

## Phonemic Interference and Overregularization in the /s/ and /ʃ/ Phonemes Realization in French

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**Abstract:** One of the problems in foreign language learning is interference, a rearrangement of patterns resulting from the presence of foreign elements in the language domain (Weinreich, 2010). This research shows how and why phonemic interference of /s/ and /ʃ/ phonemes occur from Indonesian and English although both phonemes exist in all three languages. Some interference begins from lexeme and then to phonemic level. Other faults are overregularization which is the application of regular grammatical patterns to irregular cases. This seems to support the Logical Problem of Language Acquisition which states that a student cannot correct his/her mistakes without explicit feedback from the linguistic environment (Pinker, 2004). The results of this research indicate that foreign language learning requires knowledge of non-structural elements that are outside of the language, not only following phonological, syntactic, morphological, or lexical rules (structural elements). For example, students' foreign language knowledge and cultural content in teaching materials.

**Keywords:** Phonemic Interference; Overregularization; /s/ and /ʃ/ Phonemes; Language Learning

## Interferensi Fonemis dan Overregularization Realisasi Fonem /s/ dan /ʃ/ Bahasa Prancis

**Abstrak:** Salah satu masalah dalam pembelajaran bahasa asing adalah interferensi: penataan ulang pola yang dihasilkan dari kehadiran elemen asing dalam domain bahasa (Weinreich, 2010). Penelitian ini menunjukkan bagaimana dan mengapa interferensi fonemis dari fonem /s/ dan /ʃ/ terjadi dari bahasa Indonesia dan bahasa Inggris meskipun kedua fonem itu ada dalam ketiga bahasa. Beberapa interferensi dimulai dari leksem dan kemudian ke tingkat fonem. Kesalahan lainnya adalah *overregularization* yang merupakan penerapan pola tata bahasa reguler untuk kasus-kasus tidak teratur. Hal ini tampaknya mendukung Masalah Logis Pemerolehan Bahasa yang menyatakan bahwa seorang siswa tidak dapat memperbaiki kesalahannya tanpa umpan balik eksplisit dari lingkungan linguistik (Pinker, 2004). Hasil penelitian ini menunjukkan bahwa pembelajaran bahasa asing memerlukan pengetahuan elemen non-struktural yang berada di luar bahasa, tidak hanya mengikuti aturan fonologis, sintaksis, morfologis, atau leksikal (elemen struktural). Misalnya, pengetahuan bahasa asing siswa dan konten budaya dalam bahan ajar.

**Kata kunci:** Interferensi Fonemis; *Overregularization*; Fonem /s/ dan /ʃ/; Pembelajaran Bahasa

## INTRODUCTION

Problems with foreign language learning often arise when the difference between the language being studied and the native language is significant. Even so, there are several languages that have similarities. The origin of the similarity of the two languages is not important, whether they are rooted from the same language (for example, French and Spanish) or a culmination of several languages. Regardless, what needs to be considered is the greater potential for errors if the student is not careful in distinguishing their native language and the language they are learning (Cook and Newson, 2014).

At some point in the learning process, students will be in a condition of bilingualism which is the practice of using two languages interchangeably (Ellis, 2015). This condition allows the deviation from the norms of two languages that occur in both languages' production as a result of familiarity with more than one language. It is the result of language contact and referred to as interference. The term interference implies the rearrangement of patterns resulting from the presence of foreign elements in the domain of language structures such as the phonemic or phonological systems, morphological and syntactic systems, and vocabulary fields (Weinreich, 2010).

Sirbu in her article entitled *Language Interference Triggered by Bilingualism* (2015) discusses interference caused by bilingualism. Sirbu's focus in her research is how psychology plays a role in explaining the phenomenon of interference by a bilingual at the lexeme level. Sirbu based her research on the research conducted by Albert and Obler (1978). She concluded that a bilingual person will often experience interference with the language that they unconsciously consider most comfortable to communicate with. Kuhl, et al., as cited by Li, Yin, and Pu (2019), explains about *Native Language Magnet Theory*, a theory of language acquisition at an early age, which states that a person's proximity to their

native language can influence how a new language is processed by them.

Ezeodili (2019) explains that the phenomenon of interference often occurs under conditions of bilingualism. A student who has mastered more than one language and then learns a new foreign language, tends to incorporate the structure of the language or languages that have been mastered into the foreign language model. The influence of these languages explains the phenomenon of interference in his research. Ezeodili found that French interference in his research stemmed more from the influence of English than the research subjects' native Igbo.

Weinreich (2010) explains that the process of interference can occur on multiple levels such as the lexeme level, syntax or phoneme. The practice of researching how a language uses sounds or signs to construct meaning is called phonology. Sounds that are part of a linguistic system are called phonemes. Phonemes are abstract units of sound and are the smallest units of language that can be analyzed. For example, in English, the word *bat* [Baet] and *pat* [Paet] is distinguishable because they are minimal pairs. The difference between the two words is the phoneme /b/ and /p/. The phoneme functions to determine the meaning of a language's speech. Each spoken language has at least two phoneme categories; vowels and consonants that can be combined to form syllables at the morpheme level (Gussenhoven and Jacobs, 2017).

Bell (2018) in her dissertation entitled *Perception and Production of Welsh Vowels by Welsh-Spanish Bilinguals* examines the realization of Welsh pronunciation principles by the Welsh community in Argentina and Wales. Bell's research focuses on interference from English for communities in Wales and Spanish for communities in Argentina. Bell reflected on research conducted by Flege on several occasions (1987, 1991, 1993, 1995, 2007) concerning phonemic interference in English and Spanish. Bell concludes that

phonemic interference from Spanish influences the vocal system of Welsh speakers in Argentina. It shows how interference occurs in the language being studied or the native language that should have been mastered by native speakers.

Medane (2015) explains that the use of foreign language does not mean simply understanding the rules of phonology, syntax, morphology, lexeme, etc. (structural elements), but also non-structural elements. She explained the complexity of the relationship between languages in her research on interference in Algeria by considering non-structural elements in the sociocultural field. Age, location, social or psychological status such as loyalty to the use of native language, personal abilities, personal attitudes or stereotypes are used as a reference in analyzing the results of her research.

French has several prominent phonological features such as the /R/ *uvulaire* consonant, the presence of nasal vowels, and the existence of three processes that affect the final sound of words; *liaison*, *élision*, and *enchaînement* (Lodge, 2013). In general, French has two types of sounds consisting of 21 consonant sounds and 16 vowels. The consonant sounds are then divided into four based on the way they are pronounced (*nasale*, *occlusive*, *fricative* and *sémi-consonne*). Consonants also consider the point of articulation and the vibration of vocal cords (*voisée* or *non-voisée*). Meanwhile, the vowel sound in French is generally divided into two based on where air exits the body (*orale* and *nasale*) (Léon, 2011).

On the other hand, Indonesian has 24 consonant sounds and 11 vowel sounds. Vowels in Indonesian are grouped based on the shape of the mouth, high and low position of the tongue, stricture, and back and forth position of the tongue. In Indonesian, there is also a sound known as diphthong which is two vowel sounds that melt into one sound in one syllable. Chaer (2013) in his book *Fonologi Bahasa Indonesia* explained that there are three types of diphthongs (up, down, and centered diphthongs). However, in Indonesian there

is only up diphthongs which occur when the second vowel is pronounced with the tongue position higher than the first sound. For example, the phoneme /aj/ in the word *gulai* 'curry' [gulaj] and the phoneme /aw/ in the word *pulau* 'island' [pulaw]. On the other hand, consonant sounds are grouped according to the place of articulation, articulation method, vocal cords vibration, and stricture.

/s/ and /ʃ/ phonemes already exist in Indonesian and the pronunciation of the two should not be a problem. In Indonesian, both phonemes /s/ and /ʃ/ have a lamino-palatal articulation tool, are fricative sounds, and are muted. According to Muslich (2012) and Arifin et al. (2017), the difference between the two phonemes is the place of their articulation. Meanwhile, the difference in the phonemes /s/ and /ʃ/ in French lies in the articulation tool (*predorso-alvéolaire* and *predorso-prépalatale-labiales*) (Léon, 2011). The similarity and difference in the way of distinguishing the two phonemes, both in French and in Indonesian, opens opportunities for interference for students researching French.

This article discusses how interference and the comprehension of phoneme realization rules can influence the realization of /s/ and /ʃ/ phonemes by students of the French studies at Universitas Indonesia. Previously, research on interference such as the one carried out by Sirbu (2015), reflects on how psychology can explain the phenomenon of interference. While Medane (2015) describes how the interference is affected by sociocultural aspects surrounding a speaker, Ezeodili (2019) noted how the languages that a person has mastered can influence the process of acquiring a new foreign language, including the problem of interference. On the other hand, Marcus et al. (1992) and Ramscar et al. (2013) investigated overregularization in the acquisition of English as a native language by children. Marcus et al. focuses on past tense conjugation, while Ramscar et al. turned their attention to the plural of nouns.

This research combines the linguistic approach conducted by Marcus et al. and Ramscar et al., while taking into account sociolinguistic aspects (languages that have been mastered by students) to explain phonemic interference by students of French studies at Universitas Indonesia.

## METHOD

This research uses a qualitative research method with a literature study that focuses on phonemes, namely the realization of /s/ and /ʃ/ phonemes. Therefore, this research is limited to fricative phonemes in French. This research also looks at the differences between the pronunciation rules of /s/ and /ʃ/ phonemes in both French and Indonesian as well as phonemic interference as a basis for analysis.

The data used in this research was obtained from recording the pronunciation of 15 French sentences by 20 level II and level III students of French Studies at Universitas Indonesia. The research was conducted by asking the research subjects to read 15 sentences containing /s/ and /ʃ/ phonemes which were then recorded and transcribed for analysis. The list of sentences provided to research subjects is taken from the book *Alter ego +: méthode de français: A2* (Berthet, A., Waendendries, M., Hugot, C., Sampsonis, B., & Kizirian, V., 2012) and *Alter ego + 3: méthode de français: B1* (Dollez, C., Pons, S., Daill, E., & Trévisiol, P., 2013) to ensure the level of difficulty of the sentence being tested matches the ability of the research subjects. Both books are used by both groups in the course of *Kemahiran Berbahasa Prancis* 'French Language Proficiency' (KBP). The use of *Alter ego + 3: method de français: B1* (2013) is based on the assumption that level II students have mastered French pronunciation regardless of their comprehension of the sentence list given. The reading is conducted twice to find out if the research subjects are able to realize and correct their own errors at the second reading. Phonetic transcription obtained from recordings is used as the research data.

The research subjects consisted of 20 students of French Studies at Universitas Indonesia. 10 students from level II (hereinafter referred to as group A) and the 10 other students are from level III (hereinafter referred to as group B) that never repeat a French Language Proficiency (KBP) course at the same level. The research subjects were taken from two different levels to see whether there were differences in the accuracy of the realization of the /s/ and /ʃ/ phonemes between the two levels. The researcher took a sample of 10 research subjects from each level with the criteria that students did not repeat KBP courses at the same level.

The researcher selected research subjects from level II and III because level I students have not yet completed the *lecture* 'reading' stage in their midterm and final exam. That means they are still learning to pronounce phonemes and do not yet have enough knowledge to pronounce them correctly. The researcher also did not choose students of level IV as research subjects because they have surpassed the learning process and are already in the enrichment or deepening process.

In addition, the difference between group A and group B in French Studies is the courses that have been taken. The following are courses that have been taken by group B but not yet taken by group A (limited in the field of linguistics): 1) French Lexicography, 2) French Language Proficiency IV, 3) French Language Proficiency V, 4) French Language Research, 5) Basic Text Research. That difference is also taken into consideration when choosing sentence lists from two different books.

## RESULTS AND DISCUSSION

In general, it was found that there are deviations of /s/ and /ʃ/ phoneme realization from both group A and group B. The deviation from the two groups for the two phonemes did not exceed 15%. In addition, the deviation of /ʃ/ phoneme realization is greater than the deviation of

/s/ phoneme realization. This is in accordance with the list of sentences containing more /s/ phoneme than /ʃ/ phoneme. The most common deviation is the /s/ phoneme which is realized as the /ʃ/ phoneme and vice versa.

Group A research subjects deviated the realization of the /s/ and /ʃ/ phonemes more than group B. That can be associated to the habit of using French and the vocabulary that group B possesses. However, group A was also considered to be able to pronounce French correctly

because they have already passed through the *lecture* stage in their midterm and final exam. *Lecture* is part of the midterm and final exam in KBP courses that test French pronunciation. The following is a summary of the data obtained from this research by calculating the total number of /s/ and /ʃ/ phonemes: number of /s/ and /ʃ/ phoneme in phonetic transcriptions of sentence lists based on *Le Petit Robert Micro* (Rey & Morvan, 2013) dictionary, multiplied by the number of research subjects (10 per group), and multiplied by the number of readings (twice).

Research Subjects	No Deviation	With Deviation	Total	Percentage of Deviation
Group A	268	52	320	16.25%
Group B	283	37	320	11.5%

Table 1. Realization of /ʃ/ phoneme by research subjects.

// Phoneme Realization by Group A	// Phoneme Realization by Group B
To /s/ Phoneme	To /s/ Phoneme
52	37

Table 2. Deviation of /ʃ/ phoneme realization.

No Deviation	With Deviation	Total	Percentage of Deviation
1083	117	1200	9.75%
1111	89	1200	7.4%

Table 3. Realization of /s/ phoneme by research subjects.

Research Subjects	To // Phoneme	To // Phoneme	Not Realized [-]	To /l/ Phoneme	Total
Group A	99	8	13	1	121
Group B	59	6	20	-	85

Table 4. Deviation of /s/ phoneme realization.

**Phoneme Substitution**

Weinreich (2010) explains that phonemic interference occurs when a bilingual parallels phonemes from a foreign language (hereinafter referred to as L2) and phonemes from the native language (hereinafter referred to as L1) and realizes them using the L1 rule. Weinreich gave an example of phonemic interference through research he did in 1951. He examined the Schwyzertütsch system (German dialect) and Romansh in two different villages (Feldis and Thusis). The villagers of Feldis have the Romansh language as L1 and the

Schwyzertütsch dialect as L2 and vice versa for the villagers of Thusis. He examined and analyzed the difficulties of each research subject in case A (Romansh as L1) and case B (Schwyzertütsch as L1). Based on that research, Weinreich concluded that there were four types of phonemic interference; *under-differentiation of phonemes*, *over-differentiation of phonemes*, *reinterpretation of distinctions*, and *phoneme substitution*. This type of interference occurs when a bilingual person replaces a phoneme from L2 with a phoneme from L1, which happens because

of the similarity in the pronunciation of the two phonemes.

The results of this research indicate various deviations in the realization of /s/ and /ʃ/ phonemes which are grouped based on the cause. Phonemic interference is one of two causes of phoneme realization deviation. The deviation of realization in this research is phoneme substitution which is a phonemic interference caused by the substitution of one or more L2 phonemes with the L1 phoneme. Phonological substitution carried out by research subjects is not limited to one language. Some research subjects substituted phonemes not only from Indonesian, but also from English.

One case of substitution in this research is the substitution of the /ʃ/ phoneme with the /s/ phoneme from Indonesian. In French phonology, the two phonemes are fricative consonants, voiceless, and their articulation places are close together. Furthermore, the consonant /ʃ/ undergoes a process called labialization which is rounding the shape of the lips that is identical to the consonant. In French and English, the fricative consonants that are labialized are the consonants /ʃ/ and /ʒ/. Both consonants can be seen as the consonants /s/ and /z/ undergoing labialization (Crowley and Bower, 2010).

Meanwhile, in Indonesian, the two phonemes are fricative consonants, voiceless and their articulation places are also close together. However, in Indonesian, the /ʃ/ phoneme does not undergo labialization as in French. The similarity of the /ʃ/ phoneme and /s/ phoneme characteristics in both Indonesian and French is one of the factors that causes some research subjects to realize /ʃ/ with /s/ from Indonesian.

Other factors can be seen from Kuhl, et al., as cited by Li, Yin, and Pu (2019). *Native Language Magnet Theory* is a theory of language acquisition at an early age. At the age of 6 months, babies can group sound patterns into "sound maps." Kuhl explained that a toddler speaking English as a native language, was able to develop sound maps

in their brain that helped them hear /i/ phonemes clearly, after hearing hundreds of thousands of /i/ phoneme examples as in "mommy" and "daddy". They then mimic the sounds with different targets but still use the same sound. The effort then attunes their brain with their native language. When one category of sound is made in memory, it becomes a magnet for other sounds. This means that the category attracts other sounds that are similar so that they sound the same as the sounds in his memory. This neural commitment that often goes unnoticed by the speaker, sometimes disturbs the processing of new information.

/s/ and /ʃ/ phonemes exist both in Indonesian and French. Nonetheless, Alieva, et al., as cited by Laksman-Huntley (1996), explained that in the 1970s, the Indonesian language only had 18 original consonants and 6 absorption consonants. The absorption consonants appear in loan words of foreign languages, especially from Arabic. Therefore, some absorption consonants have never been realized by native speakers of Indonesian. For example, the word *sarat* 'full' [sarət] and *yarat* 'condition' [jarət] have different pronunciations and are a minimal pair. However, in daily conversations, the consonant /ʃ/ can change to /s/ at the beginning of a sentence. The word *yarat* [jarət] is often pronounced as [sarət]. Such mistakes are common and are still accepted because they can be understood by context. The tendency of the error is related to the fact that the consonant /ʃ/ is a phoneme acquired from Arabic.

Phoneme substitution that the research subjects did, occurred within several words on the list of sentences given. One word that is not properly realized is the word *enchérisseur* 'bidder' [ə̃ʃeRisœR], which is caused by the location of the /ʃ/ and /s/ phonemes in the words read by the research subjects. The proximity of the two phonemes affects each other so that an equalization or adjustment occurs, which is known as phonemic assimilation. This sound equalization process can occur progressively and regressively. The

progressive assimilation process occurs when the affected sound is located to the right of the influencing sound. Conversely, a regressive phonemic assimilation occurs when the affected sound is located to the left of the influencing sound (Erawati, 2012). This deviation seems to support Kuhl's theory because the /ʃ/ phoneme is being included in the /s/ sound category by research subjects without them realizing.

Furthermore, the deviation in the realization of the /ʃ/ phoneme occurs because most of the words containing the /ʃ/ phoneme in Indonesian are absorption words. For example, the words *syukur* 'gratitude' [ʃukur], *syarat* 'condition' [ʃarat] and *masyarakat* 'society' [maʃarakat] are absorption words from Arabic. The /ʃ/ phoneme can be seen as "newly" added to the Indonesian phonological system. Therefore, most Indonesian speakers are not used to pronounce the /ʃ/ phoneme and often realize the /ʃ/ phoneme as /s/ phoneme. Indonesian speakers are also more accustomed to using the /s/ phoneme than the /ʃ/ phoneme in daily conversation. This error is also considered normal in everyday conversation because of context.

Another example is the word *chercher* 'to search' [ʃɛRʃe] which has two /ʃ/ phonemes located close together. In this case, an error occurred due to the proximity of the two phonemes. Most of the errors in this word occur in one of the two /ʃ/ phoneme which is realized as /s/. This was influenced by the pronunciation of the /ʃ/ phoneme in Indonesian which does not undergo a labialization process. Thus, the word *chercher* is realized as [sjɛRʃe] or [ʃɛRsjɛ]. This case again shows how phoneme substitution occurs and why deviation of the realization of the /ʃ/ phoneme specifically leads to the /s/ phoneme.

Kathleen J. Brannen (2011) in her research explains that a student can obtain a new phonological feature or incorporate phonological features they had learned from their native language at an early stage

and throughout the foreign language learning process. Even so, students do not necessarily master all the phonological features of the target language and phonemic categories in it. The challenge is to associate the forms of the target language with a form that they understand within their interlanguage inventory.

This disparity and challenge facing students can become misperceptions and pronunciation errors in the production process according to Brannen. In general, Brannen's findings indicate that perception determines production. Therefore, these challenges can cause students to enter the acoustic processing stage. At that stage, the phonetic system or phonology is missed completely and sounds in the target language are compared directly with the native language rather than associated with the representation of the phonetic or phonological of the target language. That stage is part of the *Perceptual Assimilation Model* (Gerrits, as quoted by Brannen, 2011), which implies that acoustically, the /ʃ/ phoneme in Indonesian and the /s/ phoneme in French are similar.

The next phoneme substitution case is the deviation of the realization of /s/ to /ʃ/ phoneme. Ezeodili (2019) explains that the phenomenon of interference often occurs under conditions of bilingualism. Students who have mastered more than one language and then learn a new foreign language are likely to apply the structure of the language or languages that have been mastered into the foreign language model. This was based on his research of 50 students who learnt French (L3) with English as the second language and Igbo as the native language.

*Interlanguage* is a term that defines a language distinct from the source language (L1) and the target language (L2), but it has some characteristics of both (Selinker, as quoted by Ezeodili, 2019). Ezeodili also underlines foreign language abilities already obtained by students when learning a new foreign language. The influence of these languages is able to explain the phenomenon of interference in his research. Ezeodili found that French

interference mainly comes from the influence of English more than Igbo. He took the example of using *accord* adjectives in the sentence *elle était heureuse*. Many of his research subjects wrote *elle était heureux* in the test. Ezeodili explained that it was interference from English that does not normally use *accord* or adjustment for adjectives (*He was happy, she was happy*).

Unlike the situation in Ethiopia, English is not an official language in Indonesia. However, the assimilation of English into the daily lives of various nationalities has occurred through globalization. English as a global language has an important role in the accessibility of information, specifically communication (Cleveland, Laroche, and Papadopoulos, 2015). Therefore, the research subjects' English ability are taken into consideration to explain the phenomenon of interference in this research.

For example, the words *prévention* [pʁevãsjõ] and *éducation* [edykasjõ]. The /s/ phoneme and /j/ exist in Indonesian. However, the use of both phonemes simultaneously as in the two words above almost never happens. This was caused by the use of the /ʃ/ phoneme (rather than the /j/ phoneme) to pronounce words containing the letter y. One thing to remember is that most of these words are absorption words (mostly from Arabic). Additionally, the two words have similar equivalents in English; *prevention* [prɪvɛnʃən] and *education* [ɛdʒukeɪʃən] (all phonetic transcriptions of English words are taken from the *Oxford Dictionary of English* (Stevenson, A. (Ed.), 2010)). Therefore, research subjects' proficiency in English substitutes the phoneme when pronouncing /s/ in both words. Research subjects realize the two words as [pʁevãjõ] or [pʁevãjõ] and [edykaʃjõ] or [edykaʃjõ]. That also happens in some other words containing the suffix -ion such as *consummation*, *ambition*, *évolution*, *situation*, *population*, and *révélation*. All these words have similar equivalents in English.

Medane (2015) explains that the use of foreign language does not mean simply understanding the rules of phonology, syntax, morphology, lexeme, etc. (structural elements), but also non-structural elements. She explained the complexity of the relationship between languages in her research on interference in Algeria by considering non-structural elements in the sociocultural field. For example, location, social or psychological status such as loyalty to the use of native language, personal abilities, personal attitudes or stereotypes are used as reference when analyzing the results of her research.

Medane explains that Algerians live in a multi-lingual climate with four languages; Algerian Arabic, Berber, Classical or Conventional Arabic, and French. At some point in their lives, an Algerian becomes bilingual. The level of bilingualism is influenced by the duration of contact with the second language. The second language can be in the form of language acquired from childhood, taught language, or colloquial language. The difference in language contact affects its use.

Furthermore, the frequency of language use also has an important role in determining one's level of bilingualism. One thing to note is whether someone often uses that language or only in certain situations. Mackey, as quoted by Medane (2015), explains that a person's level of bilingualism depends on "pressure." The pressure in question is the context of language use and the situations or conditions that encourage someone to use that language. The situation or condition covers economic, historical, social, administrative, and so on.

The last case which is a phoneme substitution is the deviation of the realization of /s/ to /z/. This case occurred in one of the words in the given sentence list; *organisme* [õRganism]. This deviation was carried out by several research subjects in group A who made similar mistakes both in this case and in the previous case. The error was caused by interference from English whose equivalent is similar; *organism* [õrgənɪzəm]. The phonetic transcript of the



word *organism* in English clearly raises the phoneme /z/ which then causes interference to the word *organism* in French. This interference starts at the lexeme level then becomes phonemic interference when the research subject refers to the rules of English pronunciation to pronounce the word *organism*. The two cases above support the research of Medane and Ezeodili which considers the sociocultural aspects and the ability of other languages in the phenomenon of interference.

### Overregularization

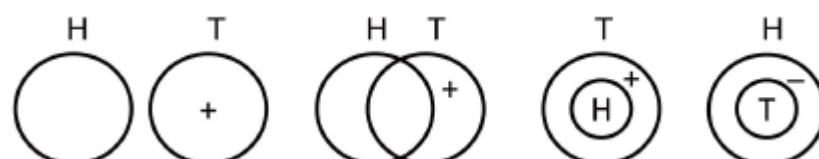
Marcus et al. (1992), in their research *Overregularization in Language Acquisition*, describes how a child in the learning stages of language can make past tense conjugation mistakes, after successfully conjugating for a specific time period. This development, known as the *U-shaped development*, is due to the application of regular grammatical patterns to irregular words known as *overregularization*. They observed *overregularization* in children aged 2-11 when they were asked to conjugate the past tense. They explained that children, like adults, mark tense from memory (for conjugations of irregular verbs) and from affixation rules that can form past conjugations for regular verbs. When the search was done, the child unconsciously obstructed the application of the regular verb rules. However, the search in memory does not always succeed and when it fails, affixation rules are applied, and the result is *overregularization*.

This blocking mechanism is known as the blocking principle. It prevents the application of regular rules when the form that is being sought in memory is irregular. One important aspect of the blocking principle is negative feedback. The main problem in explaining language acquisition in children is a shortage of negative

feedback from parents about the grammatical accuracy of their child's speech. Wagner and Pinchon (2014) nonetheless noted that negative feedback is one of the distinguishing factors of language acquisition for children and adults. They explain that in a learning environment in which there are students and teachers, teachers will always give negative feedback when students make mistakes. However, they acknowledge that many variables in certain situations may interfere with the *trial and correction* process.

Marcus et al. concluded that both children and adults use two types of morphological processes; specific processes applied under certain conditions with certain restrictions and standard processes applied without restrictions. The specific process is based on taking information that has previously been stored while the standard process is based on symbolic rules. Even so, Marcus et al. acknowledges that the claim that states a specific process needs to be learnt by memory rather than symbolic rule, requires additional theoretical and empirical support before it can be applied to other languages besides English. Marcus et al. explained in detail about what and how the process of overregularization occurs, while Ramscar et al. (2013) examined why overregularization occurs. Their research focuses on plurals. Children who are the subject of their research tend to overregularize irregular nouns like saying *mouses* and not mice.

Pinker, as quoted by Ramscar et al., explains LPLA or the Logical Problem of Language Acquisition, which indicates that learning simple aspects of grammar is logically impossible without restrictions on what is learned. A child's understanding can be based on the 'assumption' that they have about how grammatical rules apply.



Pinker explained this concept by presupposing language as circles. The H circle represents the child's hypothesis about language while the T circle represents the target language. He explained four logical possibilities for how the language in a child's mind is different from the actual language. In the first possibility, H is separate from T. For example, the child cannot form plural irregular nouns (he or she always produces *mouses* rather than *mice*). In the second possibility, H and T intersect, in the case where a child understands some irregular noun rules, but not all of them (produces *mice* but still produces *foots* too). The third possibility, H is part of T, which means the child has mastered some of the plural nouns but not all of them. Conversely, in the fourth possibility, T is part of H. The child uses the proper noun but still uses a form that is not in the target language (using *mouses* and *mice* interchangeably).

One of the assumptions of LPLA is that one can only revert from the fourth possibility by receiving explicit feedback from the linguistic community. Without that feedback, one would not realize that their hypothetical language has superseded the actual language. That is what Ramscar et al. investigated by testing 38 4-year-old children and 40 6-year-old children. They were asked to form plural nouns of mouse, child, snowman, goose, tooth, foot, rat, doll, cow, duck, ear, and hand. The research results support their hypothesis based on the Rescorla-Wagner learning model (see Ramscar et al., 2013). They note that research on language learning is too focused on what is seen even though a child responds to what they hear and see. The main assumption is that a child can only learn what is in front of them. That assumption is not consistent with what is already known about animal and human learning.

Ramscar et al. explained that language processing involves predictions or expectations and subsequent processes that respond to that prediction or expectation always happen. Their results show that the

learning mechanisms that are driven by this prediction process enable children to correct their own mistakes in language learning. They stated that there is no logical problem that prevents a child to amend *mouses* to *mice* without explicit correction. Ramscar et al. concluded that overregularization arises and disappears because of error distribution in a linguistic environment. It cannot be avoided and is part of learning.

In this research, overregularization of French grammatical rules causes deviation of realization of the /s/ phoneme to /z/. French grammatical regulations require that several words be given a link between words to facilitate pronunciation (Wagner and Pinchon, 2014). The combination of words that consist of one word ending in a consonant and one word beginning with a vowel. In general, this link is placed between the subject and verb, the verb and noun, the verb and article (*défini*, *indéfini*, *partitive*, and *démonstratif*), articles and nouns, and nouns and adjectives. Some examples include *vous êtes* [yuzɛt], *des œufs* [dezœʁf], *c'est important* [setɛ̃pɔ̃ʁtɑ̃], *nouveaux endroits* [nuvoʁɑ̃dRwa], and so on. In addition, the use of *liaison* in some cases can differentiate in meaning. The simplest example is the difference between *ils sont* 'they are' [ilsɔ̃] and *ils ont* 'they have' [ilzɔ̃]. The use of *liaison* in the phrase *ils ont* can distinguish the meaning between third person the plural pronoun for *être* or *avoir* verbs. Therefore, the accuracy of *liaison* use becomes very important in such cases.

One case of /s/ phoneme substitution is caused by the use of *liaison* in the phrase *des immenses affiches*. This phrase was realized as [dezimãszafif] and not [dezimãzafif]. Some research subjects did not liaise the word *immenses* to *affiches* because of difficulty pronouncing the /s/ and /z/ phonemes located next to each other. Additionally, liaising the word *immenses* and *affiches* does not have as much significance as the combination of an article and a noun (*des* and *immenses*) or other word combinations. Some research subjects tried to realize both

even though in the end they only realized the /z/ phoneme.

The last case are /s/ phonemes that are not realized. This case is also caused by overregularization. Some words in the French language are polyphonic words or words that can be pronounced in different ways, depending on the context and definition of the word. For example, the word *plus*, which has several pronunciations depending on its position in the sentence and its word class. When the word *plus* functions as a negation in the sentence "*je ne suis plus riche*," the letter s in the word *plus* is not pronounced. However, the letter s in the word *plus* is realized if it serves as an adjective, as in the phrase "*elle a plus d'argent que lui*." Several research subjects overregularized one of the most common and earliest pronunciation teachings in beginners French learning; the letter s at the end of a word is never pronounced.

## CONCLUSION

This research shows that interference by a multilingual, as stated by Ezeodili, can be influenced not only by L1 but also by L2 and so on, while learning a new language. Understanding the phenomenon of interference requires various approaches, not only from structural aspects but also from non-structural aspects, such as sociocultural aspects. Interference can occur at several levels (phoneme, morpheme, syntax, and lexeme) and can start at one level and then affect other levels.

A common phenomenon is that a student is afraid to make mistakes when producing (writing or speaking). This coupled with a limited understanding of the grammatical rules of the language being studied, can cause students to overregularize. They tend to make the same mistakes when there is no negative feedback from the teacher, which is the logical problem of language acquisition (LPLA).

The interesting point is that overregularization still occurs in students studying French. This finding supports the

LPLA theory stated by Pinker. If we look at the research of Ramscar et al., U-shaped development, the tendency to self-correct along with the increase in linguistic knowledge, should correct the tendency to overregularize. However, there are two distinct differences between the research of Ramscar et al. and this research. First, the focus of their research is on children and not adults. Second, their research subjects are children with English as L1.

Based on the results of this research, it appears that the learning process requires the role of a teacher to guide students throughout the learning process. Good teachers consider the diverse backgrounds of students in teaching activities. Trends in interference during the learning process can be detected by teachers who have similar backgrounds to students (for example, teachers master Indonesian as L1, English and French as L2 and L3, respectively). Teachers also need to consider various non-linguistic aspects which surround a language, especially in the teaching material used.

What can be studied further is how the influence of sociolinguistic aspects mentioned by Medane can influence learning in the classroom. That has not been explored sufficiently in this research because of limited time and resources. The apparent problem is why the results of this research support LPLA rather than the results of Ramscar et al. The hypothesis proposed at the end of this research rests on three factors. First, students are not always in a linguistic environment or the linguistic environment that they are in does not stimulate them (e.g. less negative feedback from teachers). Second, the frequency of use of the language learned is minimal (not practicing the language outside of the classroom) and there is minimal student motivation or enthusiasm. Finally, the Interlanguage condition that was mentioned in this research and Ezeodili's, can also be one of the reasons why overregularization still occurs. The two former factors are sociolinguistic factors which require time to observe them in the

learning process in the classroom. The latter factor is a psycholinguistic factor which requires further empirical research in the field of psycholinguistics.

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