

Phonological and Morphological Awareness in Second Language Learning

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Abstract: The subjects of phonology and morphology are investigated in this study to see if they have a significant influence in second language learning. This study examines the main features of phonology and morphology in order to determine how understanding of these features contributes in the acquisition and teaching of a second language. The current study successfully establishes the major functions of phonology and morphology in second language training, as well as knowledge of these two disciplines.

Keyword: Phonology; Morphology; General linguistics; Linguistic awareness; Second Language Learning

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1. Introduction

The main focus of this study will be the analysis and understanding of the role of Linguistic Awareness in Second Language Learning, specifically the roles of phonological awareness and morphological awareness, paying attention on which linguistics theories might affect language acquisition and why this happens. The present analysis is divided into four main chapters, 1) a brief literature review on the Second Language Learning, 2) an in-depth overview of phonology and phonological awareness, 3) morphology and morphological awareness and 4) a summary of the roles the disciplines have and the findings of the research.

1.1. Motivation of the study

The main premise for this study is the assumption that prior knowledge of a language must influence second language learning. Previous research has already proven that linguistic awareness benefits SLA ^[1] therefore the goal of this research is to compile a comprehensive summary of what roles phonology and morphology have in Second Language Learning.

2. Literature review

The current research focuses on two main topics, Second Language Learning and Linguistic Awareness, it is then appropriate to provide a brief definition on both matters to ease the reader into the main analysis.

2.1. What is Second Language Learning

When talking about Second Language Learning, scholars refer to the process of teaching and learning a language that is not native to the speaker ^[2]. This process is also known as Second Language Teaching, Foreign Language Learning and Foreign Language Teaching. Nevertheless, the meaning remains unvaried. From now on, Second Language Learning will be shortened to SLI for convenience.

Teaching and therefore acquiring a second language, are two processes that have been around for centuries, having humans so many different languages as well as human beings being social animals that have started exploring the world very early in history. Therefore, throughout history humans have come across different people speaking different languages constantly, and to ensure communication learning a second language or teaching your own was necessary to ensure a better way of communicating. In linguistics, there are several main approaches on language acquisition, these being Grammar Translation Method and the Direct Method^[3]. Other approaches and methods that exist as well as the ones quoted, also have important roles in SLI, but for the sake of this analysis only the main ones will be taken into consideration. Some of these methods are mostly evolutions or amalgamations of the two major ways of SLI.

2.1.1. The grammar translation method

The Grammar Translation Method, also known as Classical Method, is a way of language learning that linguists and historians believe have originated in the early 16th century to teach Latin and Greek to academicians^[4]. It has come back to popularity during the 19th century when Second Language Learning has started being more common in institutions. This approach focuses on translating the target language into the students' spoken language, most of the times overlooking pronunciation and communicative features of the target language. The main purpose of the Grammar Translation Method seems to be understanding written texts more than using the language to communicate with native speakers^[5]. This method has been highly criticized since it does not give the students a good knowledge of how the target language is used outside of the academic world, making it communicating with people very difficult.

2.1.2. The direct method

In contrast to the Grammar Translation Method that focuses on translating – hence the name – the Direct Method of SLI focuses on establishing a direct way into the target language, focusing on how the target language is used by native speakers rather than translating into the learners' native language. Using this approach, the learners will experience the target language in the same way a native speaker does, hoping to establish a natural way of learning in the learner. This method helps the learner to understand the target language, making sure there is no real translation from second language to native language, so that what is being read will be understood and not translated. It also helps with fluency and communicating skills, giving the learners enough tools to know how natives communicate. On the other hand, the Direct Method does usually ignore written texts and advanced vocabularies, and it also doesn't take a systematic approach in grammar learning. This might come as a disadvantage for those learners who need a more solid knowledge of the grammar in the targeted language.

2.2. What is linguistics awareness

Linguistics Awareness refers to the overall knowledge of linguistics theories and rules, understanding of linguistic hypothesis and familiarity with linguistic terminology^[6]. Anyone can have a linguistics awareness to a certain degree; therefore, it is not only targeted to linguists to being aware of how a certain language works. Native speakers, for instance, might not be consciously aware of their language, but at the same time they know – most of the times – how their language works; they might not know why, the process or rules, but they unconsciously use it every day.

“The use of linguistics in education is continuing to grow, and is often cross-disciplinary in nature. Not only is it utilized by language instructors, it is also used in early childhood development, psychology and anthropology education, as well. Linguistics is not only the study of language, but also includes the evolution and historical context of language, speech and memory development. It includes the structure and meaning of speech, and of written languages as well as an understanding of the context in which certain

words are used [7].” Using linguistics in SLI might then come as an advantage to both instructor and student. Let us see how that is the case.

3. Phonological awareness

Phonology plays a large role in SLI and it is important to understand fully how phonology works in SLI. Why a learner should be aware of the phonology of their targeted language? According to studies, Phonological Awareness is a necessary skill to develop the ability to read. Therefore, being this awareness an important aspect of language acquisition, it can be said the same in SLI, being phonologically aware of the features of a foreign language will develop reading skill in the learner, and help the tutor to convey the Learning efficiently.

3.1. What is phonology

Phonology is defined as the branch of Linguistics that focuses on the study of the characteristics of sounds and their changes. It works alongside phonetics, which is the study of the production of sounds; together they give a more in-depth understanding of the use of sounds and their changes. The main aim of phonology is the discovery of how speech sounds of a language form patterns with each other, and how these patterns are used to convey meanings.

3.2. Features of phonology

Phonology deal with phonemes, speech sounds that in a given language cannot be changed without changing the meaning of a word. Phonemes are exclusive to languages, therefore researchers might not be able to find the same exact phonemes in two languages, even though they might share common phones. By knowing this piece of information, SLI could positively already become easier to master.

3.2.1. Allophones

An allophone is one of a set of multiple possible sounds that can be used to pronounce a phoneme in a given language. If replaced with another with the same phonemes, an allophone would not change the meaning of a word, although it might sound alien to a native speaker or a language. The following three words will serve as example of this phenomenon: Tea, Stay, Ghetto. The focus will be the letter T. In the word tea, the letter /t/ is pronounced [th], in stay it's pronounced [to] and finally in the word ghetto it's pronounced [t̥]. The three /t/ are pronounced differently, but if they were swapped with one another at random, the words would not change their meaning, yet the utterance of such novel way of pronouncing tea, stay and ghetto will definitely sound odd to native English speakers.

3.2.1.1. Complementary distribution

Allophones might also present a feature called Complementary Distribution. Complementary Distribution is defined as the occurrences of certain sounds in the same exact position in different words. An example of this is the dark /ɫ/ sound in English words that end with the letter L. Call /kɑ: ɫ/, Tall /tɑ: ɫ/, Fall /fɑ: ɫ/, Chill /tʃi ɫ/, they all present the /ɫ/ at the very same position of the word, making the placement of /ɫ/ complementary distribution.

3.2.1.2. Phonemic contrast

In contrast with complementary distribution, there is a phenomenon called Phonemic Contrast. Phonemic Contrast indicated the complete opposite of complementary distribution, when two or more sounds do sound similar but if interchanged produce different meanings, it is said to be phonemic contrast. For instance, the words “bat e pat” in English, /b/ and /p/ only differs in whether they are voiced or not, for a

non-native speaker the different might not be that noticeable, while for native speakers it's clear and distinct.

3.2.1.3. Minimal pairs

Minimal pairs are defined as pairs of words or phrases in a given language that only differ in one phonological element and have distinct meanings if interchanged. Minimal pairs are used to demonstrate that two sounds, two phones, are either separate phoneme in a language. For instance, the words “pan /pæn/ and pen /pen/” only differ in vowels, and they have different meanings; a pan is a flat metal container used for cooking, and a pen is a tool to write on paper. Therefore, pan and pen can be said to be a minimal pair. There are all sorts of minimal pairs in all languages, they could be defined by a change of vowel, tone, voice-ness or voiceless-ness etc.

This knowledge on Allophone might come in handy in SLI when explaining why certain letters pronounce different sounds in different situation; but it must be always taken into consideration that not all languages are written phonetically (as for instance Turkish), therefore having an even basic knowledge on sounds change is important to better understand a second language.

3.2.2. Consonants and their features

Below in **Figure 1**, the official International Phonetic Alphabet table, to be used as reference in this and the following chapters.

THE INTERNATIONAL PHONETIC ALPHABET (revised to 2018)

CONSONANTS (PULMONIC) © 2018 IPA

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k ɡ	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill	ʙ			r					ʀ		
Tap or Flap		ⱱ		ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

Symbols to the right in a cell are voiced, to the left are voiceless. Shaded areas denote articulations judged impossible.

Figure 1. The international phonetic alphabet (2018)

Literate people all know what consonants are, you can ask a child, they will name them all. Is this the case though? What are consonants in actuality? A consonant is a speech sound that is articulated with a partial or a complete closure of the vocal tract ^[8]. Being the number of consonants possible in human languages way greater than the letters a language usually has in its alphabet, linguists around the world all utilize the International Phonetical Alphabet (APA). On a general point of view, consonants can be classified by their Manner of Articulation, how they are pronounced and their Place of Articulation, where the sound does occur and what organs are involved. Consonants can be either pulmonic or non-pulmonic (ejective, implosive and click-consonants). Pulmonic consonants represent the majority of consonants in languages around the world ^[9]. They are characterized by the sounds produced by air pressure from the lungs. Non-pulmonic consonants, divided into ejective, implosive and click-consonants are characterized by sounds not being produced in the lungs and do not need any airflow to be uttered.

3.2.2.1. Manner of articulation

Let's move onto the manner of articulation of consonants. There is a large number of consonants in the

world and to better define them linguists have perfected a categorization over the decades. The manner of articulation deal with how consonants are pronounced; consonants can be either Obstruent, Sonorant or Liquid. Obstruent consonants (**Table 1**) are those consonants where the sound is produced by obstructing the airflow. Sonorant consonants are consonants that have a continuous airflow and that sound distinctively clear and sonorant. In **Table 2** the different sonorant consonants are described in detail. Liquid consonants are voiced lateral approximants like [l] and [r] and have a continuous flow of air like in vowel but retain all the properties consonants have. In **Table 3** liquid consonants are explained.

Lastly, another important factor to be taken into consideration is whether a consonant phoneme is voiced or not. Voice or voicing refers to the process in which the vocal cords produce a vibration and effectively change the sounds of a phone making it a distinct phoneme. In English, the minimal pairs fan – van, thin - then, sip – zip and chit – shit, the sound change of each pair is given by either voicing or not voicing the consonants. As shown in **Table 4**, the change from voiceless to voiced changes not only the pronunciation but also the meaning. In some other languages such a Sino-languages, there are other classification, most notable being aspiration in Chinese mandarin ^[10].

Table 1. Obstruent consonants

Stops	The vocal tract is blocked and the airflow ceases.
Fricatives	The air flows through a narrow channel made by placing two articulators close together.
Sibilants	The stream of air is directed between the tongue towards the teeth.
Lateral fricatives	The airstream proceeds along the sides of the tongue, but it is blocked.
Affricates	A consonant that begins as a stop and releases as a fricative.

Table 2. Sonorant consonants

Nasals	The velum is lowered allowing the air to escape freely through the nose.
Flaps	Flaps are similar to brief stops and trills, but there is no outburst of air link in stops, and usually the vibration comes to a halt naturally in contrast with trills.
Trills	The airstream causes the articulator to vibrate and produce a continuous sound
Approximants	Speech sounds that fall between vowels and fricatives

Table 3. Liquid consonants

Glides	Speech sounds that are phonetically similar to vowels but function as syllable boundaries. A clear example are the W and Y consonants in English.
Later approximants	The airstream proceeds along the sides of the tongue as in regular lateral consonants but the tip of the tongue does not come to a complete occlusion.

Table 4. Voiceless vs voiced consonants

Voiceless			Voiced	
Fan	[f]	becomes	Van	[v]
Thin	[θ]	becomes	Then	[ð]
Sip	[s]	becomes	Zip	[z]
Chit	[ʃ]	becomes	Shit	[ʒ]

3.2.2.2. Place of articulation

The next major category for consonant identification is the so-called Place of Articulation. This category deals with where the sound is being produced, in details in **Table 5** The speech organs, the organs responsible of producing all the sounds that are used in languages, are composed by passive and active and can then be divided into passive articulators and active articulators. The active are lips, uvula, vocal cords, teeth and the tongue; the passive are alveolar ridge, hard palate, velum and glottis.

Table 5. Places of articulation

Bilabial	Sounds produced using the lips, either by stopping the flow of air or by modifying the airflow
Labiodental	Sounds are made using both teeth and lips
Dental	Tongue and teeth come together or the tongue modifies the airflow to produce sounds that hits the teeth
Alveolar	The tongue is close or against the alveolar ridge to produce sounds
Postalveolar	Same process as for pronouncing alveolar consonants but the tongue is further back in the mouth
Retroflex	The sound is produced between the hard palate and the alveolar ridge while maintaining a flat or slightly curved tongue with the tip of the tongue curled back against the palate
Palatal	The articulation is produced by the tongue being against the palate
Velar	The back of the tongue is against the soft palate
Uvular	The back of the tongue is close to the uvula while producing sounds
Glottal	The glottis is used to produce the sound

The combination of manner of articulation and place produce all possible consonants. It is clear then that the knowledge of how consonants are articulated and pronounced it very important when approaching a second language. By knowing how consonant sounds are produced makes it easier for the instructor to explain them fully, as well as the learner has an easier time trying to reproduce them with specific directions.

3.2.3. Vowels and their features

Alongside consonants there are of course vowels. Vowels are defined as modification of sounds that do not present nor include any closure, friction or any blockage. In phonology though, vowels are defined as the sound that forms the peak of a syllable. When analyzing vowels, it is immediately discovered that they are subdivided in different categories than consonants, this is of course because they belong to a different family of sounds.

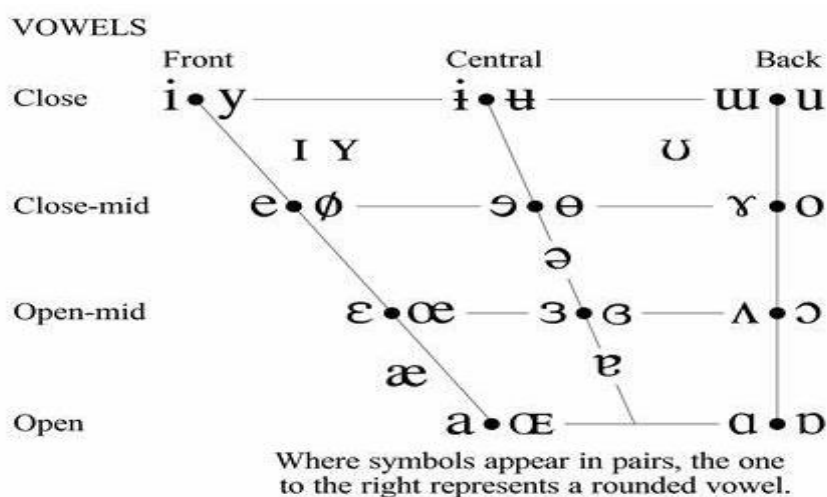


Figure 2. The IPA vowel chart

Vowels are differentiated by their opening and their position. Vowels, as seen in **Figure 2**, and **Table 6** below, can be either Front, Central or Back, and Close, Close-mid, Open-mid or Open (**Table 7**). Another way of dividing vowels would be High, Back, Low, Round, Front, Tense and Nasal; not only that, but vowels could also be Retracted, different in Length, Raised and Reduced. Now these different ways of classifying vowels might be confusing at first, but there is a logic behind. First of all, let's have a look at the position of the vowels.

Close vowels, are also known as High vowel; Mid vowels, including Close-mid and Open-mid are known as Central; Open are known as Low vowels. Now let's use a graph to simplify this. Besides that, in **Table 8** a summary of the other features of vowels.

Table 6. Vowel positions

Front	The highest point of the tongue is positioned relatively in front in the mouth.
Central	The tongue is positioned halfway between a front vowel and a back vowel.
Back	The tongue is further back in the mouth when producing the sound
Close	The tongue is at its closest to the roof of the mouth leaving an opening that still allows the airflow to be continuous.
Close-mid	The tongue is close to the middle part of the mouth but still over the threshold of close vowels.
Mid	The tongue is positioned perfectly midway the mouth.
Open-mid	The tongue is closer to the bottom of the mouth but there is still room to go further.
Open	The tongue is at its furthest lower point leaving the airflow unaffected

Table 7. Vowel position in relation to openness/closeness

	Close vowels	High vowels
	Close-mid	Central vowels
	Mid	Central vowels
	Open-mid	Central vowels
	Open	Low vowels

Table 8. Features of vowels

Rounded	The lips come to a rounded position when uttering the sound.
Unrounded	The lips are not rounded.
Raised	The body of the tongue (not the tip) is raised toward the back of the mouth.
Retracted	The whole tongue points towards the back of the mouth
Nasal	The velum is lowered and it allows the air to flow through the nose producing the sound.
Length	The sound is exactly the same, but the length changes the vowel
Tense & Lax	Sounds produced after a certain combination of consonants that cannot be described as real phonemes because they do not exist by themselves.
Reduced	Vowel sounds that are unstressed and weakened, they might occur in between syllables and certain combination of phonemes in a given language.

3.2.4. Phonological rules

Every language on Earth has a different set of phonological rules, and as such it is impossible to say that

phonology follows the same rules in every case. In **Table 9** it is shown that phonology can be subdivided into three major rules, Sequential, Assimilation and Deletion rules.

Table 9. Phonological rules

Sequential rule	Indicates when there are rules that govern the combination of sounds in a given language.
Assimilation rule	The process by which one sound transforms to become more similar to another sounds, this phenomenon can happen between words or syllables when stressed in a certain way.
Deletion rule	This is when a sound is not read but it is still present in its written form

3.2.5. Syllables

Syllables are parts of the speech that are organized into sequences of phonemes. In linguistics they are identified with the symbol σ . Syllables are considered to be the building blocks of languages, meaning that by combining syllables words, meanings, sentences are created. Syllables are usually composed by an Onset, a Rime, a Nucleus and a Coda, as shown in **Table 10**. Some languages cannot be subdivided in such way, like Chinese, therefore there are also other structure to analyze syllables in such languages. Syllables vary from language to language; therefore, some combination consonants (C) vowels (V) might exist in some languages but might not in others.

Table 10. Syllable construction

Onset	The onset is usually the consonant sound at the beginning of a syllable. Some languages do not require a consonant to being a syllable, while some others might allow more than one consonant at the beginning.
Rime	The rime is the combination of nucleus and coda put together.
Nucleus	The nucleus is usually the vowel or vowel in the middle of a syllable.
Coda	This is the last part of a syllable, can be either a vowel or a consonant.

Using the English word “cat” as example, in **Figure 3** the process of decomposing a word into syllabic units is analyzed. Cat is composed by only one syllable, therefore very handy for us to analyze.

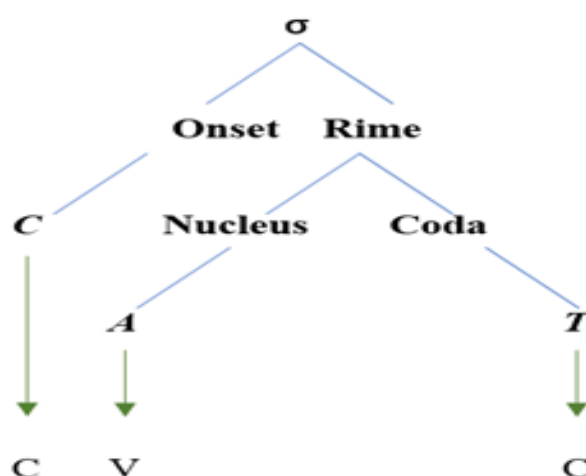


Figure 3. CVC word’s syllable construction

C represent the onset of the syllable, AT is the rime which is then subdivided in nucleus A, and coda T. Cat is a CVC (consonant-vowel-consonant) syllable.

3.2.6. Suprasegmental features

Suprasegmental features are those phonemic differences that might occur between syllables, words and sentences and do not have individual phonetic segments; hence they are properties of phonemes. As illustrated in **Table 11**, these changes can be described as Stress, Tone, Intonation. This knowledge of how syllables can affect the words of a given language is very important in SLI, it gives a deep insight into the realms of the target language.

Table 11. Suprasegmental features

Stress	Is the emphasis that is given to a syllable, in either length, or loudness. In some languages this could totally change the meaning of a word; in English register (noun) has a different stress from register (verb).
Intonation	When the emphasis is not focused on syllables and words but rather to the whole phrase or syllable.
Tone	Tones are pitch variation which are usually produce by the vocal cords creating different vibrations of the same phoneme. Tone variation can change the meaning of words in certain languages.

4. Morphological awareness

Morphology plays a crucial role in language acquisition from early childhood ^[11]. The same can be said of adults or young learners who are aware of grammar in their own language already. Morphology Awareness in SLI is the key to understand how word parts that carry significance are used, why and the rules they follow. This is obviously just an overview on what morphological awareness could bring to the table of SLI, but in-depth what purpose does it have?

4.1. What is morphology

Morphology is the study of words, how they are formed, what compose them, what alters them and why. Before going further, it must be remembered that morphemes are indeed the smallest unit in a language that carry meaning, yet they are not words. Thus, it can be said that morphology also studies the subtle difference between morphemes and words.

4.1.1. Morphemes and words

How are words and morphemes different to each other? A morpheme cannot stand alone on its own, meaning that if isolated from other components it does not make sense in a non-linguistic context, while a word can stand on its own and be meaningful. This can be explained with the following example. The word *cows* meaning more than one cow is composed by cow and -s. Cow can stand by itself, making it a word, while the -s at the end of the word, though he has the meaning of plural, more than one, it cannot be used by itself and cannot stand alone. Cow is word, -s is a morpheme. In **Table 12** the major types of morphemes that can be found.

Table 12. Typologies of morphemes

Free morphemes	Morphemes that can be used as words.
Bound morphemes	Morphemes that cannot be used as word.
Roots	The root word of a word is the primary lexical unit that carries semantic content and cannot be reduced into any smaller constituent.
Stems	Stems are defined as the part of a word that might be free or bound that contain the specific meaning of it. For example, the words Friendship, Befriended and Unfriend have the same stem word Friend.
Prefixes	Morphemes that are placed before a word to change its meaning

Suffixes	Morphemes that are placed at the end of a word to change its meaning.
Affixes	Morphemes that change that meaning of a word but only if isolated
Infixes	Some languages allow morphemes to be added in between a word to change the meaning of it. For example, the Latin verb <i>vici</i> (win) in its perfective form becomes <i>vincire</i> (to win) in its indicative form with an infix n.
Zero morphemes	Morphemes that change meaning without alteration of forms. In English this phenomenon is very common in collective nouns; sheep, cattle, fish and many others do not change in their plural form, but remain the same. Only context can help identify what meaning they carry; “one sheep, two sheep.”
Allophones	Allomorphs are a variant form of regular morphemes where a unit of meaning changes in sound but does not change the meaning. This is what plural, verb tenses, casualization etc. are.

Words can be also classified in specific categories, or grammatical unit. In **Table 13**, the most common of these categories are shown and explained.

Another way to differentiate morphemes to divide them into Inflectional morphemes and Derivational morphemes. Inflectional morphemes are those morphemes that changes a word without affecting the meaning of it; they change tense, number, mood or aspect of words. While derivational morphemes are morphemes that changes the meaning of a word when combined with either the stem of the root.

Table 13. Words categories

Nouns	Nouns are words that function as the name of specific thing such as living creatures, objects, places, actions, qualities, states of existence, or ideas.
Pronouns	Words in a given language that are used as substitutes for nouns in a sentence.
Verbs	Words that describe an action.
Adjectives	Those words that describe attributes.
Adverbs	Words that help structure a sentence, by placing in time, space, direction and so on.
Conjugations	Words that connect other words or sentences.
Prepositions	Words that define the relationship between a word and another, specifiers of actions and nouns.
Interjections	Words as well as phrases that are independent from the words around and primarily express feeling rather than meanings.

4.2. The different types of word formation

Word formation is a very important topic in morphology, it covers how new words are being created either from scratch or by using other words combined together. There are different typologies of word formations, and it is important in SLI to identify and analyze how such processes happen. As shown below in **Table 14**, word formation in linguistics is usually divided into these categories: Borrowing, Derivations, Compounding, Blending, Acronym, Calque, Neologism and Back-formation.

Table 14. Word formation

Borrowing	Words borrowed from other languages. E.g., English words “presto, concerto, grande” all comes from Italian.
Derivation	The process of creating new words from existing ones, either by adding affixes or but modifying a pre-existent morpheme.
Compounding	The creation of words by adding one another one. E.g., “Causeway formed by cause and way.”

Blending	The blending of two words into a brand new one. Brunch comes from breakfast and lunch. Hangry comes from hungry + angry.
Acronym	Words that are composed by the initials of other words. WHO, World Health Organization.
Calque	Words or phrases that are translated word by word. Chinese saying “好久不见” (haojiu bu jian) translates word by word as “long time no see.”
Neologism	New words created for a specific reason. Neologism might come from people’s names, natural sounds or from foreign languages (phonetically) without carrying the meaning, or semantically by creating a brand-new word to match the significant. E.g., TERF (Quatrini, 2021)
Back-formation	The creation of a word by removing an affix. E.g., edit comes from the word editor ^[12] .

4.3. Morphological typologies

Morphology also focuses on classifying languages from all around the world into categories that present common morphological features. Here shown in **Table 15** the main typologies.

Table 15. Types of languages

Analytic languages	Analytic languages are those that primarily conveys relationships between words by using helper words and by a more or less strict word order.
Synthetic languages	Synthetic languages are those that form words by affixing a number of strictly dependent morphemes to a root. Most European languages are considered synthetic.
Fusional languages	This typology languages presents morphemes that are not fully distinguishable from the root of a word. Many grammatical units might be fused into one affix and they might also be expressed by internal phonological changes in the root by subtle changes or by suprasegmental features.
Agglutinative languages	These languages present words containing a large number of morphemes put together that are easy to identify. German is an example of agglutinative language.
Polysynthetic languages	Languages with a high morpheme-to-word ratio, usually they present full sentences into a single word, composed by many morphemes combined together.
Oligosynthetic languages	Constructed languages that present a very limited amount of morphemes that are combined synthetically.

4.4. Lexical morphology

Lexical morphology is the linguistic branch that deals with lexemes and lexicons. Lexemes are unit of speech that differ from words by the semantic meaning; e.g., call, calls, called and calling are four distinct words while they only represent the lexeme CALL. It can be said that a lexeme is the unifying “family” of a set of words. Lexicon is defined as the inventory, the catalogue the “warehouse” of a language. Lexical morphology is also the base of Lexeme-Based Morphology, the branch of morphology that instead of analyzing word form it analyzes the results of the rules applied to the words.

5. Findings

5.1. The role of phonology

As seen in the previous chapters, phonology covers everything that is related to sounds, from simple phones and phonemes to more complex features, such as how sounds are produced, how they might change and the impossibility to even pronounce some. The previous chapters covered every general aspect on phonology and its features. The very knowledge of all of these factors might be the key to a better mastery of a second language, as well as being the key of proper teaching a language to non-native speakers ^[13].

When it comes to SLI linguistics awareness in phonology might be a great asset to master the target language pronunciation; not only that, a knowledge of phonology might as well help with learning faster, spelling and comprehending the rules of a spoken language. Phonological awareness is also the foundation for learning to read, so phonology is important for that aspect too, as well as the ability to recognize and work with sounds in spoken language.

5.2. The role of morphology

Morphology focuses on words, their formation and the subsequent rules that apply during the process of word formation. Knowing morphology will certainly help in SLI; the main focus of morphology is the very structure of the words of a given language, giving precise Learning on how words should change, in what context and why they are doing so. Being “morphologically aware” does not only help with the process of learning and/or teaching, but also give the learner more tools to fully being ready of utilizing the language. Being aware of morphology will make sure the learner will not commit mistakes that otherwise might have happed without a prior knowledge in the subject.

5.3. Summary

Throughout this research, many variables and factors have been taken into consideration. As such, to facilitate reading, the final summary will be illustrated in tables. **Table 16**, illustrates the final summary of the role of phonological awareness. The following table, **Table 17**, illustrates the role of morphological awareness.

Table 16. Role of phonological awareness

Category of Phonology	Role in SLI
General knowledge of Phonology	Helps with the understanding of how sounds are made
Features of phonology	In-depth understanding of the features of a second language
Allophones	Avoids making mistakes when pronouncing foreign words
Complementary Distribution	Helps understanding when to pronounce certain sounds
Minimal Pairs	Helps to understand what phones are phonemes
Phonemic Contrast	Leads to a better differentiate similar sounds
Consonants and their features	In SLI can help to distinguish the consonant of a foreign language in contrast to one’s native language
Manner of articulation	Helps the learner understand how a sound is pronounced
Place of articulation	Helps the learner understand where the organ of speech is supposed to be placed when pronouncing a sound
Vowels and their Features	Understanding what vowels are used in a second language, how to pronounce them and why they are pronounced in a certain way
Phonological Rules	Helps not committing mistakes when speaking a second language, the knowledge of phonetical rules in SLI is key to a better mastery of the language
Syllables	Syllables might differ in two different languages, a solid knowledge of how to identify them is important to master a second language and to pronounce it as a native would do
Suprasegmental features	Helps understand those subtle features of spoken languages that might not be easy to identify as a learner

Table 17. Role of morphology awareness

Category of Morphology	Role in SLI
Knowledge of general Morphology	Helps with reading, understanding words-formation, facilitate writing and grammar understanding
Features of Morphology	In-depth understanding of a second language and its morphological rules
Difference between Morphemes and Words and Lexemes	Better identifies the units of morphology, helps with writing and ease the learner into more complex tasks in the second language
The Different Types of Word Formation	Gives a background on why words are what they are now, some languages might have a totally different word formation structure that might be alien to a learner
Morphological Typologies	Gives a more advanced knowledge on languages, sometime necessary to better understand the set of morphological rules in it
Lexical Morphology	Gives access to a lexical based linguistics that focuses on a set of words as a whole, giving a more overall insight on the morphology of a second language

6. Conclusion

Phonetics and morphology play an important role in Second Language Learning, as seen throughout this study; being linguistically aware of language features is proven beneficial. The two features investigated in this research seem to provide specific roles in language Learning and it seems clear that awareness in the disciplines may aid learners and teachers alike.

6.1. Suggestions for future research

Future research could focus on other linguistical features, such as syntax, and see whether they play a role in second language Learning. It is important to keep investigating to ensure better result when learning and teaching a second language, to provide the most efficient experience possible.

Disclosure statement

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References

- [1] McQuerrey L, 2018, The Importance of Linguistics to a Language Teacher. Work - Chron.com. Retrieved from <http://work.chron.com/importance-linguistics-language-teacher-14459.html>
- [2] Stern HH, et al., 2016, "Second-Language Learning." The Canadian Encyclopedia, Historica Canada. <https://www.thecanadianencyclopedia.ca/en/article/second-language-Learning>
- [3] Bally C, Riedlinger A, Sechehaye A, 1959, Course in General Linguistics Ferdinand De Saussure. New York, Philosophical Library.
- [4] Zhou G, Niu X, 2015, Approaches to Language Teaching and Learning. Journal of Language Teaching and Research, 6(4): 798.
- [5] Kong N, 2011, Establishing a Comprehensive English Teaching Pattern Combining the Communicative Teaching Method and the Grammar-Translation Method. English Language Teaching, 4(1).
- [6] Masny D, 1997, Linguistic Awareness and Writing: Exploring the Relationship with Language Awareness, Language Awareness, 6: 2-3, 105-118, DOI: 10.1080/09658416.1997.9959921
- [7] McQuerrey L, 2018, The Importance of Linguistics to a Language Teacher. Uses of Linguistics in

- [8] Teaching. Work - Chron.com. Retrieved from <http://work.chron.com/importance-linguistics-language-teacher-14459.html>
- [9] Ladefoged P, Disner SF, 2012, Vowel Contrasts. In *Vowels and Consonants*, John Wiley & Sons, Oxford, UK, 26-31.
- [10] Maddieson I, 2008, "Presence of Uncommon Consonants." In: Martin Haspelmath & Matthew S. Dryer & David Gil & Bernard Comrie (eds.) *The World Atlas of Language Structures Online*. Munich: Max Planck Digital Library, chapter 19. <http://wals.info/feature/19>
- [11] Xu CX, Xu Y, 2003, Effects of Consonant Aspiration on Mandarin Tones. *Journal of the International Phonetic Association*, 33(2): 165–181. <http://www.jstor.org/stable/44526922>
- [12] Carlisle JF, McBride-Chang C, Nagy W, et al., 2010, Effects of Learning in Morphological Awareness on Literacy Achievement: An Integrative Review. *Reading Research Quarterly*, 45(4): 464-487. doi:10.1598/rrq.45.4.5
- [13] Nordquist R, 2018, What are Back-Formations in English?, ThoughtCo. <https://www.thoughtco.com/back-formation-words>
- [14] Ehri L, Nunes S, Willows D, et al., 2001, Phonemic Awareness Learning Helps Children Learn to Read: Evidence from the National Reading Panel's Meta-Analysis. *Reading Research Quarterly*, 36: 250–287.