FOLIOS

Primer semestre de 2020 ▪ pp. 3-19
Segunda época
N.º 51

Is there an Emerging Sign Language on Providencia Island?*

Existe uma linguagem de sinais emergente na ilha de Providencia?

¿Existe una lengua de señas emergente en la isla de Providencia?

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How to cite

Cortés, Y. & Tovar, L. (2020). Is there an Emerging Sign Language on Providencia Island? *Folios*, (51). https://doi.org/10.17227/folios.51-9764

* Article derived from the Master's thesis titled "The Deaf Population on Providencia Island: Situational Diagnosis and Contributions to the Linguistic Emergency Discussion" (2016), written by Yenny Milena Cortés Bello and supervised by Lionel Antonio Tovar.

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Article received
29•03•2019

Article accepted
25•07•2019

Segunda época
N.º 51
Primer semestre de 2020 ▪ pp. 3-19

Abstract

Within the context of studies on linguistic emergence, this article provides an updated overview of the sociolinguistic situation of the deaf population on Providencia Island in the Colombian Caribbean. The article revisits the proposals of linguists from the second half of the 20th century who posited the existence of a sign language on the island called Providence Island Sign Language (PISL). Additionally, genetic studies linking genetic disorders, particularly deafness, to inbreeding practices on the island are considered. The research aims to determine, with current data, whether there is a genuine deaf community with a native sign language on Providencia Island. The results suggest that there are still home sign systems used by groups that have recently started to interact, and it cannot be concluded that there is already a true emerging sign language on the island.

Keywords
Providence Island sign language; sign languages; emerging sign languages; home sign; hereditary deafness; genetic deafness.

Resumo

No âmbito dos estudos sobre a emergência linguística, este artigo oferece uma visão atual da situação sociolinguística da população surda da ilha de Providencia, Colômbia, no Caribe colombiano. Para isso, são retomadas as propostas de linguistas da segunda metade do sécul; xx, que postularam a existência de uma língua de sinais nessa ilha, denominada Providence Island Sign Language (pisl). Da mesma forma, considera-se a contribuição de estudos genéticos, que indicam a relação entre desordens genéticas - dentre as quais se destaca a surdez - e práticas endogâmicas nessa ilha. Dessa forma, esta pesquisa busca, com dados reais e atuais, determinar se existe uma verdadeira comunidade surda com uma linguagem de sinais nativa na ilha de Providencia. Os resultados sugerem que ainda são sistemas de sinalização doméstica usados por grupos que apenas recentemente interagem entre si e que também não são totalmente instruídos, portanto, não se pode dizer que já existe uma verdadeira linguagem de sinais emergente na ilha.

Palavras-chave
linguagem de sinais da Ilha de Providencia; linguagem de sinais; linguagem de sinais emergentes; sinal em casa; surdez hereditária; surdez genética

Resumen

En el marco de los estudios sobre la emergencia lingüística, el presente artículo ofrece un panorama actual de la situación sociolingüística de la población sorda de la isla de Providencia, Colombia, en el Caribe colombiano. Para ello, se retoman las propuestas de lingüistas de la segunda mitad del siglo xx, quienes postularon la existencia de una lengua de señas en esta isla, denominada Providence Island Sign Language (pisl). Asimismo, se considera el aporte de los estudios de corte genético, que señalan la relación entre trastornos genéticos –entre los cuales sobresale la sordera– y prácticas endogámicas en esta isla. De esta forma, esta investigación busca, con datos reales y actuales, determinar si existe una verdadera comunidad sorda con una lengua de señas nativa en la isla de Providencia. Los resultados apuntan a que se trata aún de sistemas de señas caseras utilizados por grupos que solo recientemente están interactuando unos con otros y que tampoco están completamente escolarizados, por lo que no se puede decir que haya ya una verdadera lengua de señas emergente en la isla.

Palabras clave
lengua de señas de la isla de Providencia; lenguas de señas; lenguas de señas emergentes; señas caseras; sordera hereditaria; sordera genética

Introduction

Several English-language sources present studies on a possible indigenous sign language on Providencia Island in the Colombian Caribbean (Washabaugh 1978, 1979, 1980a, 1980b, 1981, 1985, 1986, 1991; Woodward 1978, 1979; Washabaugh, Woodward, and De Santis 1978). Washabaugh, Woodward, and De Santis (1978) were the first to affirm the existence of a language they called «Providence Island Sign Language» (PISL) and provided information on the social aspects of the deaf population and grammatical features of this language. Relating to the first aspect, the scholars indicated that approximately 20 deaf individuals used the language of 3000 islanders, who were primarily integrated into the island›s daily activities.

On the grammatical aspects, they reported that this language was not related to any other sign or oral language and exhibited a significantly high dependence on context. They proposed that PISL is highly structured, albeit in a different way from oral languages. In the case of Providencia, signing deaf individuals share cultural meanings, values, and goals despite their language being context-bound.

Later, Woodward (1978) conducted a quantitative study on the attitudes of hearing islanders towards deaf individuals in Providencia. It was also a comparative study, contrasting results with those obtained from a study of attitudes conducted in a deaf education center in the United States. The results revealed that islanders manifest relatively positive attitudes towards deaf individuals on the island, though they emphasized that these results were preliminary and not generalizable.

Washabaugh (1979) delved into the geographical and demographic characteristics of the island, identifying 16 deaf individuals in a population that ranged, according to his data, between 2500 and 3000 inhabitants. These deaf individuals lived scattered across the seven villages of the island and were integrated into daily activities. However, he reported a case of isolation of a young deaf individual by their parents. He also observed that hearing islanders had learned the sign language of the deaf and that oral language had influenced sign language, especially through the exaggerated vocalization of some words (mouthing), which had acquired lexical value. Woodward (1979), on the other side, provided a grammatical analysis, stating that PISL is open to cultural context and not merely a closed and independent system composed of arbitrary and context-independent units.

Washabaugh›s (1991) stance towards this language changed radically with an article he published in an only sources website attached to the University of Wisconsin, where he discussed the significance of Providence in seventeenth-century international politics due to its strategic location in the western Caribbean. However, this situation changed in the eighteenth century as the economic and political activity shifted eastward to plantation islands. As a result, the inhabitants of Providencia became isolated and turned to fishing. Few people came to the island and few emigrated. The population remained at around 2500 people for many decades. Given these circumstances, Providencia was subjected to endogamy, which resulted in "physical changes beginning to occur." Among these critical physical changes is the dramatic increase in the rate of profound congenital deafness. However, as this author points out, the adaptation of deaf people on the island brought sign language development that facilitated communication. Washabaugh also mentions that the deaf of this island go back three generations who have maintained contact and the transmission of their language. This author reports that none of the deaf people in Providencia have been educated and none know how to read or write the oral languages of the context. No manual or fingerspelling alphabet exists or is used, and abundant lexical variation exists.

Washabaugh found that the language lacked options for metalinguistic analysis, leading him to assert that he did not find well-formulated sentences. In contrast to his 1979 claims, he stated that hearing individuals could not correctly interpret the statements of deaf individuals, and PISL was an incomplete and immature language, not because

deaf individuals lack the innate linguistic and mental faculties of human beings but because they were trapped in peculiar social relationships with hearing individuals and their community. Consequently, Washabaugh concluded:

> [...] that the deaf on Providencia have not yet had the opportunity to structure a mature language. They are perfectly capable of structuring sign language, but they are not compelled to do so by either hearing or deaf individuals. Therefore, their language is underdeveloped. Deaf islanders of Providencia continue to struggle daily with the task of communicating. And, since they are isolated, their struggles remain filled with creative hypotheses, although they may hardly think so (Washabaugh, 1991, para. 22).

The lack of awareness about the situation in Providencia and the potential existence of a sign language created directly and without any influence is widespread or outdated. For this reason, this research aims to provide an overview of the current state of the deaf population and determine if there is indeed a sign language that can be considered emerging on the island.

Theoretical Framework

Visuo-Gestural Modality and its Resources

Sign languages operate in the visual-gestural mode or communication channel. As presented more recently by Johnson and Liddell (2011), the modality difference refers to the distinct mechanisms used in language production and perception:

> Speakers of an orally produced language coordinate different articulatory systems within the vocal tract to produce groups of sounds recognizable as words. Signers coordinate movements of hands, arms, chest, face, and head to produce groups of gestures recognizable as signs. Similarly, different sets of receptors are required to understand signs. On one hand, the auditory system must identify variations in sound waves, and on the other, variations in light waves must be identified by the visual system (Johnson and Liddell, 2011, p. 214).

Therefore, human language employs more than one channel in language production, a difference that permeates the linguistic system. Baker (2016) reaffirms this and adds specificity regarding the use of space in sign languages:

> Sign languages are visuospatial and articulated using hands, the face, and other body parts; all these articulators are visible. Signs are articulated on the body or in the space near the body. This contrasts with oral languages, which are auditory-vocal languages. Likewise, sign languages are different from pantomime, as pantomime uses the space around the body and the entire body itself. In contrast, sign languages use a limited signing space, usually in front of the upper anterior half of the body and around the head» (p. 2, emphasis original).

More importantly, it is essential to understand how sign languages emerge and their purpose. Hill, Lillo-Martin, and Wood (2019) make it clear from the beginning:

> Sign languages emerge (they are not invented) when deaf people form a community, often through educational systems. Sign languages are, therefore, primarily the languages of deaf people, who value them for their cultural and community-building significance (p. 1).

Stokoe (2000a; 2000b) proposes the visual-gestural theory as one hypothesis about the origin of language. In other words, he suggests that language was initially visual-gestural and subsequently evolved into the oral modality. Therefore, gestures are defined as easily manipulable representations of visible things and actions. The author posits that gestures were the foundation or necessary material for the evolution of cognitive abilities. He supports his hypothesis and presents arguments based on human body anatomy and societal life. However, according to Stokoe, there is insufficient evidence that language originated with gestures and transitioned to the auditory-oral modality. Still, it is possible to verify that sign languages of deaf communities have incorporated «many conventional representations into the representations that form the basis

of gestural language» (Stokoe, 2000a, p. 395). These facts about sign languages have served to revive old controversies that had been expelled from linguistics. Nevertheless, regardless of various hypotheses about the origin of language, sign languages have been attested since ancient times.

It is precisely with Stokoe (1960) that sign languages are assumed to be natural languages. He proposes that signs have an internal structure equivalent to the phonological level of oral languages. Furthermore, to differentiate modality, he coined the term «chereme» to refer to a basic structural unit comparable to the phoneme of oral languages. In his system, a sign could be divided into three simultaneous parts or aspects: location (Tab), referring to the place of articulation; manual configuration or active hand (Dez); and movement (Sig), or the action of producing the sign. All three parts co-occurred. However, Stokoe did not observe the sequential level in sign articulation, which was later proposed by Liddell and Johnson (1989). Nevertheless, said proposals are the basis of sign language linguistics and the starting point for various models proposed for linguistic analysis.

However, the visual-gestural channel is not only used by sign languages but also by oral languages, as postulated from ancient times (De Jorio 1832/1979, Darwin 1897, and more modernly by Kendon 1975, 1980). McNeill (1992, 2005) elaborates on the continuum of communicative resources used in language (gestures, gestures that replace speech, pantomimes, emblems, alternative sign languages, natural sign languages), which he names the «Kendon continuum» in honor of Adam Kendon, who started the discussion on the relationship between gestures and utterances. McNeill provides a comprehensive overview of gestures, defining them as arm or hand movements performed spontaneously in the space in front of the torso, unconventional, and characterized by lacking linguistic properties. Additionally, speech and gesture generally co-occur. This theoretical model for understanding human language is dynamic, in contrast to the static perspective that has relegated gesture and intonation and visual and spatial aspects to a paralinguistic level.

Thus, two aspects become relevant in sign language analysis: firstly, the fact that these languages use the same channel for both linguistic and gestural components, and distinguishing between them is not always straightforward; secondly, in the formation of a sign language, the influence of oral elements would play a significant role.

Home Signs

Goldin-Meadow (2003, 2012) introduces the concept of «home signs» for gestures used to communicate by deaf children raised in hearing environments. These home signs evolve from simple gestures to taking on characteristics that differentiate them from words or formal signs. Homesigns exist in an intermediate stage between gestures and signs (as a system or language). They emerge when gestures acquire linguistic features and become unique to each situation where a deaf child interacts with hearing individuals or other deaf children. Goldin-Meadow notes that deaf children use gesturing with their family members for various functions, including requesting objects or actions, making comments about actions or attributes of objects and people in their environment, stating generic facts, or highlighting qualities of categories or entities. The author even reports that deaf children use home signs to talk about visible objects in their surroundings and those removed in time and space. This evidence aligns with one of the crucial functions of language – the feature of «displacement» proposed by Hockett (1960), referring to discussing objects and events not perceptible to both the speaker and the listener.

Furthermore, Goldin-Meadow suggests that deaf children not only produce home signs following the standards of their system but also use them to impose these standards on others. It is essential to emphasize The conclusion of the scholar that these gestural systems are not complete languages but systems that emerge and are invented by deaf children who lack a speech community to communicate with. As Lane, Hoffmeister, and Bahan (1996) point out, home signs, despite their utility, are insufficient for

accurate communication, leading to frustration in deaf individuals using them. However, when several deaf individuals with their home signs begin to converge and interact regularly, accommodation processes may occur similar to those described for pidgins. These processes, with transmission to a new generation of deaf individuals, may stabilize, giving rise to a sign creole, as discussed later.

Research led by Goldin-Meadow suggests that this happens only when home signs are expected to bear the full linguistic load, becoming the sole modality of language in these circumstances. Goldin-Meadow (2005) indicates that they gradually take on the segmented and combinatory form required for symbolic language. In this way, the contrastive system of human language emerges. These systems have fewer linguistic properties than fully developed languages but manage to achieve segmentation and combination in ordered sequences, similar to oral languages. Nevertheless, they serve as compelling evidence of the predisposition of the human organism for language or, in Goldin-Meadow›s words (2005), «resilience in development» (p. 215).

Sign Languages as a Possible Outcome of Creolization Processes

One theory that has gained prominence regarding the origin of sign languages is the process of creolization. In this context, Meier›s (1984) response to Bickerton›s (1984) bioprogram article is noteworthy, where he posits that sign languages emerge analogously to creoles. To do so, Meier analyzes the American Deaf community, where various demographic, genetic, and educational factors have created a sociolinguistic situation similar in many aspects to the plantation society where Hawaiian Creole originated, as described by Bickerton. It means the American Deaf community is composed of 90% deaf individuals who are children of hearing parents, termed «first-generation signers» by Meier. Unfortunately, these individuals› exposure to American Sign Language (ASL) often occurs late. The remaining 10% comprises deaf individuals born to deaf parents, called «second-generation signers». Meier considers them native signers of ASL, as they acquire the sign language from their parents, even if the parents themselves are not native signers.

Lane, Hoffmeister, and Bahan (1996) also refer to the linguistic phenomena of pidgins and creole languages as a possible origin for sign languages. They point out that creole and sign languages share similarities in what has been termed «creolization processes.» In other words, both emerge from the communication needs of communities and, over time, become «nativized» or a creole language. Like pidgins and creoles, sign languages arise spontaneously when deaf individuals can come together. However, forming a sign language requires the prior generation of home or collective codes. The process is also influenced by oralization, manual spelling, and other elements of orality.

The role of the educational context in the formation of sign languages is undeniable, as it stabilizes different home codes into a pidgin and subsequently into a creole language. This was evident at the American Asylum for the Education of Deaf and Dumb Persons (now the American School for the Deaf) in Hartford, Connecticut, where Laurent Clerc, originally a teacher at the National Institute of Young Deaf in Paris, brought French Sign Language. This sign language, mixed with local varieties in the United States and homesigns of deaf students, gave rise to American Sign Language (Lane 1984/1989). Similar processes occurred elsewhere. Oviedo (2001) reported it in Colombia for the case of Colombian Sign Language (LSC), and Kegl, Senghas, and Coppola (1999) pointed it out in Nicaragua with Nicaraguan Sign Language (LSN). In the latter case, it was initially believed that this language emerged spontaneously when deaf children gathered in one place during the Sandinista revolution. However, Polich (2005) points out that «LSN did not arise as an independent entity. That is, it did not happen suddenly; it was a process that lasted several years and was fueled by multiple influences. Additionally, it required a community of users to use this language regularly beyond childhood» (p. 12). As Polich emphasizes, the «transmission

chain» has not been broken since 1946, leading to the emergence of a community of deaf signers in Nicaragua during the 1980s, a community of the signing deaf will begin to emerge in this country.

Genetic Deafness and the Emergence of Sign Languages

Groce (1985) and Fox (2007) report on cases of congenital deafness and its connection to the emergence of sign languages in the communities of Martha's Vineyard (on the island of the same name off the coast of Massachusetts) and Al-Sayyid (in southern Israel, location not precisely indicated to preserve privacy), respectively. In the case of Providencia, the influence of genetics on the occurrence of most cases of deafness is also evident. Tamayo, M; Lattig, Tamayo, G., and Bernal (2000) note that studies on the population of Providencia Island began in 1988 due to the awareness of a high rate of deafness in this Colombian region. According to these researchers, Providencia is characterized as «an isolated community with a high level of consanguinity, where approximately 5 out of every 1000 native individuals are deaf.» This is a high frequency compared to deafness statistics, as «1 in 2000 children is born deaf,» according to these researchers (p. 411).

Consequently, families with non-syndromic deafness and families with Waardenburg syndrome are reported. Lattig and Tamayo (1999) describe Waardenburg syndrome as an autosomal dominant inherited condition, meaning that if an individual has the damaged gene, they will not only inevitably manifest the disease but transmit it to their offspring with a 50% probability in each pregnancy. The syndrome is characterized by

> [...]dystopia Cantorum (lateral displacement of the inner ocular corner, resulting in increased distance between the two eyes), deafness or neurosensory hearing loss, abnormalities in skin and hair pigmentation (such as premature graying—before the age of 30—or a white tuft of hair called poliosis), and alterations in eye pigmentation (one blue eye and one brown eye, part of an eye brown and the other blue, or an intense blue iris) (Lattig and Tamayo, 1999, p. 4).

Tamayo et al. (2000) report that, at the time of their research, there had been around 32 native deaf individuals on the island, of which a total of «17 individuals, 13 genetic cases, and 4 with undefined etiology were examined. Among the deaf population, there are eight individuals with only autosomal recessive neurosensory deafness (6 men and two women) and another 5 with hypopigmentation in skin, hair, and eyes» (p. 417). Finally, these researchers indicate that families affected by non-syndromic deafness show a pattern of clearly autosomal recessive inheritance. In contrast, families affected by Waardenburg syndrome may suggest highly variable autosomal dominant inheritance. At this point, they conclude that what was yet to be defined was whether «it was the same pathology throughout the island or if there were two different genetic deafnesses, a hypothesis considered given that deafness did not occur in all cases with Waardenburg syndrome» (Tamayo et al., 2000, p. 420). According to the analyses, it was confirmed that they are two distinct hereditary deafnesses unrelated. The contributions of these geneticists contribute to understanding the Providencia panorama, as, due to its history of isolation and endogamy, hereditary deafness, both syndromic and non-syndromic, as well as considered isolated cases, were found. Cases of hereditary deafness open up the possibility that highly complex home sign systems may have developed, as well as the possibility of a pidgin.

Methodology

The mixed-method fieldwork was conducted with deaf individuals on the island and their hearing family members, as well as with school directors and some local authorities, during March 2016. Below, there is a brief description of the work carried out.

Fieldwork with Deaf Individuals

At the time of the research, 13 deaf individuals from Providencia were alive out of the 17 mentioned by Tamayo et al. (2000), as some had either passed away or left the island. Out of these 13 individuals, a total of 12 were interviewed. The work included:

- Collection of life stories through informal conversations: This method allowed speakers to use their language for descriptions and narratives about their lives.
- Semi-structured interviews aim to complement life story information and obtain all necessary data for the research purpose.
- Lexical surveys in digital format: A list of images using objects and concepts from semantic fields such as family, colors, time, and food was used to elicit corpora.
- Non-participant observation: Conducted in specific everyday scenarios of deaf individuals on the island, specifically with the family affected by Waardenburg syndrome.
- Field diaries written by the researcher during and after each interview to document the work plan, ideas related to research activities, observations, conversations with different individuals, documentary inquiries, summaries of readings during fieldwork, personal reflections, and comments, all related to the research object, as well as any personal situations affecting the research.

Fieldwork with Hearing Individuals:

The fieldwork with hearing individuals involved semi-structured interviews conducted in the following ways:

- Educational institution authorities: The objective was to trace the inclusion of deaf individuals in the educational system, the resources or support available to address this population, and their impressions of deafness and sign languages.
- Family members: To understand the life stories of these families, the causes of deafness in their relatives, their perceptions, ideologies, or beliefs about deafness, and other contributions to the research.
- Other hearing individuals: Open interviews with other community members to gather impressions about deafness, the history of deaf individuals on the island, and their language or forms of communication, among other aspects.

For the analysis of information from both deaf and hearing interviews, the simplified glossing system proposed by Álvarez-Muro (2012), based on Chafe (1980) and Hymes (1981), was utilized. Accordingly, the original texts were translated into Spanish for signed content and transcribed for spoken content to minimally distort the original texts. The collected corpus was segmented based on pauses made by signers or speakers to obtain units of information, which were then translated or transcribed into a single horizontal line, following the guidelines of Álvarez-Muro (2012). In other words, each unit of information was translated or transcribed into a single horizontal line and numbered in blocks (for extended pauses or topic changes). Additionally, gestures, signs, or phrases that were not understood, alternative translations, comprehension difficulties, and additional explanations or descriptions of gestures or signs were enclosed in parentheses.

Analysis and Results

Deaf Population in Providencia

As observed in the conducted fieldwork, there were 13 deaf individuals in Providencia. The breakdown of this population is as follows: by gender, six men and seven women; by age range, ten adults and three children (minors), although one child was excluded from consideration as they do not use signs or gestures due to their hearing loss allowing them to use oral languages in the context.

The research results indicate that over the years, hereditary disorders causing deafness in Providencia have tended to diminish. Deaf members of three of the four family cores reported by Tamayo et al. (2000) have either passed away or aged without leaving descendants. These deafness instances align with non-syndromic recessive inheritance, according to Tamayo (personal communication, April 20, 2016). In the case of the family associated with Waardenburg syndrome, it was found that

one woman from the first generation (1920s-1940s) had children, but none of them were born deaf. She and her brother have already passed away. Another living brother, now elderly, never married nor had children. In the next generation (1950s-1970s), two deaf sisters were born, one of whom is single with no children, and the other one married, having none of her three children deaf. These sisters are not direct descendants of the first deaf individuals; their parents are first-degree cousins of the original deaf individuals. To understand why this situation occurred, Tamayo (2016) explains that the genetic characteristics in this family suggest that Waardenburg syndrome may be of dominant inheritance. The gene is transmitted and dominant, manifests, and predominates, hence the pigmentation in the skin, hair, and eye color. However, deafness is recessively inherited. These findings reveal a surprisingly high rate of inherited deafness on the island, with at least 14 deaf individuals identified over a century.

However, based on the fieldwork, islanders have little to no knowledge about the deaf population or why deafness appeared in some island families. An exception is the family with Waardenburg syndrome, who are well aware of Dr. Tamayo›s team and the medical explanation for their skin, hair, eye color, and the deafness in some family members.

Home Sign Systems or Sign Language?

To determine whether there is a sign language or various home sign systems in Providencia, the ideas of Meier (1984) are revisited. The scholar suggests that sign languages emerge analogously to Creoles. Different demographic, genetic, and educational factors influence their formation. In deaf communities, 90% of deaf individuals are born to hearing parents or first-generation signers with late sign language acquisition. The remaining 10% are second-generation signers. According to the analyzed data, all deaf individuals in Providencia are born to hearing parents, which means first-generation signers. However, the case of the sisters with Waardenburg syndrome might be different. Strictly speaking, they are born to hearing parents, but social and family conditions led them to be in frequent contact with their three second-degree deaf uncles. In this situation, it is possible that the first-generation deaf individuals—three brothers—created a home sign system, which was transmitted to second-generation deaf individuals. Indeed, applying Bickerton›s (1984) concepts, where pidginization and creolization processes are similar to second language acquisition and first language learning processes, respectively, but under unusual conditions with limited access to the linguistic model, it could be suggested that in this family, a pidgin emerged with the first generation, which would have creolized or nativized in the new deaf speakers of the second generation. However, their language mode might be considered more archaic and closer to the received input. Indeed, Washabaugh (1980a) indicates that what he has termed as a limited lexical repertoire, the absence of syntactic rules, and variability in expressions characterize PISL.

Nevertheless, as pointed out by Groce (1985), Oviedo (2001), Tovar (2001), Polich (2005), and Fox (2007), for a sign language to emerge, there must be a sufficient number of deaf individuals over time to systematize and transmit a language from one generation to the next in communities composed of different families. The result is the development of a comprehensive and mature sign language. In all documented cases, the convergence of deaf individuals in the educational system is required, as seen in the cases of ASL (according to Meier, 1984, and Lane 1984/1989), LSC (Oviedo, 2001), and LSN (Polich, 2005), or an increase in deaf individuals due to genetic causes within the same community, as observed in Groce (1985) and Fox (2007). On the other hand, families in Providencia that could transmit non-syndromic genetic deafness died without descendants. Only three family members remain in the family where deafness (with characteristics of recessive inheritance) is associated with Waardenburg syndrome, where chance alone decides if a deaf child is born again or not. Fieldwork also shows that only a few deaf islanders have been educated, but not under the conditions described by Meier (1984), Lane

(1984/1989), Oviedo (2001), and Polich (2005). Therefore, it is possible to assert that a creolization process of a complete and mature sign language common to all deaf individuals who inhabited the island over the same period and that is transmitted from generation to generation did not occur in Providencia, as suggested by Washabaugh (1979; 1980a; 1980b; 1991), Washabaugh, Woodward, and De Santis (1978), and Woodward (1978; 1979).

Nevertheless, it is possible to propose that a highly complex home sign system emerged in the family with Waardenburg syndrome, with greater linguistic and communicative functions, which was transmitted to two non-direct deaf members of a second generation. Labeling it as a pidgin or creole surpasses the possibilities of the analyzed corpus and the impossibility of observing the interaction of all the deaf individuals in this family, three of whom are deceased. What seems probable is that, under the previously described conditions, this system would not be common to all deaf individuals and would coexist with other home sign systems created in the homes of other deaf individuals who historically have not interacted with each other, as would be expected in the case of an emerging sign language.

In summary, the presence of deaf individuals on this island and the use of home sign systems in their communication with their immediate context is undeniable. However, there is no evidence of an emerging sign language, much less a sign language shared with most hearing population. Therefore, it raises the question: How do deaf individuals function within their society, and how do they perceive their role in the community? Similarly, what systems do they use to communicate?

Communication between Deaf Individuals and their Families: Home Sign Systems

In Providencia, each deaf individual and their surroundings have developed more or less rapid and complex systems. However, a common characteristic of almost all these individuals is that they have created home sign systems despite not having an adequate linguistic environment. This supports the arguments put forth by Goldin-Meadow (2005, 2012), who argues that the lack of a usable language model does not prevent a child from generating a segmented and combinatorial representational language, which is the hallmark of human language. Undeniably, the absence of a conventional language model can affect some properties of language. As this author points out, regardless of the specificities of acquisition conditions, specific language properties can be acquired while others are not.

Each interview and observation with deaf individuals provided information about home sign systems and forms of communication with their families. For example, during a visit to one of the deaf adults on the island, the hearing sister participated. She spoke Creole, the English-based Creole language of the archipelago, and understood little Spanish. An «interpreter Creole-Spanish» was needed to interact with her.

At some point, it was observed that she addressed her brother by vocalizing words in Creole and accompanying them with gestures, as seen in the following example

Figure 1. Hearing woman saying: «He has a 2-year-old son.»

She first points to a third person (herself); then, she places her hand, palm open, horizontally (indicating short stature), and afterward, her hand is in manual configuration 1, oriented toward the floor with repetitive up-down movement, alluding to the male reproductive organ.

Another example of interaction between deaf and hearing members of families was the case of a deaf

woman with her hearing daughter, a girl between 10 and 12 years old. Whenever asked a question, she looked at her daughter as if requesting assistance in responding or asking her to answer. During the lexical survey, this informant responded with a sign, looked at her daughter, asking if it was the correct sign or not, and the daughter affirmed. However, her responses were not spontaneous; it was as if she had to overthink about them. Therefore, perhaps, she decided to go into the house for a book, Volume 1 of *Colombian Manual Languag*e (Mejía, 1993). She said, «This book is for studying signs, and they gave it to me.» Then, as if seeking approval, she chose to copy the signs from this book with little success. However, communication with her was possible through gestures, pantomime, and self-made signs, managing to understand part of the story of her life.

At another moment during the visit, while interviewing the mother, it was observed that she maintained fluid communication with her daughter.

Next to this deaf person, another deaf woman lives who does not associate with anyone other than her husband or her daughter, not even other family members. She is known among her neighbors and relatives as a «reclusive and bad-tempered» person. However, she showed a very good disposition for the interview. During it, she used the Colombian finger alphabet and the LSC sign for self-presentation. Subsequently, the conversation flowed regarding the story of her life, her daughter, and her husband. A significant aspect of this interview is that she chose to draw (as if writing) the number 40 when asked about her age. When asked to do it with signs, she responded with a vocalization, «four,» followed by the sign for zero.

A similar case occurred with another young deaf woman, who is also recognized on the island for sitting in front of her house all day and looking «bad» at people (making a frowning face all the time). Once again, the opposite happened: her attitude was friendly and courteous. She even allowed the interview to take place in her living room. There, there was an opportunity to observe a conversation with her sister, in which, at least on the topics they discussed (about some family members and situations), they understood each other quickly. Similarly, she used the Colombian finger alphabet, the LSC sign, and home signs to talk about her life when she lived with her grandmother and her hearing boyfriend.

One of the adult deaf individuals felt overwhelmed by the lexical survey as if he were in an exam. He tried to remember some signs for colors, for which, for yellow, blue, and brown, he used LSC signs with slight variations. In fact, during the lexical survey, he took out his phone, where he had saved a page of the Colombian finger alphabet, started reviewing the sign for each letter, and pointed out that he usually studies it. However, when allowed to speak freely, he resorted to home signs and pantomime to talk about his work, his relationship with his mom, or his brother›s situation, among other aspects.

The home sign system of another deaf adult woman was quite rudimentary, as she primarily used vocalization. However, she showed a notebook in which, similar to the proselytism of religious groups, some LSC signs had been drawn for her, but it barely contained the sign for sign, signs for some people, and colors, as seen in the following figure.

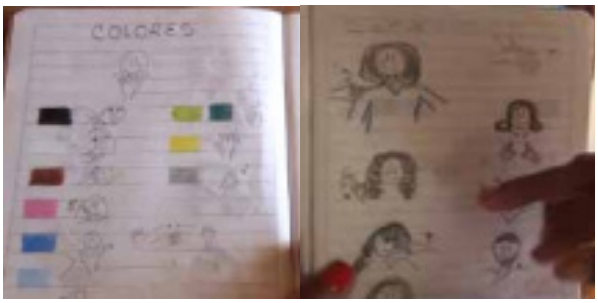

Figure 2. Notebook with illustrations of signs for people and colors in LSC.

In front of each color box are drawings of the signs for colors in LSC.

Linguistic Characteristics of Home Sign Systems

The fieldwork in Providencia allowed us to observe that home signs used to designate family members, mom, dad, and siblings (sometimes also meaning

aunt/uncle), and those used for spouses, son-daughter, male, female, and boy/girlfriend (partner) are common or have slight variations for most deaf individuals on the island. In this context, given the transparent relationship between the signs and the objects or subjects they refer to, there is a high degree of iconicity that allows for identifying the referent of these home signs. Below, for example, three variants for the sign «mom» are shown:

Figure 3. The first form for «mom,» in some contexts, is «woman.»

Its execution is more gestural, with more significant hand movement. It alludes to the breasts of the mom/woman (breastfeeding gesture).

Figure 4. The second form for «mom.»

It is a variant of the previous form and has lost its iconicity, although the hand placement is retained: the chest of the signer. It is performed accompanied by the vocalization of the word «mom.»

Figure 5. The third form for «mom.»

It uses both hands, maintains the hand placement but changes the manual configuration, now in Q, and is accompanied by the vocalization of the word «mom.»

This situation was repeated with topics related to colors, months of the year, and days of the week, among others, where signs exhibited characteristics of iconicity and deixis that gradually diminished. For example, the following graphics show signs used by some of the deaf individuals for the color *red*:

In most other cases, the deaf subjects interviewed chose to point or point toward some object that was red or contained red. These examples allow us to see that there is still no actual convention between these homemade sign systems, at least as far as certain semantic fields are concerned.

Figure 6. The first sign for «red.»

Performed on the lips: the index finger and thumb grasp the lower lip, and «rojo» is vocalized in Spanish.

Figure 7. The second sign for «red.»

The same speaker performs another form for RED. In this form, the right hand in manual configuration 1 is placed on the lips (motivated by lip color).

Figure 8. Third sign for «red.»
The right manual configuration in 1 on the chin makes a right-to-left rubbing movement (derived from LSC).

Other linguistic aspects of these home sign systems, in line with Goldin-Meadow (2003, 2012), are that they serve various functions, including:

- Requesting objects or actions:

(1) Please (lend me) your cellphone (pointing to the cellphone), please I (want to) see.

(2) Come, look, what is the sign? Tell me.

(3) Oh, wait! Let me talk, let me.

- Commenting on actions:

That (pointing to a dog) was a gift, they gave it to me from far away from over there. Is it leaving? Far away, when will it come back around?

(4) When I was born, my parents asked God (gesture of asking the sky with both hands accompanied by sad gestures), but I, being deaf, they (parents) gave me the name (spelling it out), that is me.

- Commenting on the attributes of objects and people in their context:

(5) My mom talks and talks without stopping, moves around here and there, sits to watch TV, and flips through the channels reluctantly.

(6) my pants have pockets on each side, it is coffee ("coffee" in LSC or the coffee cup gesture), my shirt is short, and my sandals are made of elastic material

(7) Here (in Providencia), the economic situation does not work (the emblem for silver accompanied by the index finger gesture crossing the neck from left to right)

In these examples, deaf individuals use home signs even to talk about non-visible objects in the environment. This, according to Goldin-Meadow (2003; 2012), refers to a non-present entity, equivalent to the displacement feature proposed by Hockett (1960), one of the most distinctive functions of language. An example of this occurs in a conversation with one of the deaf individuals who says: «When I meet him, he is a short person; we talk in signs, and we understand each other well.»

As observed in the case of most deaf individuals, home signs were used to tell stories about events that they could have experienced but were also entirely imaginary. In this same vein, the use of these home sign systems to talk about language (metalinguistic function) was confirmed. Specifically, it was found that for most deaf individuals, there are signs for sign and name. According to Washabaugh (1991), by the time of his research, it was not possible to find metalinguistic functions in PISL. However, this function is described by Goldin-Meadow (2003; 2012) as a characteristic of home sign systems.

Another characteristic of these systems is that many signs are used for pointing, i.e., pointing signs that direct the gaze of the person being talked to towards a particular person, thing, or place. According to Goldin-Meadow (2003), this does not mean that they are part of the lexical inventory; they are only used to draw attention to the location of an

entity but do not specify anything specific about that entity. They can behave like words since, according to this author, they refer to objects that, in an oral language, would be named with nouns, pronouns, and even actions. The difference lies in the description of actions. This was observed in a conversation between two deaf sisters; one addressing the other, pointed to a chair and then to a space next to her. Thus, what this woman is saying is, «sister, sit here, put the chair here next to me.»

Being an Islander, Being a Providencian, Being Deaf

The interviews with the principals of the schools on the island show that the few processes of inclusion for deaf individuals have been isolated cases, not systematized. The administrators, who are also teachers, are aware of the inclusion policies of the National Ministry of Education. They have integrated deaf students into regular classrooms but have not had the support of quality educational services or the National Ministry of Education or the National Institute for the Deaf. On the other hand, interviews with the families of these deaf individuals reveal the other side of the coin, indicating the struggle of parents to provide education for their children. In this regard, different cases were found, including attendance at special education schools or personalized teaching; deaf individuals who went through classrooms without recognition of their uniqueness, resulting in academic failure; another case considered «successful» is that of a deaf young person, the child of a teacher at the institution where he studied. In this latter case, as a result, teachers collaborated with him in adapting his academic achievements and performances and using methodologies focused on the conditions of the deaf student, such as the use of images and semi-personalized dedication.

These observations reinforce the conclusion that in Providencia, it can hardly be said that a pidgin or a common sign language has emerged for all deaf individuals on the island, in the style of ASL and LSN, according to Meier (1984) and Polich (2005). It can even be asserted that this language is shared by a large part of the hearing population. The main reason is that Providencia did not have the convergence of several deaf individuals in the education system, and the few experiences of schooling have been isolated cases.

Finally, it should be noted that, regarding life in society, most deaf women on the island have had romantic relationships with hearing partners, including formal relationships. However, many deaf individuals died without having offspring. Additionally, deaf individuals, like any human being, have opted to find solutions to the economic situation, referred to as «el rebusque» in Colombia. The educational conditions they have experienced have limited their access to the few well-qualified positions or jobs the island offers. It was also observed that these deaf individuals did not gather frequently; part of their lives has unfolded in everyday activities, and only occasionally do some sporadic encounters or gatherings occur (but not all deaf individuals) to enjoy celebrations such as town festivals or independence celebrations. In other words, deaf individuals on the island, for the most part, lead a normal life as natives, engaging in occupations typical of their context, but they do not form a true signing community, as described in other places or as might be inferred from the writings of Washabaugh (1978; 1979; 1980a; 1980b; 1991), Woodward (1978; 1979), and Washabaugh, Woodward, and De Santis (1978).

Final Considerations

The dialogue between linguistic research and genetic studies, comparing real and current data, contributes to the discussion on linguistic emergence. In the same vein, the significant contribution of this research is its attempt to contextualize what foreign researchers conducted on a Colombian island. The aim is to contribute to the recognition of a population that has been marginalized from the sociolinguistic reality of the country. Thus, Washabaugh (1978; 1979; 1980a; 1980b); Woodward (1978; 1979), and Washabaugh, Woodward, and De Santis (1978), proposed the existence of an emerging sign language

due to genetic causes on this island. The conditions of isolation and endogamy were confirmed by genetic studies (Tamayo, Lattig, Tamayo y Bernal, 2000), which were, to some extent, unknown to linguists. Although Providencia is characterized as «an isolated community, with a high level of consanguinity, where approximately 5 out of every 1000 native individuals are deaf» (p. 411), it was believed that the same phenomenon occurred there as in Martha's Vineyard and the village of Al-Sayyid in southern Israel. However, while similarities may be found initially, the differences lie in the fact that the rates of deafness in both Martha's Vineyard and Al-Sayyid are surprisingly high compared to Providencia.

Another path for the emergence of sign language, distinct from genetics, as pointed out in the literature, requires the convergence of deaf individuals in the education system. However, field data from Providencia show that deaf individuals from the first generations did not converge in the same educational environment conducive to the emergence of a pidgin and, thereby, the possibility of a sign language. The same happened with deaf individuals from subsequent generations.

Nevertheless, these circumstances do not mean linguistic developments in Providencia should be dismissed. Indeed, the initial data analysis already shows the linguistic richness of the home systems used by deaf individuals on the island. Since 2018, the Providencia and Santa Catalina Islands City Hall, with the support of the Social and Community Development Secretariat and foreign entities (the University of the West Indies, the Program for the Documentation of Endangered Languages at the University of Göttingen, the Lloyd Best Institute of the Caribbean in Trinidad and Tobago, and the Deaf Empowerment and Advance Foundation–deaf from the same country), has initiated the project called «Construction of an inclusive educational (pedagogical) model for the deaf community and their families in the municipality of Providencia and Santa Catalina Islands.» The objective is to study and preserve the PISL and build a pedagogical inclusion model for the deaf community based on it. In this context, actions are being generated to promote socialization among all deaf individuals on the island, as well as the dissemination of PISL among hearing individuals. The presence of foreign and continental researchers, as well as some deaf individuals from other parts residing in Providencia, is facilitating interaction between users of the signed systems described in this article and users of ASL and LSC primarily. This suggests the emergence of a pidgin, whose development has the potential to accelerate due to contact with established sign languages. Thus, by ceasing the relative isolation of deaf groups on the island, the emergence of a definitive PISL, which may even be shared to some extent with hearing individuals, can take place.

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