not affect semantics because their pronunciation was relatively close to the standard pattern even though the meaning and mental lexicon were not even close to the speaker’s intention.

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