Impact of First Language (L1) on Second Language (L2) Pronunciation: A Case Study of Undergraduate ESL Learners in Pakistan

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Abstract: Language pronunciation is an indispensable part of the language learning process. It plays a substantial role in enhancing the communicative competence and performance of sound language learners. The learning of pronunciation is a very sensitive and complicated aspect of the English language classroom. However, all L1 students are not equally good at learning pronunciation. The research aims to explore the phonological features of L1 that influence the pronunciation of L2. Similarities and differences between the phonological systems of the L1 and L2 are also part of this study. The study discusses theory and personal observations that classify the influence of L1 on L2. This research is significant because it highlights the importance of acquiring the pronunciation of a second language. This study assesses the impact of L1 on the pronunciation of L2 using a quantitative data analysis approach and Transfer Hypothesis Theory. The Transfer Hypothesis Theory suggests that the skills and knowledge acquired in one language can transfer and influence the learning and use of another language. The result of this analysis provides valuable insights into the relationship between L1 and L2 and contributes to our understanding of the Transfer Hypothesis Theory.

Keywords: communicative competence, language learning strategies, language pronunciation, phonological transfer, second language acquisition

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Introduction

Language is the primary method of human communication, but there are also other ways to communicate without the use of language. When asked to define language we tend to think of a verbal and written system in which certain sounds and symbols come together in a specific way to convey meaning.

Contemporary linguists and educators commonly use the term L1 to refer to a first or native language, and the term L2 to refer to a second language or a foreign language that’s being studied. A first
language, native tongue, native language, mother tongue, or L1 is the first language or dialect that a person has been exposed to from birth or within the critical period. A person's second language, or L2, is a language that is not the native language (first language or L1) of the speaker but is learned later.

A second language may be a neighboring language, another language of the speaker's home country, or a foreign language.

In recent years, English has been increasingly used in Cambodia, but Cambodian English teachers and learners encounter several significant challenges, and one of these challenges is related to pronunciation (Moore & Bounchan, 2010). Research has provided evidence for challenges and problems in producing accurate pronunciation confronted by Cambodian teachers and learners (Keuk, 2008; Moore & Bounchan, 2010; Set, 2017). Yet, the specific factors influencing pronunciation learning and suggestions to improve pronunciation teaching seem to have received little attention in the literature on pronunciation learning and teaching in Cambodia. A study conducted by Kim (2013) found that Korean English language learners had difficulty with English consonant sounds, particularly with the /r/ and /l/ sounds because these sounds do not exist in the Korean language. Similarly, a study by Chen (2015) found that Mandarin Chinese speakers of English often struggle with English vowel sounds because of the different vowel systems in Mandarin and English.

Learning a second language is a long and complex undertaking (Brown, 2007). According to Lin, Fan, and Chen, (1995), some teachers in Taiwan might argue that English pronunciation is not important at all, for very few tests would require students to show abilities related to pronunciation or speaking. In the U.S., many students and teachers believe that spending time on pronunciation is useless because it would be difficult, if not impossible for students to hear differences, for instance, between ship and sheep (Wong, 1993). English pronunciation is simply ignored in the
curriculum of some universities in
Thailand (Wei and Zhou, 2002; see also
Syananondh, 1983). In Mexico, pronunciation was described as “the Cinderella of language teaching”; which means an often low level of emphasis was placed on this very important language skill (Dalton, 2002).

Wong (1987) pointed out that even when the non-native speakers’ vocabulary and grammar are excellent, if their pronunciation falls below a certain threshold level, they are unable to communicate effectively. Wong (1993) argues that the importance of pronunciation is even more distinct when the connection between pronunciation and listening comprehension is considered. As listeners expect spoken English to follow certain patterns of rhythm and intonation, speakers need to employ these patterns to communicate effectively. If the rhythm and intonation are different, listeners simply can’t get the meaning. Similarly, listeners need to know how speech is organized and what patterns of intonation mean to interpret speech accurately. Thus, learning about pronunciation develops learners’ abilities to comprehend spoken English.

Furthermore, Wong demonstrated that a lack of knowledge of pronunciation could even affect students’ reading and spelling.

Syananondh (1983) investigated the ability of Thai-speaking graduate students to understand spoken English upon their arrival in the United States. He found that the different English pronunciation taught in Thailand, inadequate English vocabulary, and lack of English conversation training were perceived by the students as the major causes of their difficulty in English listening comprehension. We have seen from this short introduction that pronunciation is very important and that students should pay close attention to pronunciation as early as possible. Otherwise, the result will be that “advanced students find that they can improve all aspects of their proficiency in English except their pronunciation and mistakes which have been repeated for years are impossible to eradicate” (Baker, 1992).

**Statement of the Problem**
The impact of the first language (L1) on the pronunciation of a second language (L2) is a widely researched topic in the field of second language acquisition. L1 transfer, or cross-linguistic influence, occurs when the knowledge and skills that a learner has acquired in their L1 influence their pronunciation of the L2. This impact can be either positive or negative, depending on the similarities and differences between the languages. Previous research has shown that L1 transfer is more likely to occur in segments of speech that are phonologically similar between the two languages, such as vowel sounds or consonant clusters. Additionally, L1 transfer is also more likely to occur in individuals who have a high level of proficiency in their L1, as well as those who have not yet developed a strong mastery of the L2.

Overall, the impact of L1 on L2 pronunciation is a significant area of research as it can inform the development of effective instructional methods for second language learners, and shed light on the complexities of language acquisition.

The impact of a speaker's first language (L1) on their second language (L2) pronunciation can vary. Generally, speakers tend to transfer the phonological and phonetic patterns of their L1 to their L2 pronunciation, leading to what is known as an accent. This transfer can result in pronunciation difficulties and deviations from the target language's norms. However, the extent of the influence of L1 on L2 pronunciation can depend on factors such as the speaker's language proficiency, age of acquisition, and exposure to the L2. Ultimately, the impact of L1 on L2 pronunciation can range from minimal to significant, but it can also be reduced through conscious effort and language learning strategies.

**Objectives of the Study**

The aim of a study on the impact of L1 on the pronunciation of L2 is to examine the relationship between a learner's first language (L1) and their pronunciation of a second language (L2).

This study has the following objectives:
1. To identify the specific phonological features of the L1 that influenced the pronunciation of L2.
2. To investigate the impact of similarities or differences between the phonological systems of L1 and L2 impact the pronunciation of L2.

Research Questions
Based on the objectives of the study the researcher formulated the following questions:
1. What are the specific phonological features of the L1 that influenced the pronunciation of L2?
2. How do the similarities or differences between the phonological systems of L1 and L2 impact the pronunciation of L2?

Significance of the Study
The study of the impact of L1 on the pronunciation of L2 is significant for several reasons:
Understanding L1 transfer: By examining the relationship between L1 and L2 pronunciation, the study can provide insight into the nature and extent of L1 transfer in second language acquisition. This can help to inform language teaching and learning methods that address the individual needs of language learners.
Improving second language pronunciation: The results of the study can provide information about the specific phonological features of the L1 that influence the pronunciation of the L2, as well as the factors that may influence this transfer. This information can be used to inform the development of effective language teaching and learning methods that help learners achieve accurate and fluent pronunciation in the L2.
Enhancing language teacher training: The study can provide important information for language teachers, enabling them to better understand the influence of L1 on L2 pronunciation, and how to address this in the classroom.
Advancing second language research: The study of the impact of L1 on the pronunciation of L2 is a critical component of second language research, contributing to our understanding of the complex and dynamic process of second language acquisition.

Limitations of the Study
Due to the limited scope of the study, this research is restricted only to the study of the similarities or differences that affect the pronunciation of the English language (L2) in learning and teaching due to time constraints. Only phonological features are part of this study because they heavily affect on the pronunciation. Furthermore, this research is limited to Pakistan and only a selected number of books and articles were studied during this research.

**Operational definitions**

1. **Language**: A language can be defined as a structured system of communication used by a group of people. It typically consists of a set of rules for encoding and decoding information, as well as a vocabulary of words and phrases used to convey meaning. The study of language, called linguistics, seeks to understand the nature of language and how it is used in communication.

2. **L1 and L2**: A first language, native tongue, native language, mother tongue, or L1 is the first language or dialect that a person has been exposed to from birth or within the critical period. A person's second language, or L2, is a language that is not the native language (first language or L1) of the speaker but is learned later. A second language may be a neighbouring language, another language of the speaker's home country, or a foreign language.

3. **Pronunciation**: Pronunciation, in the most inclusive sense, is the form in which the elementary symbols of language, the segmental phonemes or speech sounds, appear and are arranged in patterns of pitch, loudness, and duration.

**Literature Review**

Language is a complex and multi-disciplinary field of study that encompasses a variety of areas including linguistics, psychology, sociology, anthropology, philosophy, and education, among others. It is defined as a system of symbols and signs used to communicate thoughts, feelings, and ideas between individuals. There is a vast body of research and literature dedicated to the study of language, and many prominent scholars and researchers have
made significant contributions to the field.

One of the earliest and most influential scholars in the field of language was Noam Chomsky, a linguist, and philosopher who is widely recognized as the founder of modern linguistics. Chomsky's theories on language acquisition have had a profound impact on the field, particularly his concept of universal grammar, which posits that all languages share underlying rules and structures that are innate to the human brain. This theory has been widely debated and is still a topic of ongoing research and discussion in the field.

Another prominent researcher in the field of language is Steven Pinker, a psychologist and linguist who has made significant contributions to our understanding of language and the mind. Pinker's work focuses on the relationship between language and cognition, and he has written extensively on topics such as language acquisition, the evolution of language, and the nature of linguistic rules and structures. His book "The Language Instinct" is widely regarded as a classic in the field, and it has helped to popularize many of his key ideas and theories.

In the field of sociolinguistics, the work of William Labov has a significant impact on our understanding of the relationship between language and society. Labov's research focuses on how language varies and changes over time, and he has made significant contributions to our understanding of the relationship between social factors and language use. His work has helped to shed light on how language can be used as a tool for social power and how it can reflect the social, economic, and cultural differences between different groups of people.

Another important area of study in the field of language is language acquisition, and the works of Jean Piaget and Lev Vygotsky have been especially influential in this area. Piaget's theories of cognitive development have had a major impact on our understanding of how children learn language, while Vygotsky's work on the social and cultural dimensions of language development has helped to shape our understanding of the role that social
interaction and language play in the development of cognitive abilities.

In the field of philosophy, the work of Ludwig Wittgenstein had a major impact on our understanding of language and its relationship to the world. Wittgenstein's philosophy of language is characterized by his view that language is a system of signs that serves to represent our thoughts and ideas about the world and that it is through this system of signs that we can understand and make sense of the world around us.

Another important figure in the field of language is Benjamin Lee Whorf, an anthropologist, and linguist who is best known for his work on the relationship between language and thought. Whorf's theory of linguistic determinism posits that our use of language influences and shapes our thoughts and perceptions of the world and that different languages can give rise to different ways of thinking and seeing the world.

In recent years, the field of language has also seen significant contributions from researchers in the field of cognitive science, including George Lakoff and Mark Johnson, who have made important contributions to our understanding of the role of language in shaping our thoughts and experiences. Their work has helped to shed light on how our use of language is influenced by our embodied experiences and how our bodies and environments shape our thoughts and perceptions of the world.

**L1 and L2**

Surprisingly, the learning pattern of L2 is highly comparable to L1 learning. Both tend to achieve the language rules in a similar pattern: morphological features such as -ing, plural, past, singular, and possessive (Krashen, 1985). More striking, L2 learners create their grammar.

Students learning a second language move through five predictable stages: Preproduction, Early Production, Speech Emergence, Intermediate Fluency, and Advanced Fluency (Krashen & Terrell, 1983).

It is important to note that the distinction between L1 and L2 is a relatively recent one. It was first introduced by linguist Stephen Krashen in the 1970s to describe
the differences in the way children acquire their first language (L1) and the way they learn a second language (L2) later in life. Krashen proposed that L1 acquisition is largely unconscious and occurs through exposure to the language in naturalistic environments, while L2 learning is a conscious and deliberate process that requires formal instruction and practice. Subsequent research has supported Krashen's distinction between L1 and L2, with several studies showing that L1 and L2 learning involve different cognitive processes. For example, research has shown that L1 acquisition is characterized by a greater reliance on contextual cues, while L2 learners must rely more on explicit forms of instruction and practice.

Another important difference between L1 and L2 is the role of language transfer. Transfer refers to the influence of a learner's L1 on their L2 learning, and it has been shown that transfer can have both positive and negative effects on L2 acquisition. For example, the transfer of linguistic knowledge from L1 to L2 can lead to the overgeneralization of L1 rules to L2, while the transfer of metalinguistic knowledge can help L2 learners identify and correct errors.

A significant number of researches on the effects of age on L1 and L2 acquisition have shown that while children are more receptive to L1 acquisition, the ability to learn L2 declines with age with older learners requiring more time and effort to achieve comparable proficiency to younger learners. In addition to these individual factors, the literature on L1 and L2 has also explored the role of social and cultural context in language learning. For example, research has shown that the social and cultural context in which L1 and L2 are learned can affect the way they are processed and used. For example, in multilingual settings, the use of L1 and L2 can be influenced by social and cultural factors such as identity, power dynamics, and access to resources.

Another area of interest in the literature on L1 and L2 is the relationship between language proficiency and cognitive development. Research has shown that bilingualism and multilingualism can have a positive impact on cognitive
development, with bilingual and multilingual individuals demonstrating enhanced executive function and cognitive flexibility. The literature on L1 and L2 has also explored the impact of language learning on academic achievement. Research has shown that bilingual and multilingual students often outperform monolingual students in various academic domains, including Mathematics, Science, and Reading. However, the relationship between language learning and academic achievement is complex and can be influenced by a range of individual, social, and cultural factors.

**Pronunciation**

Pronunciation is language spoken; how a word is pronounced; and the way a person speaks the words of language (Hornby, 1987:497). Yates and Zelinski in Hasan (2014:31) state that pronunciation refers to how we produce the sound that we use to make meaning when we speak. Kenworthy (1987, cited in Brown, 2007, pp. 340-341) summarizes the most important learner variables that influence pronunciation learning. They include native language, age, exposure, innate phonetic ability, identity and language ego, and motivation and concern for good pronunciation.

Pronunciation is a complex and multifaceted aspect of language that is of great interest to scholars and researchers in a variety of fields, including linguistics, psychology, speech and hearing science, and education among others. It refers to the way that words are spoken and sounds are produced in a particular language, and it plays a critical role in effective communication and language acquisition.

One of the earliest and most influential scholars in the field of pronunciation was Roman Jakobson, a linguist who made important contributions to our understanding of the phonological and phonetic aspects of pronunciation. Jakobson's work helped to lay the foundation for modern phonology and his theories have been widely adopted and expanded upon by subsequent generations of scholars and researchers.
Another important figure in the field of pronunciation is Peter Ladefoged, a prominent linguist and phonetician who made significant contributions to our understanding of the phonetics and phonology of pronunciation. Ladefoged's work on the acoustic and articulatory aspects of pronunciation has helped to shed light on the mechanisms and processes involved in speech production, and his contributions have been highly influential in shaping the field of speech and hearing science.

In the field of psychology, the work of Anne Cutler has a major impact on our understanding of the cognitive and perceptual aspects of pronunciation. Cutler's research focuses on how listeners perceive and process speech sounds, and she has made important contributions to our understanding of the relationship between perception and pronunciation. Her work has helped to shed light on how listeners use information from multiple sources, including phonetics and context, to understand speech.

In the field of education, the work of James Emil Flege has a significant impact on our understanding of second language pronunciation. Flege's research focuses on how non-native speakers learn to produce speech sounds in a new language, and he has made important contributions to our understanding of the relationship between pronunciation, accent, and intelligibility. His work has helped to shed light on the difficulties that non-native speakers face in acquiring a new pronunciation and the factors that influence their success.

In recent years, the field of pronunciation has also seen significant contributions from researchers in the fields of neurolinguistics and cognitive neuroscience. These researchers are using neuroimaging and other methods to better understand the neural processes involved in pronunciation and speech production, and they are helping to shed light on how pronunciation is influenced by cognitive, linguistic, and motor processes.

**Theoretical Framework**
The earliest roots of the Transfer Hypothesis can be traced back to the works of early linguistic theorists such as
Otto Jespersen and Wilhelm von Humboldt, who suggested that language learners transfer the linguistic knowledge and strategies they have acquired in their first language (L1) to the second language (L2) they are learning. In the 1950s and 1960s, the Transfer Hypothesis gained traction as a result of the growth of research in SLA and the increasing interest in the role of L1 in L2 acquisition. Researchers such as Robert Lado and Stephen Krashen proposed that transfer from L1 could have both positive and negative effects on L2 acquisition, with some types of transfer leading to more accurate L2 production, and others leading to errors in pronunciation and grammar.

The Transfer Hypothesis was further developed in the 1980s and 1990s, as researchers began to explore the interlanguage-specificity of transfer and the role of individual factors such as learner age and language learning experiences in shaping the degree and nature of transfer. Today, the Transfer Hypothesis remains an important theoretical framework in SLA, with a growing body of empirical evidence to support its validity. The Transfer Hypothesis continues to evolve as researchers explore new directions in the field of SLA, and as new technologies and instructional methods become available.

The Transfer Hypothesis is a theoretical framework that proposes that language learners transfer the linguistic knowledge and strategies they have acquired in their first language (L1) to the second language (L2) they are learning. This transfer can occur at different levels of language processing, including phonology, syntax, and pragmatics. The Transfer Hypothesis has its roots in the works of early linguistic theorists such as Otto Jespersen and Wilhelm von Humboldt, who suggested that the knowledge and strategies used in L1 can influence the acquisition of L2.

According to one of the previous researches by Marvin Levine the Transfer Hypothesis and the general cognitive machinery are applied to experiments in which the college student has been the subject. Problem-to-
problem improvement in the concept-identification experiment has been demonstrated by Paul Finger man. According to the Transfer Hypothesis, therefore, with each successive problem, the S is more and more likely to sample only from the simple domain. It follows that the group of Ss because they are going from sampling in the universe at large to sampling in a limited domain.

Theoretical Framework Model

Improved language

<table>
<thead>
<tr>
<th>Theory</th>
<th>Application</th>
<th>Outcomes</th>
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<tbody>
<tr>
<td>Transfer hypothesis theory is a linguistic theory. In 1950s and 1960s the Transfer hypothesis theory suggests the knowledge and skills a learner acquires in their first language (L1) transfer to the learning of second language (L2).</td>
<td>Language teaching methodologies Assessment of language transfer Cross-cultural communication Bilingualism and multilingualism Computer-assisted language learning (CALL) Second language teaching materials and curriculum design</td>
<td>Improved language instruction Enhanced language assessment Increased awareness of cross-cultural communication Better understanding of bilingualism and multilingualism More effective computer-assisted language learning Improved language teaching materials and curriculum design</td>
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</table>
Historical Development

One of the pioneers in this field was Robert Lado, who proposed the "L1 transfer hypothesis" in his book "Linguistics across Cultures: Applied Linguistics for Language Teachers" (1957). Lado's work was groundbreaking in that it was one of the first to systematically study the impact of the first language (L1) on the pronunciation and grammatical patterns of the second language (L2).

In the 1970s and 1980s, researchers such as Stephen Krashen and Larry Selinker expanded on Lado's work and developed their theories about transfer in second language acquisition. For example, Krashen's "Input Hypothesis" suggests that language acquisition occurs when learners receive comprehensible input in the target language, while Selinker's "Interlanguage Hypothesis" proposes that language learners develop a system of rules and patterns (known as "interlanguage") that is distinct from both the L1 and the target language (L2).

In the 1990s and 2000s, researchers such as Susan Gass and Theresa Odlin continued to study the transfer hypothesis and its impact on second language acquisition. For example, Gass and Selinker's "Second Language Acquisition: An Introductory Course" (2008) provides a comprehensive overview of transfer and its role in second language acquisition.

What is the Theory About?

The transfer hypothesis is a theory that proposes the skills, knowledge, and abilities learned in one context can transfer to another context. It suggests that transfer can have positive or negative effects on second language acquisition, depending on the similarity between the first language (L1) and the second language (L2), as well as the learner's level of proficiency in each language.

The theory proposes that when a learner begins to acquire a second language, they transfer the linguistic and cognitive strategies they have developed in their first language to the second language. For example, if a learner is familiar with
the verb tense system in their first language, they may transfer this knowledge to the second language and use similar verb tenses in their speech and writing.

Robert Lado's transfer hypothesis is a theory in the field of second language acquisition and linguistics that focuses on the impact of the first language (L1) on the second language (L2). It proposes that language learners transfer the linguistic and cognitive strategies they have developed in their first language to their second language, leading to similarities between the two languages in terms of pronunciation, vocabulary, and grammar.

According to Lado, the degree of transfer depends on the similarity between the learner's L1 and L2, as well as the learner's level of proficiency in each language. If the two languages are similar, the learner may transfer more linguistic and cognitive strategies, leading to stronger transfer effects. On the other hand, if the two languages are different, the learner may transfer fewer strategies and experience weaker transfer effects.

Lado's transfer hypothesis has been widely studied and is still considered a relevant and valuable theory for understanding the process of second language acquisition.

**Salient Features of Theory**

There are some features of Transfer Hypothesis Theory.

Transfer hypothesis: Lado's theory proposes that language learners transfer their linguistic and cognitive strategies from their first language (L1) to their second language (L2).

Similarity between languages: The degree of transfer depends on the similarity between the learner's L1 and L2.

Proficiency in each language: The learner's level of proficiency in each language also affects the degree of transfer.

Positive transfer: Lado's theory suggests that transfer can have a positive effect on second language acquisition, leading to increased fluency and accuracy.

Negative transfer: On the other hand, transfer can also have a negative effect,
leading to errors in pronunciation, vocabulary, and grammar.

Cultural influence: Lado's theory takes into account the influence of culture and cultural differences on language learning and transfer.

Context: The theory recognizes that transfer can occur in different contexts, such as classroom instruction, exposure to authentic language, and informal interactions.

Cognition: Lado's theory recognizes the role of cognition and mental processes in transfer and second language acquisition.

Multilingualism: Lado's theory recognizes that transfer can occur between multiple languages, not just between L1 and L2.

Interlanguage: The theory acknowledges the concept of interlanguage, which refers to the intermediate language system that develops between L1 and L2.

Phonetic transfer: Lado's theory recognizes that transfer can occur in the phonetic features of language, such as pronunciation, intonation, and stress.

Phonological similarity: The degree of phonetic transfer may depend on the similarity of phonological features between the learner's L1 and L2.

Phoneme inventories: Lado's theory acknowledges that the phoneme inventories of L1 and L2 can influence the process of phonetic transfer.

Phonological patterns: Transfer of phonological patterns, such as stress and intonation, can also occur and impact the learner's pronunciation in the L2.

Pronunciation difficulty: Phonetic transfer can lead to difficulties in pronunciation for language learners, especially if the L1 and L2 have significantly different phonological systems.

Positive transfer: Transfer can have a positive effect on pronunciation in the L2, leading to more natural and fluent speech.

Minimizing negative transfer: The theory suggests that teachers should strive to minimize negative transfer and encourage positive transfer in pronunciation.

Phonological errors: Transfer can result in phonological errors, such as
mispronunciation of sounds or stress patterns.

Phonological interference: Transfer can also result in phonological interference, where the learner's L1 influences the pronunciation of the L2 in an unintended way.

Phonological transferability: Lado's theory acknowledges that not all phonological features are equally transferable and that some may be more difficult to transfer than others.

**Application of the theory**

The theory explores the impact of L1 on the pronunciation of L2 with the help of some phonological features. Similarities or differences between the phonological systems of the L1 and L2 are also part of this to understand how they interfere with each other. This involves examining the impact of phonological features such as stress patterns, vowel sounds, consonant sounds, and rhythm patterns. By understanding these phonological features, language teachers and researchers can better understand how L1 influences the acquisition of L2 and design language learning programs that address these influences.

This theory analyses how pronunciation works in the language. How these phonological features, similarities or differences of these phonological systems play a vital role in identifying the effect of pronunciation. This also analyzed the positive and negative aspects according to the situation. It analyzed how the pronunciation interferes to make the language valuable, informative, and understandable.

**Conceptual Framework**

The Transfer Hypothesis provides a conceptual framework for understanding the impact of the learner's first language (L1) on the pronunciation of their second language (L2). According to the Transfer Hypothesis, the L1 can influence the pronunciation of L2 in several ways, including:

Phonological transfer: This refers to the transfer of L1 phonological features, such as sounds, stress patterns, and rhythm, to L2. Phonological transfer can lead to the retention of L1 pronunciation
patterns in L2, which may result in pronunciation errors.

Interference: This refers to the influence of L1 on L2 pronunciation that results in errors or deviations from target language norms. Interference can be caused by the transfer of L1 phonological features, but it can also be caused by transfer at other levels of language processing, such as syntax and pragmatics.

Positive transfer: This refers to the influence of L1 on L2 pronunciation that leads to improved accuracy and fluency. Positive transfer can occur when the L1 and L2 share similar phonological features, or when the learner has developed strong phonological skills in L1 that can be transferred to L2. The Transfer Hypothesis suggests that the degree and nature of transfer will depend on several factors, including the similarity between L1 and L2, the learner's individual language learning experiences, and their motivation and attitudes towards L2 learning.

The conceptual framework of Robert Lado's Transfer Hypothesis theory is based on the idea that the transfer of linguistic, cognitive, and sociolinguistic knowledge and skills can have a significant impact on second language acquisition, and that transfer is influenced by the similarity of context between the first language and the second language.
Conceptual Framework Model

**Theory**
Transfer hypothesis by Robert

**Outcomes**
- Transfer of L1 skills to L2.
- Inter-language is a unique stage in language development.
- Recognition of linguistic universals.
- Importance of input and
  - Interaction in language acquisition.

**Dependent variable**
The pronunciation of L2

**Independent variable**

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Research Methodology

Research Paradigm
This research is a post-positivist perspective, the pronunciation of the L2 is seen as an observable phenomenon that can be measured and analyzed. Researchers may collect quantitative data, such as speech samples or standardized pronunciation tests, and questionnaires or surveys to objectively assess the proficiency levels of L2 learners and determine the extent to which their L1 influences their pronunciation.

Post-positivism values the importance of testing theories and hypotheses about the relationship between the L1 and L2 phonologies and their impact on pronunciation. Researchers may design studies to test specific theories, such as the influence of L1 stress patterns on L2 pronunciation, and collect and analyze data to determine the strength of the evidence supporting these theories. Post-
positivism values the importance of using evidence-based methods to improve language instruction. Researchers may collect and analyze data to evaluate the effectiveness of instructional methods and make informed decisions about how to best support L2 learners in achieving accurate pronunciation.

The post-positivist paradigm aligns with the given objectives of understanding the relationship between the L1 and L2 phonologies and their impact on pronunciation through objective, empirical observation and analysis.

**Research Method**

A quantitative research methodology for the given objectives of understanding the impact of the first language (L1) on the pronunciation of the second language (L2) could include several different methods, but would typically involve collecting objective, numerical data and analyzing it using statistical methods.

Gathering numerical data about L2 learners' experiences and perceptions of their pronunciation involves asking questions about their experiences learning the L2, their attitudes towards their pronunciation, and their views on the role of their L1 in their pronunciation. The data would then be analyzed using descriptive statistics and inferential statistics to identify patterns and relationships and to make generalizable conclusions about the population of L2 learners.

A quantitative research methodology for the given objectives would focus on collecting objective, numerical data and analyzing it using statistical methods. A randomized controlled experiment may be appropriate if the goal is to objectively measure the influence of L1 on pronunciation and test the effectiveness of specific instructional strategies, while a survey or questionnaire may be appropriate if the goal is to gather numerical data about L2 learners' experiences and perceptions.

**Research Design**

A quantitative research design for understanding the impact of the first language (L1) on the pronunciation of the second language (L2) would typically involve collecting objective, numerical
data and analyzing it using statistical methods.

One possible research design could include a randomized controlled experiment, where a sample of L2 learners is divided into two groups: a control group and an experimental group. The control group would receive regular L2 instruction, while the experimental group would receive additional instruction aimed at reducing the influence of their L1 on their pronunciation, such as explicit lessons on sound contrasts in the L2, and focused pronunciation practice. The pronunciation of both groups would then be objectively measured using speech samples and acoustic analysis, and the data would be analyzed using statistical methods such as t-tests or ANOVA to determine if there are significant differences in pronunciation between the two groups.

Another possible research design could include a survey or questionnaire to gather numerical data about L2 learners' experiences and perceptions of their pronunciation. The survey could include questions about the learners' experiences learning the L2, their attitudes towards their pronunciation, and their views on the role of their L1 in their pronunciation. The data would then be analyzed using descriptive statistics and inferential statistics to identify patterns and relationships and to make generalizable conclusions about the population of L2 learners.

**Population**

The population refers to the group of individuals that the research is focused on. In the case of the given objectives of understanding the impact of the first language (L1) on the pronunciation of the second language (L2), the population would be L2 learners. This population could include individuals who are undergraduates learning a second language.

It is important to clearly define the population when conducting research, as the results of the study will only be generalizable to that specific population. For example, if the population is defined as L2 learners who are taking a language course at a university, the results may not be generalizable to L2 learners who are
self-studying or who are learning the language in a different context.

Data Collection Tools

Surveys are a common method of collecting data and can be conducted online, via paper, or over the telephone.

Data Analysis

Descriptive statistics and inferential statistics can both be used in studying the phonological features of the first language (L1) that influence the pronunciation of a second language (L2). Descriptive statistics are used to summarise and describe the phonological features of L1 and L2, and can include measures such as mean, median, mode, standard deviation, and others. This type of statistical analysis provides a general understanding of the data and can be used to identify patterns and trends in the data. Inferential statistics, on the other hand, go beyond descriptive statistics and allow the researcher to make inferences and predictions about the relationship between the L1 and L2 phonological systems and the pronunciation of L2.

This can be done through hypothesis testing, regression analysis, or other statistical methods. For example, a study could use inferential statistics to test the hypothesis that the similarity or differences between the phonological systems of L1 and L2 impact the pronunciation of L2. The results of the study could then be used to make predictions about the pronunciation of L2 based on the phonological features of L1. It's worth noting that both descriptive and inferential statistics can be useful in understanding the relationship between the phonological features of L1 and the pronunciation of L2, and the choice of which to use may depend on the specific research question and the type of data being analyzed.

Findings and Discussion

This section describes findings of the study.

Figure 1
Gender of Participants

There were a total of 24 participants. The majority of respondents were male, accounting for 91.7% of the total, while 8.3% of participants were female.

Out of the 24 responses received, a significant majority, 62.5%, were from individuals who are undergraduates. The remaining 37.5% of respondents have obtained their bachelor's degree.
The survey included 23 respondents, with a distribution across several age groups. Three respondents were 19 years old and four were 20 years old, four were 21 years old. The largest group consisted of eight individuals who were 22 years old, three were 23 years old, and there was one 24-year-old respondent. This indicates that the participants were primarily in their early twenties.

According to the results, 45.8% of participants experience similarity between the sounds in their L1 and L2 sometimes, suggesting occasional recognition of phonetic commonalities. Meanwhile, a quarter of the respondents (25%) reported never perceiving such similarity, and 16.7% indicated that they
rarely encounter phonetic similarities between the two languages. On the other hand, 12.5% of the individuals always notice similarities between the sounds in their first and second languages, signifying a consistent recognition of shared phonetic features.

58.3% of the individuals frequently received feedback from native speakers, indicating that more than half of the group had regular interaction and input from native speakers. 20.8% never received feedback from native speakers, showing that about one-fifth of the group did not have the opportunity to get feedback from native speakers at all. 16.7% rarely received feedback from native speakers, which means a minority of the group occasionally had some feedback from native speakers, but it was not a common occurrence. The data points to the varying levels of access to feedback from native speakers within a
given population, which could be relevant in understanding the impact of such feedback on language proficiency or learning outcomes.

50% of the individuals received positive feedback about their pronunciation occasionally, indicating that half of the group experienced acknowledgement of their pronunciation efforts at times. 37.5% of the individuals rarely received positive feedback about their pronunciation, suggesting that over a third of the group infrequently received positive comments about their pronunciation ability. 8.3% of the individuals always received positive feedback, showing that a small fraction of the group consistently received positive reinforcement for their pronunciation. These figures could reflect how often individuals' pronunciation is perceived as correct or pleasing, and the data might be used to assess the effectiveness of a language learning program or the supportiveness of the learning environment.
41.7% felt self-conscious about their pronunciation frequently, indicating that almost half of the surveyed individuals often feel uneasy or anxious about how they sound when speaking the L2. 25% rarely felt self-conscious, suggesting that one in four individuals seldom experiences discomfort regarding their L2 pronunciation. 25% sometimes felt self-conscious, meaning they occasionally experienced self-consciousness about their pronunciation but not consistently. 8.3% never felt self-conscious, showing a small percentage of the group feels confident in their pronunciation and does not experience self-consciousness at all when speaking the L2 with native speakers.

58.3% of the individuals sometimes took steps to improve their pronunciation, showing that the majority occasionally engaged in activities or practices aimed
at bettering their pronunciation skills. 25% always took steps to improve their pronunciation, indicating that a quarter of the group consistently and proactively worked on enhancing their pronunciation. 16.7% rarely took steps to improve their pronunciation, suggesting that a minority infrequently made efforts to work on pronunciation. The data illustrates varying levels of commitment and initiative among individuals in terms of working on their language pronunciation. This can be useful information for educators and language programs to tailor their support and resources.

The data describes individuals' confidence levels in their ability to produce the sounds of a second language (L2) accurately: 66.7% felt confident in their ability to accurately produce the sounds of L2, which implies that two-thirds of the people surveyed are self-assured in their pronunciation skills in the second language. 29.2% rarely felt confident in their ability to produce the sounds accurately, suggesting that almost a third of the group has confidence in their pronunciation capabilities when speaking L2.
The data shows that 58.3% of people noticed changes in their pronunciation in L2 over time, 25% always noticed changes in their pronunciation, and 16.7% rarely noticed changes in their pronunciation.

The data shows that 45.8% of people sometimes felt their pronunciation in L2 was similar to that of native speakers, 33.3% rarely felt so, and 8.3% always felt that their pronunciation was similar to that of native speakers. We can calculate that 12.6% never felt their pronunciation was similar to that of native speakers.
A significant portion (37.5%) received pronunciation training, but a considerable number (33.3%) never did. 16.7% rarely received instructions on pronunciation. 12.5% always received training on pronunciation. This highlights the importance of incorporating pronunciation instruction into L2 learning.

**Conclusion**

The conclusion of the study of the phonological features of the L1 and the similarities or differences between the phonological systems of the L1 and L2 play a significant role in shaping the pronunciation of the L2. If the data showed that participants who spoke a similar phonological system to the L2 had better pronunciation in the L2, this could suggest that the similarity between the phonological systems facilitates the acquisition of the L2 pronunciation. On the other hand, if the data showed that participants who spoke a different phonological system to the L2 struggled with pronunciation in the L2, this could suggest that differences between the phonological systems of the L1 and L2 create difficulties for the acquisition of the L2 pronunciation.

Research on the impact of L1 phonology on L2 pronunciation highlights the importance of considering the role of L1 in second language acquisition and suggests that strategies and techniques aimed at overcoming L1 phonological interference should be integrated into language teaching and learning.
programs. Research has provided evidence for this impact by demonstrating how the phonological features of L1, such as the phoneme inventory, stress patterns, intonation, and articulation, can affect the perception and production of sounds in L2.

It's important to keep in mind that other factors, such as age, education, and motivation, may also play a role in shaping the pronunciation of the L2, and that these should be taken into account when interpreting the findings of the study. Additionally, the results of this study would provide valuable information for language teachers and language learners, as well as for researchers interested in second language acquisition and phonology.

References


