

Locative prepositional system in Spanish spoken by bilingual Ngäbere-Spanish students: theoretical analysis from a morphosyntactic perspective

Sistema preposicional locativo del español hablado por estudiantes bilingües ngäbere-español: análisis teórico desde la dimensión morfosintáctica

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Abstract

The overall objective of this research was to propose a theoretical framework to support the study of language contact, specifically in the locative prepositional system of Spanish spoken by Ngäbere-Spanish bilingual students. The proposed theory addressed the morpho-syntactic dimension of the oral and written language of their second language, which allowed the prepositional system to be characterized. To this end, the phenomenon of language contact was presented in general terms, and a discussion was held with authors devoted to these topics. This dialogue ultimately culminated in the topic of contact linguistics. Some essential concepts for this research were also addressed, such as prepositions, postpositions, written language, oral language, languages in contact, bilingualism, among others. The literature review revealed that the speaker's bilingual status and the social-cognitive component are key drivers of language change in two typologically distinct languages: Spanish and Ngäbere. Finally, the theoretical approach for the study of this topic in Panama was updated and some linguistic phenomena present in these two languages in contact were predicted.

Key words: theoretical framework, language contact, morphosyntactic, Spanish, Ngäbere.

Resumen

El objetivo general de esta investigación fue proponer un marco teórico con el fin de sustentar el estudio del contacto lingüístico, especialmente en el sistema preposicional locativo del español hablado por estudiantes bilingües ngäbere-español. La teoría propuesta respondió a la dimensión morfosintáctica en el lenguaje oral y escrito de su segunda lengua con la cual se pudo caracterizar el sistema preposicional. Para ello, se presentó el fenómeno del contacto lingüístico en términos generales, se estableció una discusión con los autores dedicados a estos temas, este diálogo terminó por decantarse con la lingüística de contacto. Se abordaron también algunos conceptos imprescindibles para esta investigación tales como: preposición, posposiciones, lenguaje escrito, lenguaje oral, lenguas en contacto, bilingüismo, entre otros. La revisión bibliográfica reveló que la condición bilingüe del hablante y el componente social-cognitivo son piezas promotoras del cambio lingüístico en dos lenguas tipológicamente distintas como el español y el ngäbere. Finalmente, se actualizó la mirada teórica para el estudio de este tópico en Panamá y se predijeron algunos fenómenos lingüísticos presentes en estas dos lenguas en contacto.

Palabras clave: marco teórico, contacto lingüístico, morfosintáctico, español, ngäbere.

INTRODUCTION

The encounter between colonizers and native speakers resulted in contact between European languages (Spanish, Portuguese, French, English) and Amerindian languages. This led many scholars of the time to document this linguistic phenomenon, especially with regard to the languages that were considered the most important at the time, such as *Caribbean* (Caribbean region), *Guaraní* (South America), and *Nahuatl* and *Maya* (Mexico and Guatemala). These languages were called *general languages* because of their common use, which made it important to study them, as they were the pillars of communication and evangelization at that historical moment (Pottier, 1983). Some of the languages that still survive and are still spoken in Latin America include: *Quechua* in Peru, Bolivia, Ecuador, Colombia, and Argentina; *Aymara* in Peru and Bolivia; *Zapotec* and *Mixtec* in Mexico; *Mapuche* in Chile and Argentina, among others (Domingues Ferreira da Cruz, 2019).

For its part, Panama has served as a link between cultures and races since its birth, and this has allowed it to become a multilingual and multicultural country. Indigenous ethnic groups have remained there and jealously guarded their customs, culture, and language. Five languages from the Chibchan family coexist in this country: *Ngäbere*, spoken in Panama and Costa Rica; *Buglé*, in Panama; *Guna*, also spoken in part of Colombia; *Bri Bri* and *Teribe* or *Nazo Tjerdi*, in Panama (Bocas del Toro) and part of the border with Costa Rica. On the other hand, there are two languages from the Chocó linguistic family: *Emberá*, spoken in Panama and Colombia, and *Wounaan*, spoken in Panama and part of Colombia.

In this context, a theoretical proposal for the analysis of Ngäbere-Spanish linguistic contact is presented. The study specifically addressed the locative prepositional system of Ngäbe speakers who attend the University of Panama and who come from the Ngäbe-Buglé Comarca. The aim was to characterize the changes induced by contact in the reorganization of the locative prepositional system of Spanish. Likewise, the aim was to demonstrate that the influence of the mother tongue has determined changes in the spoken and written Spanish of these students.

Therefore, it is necessary to account for these linguistic phenomena from theoretical perspectives that allow us to characterize the Spanish that emerges from these speakers. Many authors, such as Martínez (2010-2021), Palacios (2005-2011), Thomason (2001), and Zimmermann (1995), recognize that it is vitally important to record these processes of change in the restructuring of the linguistic system through contact. Palacios (2011) points out that “it is necessary to conceive of language grammars as dynamic systems in which speakers categorize ways of representing reality, which coexistence can lead to different modes or systems of categorization that can manifest themselves in significant linguistic variations” (p. 19). In other words, the contact between two linguistic systems is in constant interaction, which means that changes in their linguistic expressions are constant and occur, according to authors such as Lope Blanch (1986) and Zimmermann (1995), at different linguistic levels: syntactic, semantic, lexical, phonological, and phonetic.

Every year, the University of Panama welcomes a significant number of students from indigenous regions: Guna Yala, Emberá-Wounaan, Kuna de Madungandí, Ngäbe-Buglé, and Kuna de Wargandí. The vast majority are bilingual students, speaking their native language and Spanish as a second language; however, others have Spanish as their native language. This is because parents believe that speaking Spanish as their first language will ensure their children’s professional future, since it is the dominant language.

In many cases, the dominant culture uses the language of a dominant cultural minority as a marker of cultural difference: not only does it provide a means of identifying people who are going to be discriminated against, but it also provides a target for discrimination (Thomason, 2001, p. 5).

The situation described represents a danger of linguistic displacement, since, over time, these languages would enter the list of endangered indigenous languages, since Spanish would replace them (Domínguez, 2024). Hence, as noted above, this research sought to analyze the prepositional system of their Spanish and how it is reflected in the linguistic production of this bilingual and monolingual population, because variations in the writing of Spanish have been

observed among them. The study focused on the contact-induced change in the reorganization of the prepositional system of Spanish spoken by these students. The aim is to demonstrate how these changes are the result of input received from the second language (Spanish) and the influence of the mother tongue (Ngäbere).

Likewise, it is necessary to take into account these creative and imaginative phenomena used by *Ngäbe* speakers. In this case, in the ordering of the second language and how this contact relationship allows for the creation of new forms of linguistic structures with communicative functions (Palacios, 2005, 2007, 2011, 2019, 2021; Martínez 2010, 2021). For example, *Ngäbe* students show confusion between masculine and feminine genders when writing in Spanish, as well as changes in pluralization (Domínguez, 2023) and in the pronunciation of phonemes such as the multiple vibrant [ɾ] (Domínguez, 2023). In addition to these aspects, attention has been focused on the prepositional system, in which students replace prepositions with others and sometimes omit them: *I'm not used Ø see them like that (no estoy acostumbrado Ø verlas así), or they add extra prepositions: we set out on this journey free from to reach to this area (emprendimos a este viaje libre de llegar a esta zona)*. On other occasions, they use them repetitively or indiscriminately: *in that place of reserve of the nature full of trees flowers (en ese lugar de reserva de la naturaleza con llenas de árboles flores)*.

This linguistic study of a language that is important for the country is significant because very few Panamanian linguists have conducted research of this nature on Spanish in contact with Amerindian languages in Panama, despite the fact that the country is home to the vast majority of the *Ngäbe* population. In this sense, this research focuses on ancestral languages and, likewise, may give rise to new research topics that must be addressed urgently at the University of Panama, since, as has been pointed out, there are seven Amerindian languages in the Isthmus, some of which are in danger of disappearing. The United Nations have stated that:

States must redouble their efforts to promote and respect the use of indigenous languages and take urgent measures to prevent the loss of endangered indigenous languages, since they also constitute the heritage of all humanity (UN ECLAC, p. 107).

For all these reasons, the choice of this topic seems relevant and decisive in taking a step towards the study of indigenous languages, since the University of Panama, as the leading institution of higher education in Panama, is called upon to leave its mark on scientific research into such an important subject.

In short, the following section will outline three fundamental topics in the discussion on *Ngäbere*-Spanish linguistic contact: To explain the global phenomenon of linguistic contact; discussing the origin, process, and development of contact linguistics, presenting various ideas regarding contact-induced change; and proposing a theoretical framework for the study of *Ngäbere*-Spanish linguistic contact applied to the locative prepositional system of spoken Spanish.

DEVELOPMENT

Linguistic contact phenomena

Language contact is a linguistic phenomenon that has been experienced throughout human history: from the moment humans moved from one community to another and exchanged languages, customs, and cultures. A brief look at the languages of Spain immediately reveals linguistic contact and how it triggers unimaginable results. Before the arrival of the Romans, there were the Iberians, Celts, and Basques, whose languages merged with that of the Romans in the 3rd century BC. Thus, Vulgar Latin replaced the languages of these peoples. The fragmentation of Latin resulted in the Romance languages, which still exist today in situations of linguistic contact. Then, in the 5th century AD, the arrival of the Visigoths (Germans) left some vocabulary in the language of Spain, and in the 8th century AD, the Arabs inherited countless words into Spanish (Blasco, n.d.). Thus, there are situations of contact throughout the world. In India, for example, there are 22 official languages, but most people prefer *Hindi* and *English*. In the Republic of Singapore, an island nation of just 238 square miles, there are four official languages (Chinese, Malay, English, and Tamil) (Thomason, 2001).

In short, with the arrival of the Spanish in America in the 15th century, there was a linguistic exchange between Castilian Spanish and the Amerindian languages. Since then, there has

been contact with these languages, giving rise to very diverse dialectal variants that enrich the Spanish spoken in Hispanic America.

New Spanish-speaking communities emerged or coexisted with Native American communities that survived the conquest due to their large population, among other reasons. This contact led to linguistic exchange between Spanish and indigenous languages, leaving an indelible mark on the American variants of this language (Valdés Bernal, 2015, p. 94).

This encounter was decisive in the formation of dialects characterized by the contact between indigenous languages and those of the Europeans. Of course, the language of the colonizers prevailed in the New World, but this mixture and coexistence of languages influenced both (UN ECLAC, 2014). All of this led to a linguistic transformation in both Spanish and the indigenous languages, and this phenomenon still exists today and extends to all bilingual communities in the Americas.

Language contact in Panamanian indigenous areas stems from the following relationship: Spanish/indigenous languages and indigenous languages/other indigenous languages. In the case of *Ngäbere* speakers, contact is evident not only with Spanish but also with other indigenous languages such as *Buglé*, *Teribe*, and *Bribí*. This means that the inhabitants of these areas are exposed to input from different languages and, above all, from Spanish (the dominant language), which has been taught in schools for many years.

Origins of contact linguistics

From all of the above, it can be deduced that we live in a world where linguistic contact is an everyday occurrence, as it is difficult to find a country where its speakers are monolingual. This is due to the communicative and intercultural interaction that has been taking place in recent times, meaning that linguistic contact has always existed, as mentioned above, and is currently more prevalent than ever. All of this has led to the development of a relatively recent theory: contact linguistics, which studies the linguistic relationships of speakers in a given similar social and linguistic context (Thomason, 2001; Palacios & Sánchez Paraíso, 2021). Below, we will review, in broad terms (*grosso modo*), the birth of this theory and finally take sides with a group of theorists who will support the development of this research.

The influence of Amerindian languages was decisive in the encounter between the two cultures. To such an extent that Alvar (1972), when referring to language in the New World, points out that:

Displaced from his world, he has had to settle in and adapt to his adopted land. The man who used it has been forced to turn it into a vehicle for unprecedented expressiveness, and the journey, contact with reality, changes in social stratification, everything, have changed the speaker's perspective (pp. 52-53).

In short, no language exists in isolation, and these intricate human encounters have political, economic, and linguistic consequences. This particularly human characteristic has implications exclusively in social contexts.

The theory of languages in contact took its first steps with the publication of Weinreich (1953), whose ideas on linguistic contact revolve around the concept of interference: "Interference phenomena arise in situations of bilingualism—situations of alternative use of two languages—and are defined as deviations from the norms of either language that occur in the speech of bilingual individuals" (pp. 7-8).

The author focuses on the norm and on language teaching based on deviations from it. In the Spanish tradition, some of the authors who account for this linguistic phenomenon include Pedro Henríquez Ureña, who observes that differences in climate, degree of culture, and population produced changes in Spanish in America (as cited in Zimmermann, 1995), assessments that were later refuted. Wagner (1920), in his essay, analyzes the influence of the relationship between the Spanish language and the Amerindian languages and how the latter disappeared due to the imposition of Spanish throughout the continent. Lope Blanch (1980) studied the Amerindian languages of Mexico and found phonological changes in the Spanish of Yucatán, resulting from Mayan influence, and proposed methods for analyzing languages in contact situations. He also established areas of study (phonetic, phonological, morphological, syntactic, lexical, semantic), making him one of the first linguists to take an interest in these phenomena.

However, according to Pagel (2021), it was not until Hugo Schurchardt that the first scientific studies of languages in contact began. This author became a pioneer in what would later

be called contact linguistics or creolistics in the 20th century. In addition, during the last third of the 19th century, he conducted studies on mixed languages, both European and non-European. This issue also caught the attention of Nelde (1987), who refers to the linguistic conflicts that arise in contexts where a diversity of languages coexists. These studies focused on Creole and Pidgin languages, in which he points out how essential research on linguistic contact is in multilingual countries, as it has repercussions on politics and the economy.

From all of the above, it can be deduced that some authors hint at the phenomenon of linguistic contact, such as Wagner (1920), Alvar (1972), and Nelde (1987); while others, such as Weinreich (1953) and Lope Blanch (1986), propose incipient theories and methods for analyzing linguistic contact at all levels: phonetic, phonological, syntactic, morphosyntactic, and lexical. In this sense, Weinreich argues that contact starts from the analysis of interference, paying attention to the phonetic, grammatical, and lexical levels.

Languages in contact, concept

Before moving forward with this theoretical construct, it is important to present a range of definitions that will help us understand what is meant by languages in contact or contact linguistics:

For Weinreich (1953), “two or more languages are in contact if they are used alternatively by the same people” (p. 17). The individuals who use the languages are, therefore, the point of contact. For his part, Silva-Corvalán (1989) observes that “two or more languages are in contact when they are used by the same individuals, that is, when there is a situation of bilingualism (or multilingualism) in which bilingual speakers constitute the locus of contact” (p. 177). Both authors limit the definition to bilingual speakers only, without considering that contact can also affect monolinguals who are in contact with bilinguals. However, the latter researcher refers to a similar definition, only expanded to include the concepts of bilingualism and multilingualism, and, like the former, places bilingual speakers as the point or locus of contact.

Nelde (1987) offers a more conceptual and broader definition: “Contact linguistics can be described as a triad composed of the following elements: language, language user, and linguistic sphere” (p. 2).

Thomason (2001) defines that “*Language contact most often involves face-to-face interactions among groups of speakers, at least some of whom speak more than one language in a particular geographical locality*” (p. 3). For the author, it is important to define the geographical context, as it is difficult to talk about language contact if it occurs through chance encounters in different places and at different times. For this contact to be studied within these parameters, it must occur between two or more languages in a specific territory on a regular basis and with different groups of speakers. In order to be studied within these parameters, this contact must occur between two or more languages in a given territory on a constant basis and among specific groups of speakers.

Research papers and authors

Thomason & Kaufman (1988) establish a new and important framework for the historical analysis of all degrees of contact-induced linguistic change, in which borrowing and linguistic interference, which are types of change that prevail in linguistic exchanges among languages, take on relevance. Later, Thomason (2001) presents a linguistic and historical overview of lesser-known contact languages. Twelve case studies offer eloquent testimony against the still common view that all contact languages are *pidgins* and creoles. In this work, she explains how grammatical structures evolve when two speakers of different languages come into contact and describes the mechanism that drives people to transfer grammatical structures from one language to another. Along these lines, Heine and Kuteva (2005) make findings from languages around the world, showing how to regulate the transfer of linguistic material among languages and how these follow universal patterns of grammaticalization.

After this brief overview, we will take a closer look at the theorists who will serve as the basis for the study in question. Zimmermann (1995) stands out in this line of research and criticizes linguistic theory, since, to date, studies have been conducted at the language level only. In other words, most previous studies have given little or no importance to other features of language that are involved in the linguistic system and not necessarily only the lexicon. The author proposes viewing Amerindian cultures as a legacy to the identity of the Hispanic linguistic community and advocates the study of language contact based on sociolinguistic levels: diatopic and diastratic.

Furthermore, he perceives linguistic change from a global perspective, in which linguistic contact can lead to a reorganization of the system. For some authors, this linguistic contact can cause interference at different levels of a language, as well as changes in the system. Furthermore, contact situations tend to be creative and imaginative (Thomason, 2001; Zimmerman, 1995; Palacios, 2011; 2005; Martínez, 2021), so speakers adapt them to their contextual needs.

Palacios (2011) points out that there are also changes in the reorganization of the linguistic system:

If we start from a theoretical perspective that conceives the grammar of languages (and language varieties) as dynamic systems where speakers categorize ways of representing reality, we can affirm that, in areas of linguistic contact, the coexistence of languages can lead to different modes or systems of categorization that could manifest themselves in significant linguistic variations in the language varieties used by speakers in these bilingual areas (p. 19).

In other words, speakers create their own structures in their speech by unconsciously exploiting the vulnerable areas of the linguistic system to make changes that are related to the cognitive system of their native language. Speakers “want to communicate, express what they feel, and persuade and influence the behavior of their listeners” (Martínez, 2021, p. 4). To do this, they produce semantic changes in the displacement of linguistic units.

Bilingualism, concept

Bilingualism is a linguistic phenomenon that exists in societies and contexts where two (bilingualism) or more languages (multilingualism) interact, and which occurs much more frequently today than monolingualism due to the geopolitical and multicultural nature of our societies, where communication is advancing by leaps and bounds. This often leads to complex and controversial situations, with some languages becoming dominant and others dominated. Let's review some concepts of bilingualism that have changed throughout linguistic history.

Bloomfield (1933) stated that “In the cases where this perfect foreign language learning is not accompanied by loss of the native language, it results in bilingualism, native-like control

of two languages” (p. 56 [*In cases where this perfect learning of the foreign language is not accompanied by the loss of the mother tongue, bilingualism occurs, a native command of two languages*]) For Haugen (1953, as cited in Moreno Fernández, 1998), a bilingual speaker is someone who “uses complete and meaningful expressions in other languages.” As can be seen, the authors limit themselves in their definitions, since it is now known that bilinguals do not necessarily have to be native speakers of both languages. The first definition states that bilinguals speak both languages perfectly, which used to stigmatize speakers in terms of their linguistic abilities. The second definition is somewhat ambiguous, because many speakers can use complete expressions with meanings learned in other languages, but they may not interact and achieve the expected and effective global communication in the given linguistic context.

According to Weinreich (1953), there are three types of bilingualism: *Coordinated bilingualism*: consists of the separation of the meanings of equivalent words in the two languages. *Compound bilingualism*: consists of the coincidence in meaning of equivalent words in the two languages. *Subordinate bilingualism*: consists of the coexistence of a dominant language and a dominated language: words in the dominated language are interpreted from the equivalent words in the dominant language (pp. 34-37).

According to Moreno Fernández (1998)

In the case of coordinated bilingualism, the bilingual speaker operates as two juxtaposed monolingual speakers; in compound bilingualism, there would be a common conceptual basis for the two languages (some authors refer to this as pure bilingualism) in the subordinate language, which is learned and used through the dominant language (pp. 214-215).

According to Appel & Muysken (1996), there are two types of bilingualism: social and individual. Social bilingualism presents three situations: one, each language is spoken by a different group; these are monolingual groups that constitute a bilingual community and require the intervention of bilingual individuals to interact. Two, all or practically all speakers would be bilingual. Third, finally, it reflects the coexistence of a dominant (monolingual) group and a dominated minority (bilingual) group. These authors, for their part, use

Weinreich’s (1953) definition to define individual bilingualism, considering it sociological: “the practice of using two languages alternately will be called bilingualism and the people involved bilingual” (Appel & Muysken, 1996, pp. 10-11). These authors point out that what should be compared is their general standard linguistic competence.

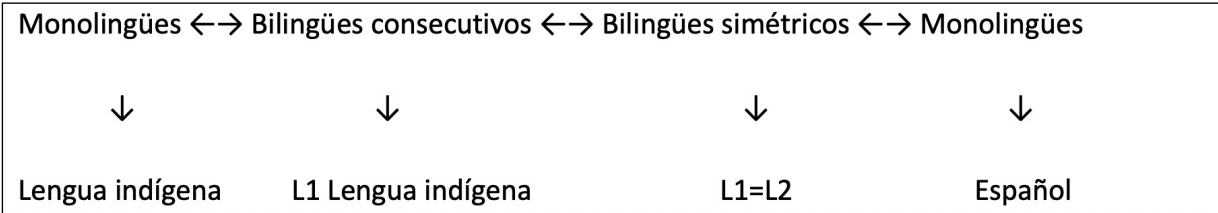
The continuum and degrees of bilingualism

According to Palacios (2011), linguistic contact is understood as a complex continuum in which speakers with varying degrees of bilingualism coexist within the same community. Linguistic variation and change are conceived as dynamic processes that often involve conceptual,

cognitive, cultural, or pragmatic changes, as well as complex systematic and individual changes (pp. 19-20). This nuance between the two languages causes cognitive forms present in the first language to reappear in the second language, whose nuances are reflected in the changes produced by the speakers.

The continuum shown in the table below presents monolingual speakers at either end, speaking either an indigenous language or Spanish. In contrast, bilingual speakers, whether consecutive or symmetrical, speak their native indigenous language and Spanish, respectively. The latter are dynamic and gradual in nature, meaning that their speech may vary considerably.

Figure 1.
Continuum of linguistic modalities in contact situations



According to Palacios’ (2011) model, the continuum between one character and another is diffuse, which allows us to identify linguistic changes produced through contact. These changes can be direct or indirect within the system (Thomason & Kaufman, 1988; Thomason, 2001; Palacios, 2011; 2005). Direct changes occur when there is a reworking of linguistic structures, the adoption of new meanings, a variation in relative frequencies, the elimination or expansion of linguistic structures, or a preference for alternative forms because they resemble linguistic forms in the mother tongue. In other words, there are imports that are foreign to the language. Indirect imports, on the other hand, originate when the two codes are used alternately for pragmatic or social reasons. They are characterized by recreating existing structures in the base language, where there was previous variation, thus highlighting the vulnerability of the linguistic system of the language (Palacios, 2019).

This research will examine the indirect change that occurs in the reorganization of the locative prepositional system and will delve into the new characteristics reflected in the Spanish spoken by Ngäbe students. These changes, induced by

contact between the two languages, point to a vulnerability in the Spanish linguistic system. They experience, with a preference for certain structures, features that bear some similarity to their mother tongue.

Oral language

This study will review both the oral and written language of Ngäbe speakers, so it is essential to outline the characteristics of oral and written language below.

Human beings interact through two forms of communication: spoken language and written language. In principle, humans first communicated orally and then through writing. The existence of spoken language is associated with the emergence of the Homo Sapiens species some 90,000 years ago. However, there is obviously no data available to determine and describe the successive stages of its evolution. In contrast, writing is a historically traceable phenomenon, because it has left material traces through iconic representations of reality (pictograms or ideograms) and through representations of different linguistic units (logograms, syllabograms, and phonograms) and

great cultures far apart from each other, such as the Maya on the American continent, who adopted diverse symbols to represent concepts, objects, words, and even sounds (Calsamiglia & Tusón, 2002).

Oral and written language

According to Fonseca et al (2011), “oral communication is linked to time. It is always dynamic, in a continuous back-and-forth. Normally, people interact by speaking and listening. The speaker has the listener in mind, and the listener has the speaker in mind” (p. 13). In other words, tone of voice is emphasized; it is immediate. There is a shared knowledge of the subject, which requires more specific information.

Written language, on the other hand,

is linked to a specific time and place, is more static, and remains unchanged. In general, the writer is distant from the reader and often does not know who will receive the message (as in most books). Written communication remains unchanged over time, and the reader can read or “listen” to the author as many times as they want (Fonseca et al., 2011, p. 13).

This makes it more careful and enduring over time. Previously, writing was represented through pictographs (designating objects), ideographs (hieroglyphics), syllabic (syllables), and phonetic (sounds), which is the stage of its evolution. Gradually, these changes took place, moving from drawing to syllabic representation, which underwent its own evolutionary process, to the point that in China the system was consolidated into two parts, one associated with meaning and the other with pronunciation (Černý, 1998).

Currently, most languages use phonetic writing, created in the 13th century by the Phoenicians with 22 characters. The Greeks later completed the Phoenician alphabet with vowels, bringing the total to 24 letters, which change according to the needs of each language (Černý, 1998, pp. 39-41). Indeed, the use of a small number of signs, combined with each other, allows for the representation of the collection of words that constitute the lexicon of a linguistic system.

Differences between oral and written language

However, unlike spoken language, written language does not take into account tone of voice or shared knowledge of the subject, which means that information must be more specific.

In other words, communication itself is based on the standard meaning of words and requires a much larger vocabulary than spoken language to express the same idea. Since the receivers are absent, they have no idea of the sender’s message. Therefore, it must be more explicit, syntactic differentiation is maximized, and expressions are used that would be unnatural in conversation. “Unlike oral communication, written language involves delayed communication: the sender and receiver do not share the same space or time. These characteristics of writing require the writer to minimize ambiguities” (Carlino, 2013, p. 26).

Prepositions in Spanish

Prepositions are invariable and almost always unstressed words that are characterized by introducing a complement, which in Hispanic grammatical tradition is called a TERM (...). They impose formal restrictions on their term by occupying an adjacent position (RAE, 2010, p. 557).

Locative prepositions

The prepositions we are going to analyze are locative prepositions, those that refer to place as a direction (prepositions of movement) or as a place itself (stative prepositions) (Caballero & Corral, 1997).

The RAE Grammar (2010), in section 29, prepositions and prepositional phrases, will be the theoretical basis for the analysis of syntactic structures formed by prepositions.

On this occasion, the selected prepositions are: *a, desde, en, hacia, hasta, para, por, tras* (to, since, in/on/at, toward, until, for, by, after).

- The preposition **a** introduces objects of destination (***Voya Murcia***/ I am going to Murcia), termination or limit (***Sal al balcón***/ Go out onto the balcony) and location in alternation with **en** (***lo detuvieron a la puerta de su domicilio***/ They arrested him at the door of his house). These location elements often add the feature of direction or orientation.
- The preposition **desde** introduces the point of origin, start, or departure of a process or situation. It shares this meaning with **a partir de** and with **de**; although they are not always interchangeable: ***la tradición filosófica desde Aristóteles; los descubrimientos realizados a partir de diversos estudios experimentales;***

Partieron del muelle sur. (the philosophical tradition since Aristotle; discoveries made from various experimental studies; They departed from the south pier).

- The preposition **en** is the most characteristic for expressing location, whether spatial (**en la mesa, en el cajón** / on the table, in the drawer) or temporary (**en verano, en el primer semestre**/ in summer, in the first semester).
- The preposition **hacia** expresses direction or orientation with respect to a point, often in conjunction with **a**: **Se dirigen** (They are going) {**a** (to) / **hacia** (towards)} **el desierto** (the desert); **La casa está orientada** (The house is oriented) {**a** (to) / **hacia** (towards)} **el norte**. (the north).
- La preposición **hasta** expresa el límite de una acción, un proceso o una situación: **Llegó hasta el muelle y dio la vuelta; Estuve allí hasta las doce; Trabajaban hasta el agotamiento.** (He reached the pier and turned around; I was there until midnight; They worked until they were exhausted)
- The preposition **para** expresses destination in both the physical and figurative sense. In the former, it introduces complements that express the limit of a movement, as in **Voy para mi casa** (I am going home) or **Ya viene para acá** (He is coming), and also the prospective time limit in which something is supposed to happen, as in: **Lo tendré preparado para el martes.** (I will have it ready by Tuesday)
- The preposition **por** heads complements of place that express the path or course of a movement (**Paseaban por el centro de la calle** / They were walking along the street), as well as the approximate location of something (**Viven por el barrio norte; No veo nada por aquí.** / They live in the northern part of town; I don't see anything around here.) (RAE, 2010, pp. 567-570).

The selection of these prepositions responds to the fact that there are many variations in their use among Ngäbe speakers of Spanish. A single preposition can generally mean several prepositions or several meanings depending on the context. For example, the **a** is used before

verbs in the infinitive. Ngäbe students construct sentences such as: “**Ese miedo me impidió a confesarle**” when the acceptable form would be: “**Ese miedo me impidió confesarle**” (That fear prevented me from confessing to him). Although in Spanish sentences such as “**Cada vez que voy a confesarle algo se retira del lugar**” (“Every time I go to confess something to him, he goes away”) can be constructed, where the infinitive with a verb of movement has been introduced, the verb used (in the ungrammatical sentence) is not a verb of movement (**impedir**), so it does not require a preposition.

With the prepositions **en** and **para**: “**Para llegar en una escuela había que recorrer muchas horas**”. (“To get to school, you had to travel for many hours.”) In fact, you have to look at the meaning and context.

As for the syntactic order of a sentence in Spanish, it is SVO, which is the most common order in Western languages and some Eastern languages. However, in Spanish this order is sometimes altered: by omitting the subject, starting either with the verb (VO) or the complement (RAE, 2011).

Postpositions in Ngäbere

The Grammar of the Guaimí Language, spoken in Panama, by Quesada Pacheco (2008), will serve as the basis for understanding this language. This data was taken from the San Félix dialect (Chiriquí), specifically in the community of Salto Dupí. There is also another grammar book written by Murillo (2016) on the dialect of the Guaimíes (as the Ngäbe were formerly known) settled in the province of Puntarenas, Costa Rica. This grammar book will allow us to compare their linguistic productions and phenomena with those of Panama.

The postpositions

In reviewing this bibliography, we have observed postpositions, which are invariable morphemes that serve to link words or groups of words in Ngäbere and are placed to the right of the last words, which is why they are classified as postpositions (Quesada Pacheco, 2008, p. 80). They are classified as monosemic or simple and polysemic or compound.

Table 1.
Results of the bibliographic review (*original version*)

Monosemic postpositions			Literal translation			Translation into Spanish
<i>Uman</i>	<u><i>bätä</i></u>		sand	<u><i>en</i></u>		On the sand
Ño	<u><i>te</i></u>		water	<u><i>by/at</i></u>		By the riverbank
Beli	<u><i>tä</i></u>	David	Bely	be.IND	David	Bely is at David’s
Mutwä	ne	<u><i>ngrabare</i></u>	hill	DEM	over	Over this hill (Quesada Pacheco, 2008, pp. 80-85)
Tibigue siribire <u><i>mä grä</i></u>			Is try-IND work. IN D 2s for			I will work for your benefit
Ju <u><i>biti</i></u>			house above			Above the house/above a house
Compound postpositions			Literal translation			Translation into Spanish
rün	<u><i>ägwä</i></u>	<u><i>biti</i></u>	father	eye	before	Before the father
Kitiga		jugwe <u><i>te ta</i></u>	throw. REC	door	on by	[He] threw [it] out the door
I mi-ri	muma	<u><i>te ruäre</i></u>	corn	put- REC bean part+ middle	in	[He] put the corn in the middle of the beans
Jännigu	meren	<u><i>kugwäre</i></u>	take-REC sea	towards (<i>in the direction</i>)		He took it to the sea
Choli <u><i>jie biti</i></u>			Choli road-POS encima			After/In Search of Choli
Sami Kebedo käwe Tibi tirigä usulin biti ni kwe <u><i>dägwä re</i></u>			Sami Kebedo ERG käwe Tibi rajar-REC thunder I-INC POS head as			Sami Kebedorajó a tibi with a thunder in our defense.

As can be seen, the same postponement can have one or several meanings, depending on the context. Furthermore, they are always placed at the end of the sentence. In this sense, Ngäbere has structural characteristics that differ from Spanish. The first is ergative absolutive (Quesada Pacheco, 2008) and has postpositions; the second is nominative accusative and uses prepositions. Furthermore, the usual word order of a simple transitive sentence in Ngäbere is SOV. However, the most important grammatical relationships are the subject and the object, which are predominantly determined by word order (Murillo, 2010, 2016). Therefore, these variations in locative prepositions are most likely due to structural changes in their native language.

CONCLUSIONS

The fundamental and updated arguments on contact theory can be found in Zimmemmar (1995), Thomason (2001), Palacios (2005, 2011), Martínez & Speranza (2009), and Martínez (2021), who have provided the theoretical foundations on which we will build the basis for the results of this research. These foundations encourage the study of languages in contact as a linguistic system, whose variations can lead to semantic-pragmatic and cognitive-sociocultural transformations.

It has been found that there are few studies on linguistic contact in Panama, and research in this field has not managed to take root and become an organized line of research that can be integrated into the debate on the analysis of the Ngäbere language (Amerindian languages) in contact with Spanish. In this regard, it is necessary to explain the change induced by the contact between the two languages, as well as how the linguistic system of Spanish among this indigenous population is reorganized as a result of their cognitive and sociocultural needs (Thomason, 2001; Zimmermann, 1995; Palacios, 2005). Therefore, this work has offered and updated a perspective on this specific topic.

Contribution to knowledge

The literature review has revealed that the speaker's bilingual status and the social-cognitive component are essential for linguistic change to occur in two typologically different

languages such as Spanish and Ngäbere.

Once the theory of languages in contact and the grammatical theory (prepositional and postpositional systems) of both languages, Spanish and Ngäbere, respectively, have been presented, it is possible to glimpse and predict certain linguistic phenomena, which could then be found in the analysis of the speech samples provided by these informants.

This work establishes a theoretical path for future research in Panama, specifically in the area of contact linguistics. The country is a bridge that embraces different cultures, many of them with diverse languages, and this represents an open field for linguistic research.

Limitations

The theory of languages in contact has been studied by various authors from different perspectives, leading to a proliferation of studies in Hispanic America and numerous related works. Despite this, the researcher is exposed to several theoretical drawbacks, namely the delimitation of the theory. Palacios (2011) refers to this problem, stating that "the issue is very complex and there are multiple perspectives from which to approach it" (p. 18). Scholars disagree on terminology and research methods because insufficient attention has been paid to this issue, and even less consideration has been given to bilingualism and monolingualism (Palacios 2005, 2011, 2015; Sánchez, 2021, Martínez, 2021).

Institutional support for language-related studies is scarce in Panama, as institutions dedicated to supporting research focus primarily on the hard or exact sciences. This reality represents a challenge in light of the discrimination suffered by the social sciences. In this sense, this type of research also experiences and is exposed to the complex requirements demanded by Bioethics Committees governed by guidelines specific to the hard or exact sciences.

Conflicts of interest

The author declares that there are no conflicts of interest.

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