The Grammar of Space in Karijona, a Cariban language from Northwest Amazonia

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A Daniela Carijona, Emaida Ortiz y Adrian Uhrn,

que el mundo sea para ustedes

un infinito menos diminuto

Karijona womirí

ërë térëkene nai

naireke kiñamoro tawë
ABSTRACT

The linguistic strategies to express and communicate spatial notions (also called the Grammar of space (GS)) are one of the most diverse domains of human languages. It reflects relations between the speakers’ cognition, language, culture, and environment. Then, describing the GS gives lights on the relations between a given speech community and their territory.

This thesis investigates the GS in Karijona, an endangered Cariban language from Northwest Amazonia. Based on Cognitive Linguistics (Talmy, 2000a), Semantic Typology (S. C. Levinson, 2003), and Basic Linguistic Theory (Dixon, 2010b), it aims to analyse the grammatical systems and semantic domains of space in the Karijona language. This study involves: i) bibliographical research of the Karijona’s historical, cultural and linguistic background, ii) a description of the grammatical systems involved in the codification of spatial relations, iii) the syntactic characterisation of basic and complex spatial constructions, and iv) the semantic analysis of static and motion events.

The data for this study is collected on about four months of fieldwork in the Karijona settlement of Puerto Nare (Department of Guaviare, Colombia), using experimental techniques of elicitation, documentation of oral texts, and social cartography. The corpus consists of a collection of transcribed texts of controlled and spontaneous utterances.

Karijona expresses most of the spatial information through postpositions and deictics. The system of postpositions consists of classificatory, orientational, and distance postpositional stems, which can receive cross-reference markers. Karijona pronouns and spatial adverbs form a complex system, defining a deictic continuum. The more pronominal-like elements (personal pronouns) refer to entities, while the more adverbial-like elements (distance and orientational adverbs) refer to qualities. For expressing static events, Karijona has a system of posture and positional verbs. Karijona motion verbs and locative suffixes codify several components of motion events.

The Karijona language has several characteristics to be considered in future typological studies on the grammar of space. In the first place, Karijona spatial postpositions include locative classifiers and deictic side postpositions, which contrast with other language systems with left/right oppositions. The system of pronouns and spatial adverbs form a
deictic continuum, which is not present in previous typologies of spatial deixis. Besides, demonstrative pronouns take part in the reference classification, and it shows innovations concerning other Cariban languages. It has an emergent system of postural verbs, which is not common in other Cariban languages but highly prevalent in other languages from the Northwest Amazon.

This research improves the understanding of the Karijona language at the morphosyntactic and semantic levels, contributes to the documentation of the language, and provides linguistic inputs for supporting the current process of the Karijona language revitalisation. It also provides data for further comparative studies of Cariban and Amazonian languages, as well as for semantic and morphosyntactic typological research.

Keywords: Karijona Language, Cariban Languages, Amazonian Languages, Grammar of Space, Linguistic Typology
Las estrategias lingüísticas con las que se expresan y comunican las nociones espaciales (también llamadas Gramática del Espacio (GEsp)) son uno de los dominios más diversos de las lenguas humanas. Estas reflejan las profundas interrelaciones de los planos cognitivo, lingüístico, cultural y ambiental de las personas en la concepción del espacio. Describir la GEsp de una lengua es también aprender de la comunidad que la habla y de las relaciones que ésta tiene con su territorio.

Esta tesis investiga la GEsp del Karijona, una lengua Caribe del Noroccidente Amazónico. Con base en la lingüística cognitiva (Talmy, 2000a), la tipología semántica (Levinson, 2003) y la teoría lingüística básica (Dixon, 2010b), se analizan los sistemas gramaticales y los dominios semánticos espaciales en el Karijona. Este estudio incluye: i) una investigación bibliográfica del contexto histórico, cultural y lingüístico de la comunidad Karijona, ii) una descripción de los sistemas gramaticales involucrados en la codificación de las relaciones espaciales, iii) la caracterización sintáctica de construcciones espaciales básicas y complejas, y iv) el análisis semántico de los eventos estáticos y de movimiento.

Los datos utilizados en este estudio fueron recogidos en un trabajo de campo de aproximadamente cuatro meses en el Resguardo Indígena Carijona de Puerto Nare (Departamento de Guaviare, Colombia). Se utilizaron técnicas experimentales de elicitation, documentación de textos orales, recorridos por el territorio Karijona y talleres de cartografía social. El corpus consiste en una colección de textos transcritos de expresiones controladas y espontáneas.

El Karijona expresa la mayor parte de la información espacial a través de posposiciones y deícticos. El sistema de posposiciones consiste en temas posposicionales de clasificación, orientación y distancia, que pueden recibir marcadores de persona y número. Los pronombres y los adverbios espaciales del Karijona forman un sistema complejo, que define un continuo deíctico. Los elementos más pronominales (pronombres personales) se refieren a entidades, mientras que los elementos más adverbiales (adverbios de distancia y orientación) se refieren a cualidades. Para expresar eventos estáticos, el Karijona tiene un sistema de verbos de postura y posición. Varios componentes de los eventos de movimiento están codificados en los verbos de movimiento y en los sufijos locativos del Karijona.
El Karijona tiene varias características que vale la pena considerar en futuros estudios tipológicos sobre la gramática del espacio. Primero, las posposiciones espaciales del Karijona incluyen clasificadores locativos y de deixis lateral (este lado vs ese lado), que definen marcos de referencia relativos que son diferentes de los prototípicos (izquierda vs derecha). Así mismo, se tiene que el sistema de pronombres y adverbios espaciales forman un continuo deíctico en el Carijona, el cual no está presente en las tipologías anteriores de deixis espacial. Además, se tiene que los pronombres demostrativos participan en la clasificación referencial y muestran innovaciones con respecto a otros idiomas Caribe. El Karijona también tiene un sistema emergente de verbos posturales, que no es común en las lenguas Caribe, pero que sí lo es en otras lenguas de la región del Noroccidente Amazónico.

Esta investigación contribuye a la descripción del idioma Karijona en los niveles morfosintáctico y semántico, a la documentación de la lengua, y presenta un apoyo desde la lingüística en el actual proceso de revitalización de la lengua Karijona. También presenta información de interés para los estudios comparativos de las lenguas Caribe y de la región Amazónica, así como para la investigación tipológica en semántica y morfosintáctica de las lenguas naturales.

Palabras clave: Lengua Carijona, Lenguas Caribe, Lenguas Amazónicas, Gramática del Espacio, Tipología Lingüística
Resumo

As estratégias linguísticas para expressar e comunicar noções espaciais (também chamadas de Gramática do Espaço (GEsp)) são um dos mais diversos domínios das línguas humanas. Esta revela como as pessoas integram aspectos cognitivos, linguísticos, culturais e ambientais na concepção de espaço. Descrever a GEsp de uma língua é também aprender da comunidade que a fala e das relações que esta tem com o seu território.

Esta tese investiga a GEsp do Karijona, uma língua Caribe do Noroeste Amazônico. Baseado na Linguística Cognitiva (Talmy, 2000a), a Tipologia Semântica (Stephen Levinson, 2003), e a Teoria Linguística Básica (Dixon, 2010b), pretende-se analisar os sistemas gramaticais e domínios semânticos do espaço na língua Karijona. Este estudo envolve: i) uma pesquisa bibliográfica do contexto histórico, cultural e linguístico do Karijona, ii) uma descrição dos sistemas gramaticais envolvidos na codificação das relações espaciais, iii) a caracterização sintática de construções espaciais básicas e complexas, e iv) a análise semântica de eventos estáticos e de movimento. Os dados utilizados neste estudo foram coletados no período de quatro meses em trabalho de campo no assentamento Karijona de Puerto Nare (Departamento de Guaviare, Colômbia). Usaram-se técnicas experimentais de elicitação, documentação de textos orais, recorridos pelo território Karijona, e oficinas de cartografia social. O corpus consiste em uma coleção de textos transcritos de enunciados controlados e espontâneos.

O Karijona expressa a maior parte da informação espacial através de posposições e déiticos. O sistema de posposições consiste em temas posposicionais de classificação, orientação e distância, que podem receber marcadores de pessoa e número. Os pronomes Karijona e os advérbios espaciais formam um sistema complexo, definindo um continuum déitico. Os elementos mais pronominais (pronomes pessoais) referem-se a entidades, enquanto os elementos mais adverbiais (advérbios de distância e orientação) referem-se a qualidades. Para expressar eventos estáticos, o Karijona tem um sistema verbos de postura e posição e um conjunto de posposições estáticas. Vários componentes dos eventos de movimento são codificados pelos verbos de movimento e os sufixos locativos do Karijona.

A GS do Karijona tem várias características a serem consideradas em futuros estudos tipológicos sobre a gramática do espaço. Em primeiro lugar, as posposições espaciais do
Karijona incluem classificadores locativos e posposições de deixis lateral (este lado vs aquele lado), as quais definem marcos de referência relativos que são diferentes dos prototípicos (esquerda vs direita). O sistema de pronomes e advérbios espaciais formam um continuum dêitico, que não está presente em tipologias anteriores de deixis espaciais. Os pronomes demonstrativos também participam da classificação referencial e mostram inovações com respeito a outras línguas Caribe. O Karijona tem também um sistema emergente de verbos posturais, que não é comum nas línguas Caribe, mas é altamente prevalente em outras línguas do Noroeste Amazônico.

Esta pesquisa contribui na descrição da língua Karijona nos níveis morfossintáticos e semânticos, contribui na documentação da língua e representa um apoio desde a linguística no atual processo de revitalização da língua Karijona. Também apresenta dados de interesse para posteriores estudos comparativos das línguas Caribe e Amazônicas, bem como para pesquisas tipológicas semânticas e morfossintáticas.

Palavras chave: Língua Karijona, Línguas Caribe, Línguas Amazônicas, Gramática do Espaço, Tipologia Linguística
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De Anita yo aprendí
que el espacio
sólo existe
al dar un
paso.
Que nada se llega a saber
de las categorías o de
las estructuras
si no resuena en el pecho
el grito
del bambero,
si no entra el rumor del monte
en las ranuras de
las letras.
El tiempo no llega a ser
una metáfora
del espacio
sino hasta que la piel ondula
con el curso indeleble
del río.
No estoy hablando aquí de selvas virginales
ni de exóticos entes
descubiertos.
Estoy hablando del espacio que respira
en la selva que
habitamos; ciudades, plazas, fondas, puertos, cambuches, edificios, casas, calles, trochas, hamacas, camas, árboles, rejas.

El espacio, así como el mundo, es un infinito diminuto que sólo es diminuto en la quietud y sólo es infinito dentro de un camino.
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1 Introduction

Karijona is a Cariban language spoken in North-west Amazonas, at the departments of Guaviare and Amazonas, Colombia. No extensive description of Karijona grammar exists. Although previous work has studied some aspects of phonology, morphology, and syntax (Guerrero Beltrán, 2016, p. 40; Meira, 2000, p. 10; Robayo, 2000, p. 11), specific topics of the Karijona language remain unstudied. Karijona is currently one of the most endangered languages in Colombia; about 15 speakers have been identified as fluent in different locations throughout the region (Carijona, Guerrero, Rodríguez, & Vargas, 2015, p. 39; Guerrero Beltrán, 2016, p. 40). Documenting the language and describing its grammar is therefore urgent as long as the speakers are still alive.

Several studies on cognitive linguistics, such as Levinson & Wilkins (2006), Mani & Pustejovsky (2012), and Vulchanova & van der Zee (2013) among others, have shown the importance of studying the Grammar of Space (hereafter referred as ‘GS’). The GS is located in the interface between a language-related conceptual structure and a perception-related spatial representation (Bloom, Peterson, Nadel, & Garrett, 1996, p. 82). It is also physically, socially, culturally and geographically grounded (Auer, Hilpert, Stukenbrock, & Szmrecsanyi, 2013, p. 419; S. C. Levinson & Wilkins, 2006, p. 31; Paradis, Hudson, & Magnusson, 2013, p. 83). Previous typological studies (Hickmann & Robert, 2006; S. C. Levinson, 2003; Talmy, 2000a) have also shown the connection that GS has with different components of the grammar, such as morphology (spatial meaningful units), syntax (spatial setting), and semantics (semantic domains of space). As it is shown in Palmer et al (2017), a deep inquiry on how speakers linguistically express and represent space will shed lights on the underlying structure of spatial thinking, and about the complex relations between language, culture, and environment.

This chapter will expose the theoretical and methodological bases for this study. It is structured as follows. §1.1 presents the literature review, which covers previous studies of GS among world languages with a focus on the Amazonian region. §1.2 introduces the theoretical approach to the GS. It consists of the conciliation of Basic Linguistic Theory, Semantic Typology, and Cognitive Semantics. Finally, §1.3 presents the methodological design.
1.1 Literature review

This section presents an overview of previous research for defining an accurate research niche for the study of the GS in Karijona. It covers previous research papers on GS that provide methodological and theoretical foundations for this project. Previous research includes a description of space in languages of the Americas, Oceania, Europe and Africa. A summary of the state of the art of the Karijona language is presented in §2.

1.1.1 The language of space among world languages

Previous research has attested the cross-linguistic diversity on the expression of space. Levinson and Wilkins (2006) present results of research on specific languages around the five continents in terms of how languages express topology, motion, and frames of reference (see §1.2.2). The languages considered by Levinson and Wilkins come from Pama-Nyungan, Papuan, Austronesian, Mayan, Cariban, Niger-Congo, Dravidian, and Indo-European linguistic families, in addition to some isolates (such as Japanese). They use the same methodological techniques to collect the data for controlled comparison, which includes topological relation pictures, the ‘man and the tree’ space game, and the motion verb stimulus (see §1.3). The authors argue for the extension of this research program through a higher number of languages of the world, given the inductive aspect of the generalisations. In this vein, a description of the GS in Karijona will expand the pool of considered languages, which may improve theoretical generalisations on this field.

Cablitz’ (2006), O’Meara’s (2010), and Lum’s (2018) PhD dissertations focus on the GS in Marquesan (Austronesian), Seri (isolated) and Dhivehi (Indo-aryan). Those studies share several methodological tools and theoretical approaches with the papers in Levinson & Wilkins (2006). The authors undertook several fieldworks within the speech communities and collected experimental-like and natural-like data.

Cablitz (2006) presents a grammatical sketch of the language and analyses the morphosyntax, meanings, and usages of locative constructions in Marquesan, an Oceanic Language spoken in the French Polynesia. The Marquesan locative constructions include locative prepositions, place and body part terms, local nouns, directional and demonstratives. She differentiates large-scale and small-scale reference to analyse the usage of locative constructions. This consideration allows her to analyse the spatial relations in terms of the Figure and Ground conformation (see §1.2.2), a factor that is Levinson & Wilkins (2006) do not consider.
O’Meara (2010) studies how Seri speakers categorise landscape objects. The paper describes the lexical, grammatical and semantic properties of landscape terms in Seri, an isolated language from Mexico. The analysis considers other components of the Seri language, including topological relations, motion event description, spatial deixis, spatial frames of reference, and posture. Also, the author analyses taxonomic structures and meronymic relations in the landscape domain.

Lum (2018) investigates the frames of spatial reference in Dhivehi, an Indo-aryan language from Maldives. He analyses the frames of reference in the language. The dissertation has a chapter for Dhivehi spatial reference in terms of deixis, topological relations, positional/postural verbs, motion, and frames of reference. It offers a theoretical discussion about the classification of frames of references. The author compares several approaches and gives a synthetic proposal for the typology of frames of reference.

1.1.2 The language of space among Amazonian languages

Ospina Bozzi’s edited book (2013a) presents results concerning the GS among Amazonian languages. The document is a compilation of papers presented on the workshop on the expression of spatial notions, as part of the proceedings of the international conference of Amazonian linguistics Amazónicas III, which took place at the Universidad Nacional de Colombia in 2010. The analysed languages came from the Takanan, Arawak, Tukanoan, Nadahup and Tupí-Guaraní linguistic families. The book shows many characteristics in Amazonian languages that include Associated Motion, complex systems of verbs of posture, and locative nominals.

Ospina Bozzi (2008, 2010, 2013b) offers a comprehensive description of the static location in Yuhup. The author adapts Talmy’s (2000a, 2000b) proposal (§1.2.2) and MPI’s methodological tools (§1.3.2) to the Amazonian context. The analysis covers the structure of basic locative construction, spatial particles, posture verbs and locative nouns. Given the Author’s methodological and theoretical thoroughness for the description of the GS within the ethnolinguistic context of the Northwest Amazon, it will be one of the main referents for the description of GS in Karijona.

Some other contributions from PhD and MA dissertation papers provide additional reliable theoretical and methodological points of reference for the description and documentation of the GS in indigenous languages.
Segovia Cuéllar (2019) studies landscape terms and place names in Biancoca (Siona), a Western Tukanoan language from the Colombian Amazon. From a phenomenological perspective, the author analyses the ontological relations between culture, language, and environment among the Siona people, covering landscape terms, systems of nominal classification, and frames of reference. Given the geographical and ethnohistorical proximity between the Siona and the Karijona people, this thesis is an unavoidable reference for the understanding of the Karijona GS. Segovia Cuéllar’s research is also a relevant referent due to its “pisando terreno y describiendo”1 methodological approach, which combines MPI’s tests, tours through the territory, georeferencing, and audiovisual documentation of oral narratives.

Hough (2008) presents an analysis of the GS in Wayana, a Cariban language spoken in Surinam. It focuses on the expression of space throughout the systems of postpositions, demonstratives, and adverbs, and the perception and categorisation of the landscape. Admiraal (2016) analyses the GS in Baure, an Arawak language from the Bolivian Amazon. The analysis shows the morphosyntactic and semantic characteristics of the Baure GS. The author presents an exhaustive analysis of the underlying dimensions of locative nouns, adverbial demonstratives and verbs. Finally, Rybka (2016), like O’Meara (2010), studies the linguistic encoding of landscape terms in Lokono, an Arawak language from the Guianas. Rybka’s dissertation presents a sketch grammar of Lokono, the analysis of landform and vegetation terminology, place nouns, and the what/where distinction in nouns.

Meira (2006) presents a general overview of the GS in Tiriyó (or Trió), a Cariban language from the Taranoan group. According to the author, Tiriyó GS covers a complex system of postpositions that express topological relations, location and movement, adverbs that express Frames of Reference, and classification of verbs of movement. This result is of particular significance due to the genetic proximity between Tiriyó and Karijona (see §2.4). In terms of the GS, the innovative or conservative degree of Karijona concerning Tiriyó give information concerning the historical, emigrational, and contact processes occurring into the Cariban family.

The quoted papers are relevant as Karijona is also a language from the Amazonian region, and it relates in different ways to other Amazonian languages in terms of a shared

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1 Footing and describing the terrain (in Spanish).
history and language contact. Moreover, previous works (Franco, 2002; Robayo, 1997; Schindler, 2018) have noted historical and social relations between the Karijona, Arawak, Witotoan, and Tukanoan people, which could originate language contact influences on different domains, including the domain of the GS.

The lack of research on this topic is an essential gap in terms of the Colombian Amazonian context. Firstly, because of the diversity of languages spoken in the region. Secondly, due to the evidence of intense cultural and linguistic contact there (Echeverri, 1997; Franco, 2002; Gomez-Imbert, 1996; Robayo, 1997; Stenzel, 2005; Stenzel & Gomez-Imbert, 2017). Thus, a description of the GS of Karijona would shed lights on contact processes between Karijona and the languages from the Caquetá-Putumayo and Vaupés regions in Northwest Amazonia.
1.2 Theoretical approach

The main theoretical frameworks in this research concern two general approaches: the morphosyntactic expression and the semantic representation of the GS. The former considers the grammatical mechanisms involved in the spatial and deictic specification (Dixon, 2010b, pp. 118–122). The latter considers the expression of space as a semantic domain that discloses underlying structures of the spatial thinking (Evans, 2010; S. C. Levinson, 1997, 2003; S. C. Levinson & Wilkins, 2006; Pederson, 2017), and also as a conceptual structure in itself (Talmy, 2000a, 2000b).


Levinson (2003) and Levinson & Wilkins (2006) are some of the most important works related to the study of the GS. In those papers, the authors define the field of Semantic Typology as a research program in linguistics based on the analysis of linguistic semantic variation. The Semantic Typology studies which **semantic parameters** structure the grammar and the lexicon. Specifically, they focus on the typology of the GS, considering space as a **semantic domain**. The authors propose that there are no superficial universals in the linguistic expression of space, but the cross-linguistic comparison can reveal **semantic patterns** instead.

The framework of Cognitive Semantics (Talmy, 2000a, 2000b) studies how language organises conceptual content (meaning) in **conceptual structures**. Particularly, Cognitive Semantics considers that the human language divides into two systems: **lexicon** and **grammar**. The first one provides the content of cognitive representations, and the second one structures these cognitive representations. Cognitive linguistics thus seeks to account for the functions of grammatical structures on the representation of conceptual structures and to relate linguistic and psychological conceptual structures. Talmy (2000a) considers the language representation of space as a conceptual structure that is part of a more comprehensive system: the **configurational structure**. The foundational role of this structure – and subsequently of the conceptual structure of space – is to arrange a **schematization** process, which is the “systematic selection of certain aspects of a referent scene to represent the whole, while disregarding the remaining aspects” (Talmy, 2000a, p. 178). The author analyses the conceptual structure of
events that concern motion or location, hereafter referred to as motion events. In this kind of events, the spatial disposition of one primary object (the Figure) is characterised in terms of the spatial disposition of a secondary object (the Ground) (see §1.2.2).

Talmy (2007, p. 153) proposes that it is possible to define a typology of motion events. This typology is based on whether verb roots or satellites codify the components of a motion event (Talmy, 2007, p. 68). Specifically, the typology depends on which syntactic constituent expresses the Path (see §1.2.2). Verb roots codify the Path in ‘verb-framed’ languages (i.e. salir ‘go out’ in Spanish), and satellites codify in ‘satellite-framed’ languages (i.e. ‘go out’ in English). Talmy’s work is a pioneer for the study of GS and it provides fundamental categories for the schematization of space into linguistic categories. Nonetheless, subsequent investigations have questioned the universality of this proposal (see: Beavers, Levin, & Tham, 2010; Guillaume, 2016; Slobin, 2006). Additionally, the definition of satellites can turn problematic due to the full range of linguistic elements it can cover cross-linguistically. Even if the concept of a satellite is grammatically based, it does not define a specific kind of syntactic class. Languages can have particles (i.e. English), affixes (i.e. Arrernte), inflected adpositions (i.e. Taranoan languages), or directional demonstratives (i.e. Manambu) as satellites expressing different components of the Path, but it is not clear whether they are formally or functionally different from other members of the same closed classes.

Despite the pioneering works of Levinson & Wilkins (2006) and Talmy (2000a), there has been no consensus in terms of how to typologically characterise the linguistic expression of space (Pederson, 2017). The main focus of these papers is on semantically motivated categories, such as frames of reference (S. C. Levinson, 2003) and motion events (Talmy, 2007). Thus, the distinction between spatial semantic domains and spatial grammatical categories remains vague. When studying under-described languages, this vagueness becomes an unavoidable issue for grammatical description. Therefore, it is essential to define inner grammatical mechanisms in order to differentiate morphosyntactic expression from the semantic representation of Space.

1.2.1 Grammatical expression of Space

The framework of BLT conceives grammar as an integrated system that organises language, composed by interrelated and coherent subsystems (Dixon, 2010b). Based on Aikhenvald & Dixon (2017a), I consider the following theoretical parameters to describe the grammatical expression of Space in Karijona:

- **Grammatical systems** are “closed sets of choices, one of which must be selected for a construction of a certain type” (A. Y. Aikhenvald & Dixon, 2011). They constitute morphological paradigms and closed word classes, which can be related to a clause (such as polarity), a predicate (such as tense, aspect, and evidentiality), a predicate argument (such as person, number, or reference classification), or to the marking of a function of a predicate argument (such as case) (A. Y. Aikhenvald & Dixon, 2011, pp. 172–176). The meanings of the elements within a grammatical system are then defined by opposition or contrast with the other members of the same system (see: Kroeger, 2005, p. 8). Depending on the language, a grammatical system can encode one or more grammatical categories. For instance, the system of nominal suffixes in Latin encodes gender, case, and number, such as -am (Feminine, Accusative, Singular) in mensam ‘table’.

- **Grammatical structures.** The concept of structure is highly heterogeneous in linguistics (see: Chomsky, 2000; Dixon, 2010a; Hudson, 2007; Langacker, 2008; Shopen, 2007a). In order to avoid vagueness and contradictions in the notion of structure in this thesis, grammatical structures refer to those relational components of grammar for which it is possible to identify a relationship between a nuclear element (the head) and other dependent elements around it. This study considers three basic grammatical structures for Karijona: word structure [a relation between a root, affixes and clitics], phrase structure [a relation between a phrase head, complements and modifiers]; and clause structure [a relation between a predicate and its arguments].

- **Grammatical mechanisms.** Grammatical mechanisms cover the linguistic strategies for the formal expression of structural relations. Three underlying grammatical mechanisms are relevant to the understanding of Karijona GS: the order of dependent elements concerning the head (constituent order), the cross-reference marking (agreement), and the morphological marking of specific categories and relations (such as possession marking).

- **Construction types.** They include all the systems, mechanisms and structures involved in a specific communicative or grammatical context with specific morphosyntactic characteristics (i.e. comparative constructions, relative constructions, or possessive constructions).
Besides, further considerations are relevant regarding the grammar of Karijona (Mainly based on: A. Y. Aikhenvald, 2014; Dixon & Aikhenvald, 2000):

- **Clause (structure) type.** Clause structure consists of the nuclear argument that can be transitive (a predicate with 2 arguments, such as in ‘David kisses Natha’), intransitive (a predicate with one argument, such as in ‘Cristian runs’), copulative (a clause with a copula instead of a predicate, such as in ‘I am a sleepy person’), and nonverbal (a clause without a predicate nor a copula, such as in example (1.1)).

  Karijona (Colombia, Cariban family)

(1.1) irakufa məkamoro
  irakufa_{vcc} məkamoro\textsubscript{vcs}
  non.indigenous 3.AUG.AN.PROX
  ‘They are non-indigenous people’
  ‘Ellos son blancos.’

- **Core and peripheral arguments.** Within each clause, each predicate has some arguments corresponding to the structure of the clause (nuclear arguments). Other arguments can be optionally added to specify contextual information (peripheral arguments).

- **Grammatical relations.** In this paper, grammatical relations are the values that the arguments take within the clause structure. For core arguments, the grammatical relations are subject of the intransitive clause (S), subject of the transitive clause (A), transitive clause object (O). In the case of copulative and non-verbal clauses, there are different grammatical relations: copula subject (CS), copula complement (CC), verbless-clause subject (VCS), and verbless-clause complement (VCC). Peripheral arguments are obliques (OBL). Additionally, the elements that encode the predicate (PRED) or the copula (COP) are also included in this level, since they determine the number and types of nuclear arguments.

  Aikhenvald & Dixon (2017a, pp. 6–8) set a classification of typological studies which is relevant for this research due to the lack of consensus in the typology of Space. They distinguish between:

- **Intra-language typology.** An intra-language typological study “involves comparing a feature of a language with similar features of other languages, in terms of a defined set of
theoretical parameters” (A. Y. Aikhenvald & Dixon, 2017a, p. 6). It can study structures, systems, construction types, and mechanisms. Methodologically, it does not compare isolating entities without regarding the entire structure, system, construction type, or mechanism.

- **Extra-language typology.** An extra-language typological study involves non-linguistic phenomena that can be expressed linguistically (such as time, direction, commands, or information source), rather than internal features or categories of the language. In that sense, the proposals of Levinson (2003) and Talmy (2000a, 2000b) are closer to an extra-linguistic typological approach.

This opposition hints on what could be the source of the problems for cross-linguistic grammatical generalisations of Space. Previous proposals have focused on the comparison of structures and construction types, which are cross-linguistically heterogeneous and highly variable. They have not centred the attention on the grammatical systems or mechanisms, which are more homogeneous. In contrast, Svorou (1994) focuses on grammatical systems. She states that languages make use of a relatively small set of closed grammatical forms that express the space. Looking at the Karijona morphosyntactic characteristics (see §2.5), the considered grammatical systems that involve the GS are:

- **Function markers.** Function markers, or ‘functemes’, are the grammatical units –suffixes, clitics, or free words – that indicates the syntactic function of the element it governs, usually nouns. This concept covers both case markers and adpositions (Hagège, 2010, pp. 103–105). In this paper, functemes only refer to peripheral arguments (i.e. non-verbal arguments).

- **Demonstratives.** Demonstratives are a kind of deictics, or ‘shifters’, with a deictic reference different from the speech act participants (the Speaker and the Addressee). There are three types of demonstratives: nominal, local adverbial, and verbal demonstratives. Nominal demonstratives can make up a complete NP, can co-occur with a noun in an NP, and point to an object. Local adverbial demonstratives, which occur either alone or within postpositional phrases, refers to places. Verbal demonstratives are a subclass of verbs that some languages have to express the deictic reference to an action (Dixon, 2010a, pp. 223–225; S. C. Levinson, 1999, pp. 29–31).

- **Associated motion.** It is a grammatical category that specifies whether and how the activity expressed by a verb involves motion. It expresses the time of the motion concerning the main activity (Guillaume, 2016).
Spatial predicates consist of verbal-like linguistic elements that codify static and motional spatial relations. Locative predicates express static relations, such as postures (‘be standing’) or positions (‘be inside’), whilst movement predicates refer to the description of motion. Grinevald (2006, pp. 32–34) proposes a linguistic typology of locative predicates based on the number and complexity of predicate elements that languages have for expressing static relations. According to this typology, languages of the Type 0 have no verbal elements carrying static spatial information (non-verbal predicates existential copula). Type I covers languages with one locative predicate (different from the copula). Type II are those with a prototypical posture system. Languages of Type III have productive systems of locative stems covering posture and position (a middle point between Types II and IV). Type IV involves languages with complex positional systems.

Spatial constructions (Based on: Dixon, 2010b, pp. 118–122). Spatial constructions refer to the grammatical systems, mechanisms, and structures involved in the specification of space in a language. In Karijona, motional predicates in most of the cases consist of an argument that specifies the location of the motion event. Given that those arguments are not entirely core nor peripheral, it is necessary to define a different grammatical relation for them: spatial arguments (SPA). In contrast, when a peripheral argument expresses optional contextual information concerning the location of the event, those arguments are considered as obliques. Based on the concept of ‘basic locative construction’ (S. C. Levinson, 2003), I distinguish two different types of spatial constructions: (i) basic spatial (static and motional) constructions, which consider mono verbal clauses with spatial predicates and without peripheral arguments; and (ii) complex spatial constructions, which cover all the other cases.

Multiverb constructions. Multiverb constructions are mono-clausal sequences of verbs that combine to form a single predicate, such as serial verb constructions, constructions with dependent verb forms, and constructions with support verbs (A. Y. Aikhenvald, 2011).

This framework shares with Cognitive Semantics the assumption that “lexicon and grammar are intertwined. Different classes of lexicon may have different grammatical properties” (A. Y. Aikhenvald, 2014, p. 7).

1.2.2 Semantic representation of the Grammar of Space

In this paper, the analysis of the semantic representation of space takes the results from Semantic Typology and Cognitive Semantics. The semantic representation of motion events divides into two semantic subdomains: the expression of static location, which refers to an
event that does not involves movement, and the description of motion, which involves movement (S. C. Levinson, 2003; Talmy, 2000a, p. 25). In order to synthesise Levinson’s (2003) and Talmy’s (2000a) proposals, I considered spatial components and spatial relations as separate kinds of theoretical constructs. The spatial components, which are the elements involved in the spatial relations, are presented as follows:

- **Perceptual components**. They are the essential components of the spatial relation, the **Figure** and the **Ground**. According to Talmy (2000a, pp. 183–184), the Figure is the primary object of the motion event. It is a conceptually movable and salient entity with unknown or dependent spatial disposition. The secondary object of the motion event is called the Ground. It is an entity with a known and independent spatial disposition that characterises the Figure’s spatial disposition. For instance, in the sentence ‘The book is on the table’, *the book* is the Figure, and *the table* is the Ground.

- **Motion components**. They are the components that define the direction of the spatial relation. The Goal is the component that refers to the destination of the motion, the Source is the motion origin, and the Path covers intermediate points between the Source and the Goal (Creissels, 2009, p. 614; S. C. Levinson, 2003, p. 68; Talmy, 2000a, pp. 53–54). For instance, in the sentences ‘I go to the house’, ‘I came from China’, and ‘I walked through the field’, ‘the house’, ‘China’ and ‘the field’ are the Goal, the Source and the Path of the motion events ‘go’, ‘come’, and ‘walk’. Additionally, this work considers the Location as the motion component of static location, such as ‘house’ in ‘the dog is in the house’.

- **Personal deictic components** (**deictic centre**). They correspond to the different roles that individuals play on the speech event: Speech Act Participants (SAP) (the Speaker (SPKR) and the Addressee (ADSS)) and Non-Speech Act Participants (NSAP) (S. C. Levinson, 2006, pp. 111–113).

- **External components**. They are components that indirectly make part of the spatial relation. The Viewer is who perceives the motion event, the Landmark is a salient environmental reference point outside the Figure-Ground array, such as a mountain or a river, and the Slope is an abstract and conventionalized sequence of parallel lines, the south-north slope, for instance ‘west’ or ‘south’ in English (Lum, 2018, pp. 47–87).

The spatial relations followed the classifications and definitions of Talmy (2000b, 2007), Brown (2015), Levinson (2003), and Levinson & Wilkins (2006). They are the following:
• **Non-Angular location** is a kind of location that does not employ a coordinate system. Figure and Ground are usually contiguous or coincident (Brown, 2015, p. 89; S. C. Levinson, 2003, p. 65). This kind of location has the following components:

  • **Spatial deixis** refers to the distance of the Figure from a personal deictic component. The Figure is located relative to a Ground in terms of radial categories, or combination with pointing gestures. In spatial deixis, the Ground is an SAP (the Speaker, the Addressee, or both) (Brown, 2015, p. 90; S. C. Levinson, 1999, pp. 30–31, 2003, p. 65).

  • **Topological relations**: They refer to contiguity relations between the Figure and the Ground (S. C. Levinson, 2003, p. 65). Ospina Bozzi (2013b) also considers the relation of Containment (the Figure contained on the Ground), and the relation of Contact/Support between the Figure and the Ground.

  • **Toponymy**: It refers to names of topographic places (i.e. place names). The Figure is located at a named place Ground (S. C. Levinson, 2003, p. 65). It does not exclusively concern the proper names of places, but also salient environmental referents (Burenhult & Levinson, 2008).

• **Angular location (frames of reference)**: It consists of frames of reference within a coordinate system. When the Figure and the Ground are not contiguous, this location specifies an angle or direction to defined axes of the Ground in which the Figure locates (Brown, 2015, p. 89; S. C. Levinson, 2003, p. 65). There are three kinds of frames of reference:

  • **Intrinsic**: These frames of reference relate to sides or axes of the Ground designated as inherent ones. These axes do not depend on the position or rotation of the viewer or the whole array. They depend on the rotation of the Ground, instead. For instance, ‘in front’ or ‘behind’ in English (Brown, 2015, pp. 90–91; S. C. Levinson, 2003, pp. 41–53).

  • **Relative**: These frames of reference concern relative axes of the Ground. These axes depend on the position and rotation of the viewer. They do not depend on the rotation of the Ground, such as ‘left’ or ‘right’ in English (Brown, 2015, pp. 90–91; S. C. Levinson, 2003, pp. 43–53).

  • **Absolute**: These frames of reference concern absolute axes of the Ground in terms of fixed and canonical orientation, such as the visual horizon or the environmental landmarks. They only depend on the whole array composition, independently of the position of neither the viewer nor the rotation of the ground, such as ‘north’ or ‘west’ in English (Brown, 2015, p. 91; S. C. Levinson, 2003, pp. 47–53).
• **Conformation** refers to the geometrical configuration of the Ground, such as the enclosure (2-dimensional) or the volume (3-dimensional) (Talmy, 2000b, pp. 53–54). This component will be extended to semantic classification and posture of the Figure and the Ground, as described in Grinevald (2006) and Aikhenvald (2000, pp. 53–54).

• **Vector** (Talmy, 2000b, pp. 53–54) comprises the association of the Ground to one Motion Component (such as Source or Goal). For instance, in ‘the boy walks from the house to the school’, the Ground ‘house’ is associated with the Source, and the Ground ‘school’ is associated with the Goal.

• **Deictic direction.** Based on Talmy’s ‘Deictic’ (2000b, pp. 56–57), it covers the association between the Deictic Center (Personal Deictic Components) and the Motion Components of the event. When the deictic centre corresponds to the Goal, the direction is Goal-anchored. Consequently, Source-anchored direction relates the deictic centre to the Source. For instance, in ‘he is coming’, the Speaker is associated to Goal (Goal-anchored), and in Spanish *me voy* ‘I’m leaving’, the SAPs correspond to the Source (Source-anchored).

• **Co-event** consists of external events associated with the motion event: the Manner of the motion and its Cause. For instance, the verbs ‘roll’ and ‘lay’ in English encode the manner of motion and location, while verbs such as ‘blow’ and ‘stuck’ encode the cause (Talmy, 2007, p. 71). In this paper, the concept of Co-event extends to complex spatial constructions (§5.1.2).

• **Translocation.** It involves a continuum passage through space of the Figure from the Source to the Goal over time and involves frames of reference (S. C. Levinson & Wilkins, 2006, p. 531).

• **Change of location.** It involves a discrete passage from one spatial point to another over time. At time t1 the Figure is at the Source, while in time t2 is no more at the Source. Similarly, the Figure is not at the Goal in time t1 and then is in the Goal in time t2. It involves spatial deixis or toponymy (S. C. Levinson & Wilkins, 2006, p. 531).

• **Change of locative relation:** It involves a discrete passage from one locative relation –such as contiguity– to another over time; the Figure is in locative relation R1 at time t1, and it is in locative relation R2 at time t2. This motion does not involve a reference to the Source or the Goal, but it involves a change in terms of topological relations, such as in the Spanish verbs entrar ‘go in’ and salir ‘go out’ (S. C. Levinson & Wilkins, 2006, p. 532).
1.3 Methodological design

The present study is a descriptive research of the main characteristics of the linguistic expression of space in Karijona. The methodological design contains ethnographical, observational, narrative, and quasi-experimental components.

This study is longitudinal. The corpus consisted of first- and second-hand data documented in two separate periods, one from 1982-1986 and another from 2014-2019. Besides, the corpus considered elicited and naturalistic data. The analysis is carried out under a qualitative approach of grammatical description, considering sociocultural, environmental, and semantic factors.

1.3.1 Methods of analysis

The analysis covered four stages: the ethnographic, historical and environmental approach, the analysis of spatial grammatical systems, the analysis of spatial constructions, and the analysis of spatial domains in Karijona.

Stage 1: Ethnographic, historical, and linguistic background. Previous research has shown the importance of the non-linguistic background on the understanding of the GS (Admiraal, 2016; Cablitz, 2006; O’Meara, 2010; Rybka, 2016). The description of the non-linguistic background thus considers the bibliographical research of the following aspects:

- Ethnographic, which covers previous anthropological research about the Karijona community, as well as field observations about the current relation of the Karijona people with their territory.
- Historical, which consists on previous studies about the history of Karijona people, including emigrational processes and historic inter-ethnic relations.

The understanding of the Karijona GS also requires a linguistic background. Based on the review of previous works and findings throughout the research process, this stage presents a grammatical sketch of the language, considering word classes, grammatical relations, and verbal and nominal morphosyntax (§2).

Stage 2: spatial grammatical systems. In order to achieve an understanding of the Karijona grammar of space, this stage considers two central grammatical systems: the system of postpositions, and the system of pronouns and adverbs (§3-4).

Stage 3: Syntactic characteristics of the Karijona GS. Stage 3 describes the syntax of spatial constructions in Karijona. It covers basic and complex spatial constructions, associated
motion, spatial multi-verb constructions, and derivational processes involving spatial grammatical systems (§5.1).

**Stage 4: Semantic domains of the Karijona GS.** Stage 4 considers the relations between syntax and semantics within sentences. Based on the results of the tests, it presents the analysis of underlying spatial relations at the semantic level (§5.2).

### 1.3.2 Data collection

The methodological techniques included fieldwork, sociolinguistic tests, interviews, and workshops of social cartography. These techniques integrated processes of documentation and interaction with people, according to a written ethical agreement, and with the oral consent of the consultants.

First-hand data is collected with the collaboration of 10 participants. They divide into two separate age groups: elders (+60 years old) and Adults (between 40 and 60 years old). Most of the speakers live in Puerto Nare (Guaviare department), one of them locates at La Pedrera (Amazonas department), and another in the city of San José del Guaviare (Guaviare department). All consultants are Karijona-Spanish bilinguals. Table 1 shows the information on the consultants:

<table>
<thead>
<tr>
<th>Consultant</th>
<th>Gender</th>
<th>Age group</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Ana Benjumea</td>
<td>F</td>
<td>Elder</td>
<td>Puerto Nare</td>
</tr>
<tr>
<td>Campo Elías Miranda</td>
<td>M</td>
<td>Adult</td>
<td>Puerto Nare</td>
</tr>
<tr>
<td>*Ernesto Carijona</td>
<td>M</td>
<td>Elder</td>
<td>Puerto Nare</td>
</tr>
<tr>
<td>*José Romero</td>
<td>M</td>
<td>Elder</td>
<td>Puerto Nare</td>
</tr>
<tr>
<td>*Lilia Gómez</td>
<td>F</td>
<td>Elder</td>
<td>Puerto Nare</td>
</tr>
<tr>
<td>Lucia Carijona</td>
<td>F</td>
<td>Elder</td>
<td>La Pedrera</td>
</tr>
<tr>
<td>Nora Narvaez</td>
<td>F</td>
<td>Adult</td>
<td>Puerto Nare</td>
</tr>
<tr>
<td>Ofelia Arbeláez</td>
<td>F</td>
<td>Adult</td>
<td>Puerto Nare</td>
</tr>
<tr>
<td>Teresa Marín</td>
<td>F</td>
<td>Elder</td>
<td>San José</td>
</tr>
<tr>
<td>Víctor Narváez</td>
<td>M</td>
<td>Adult</td>
<td>Puerto Nare</td>
</tr>
</tbody>
</table>

* Female, M Male

Given the current state of the language, the methodological techniques (see §1.3.2) are applied to four consultants: two men and two women. The sample consisted of four voluntary elders of the Karijona community of Puerto Nare, who still have traditional linguistic and cultural knowledge –flagged with an asterisk (*) in Table 1 above.
The research requires several qualitative techniques. The fieldwork is essential for the data collection process in quasi-naturalistic conditions. It consists of 4 months of work with the Karijona people at the settlement of Puerto Nare (Dep. of Guaviare), distributed in two separate trips. A sociolinguistic questionnaire gave a sociolinguistic overview of the consultants in terms of gender, age, and level of education. Several methodological tools from the Language and Cognition Group at the Max Planck Institute for Psycholinguistics in Nijmegen (MPI) are useful for the recording of elicited data. These tools are adapted to the Amazonian context according to the recommendations of Ospina Bozzi (p.c., 2013b). The methodological tools for elicited data are:

• (i) **Topological Relation Pictures** (Bowerman & Pederson, 1992). It contains a set of 71 pictures that present several topological relations between a Figure (in orange) and a Ground (in black) (see Appendix 1). This tool is designed to analyse topological relations, but it is also useful to analyse demonstratives.

• (ii) **Local Spatial Photographs**. Based on the topological relation pictures (Bowerman & Pederson, 1992) and the spatial dimensions (features) presented in Levinson & Wilkins (2006, pp. 9–10), it is a set of 160 pictures of local objects and places that represent several topological relations. The consultants experimented difficulties understanding the topological relation pictures because they were either too schematic or out of context. Therefore, those photographs allowed the consultants to use their language for referring to well-known places and objects. Given the level of details those photographs, they are useful to identify topological relations and record oral descriptive texts (see Appendix 2).

• (iii) **Motion Verb Stimulus** (S. C. Levinson, 2001). It is a set of videos that cover different aspects of motion events, such as Figure-Ground relations, path, manner, and triads. It is especially important to study the encoding of motion events.

• (iv) **Map-Based Space Game** (Herrera, 2008; based on: S. C. Levinson et al., 1992). In this game, one speaker (the director) gives indications to another (the matcher) to identify the location of a particular object in a map. It is relevant for the study of frames of reference.

The qualitative techniques include social cartography. Based on the guidelines of Herrera (2008) Velez Torres et al. (2018) and Rodríguez (p.c.), It consists of the collective elaboration of one map that showed different aspects of the cultural knowledge of the Karijona territory. This technique follows the expectations of the members of the community who wanted to participate. The maps focus on the following topics:
• (i) **Social Networks.** It includes the representation of places where Karijona people live, move through and interact, and sacred and dangerous places.

• (ii) **Ecology.** It covers the salient landscape locations or zones: such as forests, lagoons, salt flats, or traditional farms (*chagras*). It also included plants, animals, and spirits associated with those locations.

• (iii) **Economy.** It considers places where people undergo productive practices, such as cropping, hunting, and fishing. It included land uses, owners, extensions and boundaries.

This technique is useful to inquire on big-scale location and movement, frames of reference, landscape terms, strategies of self-location, and the internal representation of the territory.

The audiovisual documentation of traditional stories, description of circuits, and bilingual interviews are a component of the data collection due to the importance of natural-like data in the descriptive analysis. Table 2 summarises the methodological techniques for data collection.

<table>
<thead>
<tr>
<th>Technique</th>
<th>Description</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fieldwork</td>
<td>It consists of two trips to Puerto Nare:</td>
<td>– To live and interact with the Karijona people.</td>
</tr>
<tr>
<td></td>
<td>i) From Dec 2017 to Jan 2018.</td>
<td>– To collect audiovisual data.</td>
</tr>
<tr>
<td></td>
<td>ii) From Dec 2018 to Feb 2019.</td>
<td>– To have informal interviews with people about space and territory.</td>
</tr>
<tr>
<td>Questionnaire</td>
<td>Sociolinguistic questionnaire.</td>
<td>– To give a sociolinguistic overview.</td>
</tr>
<tr>
<td>Tests</td>
<td>i) Topological relations pictures.</td>
<td>– To provide controlled conditions for quasi-experimental data.</td>
</tr>
<tr>
<td></td>
<td>ii) Local spatial photographs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>iii) Motion verb stimulus.</td>
<td></td>
</tr>
<tr>
<td>Audiovisual documentation of</td>
<td>i) Traditional stories.</td>
<td>– To provide natural conditions for quasi-naturalistic data.</td>
</tr>
<tr>
<td>oral texts</td>
<td>ii) Description of circuits.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>iii) Bilingual interviews about:</td>
<td>– To afford information about linguistic and extra-linguistic conceptions of space.</td>
</tr>
<tr>
<td></td>
<td>- relation with the territory.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- migration processes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- contact with other indigenous groups and non-indigenous people.</td>
<td></td>
</tr>
<tr>
<td>Social cartography</td>
<td>Collective elaboration of:</td>
<td>– To inquire on the definition of geocentric frames of reference and the strategies of self-location on the territory.</td>
</tr>
<tr>
<td></td>
<td>ii) Maps of the ecology.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ii) Maps of the economy.</td>
<td></td>
</tr>
</tbody>
</table>
Those methodological techniques modify through the data collection process. They are adjusted to fit with the internal and external conditions of the documentation, such as the attitudes of consultants for the techniques and limitations on fieldwork time.

As mentioned above, data collection consists of two separate field trips. From December 2017 to January 2018, the first one comprises the application of the questionnaire and tests. The second one focused on the technique of social cartography from January to February 2019. The starting point has been the establishment of an agreement with the elders and indigenous authorities, and the promotion of the project among the Karijona people.

The fieldwork pursued two co-related interests: the linguistic (collection of audiovisual data) and the ethnographic one (interaction with persons). Once the thesis is defended and approved, socialisation will take place in Puerto Nare for sharing the main findings and products (including exemplars of the thesis and maps) to the Karijona people. The audiovisual recording and transcription of oral texts is part of both fieldworks. Figure 1 illustrates the methodological procedure.
The first-hand data is collected from several joint and individual sessions of about 50-minutes. At the beginning of each session, the consultants receive information about the activity. Then, they start to describe, one by one, the inputs (pictures, photographs, or videos) for each test, first in Karijona and then in Spanish. Three of the consultants are not familiar with 2-dimensional schematic inputs; on several occasions, the interpretation of the input does not correspond to the expected one. As a result, when a consultant is not sure about the content of the picture, he/she is free to give any interpretation. This procedure turns the data less controlled in many aspects, but also allows the consultants to use more diverse and natural strategies for referring to the input. At the end of each session, consultants receive economic retribution, defined and agreed at the beginning of the fieldwork.

At the beginning of the first fieldwork, the Karijona people of Puerto Nare gave their written consent and approval for this research. Elders, indigenous authorities, and I agreed together about the ways and amount of economic and non-economic retribution. Individual members of the community – especially young people – collaborate on the process of data collection. The ethical aspects have been agreed with the indigenous authorities, based on the
code of conduct of the DOBES documentation program (Wittenburg, 2005). The main points are:

- I will respect the Intellectual and Cultural Property Rights of the individual consultants and the Karijona community.
- I will not use the recorded and analysed data for commercial purposes without the permission from the Karijona community.
- The consultants and the Karijona community will be informed openly and seriously about the goals, limitations and possible misuses of the research project.
- I will support the efforts for revitalising the Karijona language within the limits of my possibilities.
- I will make recordings and research-related documents accessible to Karijona people.
- I will record and archive the data according to professional standards.

1.3.3 Data processing

The corpus covered a range of discursive genres that includes narrations, anecdotes, life histories, descriptions of circuits, bilingual interviews and linguistic responses to controlled stimuli (such as grammatical questionnaires and pictures). The corpus distinguishes between first- and second-hand data and consists of elicited utterances and (quasi) natural-like speech. The corpus is transcribed using the conventions of the International Phonetic Alphabet (IPA), supported by the following specialised software: Audacity and Total Commander (sorting), ELAN (transcription), and FLEX (parsing analysis).

The corpus consisted of about 70 hours of audiovisual recordings of elicited and natural-like utterances, which belong from two samples of the same population surveyed at different time stages (1982-86 and 2014-19) and places (Puerto Nare, La Pedrera).

The data came from two primary sources. One corresponds to first-hand data. In many cases, members of the UNAL’s Research Group on Ethnolinguistics recorded the data collectively. The other source corresponds to data collected from previous studies by other researchers (Second-hand data), especially by Prof Camilo Robayo Romero.

This research receives the financial support of the UNAL’s research project ‘Descripción y documentación del Carijona’ under the direction of Prof Camilo Robayo Romero, the UNAL’s Honor Degree Scholarship (Beca de Posgrado de la Universidad
Nacional de Colombia), and the Australian Linguistic Society Research Grant. The sources for the second-hand data are:

- Camilo Robayo, Associate Professor of Linguistics at the UNAL, who worked with the Karijona people in the 80’s;
- Sergio Meira, a researcher at the Musseu Paraense Emilio Goeldi, who worked on the reconstruction of Proto-Taranoan, and collected narrations in Karijona during the early 2000s; and
- Andrea Rodriguez, a linguist from the UNAL, who worked on the Karijona vocabulary and conception of space in 2015-2016.
- Jonatan Bonilla, a researcher at the Instituto Caro y Cuervo, who documented oral texts in Karijona with two elders from La Pedrera (Lucía Carijona and Hernando Perea) in 2018.

The consultants belong from five locations: Puerto Nare and San José (Guaviare), Leticia and La Pedrera (Amazonas), and Villavicencio (Meta). Table 4 displays the main characteristics of the data.
### Table 3. Data from previous research studies

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
<th>Genres</th>
<th>Consultants</th>
<th>Temporal-geographical location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Elicited</td>
<td>Grammatical questionnaires.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sergio Meira</td>
<td>Naturalistic</td>
<td>Narrations.</td>
<td>Joaquín Carijona.</td>
<td>2018 La Pedrera</td>
</tr>
</tbody>
</table>

### 1.4 Summary

This chapter presented the primary theoretical and methodological considerations that are relevant to the analysis. The literature review considers previous research on GS with a particular focus on the Amazonian region. The theoretical approach is mainly based on the frameworks of Basic Linguistic Theory, Semantic Typology and Cognitive Semantics. Methodologically, this is qualitative research that involved ethnographic work, interviews, tests, questionnaires, and maps. The analysis considered both elicited and naturalistic data.

This thesis is structured as follows. Chapter 2 presents the ethnohistorical and linguistic background of the Karijona people. Chapter 3 describes the Karijona system of spatial postpositions. Pronouns and spatial adverbs are the topics of Chapter 4. The syntax and
semantics of spatial constructions are presented in Chapter 5. Finally, Chapter 6 gives the conclusions.
The Grammar of Space in Karijona

Chapter 2

2 The Karijona People and Their Language

Karijona (also spelled as Carijona or Karihona) is an endangered Cariban group located at the Colombian Amazonian region. The total number of the Karijona people is estimated at 120, dispersed over various locations in southern Colombia. The majority reside in two settlements in the Colombian departments of Guaviare, Amazonas, and Caquetá (Puerto Nare, La Pedrera, and El Diamante). Some Karijona locate in the urban areas of Villavicencio in the department of Meta and San José in the department of Guaviare. According to Franco (2002), there are some uncontacted Karijona people in the Chiribiquete National Park (Department of Caquetá).

The Karijona language is currently one of the most endangered languages in Colombia. There are no contacted monolingual speakers of the language. Approximately 14 fluent speakers of Karijona distributes in Puerto Nare (Guaviare), La Pedrera (Caquetá), San José (Guaviare), and Villavicencio (Meta). They can tell traditional narratives and preserve the Karijona traditional knowledge, such as songs, dances and uses of plants. The young Karijona people preserve a passive knowledge of the language, but they manifest themselves as being unable to speak the language. Nevertheless, the Karijona people are interested in preserving their language and customs, and they are currently beginning a process of linguistic revitalisation. Map 1 shows the approximate locations of the Karijona people.
The Karijona people traditionally located on the banks of the Yarí and Mesaí rivers, between the 18th and 19th centuries (Robayo, 1997). As a result of different social and political factors, the Karijona moved to different places in the Amazonian region until reaching the territories where they currently live (see §2.1).

Previous research and field observations have shown that the Karijona people have an internal clan like division. Franco (2002) made a reconstruction of the traditional Karijona clan division based on his collaborative work with Alberto Perea and Alberto Mosquera Carijona, and previous research of Helmut Schindler, it is presented in Table 4.
According to Robayo (1997), the inherent relationship between the Karijona culture and its language was transversal to all spheres of traditional life within the Karijona community. Through the myths, the specific use of language in the different rituals and the daily use of the language in general, there was a transmission of knowledge, habits and values within this group. The demographic impacts due to successive epidemics led to physical and cultural disintegration of the Karijona people in the first half of the 20th century (Robayo, 2000: P. 171). These impacts implied a loss on the transmission of the traditional cultural and linguistic knowledge of the Karijona people through several generations, which reflected in the current social and linguistic situation of the Karijona people.

The information of the subsequent sections belongs from fieldwork observations and a bibliographical review. Firsthand information comes from some fieldworks carried out in Puerto Nare (Department of Guaviare) between 2017 and 2019, whose objective was to carry out a collaborative reconstruction of the historical memory of the Karijona people. The

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2 Adapted from: Guerrero Beltrán (2016)
bibliographical review consisted of previous linguistic and ethnographic investigations concerning the history of the Karijona people. Among them, the works of Robayo (1997), Franco (2002), and Salazar Castillo et al. (2006), Schindler (1977; 1994), Koch-Grünberg (1995 [1903-1905]), Llanos Vargas & Pineda (1982), and Urbina (1997) stand out as primary sources, due to the meticulousness and relevance of their research within the framework of ethnohistory, interethnic contact and migratory processes of the Karijona people.

2.1 Migratory processes

The Karijona community have had several migratory processes. The first migration of the Karijona people corresponds to the displacement from the Tumucumaque Mountains (between Brazil and Suriname) and the Chibiriquete Mountains in Colombia. Due to the historical linguistic proximity between the Karijona, the Tiriyó, and Akuriyó languages, the Karijona people should come initially from the region of the Tumucumaque Mountains, in the region between northern Brazil and Southern Suriname (Meira, 2000; Carlin, 2004). According to Franco (2002) and Robayo (1997), there are two hypotheses about the migratory routes carried out. The first one refers to the arrival from the Antilles, by sea, going up the Magdalena River to the Guayabero and Caguán rivers, and finally to the Yarí and Apaporis rivers, near the Amazon foothills. The second one proposes that the arrival was given by fluvial and pedestrian migration through the Branco and Negro-Vaupés rivers, or the Orinoco and Guaviare rivers, until reaching the Yarí and Apaporis rivers (see Map 2).
The Karijona people consider the place of arrival of the 1st migratory process as their ancestral territory. According to Franco (2002), "the centre of the territory comprised the area of the lower basin of the Yarí river, the high course of the Apaporis river in the vicinity of the Macaya and Ajaju rivers". Nowadays, this territory corresponds to the border region between the departments of Caquetá, Vaupés, and Guaviare, in Colombia (see Map 3).
According to diachronic investigations of Meira (2000), the 1st migratory process of the Karijona people took place at least 500 years ago. Besides, Franco (2002) points out that the archaeological and demographical evidence show that this process could hardly be carried out after the arrival of the Europeans to the American continent.

The second migration took place at the beginning of the 20th century. This process involved the Karijona movement from their traditional territories to small settlements in Puerto Nare (Guaviare), La Pedrera (Amazonas), and El Diamante (Caquetá). According to Franco (2002) and Salazar Castillo et al. (2006), the rubber boom at the early years of the 20th century led to a series of migratory processes of indigenous groups, including the Karijona people. These processes involved the incursion of Uitoto and Peruvian people from the Casa Arana – the international rubber company – to the Karijona territory, which resulted in their displacement into peripheral regions of its territory.

As shown in Map 4, one group migrated to the river Orteguaza (Brown region), where some families established among the Coreguaje people (Franco, 2002; Gilberto Valencia, p.c.). A second group to make a migratory movement departed from the Apaporis River along the
Caquetá River to settle at La Pedrera (Red region) and Manacaro. By then, the formerly large population of the Karijona people decreased into a few families. Finally, another group migrated to the Vaupés River at the municipality of Miraflores (blue region), where the Karijona settlement of Puerto Nare currently locates, in which the largest population of Karijona concentrates nowadays.

Map 4. The 2\textsuperscript{nd} migratory process of the Karijona people

The 3\textsuperscript{rd} migratory process is more challenging to follow, and it was carried out in the last decades. This process considers several micro-migrations of small families who left the shelters of Puerto Nare or La Pedrera to settle in municipalities or larger cities within the urban perimeter. The first and most evident was the displacement of a couple of families from Puerto Nare to the city of Villavicencio, in the Department of Meta. Among them, three elders speak the Karijona language and some people who retain part of the Karijona culture since they were born within the territory. Another migration involves two families that migrated from Puerto Nare to San José, the capital city of the Department of Guaviare, among them an elder. Finally,
some individuals have migrated from the shelter of La Pedrera to the city of Leticia, capital of the Department of Amazonas.

The motivations for these displacements are diverse and complex. They involve armed conflict, job opportunities, marriages with non-indigenous people, among others. Those displacements are especially relevant in the current context given the interest of the Karijona people in consolidating a process of language revitalisation.

2.2 Language contact in Northwest Amazonia

It is not possible to determine to what extent the relations between the languages and communities from the place of origin at the Guianas could affect the Karijona before carrying out the first migration. However, the division of the Karijona from the proto-Taranoan came together with the 1st migration process (Meira, 2000). Robayo (1997), Franco (2002), and Schindler (1977), mention contact situations before the 2nd migration between the Karijona people and the following groups: the Andoque, Uitoto, Cabiyarí, Yukuna-Matapí, Bora-Miraña, Coreguaje, Tanimuka, Cubeo, Desana and Muinane people, in addition to the non-indigenous Colombian and Brazilian people. After the 2nd migration, the Karijona people of El Diamante had close contact with the Coreguaje people. This process ended up producing an assimilation process in which the Karijona families in that territory adopted the Coreguaje as their language. Through the Karijona people of La Pedrera, the migration led to closer contact with the Yukuna-Matapí and the Tanimuka people. Finally, the Karijona people of Puerto Nare currently have contact with communities that migrated from the Vaupés to the municipality of Miraflores at the beginning of the 20th century, such as the Tukano, Siriano, Desano, Wanano, Pirapatuyo, and Cubeo people (fieldwork notes).

Previous ethnographic documents and the testimonies of the Karijona elders of Puerto Nare indicate that there were different kinds of interethnic relations with the other indigenous and non-indigenous groups of the region. In this way, the Karijona people had a hostile treatment with some groups (such as the Uitoto and Andoke people), with some others (the Kabiyari and Coreguaje people) there was a commercial and matrimonial exchange, and with some others (non-indigenous people) there was a situation of submission.

2.2.1 Superstratum

The accounts of the Karijona elders, as well as Franco’s (2002), Robayo’s (1997), Wojtylak’s (2017), Echeverry’s (1997), and Urbina Rangel’s records (1997) show that there was a hostile treatment between the Karijona and the communities of the cultural complex of
the People of the Centre, especially in the case of the Uitoto people, who are recognized as their ancestral enemies.

According to oral testimonies, the territory of the Yarí River was occupied by the Uitoto at the time of the arrival of the Karijona people. The latter displaced them from their territories and settled there, thus initiating an enmity that transcended to the point of making a fundamental part of the historical memory of both groups (Urbina, 1987). Following José Romero and Gabriel Romero (p.c.), there was a practice that consisted of crossing the Yarí River to steal the women and children of the enemies and raise them as orphans. This practice could lead to a process of dissemination at the linguistic level in both ways. The people who were robbed, especially the women, possessed the language from which they came, with which they subsequently raised their children.

Ernesto Carijona and Ana Benjumea (p.c.) mentioned that the word wïtoto, a Karijona word, referred to the people from the southern territories (i.e. the People of Center) as a whole. They mentioned that the Karijona people considered the Andoke as a type of aggressive Uitoto people.

According to Luis Gwako Miraña (in: Franco, 2002), "The Karijona people dominated and humiliated all the neighbouring tribes", which evidences the situation of superstratum in which the Karijona arrived as a dominant group who imposed itself on the other groups of the region. However, the practice of stealing women from enemies was not unilateral. The testimonies point that this practice was carried out by both Uitoto and Karijona people.

The inter-ethnic contact with other communities in the Caquetá-Putumayo region, such as the Resígaro, Muinane, Nonuya or Ocaína people is not present in the historical memory of the Karijona elders. Nevertheless, some vestiges of contact between Karijona and Muinane people remain in the Muinane oral tradition (Franco, 2002).

2.2.2 Adstratum

Although records and testimonies show that hostile behaviour and anthropophagy was a relatively cross-cutting feature of contact between the Karijona people and other ethnic groups, there is evidence that some of these transcended the context of confrontation. A horizontal relationship of commercial and matrimonial exchange with some groups allowed a situation of adstratum. The Karijona people maintained horizontal relations with the Coreguaje, Cabiyarí, and Cubeo people before the 2nd migration. Similarly, Franco (2002) suggest that there was also a contact situation of adstratum with the Tanimuka and Yukuna-Matapí people.
Franco (2002) mentions that the contact between the Karijona and Coreguaje people was hostile. However, it later became a relationship of exchange and coexistence. The author mentions that the Karijona and Coreguaje people even lived together in the town of San Francisco de Solano. The Karijona elder José Romero adds in his testimony that his grandparents knew and sang the Coreguaje songs and vice versa; also, that marriage exchanges between the two groups were carried out.

About the Cabiyarí, Franco (2002) and Robayo (1997) mentioned that there was a contact situation involving the exchange of tools, share sings and dances, and marriage exchanges. However, there were several events of confrontation between Karijonas and Cabiyaries that remained in the historical memory of the Karijona, as Lucía Carijona said in 2014. An important vestige of this contact is the myth of *Kuawai*, a myth of Arawak origin which, according to Robayo (1997), was transmitted as a result of contact with the Cabiyarí, which remains nowadays as a traditional creation myth among the Karijona people. There is also transmission from the Cabiyarí to the Karijona of the *muñeco* dance, which includes songs in Cabiyarí language that have already been assimilated by the Karijona as their own.

The contact with the Cubeo became narrow after the 2nd migration. Nowadays, the Karijona shelter of Puerto Nare adjoins the Cubeo shelter of Lagos del Dorado in the municipality of Miraflores. However, Franco (2002) points out that this contact began before the 2nd migration. Karijona elders even mention that Karijona and Cubeo people migrated together from Mitú (department of Vaupés).

One of the most significant influences of the East Tukanoan groups among the Karijona people is the participation in the cultural complex of "Yurupari" (Salazar Castillo, Guevara, Hernández, Silva Montalegre, & Jacanamejoy Jamioy, 2006), and several shared traditional narratives. Nevertheless, as mentioned in Robayo (1997), the Karijona do not share the creation myth of the Anaconda, strongly linked to the Tukanoan tradition.

The case of the Yukuna-Matapí and Tanimuka is more challenging to elucidate. On the one hand, Franco (2002) mentions that contact with the Yukuna-Matapí was initially hostile. In fact, according to the Yukuna-Matapí cosmogony, the Karijona and the Tanimuka came from the same ancestors. Likewise, Robayo (1997) mentions that the relationship between the Tanimuka-Karijona was friendly. Besides, the Yukuna elder Chápune manifests that the Tanimuka people have Cariban origins (van der Hammen, 1992, p. 54). Nevertheless,
according to Franky (2004, p. 80), the Tanimuka people do not recognise a common origin with the Carijona people; however both are seen as descendents of the tiger within the Tanimuka’s cosmogony.

Robayo (2002) mentions, moreover, that the ecological adaptation and the types of cultivation of the Karijona are not differentiable from those of the other communities in the region. Also, cultural practices typical from Northwest Amazonia, such as the eating of mambe (coca paste) do not become from the traditional Cariban practices. Likewise, as Schindler points out (1977. In: Robayo, 1997), the Karijona people carried out a process of change from an uxorilocal system, typical from Cariban groups, towards a patrilineal system, according to the systems of the Eastern Tukanoan groups. It hence reflects how the processes of contact affected the cultural practices of the Karijona people before and after the 2nd migration.

2.2.3 Substratum

Like the other Amazonian groups, there was a substrate situation of the Karijona people with non-indigenous people from European origins. Notably, there was a contact situation with Colombians, denominated in Karijona as irakuʧa, and Brazilians, called Yaranai (Robayo, 1997). It suggests a contact situation between the Karijona, Spanish, and Portuguese languages before and after the 2nd migration. The substratum situation between Karijona and Spanish was reinforced throughout the 20th and 21st centuries by several sociopolitical factors, such as the massive arrival of non-indigenous people in the Karijona territory due to the coca boom or the incursion of missionary boarding schools in the Amazonian region at the second half of the 20th century.

2.3 Traces of linguistic contact

The traces of linguistic contact in the Karijona language belong from both lexical and grammatical factors. They include exonyms, lexical borrowings, phonological innovations, and morphosyntactic changes.

Several groups from Northwest Amazonia had a particular word for referring to the Karijona people (exonyms). Carijona et al. (2015) presented a list of exonyms of the Karijona people from the Uitoto, Andoke, Bora-Miraña, Yukuna-Matapí, Cubeo, Coreguaje, Colombian, and Brazilian people, based on the work of Franco (2002). This fact evidence the contact situation between the Karijona people and other groups of the region, including contact with Colombians and Brazilians. The anthropophagy as a general feature for recognising the
Karijona people reveals the hostile inter-ethnic treatment within the region. The list of exonyms is presented in Table 5.

Table 5. Exonyms of the Karijona people (Adapted from: Carijona et al., 2015)

<table>
<thead>
<tr>
<th>Group</th>
<th>Denomination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uitoto</td>
<td>Riama and Coreba (cannibal people)</td>
</tr>
<tr>
<td>Andoque</td>
<td>Sindi (owner of the Jaguars)</td>
</tr>
<tr>
<td>Bora-Miraña</td>
<td>Umauá</td>
</tr>
<tr>
<td>Yukuna-Matapí</td>
<td>Caipuná/Yainakahí (cannibal people, associated to a mythical jaguar yai)</td>
</tr>
<tr>
<td>Cubeo</td>
<td>Umáua</td>
</tr>
<tr>
<td>Coreguaje</td>
<td>Ocho (bat)</td>
</tr>
<tr>
<td>Tanimuka</td>
<td>kuayabira (Franky, 2004, p. 80)</td>
</tr>
<tr>
<td>Colombian</td>
<td>Guaque - Murciélago (bat)</td>
</tr>
<tr>
<td>Brazilian</td>
<td>Umaua - Maua</td>
</tr>
</tbody>
</table>

Similarly, the Karijona people had words for referring to other groups in the region. For the nowadays Karijona elders, the most of the ethnic groups from the cultural complex of the People of the Center, such as the Uitoto and Andoke people, are homogeneously recognised as *witoto*, while people from the Vaupés Cultural Area have standard denominations, such as the Tukano or the Kabiyarí people. Table 6 presents the list of Karijona denominations of other groups.
Table 6. Karijona denominations of other groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Denomination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Murui</td>
<td></td>
</tr>
<tr>
<td>Mika</td>
<td></td>
</tr>
<tr>
<td>Minika</td>
<td>witoto</td>
</tr>
<tr>
<td>Nipode</td>
<td></td>
</tr>
<tr>
<td>Andoke</td>
<td></td>
</tr>
<tr>
<td>Cubeo</td>
<td>enawa / tadɔrɔ</td>
</tr>
<tr>
<td>Kabiyarí</td>
<td>kabidʒari</td>
</tr>
<tr>
<td>Tukano</td>
<td>tukano</td>
</tr>
<tr>
<td>Colombian</td>
<td>irakuʧa</td>
</tr>
<tr>
<td>Brazilian</td>
<td>yaranai</td>
</tr>
</tbody>
</table>

The word *witoto* does not refer to a single ethnic group, but a set of communities that share a historical situation of conflict with the Karijona people. On establishing which other Amazonian groups enter in the category of *witoto* (such as the Ocaina or the Resígaro people) requires further research.

Another vestige of Karijona linguistic contact concerns the lexical level. Robayo (1997) notes that there is a lexicon from Tupi-Guaraní languages spread through Northwest Amazonian languages, including Karijona. Similarly, Koch-Grunberg (1908. In: Robayo, 1997) presents a list of terms from Arawak origins used by the Karijona people. There are also many borrowings from Spanish, especially for objects of Western origin. Nevertheless, carrying out an exhaustive work on Karijona lexicography is still necessary for elucidating the linguistic borrowing in Karijona. The word *irakuʧa*, used for referring to non-indigenous (Colombian) people, is a borrowing from Kichwa shared with the Murui people (Wojtylak, 2017, p. 110). Table 7 presents a list of the scattered Karijona lexical borrowings.
Table 7. Karijona lexical borrowings

<table>
<thead>
<tr>
<th>Origin</th>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tupi-Guarani</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>akuri</td>
<td>agouti (rodent)</td>
</tr>
<tr>
<td></td>
<td>waraku</td>
<td>guaracu (fish)</td>
</tr>
<tr>
<td></td>
<td>arawata</td>
<td>howler monkey</td>
</tr>
<tr>
<td></td>
<td>kapiwara</td>
<td>capybara</td>
</tr>
<tr>
<td></td>
<td>kurimata</td>
<td>frog</td>
</tr>
<tr>
<td></td>
<td>warara</td>
<td>turtle</td>
</tr>
<tr>
<td></td>
<td>waruma</td>
<td>guarumo (tree)</td>
</tr>
<tr>
<td></td>
<td>turi</td>
<td>torch</td>
</tr>
<tr>
<td><strong>Arawak</strong></td>
<td>wana</td>
<td>the cane used to mark the rhythm of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the traditional dances</td>
</tr>
<tr>
<td></td>
<td>yalanai</td>
<td>non-indigenous</td>
</tr>
<tr>
<td></td>
<td>kuyui</td>
<td>piping guan (bird)</td>
</tr>
<tr>
<td></td>
<td>kuiy</td>
<td>bird</td>
</tr>
<tr>
<td></td>
<td>mami</td>
<td>tente (bird)</td>
</tr>
<tr>
<td><strong>Spanish</strong></td>
<td>mama</td>
<td>mom</td>
</tr>
<tr>
<td></td>
<td>aroso</td>
<td>rice</td>
</tr>
<tr>
<td></td>
<td>koheto</td>
<td>shotgun</td>
</tr>
<tr>
<td></td>
<td>kuʧara</td>
<td>spoon</td>
</tr>
<tr>
<td></td>
<td>arina</td>
<td>cassava flour</td>
</tr>
<tr>
<td><strong>Quechua</strong></td>
<td>irakuʧa</td>
<td>non-indigenous</td>
</tr>
</tbody>
</table>

The contact-induced structural changes in Karijona require further studies. I present some preliminary observations. Following Meira (2000), Karijona presents three main innovations from proto-Taranoan at the phonological level: phonological voiced plosives (/b/d/g/), no consonant clusters, and no closed syllables. These innovations are inter-related, given that the
loss of consonant clusters in Karijona led to the emergence of the voiced plosives (i.e. */nt/ > /d/). Considering that open syllables and no consonant clusters are present in languages like the Murui (Wojtylak, 2017) and Andoke (Landaburu, 1979), it is thus plausible to consider that contact-induced changes on syllabic reduction could motivate the Karijona phonological innovations.

At the grammatical level, three innovations that could be related to contact processes have been attested in Karijona: a change in the evidential and aspect systems, the emergence of a posture predicate system, changes in the demonstrative and postpositional systems, and a change in the alignment system. Nevertheless, it requires further research.

2.4 The Cariban languages

The Cariban languages are one of the largest linguistic families in the Amazonian region together with the Tupi, Arawak and Macro Jê linguistic families. According to Derbyshire (1999, p. 23), there are approximately 30 different Cariban languages spoken today and an estimated number of speakers ranging from 48,000 to 57,000. The Cariban groups are distributed through different regions in Colombia, Venezuela, Brazil, Suriname, Guyana, and French Guiana, as seen in Map 5 below.

Map 5. Location of Cariban groups (A. Y. Aikhenvald, 2012, p. 43)

According to previous comparative research (Gildea, 2012; Meira, 2000), the Karijona language is part of the Taranoan group of the Cariban linguistic family, together with Tiriyó and Akuriyó. Gildea (2012, pp. 442–446) suggests that the group is part of the Guyanese
branch, together with the Kari'nja, Makiritare and Wayana groups, such as Shown Table 8 below.

Table 8. Internal classification of the Cariban Family

<table>
<thead>
<tr>
<th>Internal classification of the Cariban family</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Parukoto Branch(A)</td>
<td>A. Parukoto Group; A1. Katsuyana; A2. Waiwai subgroup: Waiwai-Hixkaryana</td>
</tr>
<tr>
<td>Pekodian Branch (B-C)</td>
<td>B. Bakairi; C. Arara group: Arara -Ikpéng</td>
</tr>
<tr>
<td>Venezuelan Branch (D-E-F-G-H)</td>
<td>Macro-group Pemóng-Panae</td>
</tr>
<tr>
<td></td>
<td>D. Pemóng Group: Kapóng, Makushi, Pemóng;</td>
</tr>
<tr>
<td></td>
<td>E. Panae.</td>
</tr>
<tr>
<td></td>
<td>Macro-group Mapoyo-Tamanaku</td>
</tr>
<tr>
<td></td>
<td>F. ° Kumaná; G. Mapoyo; H. ° Tamanaku</td>
</tr>
<tr>
<td>Nahukwa Branch (I)</td>
<td>I. Nahukwa Group: Kuikuro, Kalapalo</td>
</tr>
<tr>
<td></td>
<td>J. Kari'nja</td>
</tr>
<tr>
<td></td>
<td>K. Ye'kwana</td>
</tr>
<tr>
<td><strong>Guyanese Branch (J-K-L-M)</strong></td>
<td>L. Taranoan Group</td>
</tr>
<tr>
<td></td>
<td>L1. Subgroup Tiriyó</td>
</tr>
<tr>
<td></td>
<td>-Akuriyó; -Tiriyó</td>
</tr>
<tr>
<td></td>
<td><strong>L2. Karijona</strong></td>
</tr>
<tr>
<td></td>
<td>M. Wayana</td>
</tr>
<tr>
<td>Remaining languages</td>
<td>N. Apalaí; O. Waimirí Atroarí; P. Yukpa</td>
</tr>
</tbody>
</table>

2.5 Typological profile of Karijona

Karijona [ISO 639-3 cbd, cari1279] is a Cariban language that belongs to the Taranoan group, together with Trió (Tiriyó) [ISO639-3 tri, trio1238] and Akuriyó [ISO639-3 ako, akuri1238]. Karijona has a (C)V syllable structure and a phonological system of seven vowels and fourteen consonants (Robayo Romero 2000), shown in Table 9 and Table 10.
The language is highly synthetic with agglutinative morphology, showing some features of morphological fusion. The predicate marking, postpositions, and constituent order express the syntactic functions. There is a tendency for the constituent order to be SV and AOV in intransitive and transitive clauses, with the predicate occurring in the clause-final position. Depending on pragmatic and grammatical factors, the language allows VS, OVA, and AVO constituent orders.

Verbs, nouns, and adverbs belong to open word classes, while quantifiers, pronouns, particles, and postpositions constitute closed classes of words. In terms of their morphological and syntactic properties, Karijona word classes also divide into two types. Word classes of the Type I are verbs, nouns, and postpositions. These word classes can be cross-referenced for person and number. Word classes of Type II are adverbs, quantifiers, pronouns, and particles, and they cannot inflect cross-reference markers. Examples (2.1)-(2.3) illustrate cross-referencing on verbs, nouns, and postpositions:

Table 9. Karijona vowels

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed</td>
<td>i</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>Mid</td>
<td>e</td>
<td>ə</td>
<td>o</td>
</tr>
<tr>
<td>Open</td>
<td>a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10. Karijona consonants

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Alveolar</th>
<th>Post alveolar</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop</td>
<td>b</td>
<td>t</td>
<td>d</td>
<td>k</td>
<td>g</td>
</tr>
<tr>
<td>Affricate</td>
<td>tf</td>
<td>dʒ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>s</td>
<td>w</td>
<td>h</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td>n</td>
<td>ɲ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flap</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(2.1) medʒatai
mi-eh-∅-ta-epred
2.SA-come-NFUT-AUG-IPFV
‘You-all3 are coming/are going to come.’
‘Ustedes están viniendo/van a venir.’

(2.2) kokoɲare kikaikufiriko nehi
kokoɲare ki-kaikuʧi-ri-kop-s ni-eh-epred
yesterday 1+2.R-dog-MIN.POSS-AUG.R 3.SA-come-PFV
‘Our dog came yesterday.’
‘El perro de nosotros vino ayer.’

(2.3) øʤimarøne wae
øʤi-mara-ncwcc wi-ə-ecop
2-COM-AUG 1-COP-IPFV
‘I am with you-all.’
‘Estoy con ustedes.’

Tense, aspect, and mode are expressed through combinations of two co-dependent morphological paradigms on the verb. The first paradigm contains two tense markers for non-future -∅4 and future -ta. The non-future marker refers to past and present events, as well as events from the immediate future, as in (2.1) and (2.2) above. The other marker refers to non-immediate future events. The second paradigm contains five aspect markers (imperfective, durative, habitual, perfective, and remote), and one mood marker (imperative). The exact meanings of the aspect-mood markers depend on their combination with tense markers, particles, and adverbs. The imperfective marker can have both lectures of durative present and immediate future when combined with the non-future marker, as in (1) above. Table 11 shows the Karijona tense and aspect-mood markers:

---

3 In this paper, the English ‘you-all’ refers to the 2nd person augmented.
4 The non-future marker -∅ has a syllabic allomorph /-dʒal/, which occurs with reduced forms of consonant-final verb stems (Meira, 2000)
Table 11. Combinations of tense and aspect-mood markers in Karijona

<table>
<thead>
<tr>
<th>Tense</th>
<th>Aspect-Mood</th>
<th>Resulting meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marker</td>
<td>Meaning</td>
<td>Marker</td>
</tr>
<tr>
<td>-Ø</td>
<td>non-future</td>
<td>-e</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-nə</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-kədəkə</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-i</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-ne</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-kə</td>
</tr>
<tr>
<td>-ta</td>
<td>future</td>
<td>-e</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-kə</td>
</tr>
</tbody>
</table>

Karijona distinguishes person and number cross-reference markers. Person marking consists of prefixes for the first (1), second (2), first inclusive (1+2), and third (3) person. Number marking consists of minimal (formally unmarked) and augmented (formally marked) meanings.\(^5\) The augmented number is expressed as the suffix -tə for the 2nd and 1+2 person, and the particle =toto for the 3rd person. If the predicate marking is ambiguous or the speaker wants to emphasise a predicate-argument, the free pronouns express the information on person and number: The 1st person augmented is always expressed by the pronoun aɲa, and it receives the same person cross-reference markers as the 3rd person. For further details on Karijona pronouns, see §4.2. Table 12 presents Karijona verbal structural positions.

Table 12. Structural positions of the verb in Karijona

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Root</th>
<th>Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
<td>A marker</td>
<td>O marker</td>
</tr>
<tr>
<td>-1</td>
<td>i- (1.A)</td>
<td>dği- (1.O)</td>
</tr>
<tr>
<td></td>
<td>mi- (2.A)</td>
<td>adği- (2.O)</td>
</tr>
<tr>
<td></td>
<td>kise- (1+2.A)</td>
<td>ki- (1+2.O)</td>
</tr>
<tr>
<td></td>
<td>ni- (3.A)</td>
<td>i- (3.O)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

\(^5\) A minimal/augmented number system in Karijona is found in other languages in South America, including Trió (2004: 144). For further discussion on the minimal/augmented system see Dixon (2010b: 196-199).
Person markers are divided into two subsets in transitive clauses, according to the grammatical relations they express: A markers for the subject and O markers for the object. Both A and O markers occupy the same slot on the verb; the selection of the marker depends on the reference of the predicate arguments, following this referential hierarchy (Meira, 2000):

\[(2.4) \text{ Speech Act Participants (1, 1+2, and 2) } > \text{ (3 and nouns)}\]

Intransitive verbs agree with the higher argument on the hierarchy, as in example (2.5):

\[(2.5) \text{ wui menah} \]
\[\text{wui mi-nah-i} \]
\[\text{cassava 2.A-eat-PFV} \]
\[\text{‘You ate cassava.’} \]
\[\text{‘(Usted) comió casabe.’} \]

In intransitive clauses, Karijona has a mixed intra-clausal alignment system (Dixon, 2010a, pp. 39–69), which involves three schemes depending on the reference of the verb argument:

- **I. FIRST PERSON ERGATIVE PATTERN** – when the subject of an intransitive verb (S) is the 1st person, it is marked with the same prefix as the object of a transitive verb (O). The subject of an intransitive verb never takes the same prefix as the subject of a transitive verb (that is S_A, see below). The S_O marking is illustrated in (2.6):

\[(2.6) \text{ ḏeḍḏa} \]
\[\text{ḏi-eh-Ø-ᵲPRED} \]
\[\text{1.S_O-come-NFUT-IPFV} \]
\[\text{‘I am coming.’} \]
\[\text{‘Estoy viniendo.’} \]

- **II. SECOND AND THIRD PERSON ACCUSATIVE PATTERN** – for the 2nd and 3rd person, the subject of an intransitive verb is marked as the subject of a transitive verb (A). The S_A marking is shown in (2.7):

\[(2.7) \text{ ᵁnamoro metw} \]
\[\text{ᵲnamorọ₂ mi-eh-Ø-toᵲᵲPRED} \]
\[\text{2.AUG 2.S₁-come-NFUT-AUG-PFV} \]
\[\text{‘You-all came.’} \]
\[\text{‘Ustedes vinieron.’} \]
• **III. FIRST PERSON INCLUSIVE SPLIT PATTERN** – the 1+2 person marking follows a split pattern (Dixon, 1994: 70-110). Some intransitive verbs (such as *ereh* ‘rest’ and *aheh* ‘die’) mark the subject as $S_A$; others (such as *onik* ‘sleep’ or *ta* ‘go’) as $S_O$.\(^6\) Both patterns are illustrated in (2.8):

\[
(2.8) \quad \text{konikiri tawọ kiseretae} \\
[\text{ki-onik-i-ri} \quad \text{ta-wọ}]_{\text{pp}} \quad \text{kise-ereh-ta-e}_{\text{IPFV}} \\
1+2.S_{\text{A}}-\text{sleep-TH-NMZ BOUND-INE} \quad 1+2.S_{\text{A}}-\text{rest-IPFV} \\
\text{‘We (you and I) are going to rest while (in) sleeping.’} \\
\text{‘(Usted y yo) durmiendo descansamos.’}
\]

**2.6 The state of description of Karijona**

Previous studies of the Karijona language cover different levels of analysis. They include descriptions of phonology, morphology, syntax, and lexicography. Robayo Romero (1983, 2000; 1984) provides the first phonological description of the Karijona vocalic and consonantal systems. These works enriched the description of the phonology of Karijona. Considering that phonology is the starting point for the grammatical description, those were starting points for further research projects.

At the morphological level, Robayo Romero (2000; 1986) and Meira (2000) carried out the most important works. The former presented results of morphophonological processes, inflectional morphology of verbal and nominal words, and derivational processes of reflexivisation and causativisation. The latter has offered a comprehensive description of the grammatical inventory of nouns, verbs, postpositions and adverbs, as well as the processes of nominalisation, verbalisation, and adverbialization. Both of them have presented relevant results for a grammatical description under different perspectives and considering different values for the grammatical categories. Robayo presents a synchronic analysis of Karijona, while Meira presents a diachronic reconstruction of the proto-Taranoan language.

Guerrero-Beltran (2016) presented a first description of the Karijona syntax. In this paper, the author described the syntactic structure of simple sentences using the theoretical framework of the Basic Linguistic Theory (Dixon, 2010a, 2010b, 2012) and the Minimalist

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\(^6\) Further studies should determine the semantic or historical basis of the $S_A/S_O$ split in Karijona (for instance in terms whether the referent of the $S$ argument can act volitionally or not; cf. see a discussion in Dixon 2010b: 120 and Meira 2000).
Program (Adger, 2002; Chomsky, 2000, 2015). The main contribution of this work concerns the characterisation of the grammar from a typological perspective, as well as the proposal of the Karijona constituent structure. Nevertheless, the analysis had some theoretical issues for the definition of syntactic operations, which need a reformulation. An essential limitation of that paper was the absence of an analysis of complex sentences, which would potentially extend the perspective of syntactic phenomena.

Rodríguez (2016) gave the first approach to the conception of space in Karijona. In her undergraduate thesis, the author analyses the cultural memory and socio-spatial dynamics throughout the traditional myth of *Kuwai*. The dissertation also studied the relationship between the cultural conception of space and language vocabulary. Mainly, it describes the lexicon of elements associated with the concepts of Forest, Water, Land, and Sky. Focused on the semantic domain of spatial concepts, she gives a first approach to the Karijona lexicography. It is a significant contribution because it is directly related to the domain of space in Karijona.

Nonetheless, this work focuses on the socio-historical perspective of space, and it does not show how the grammar of the language codifies the space. Therefore, although Rodriguez’ contribution gives essential clues about socio-historical meanings of space, it is necessary to complement these findings with a language focused research project for achieving a deeper understanding of the conception of space in Karijona.
CHAPTER 3

3 The system of spatial postpositions in Karijona

Karijona postpositions form a closed class of words, together with pronouns, quantifiers, and particles (see §2.5). They can co-occur with locative suffixes and can take cross-reference markers of person and number. They cover a range of syntactic functions related, but not limited to, oblique and spatial arguments. Semantically, they are divided into those postpositions that encode spatial information, have non-spatial relational meanings, and express mental states of cognition and emotions. The semantic types of Karijona postpositions are illustrated in Table 13.

Table 13. Semantics of Karijona postpositions

<table>
<thead>
<tr>
<th>Semantics</th>
<th>Types of postpositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial</td>
<td></td>
</tr>
<tr>
<td>classificatory</td>
<td>general place</td>
</tr>
<tr>
<td></td>
<td>aquatic place</td>
</tr>
<tr>
<td></td>
<td>elongated place</td>
</tr>
<tr>
<td></td>
<td>bounded place</td>
</tr>
<tr>
<td></td>
<td>animate referent</td>
</tr>
<tr>
<td>Spatial</td>
<td>behind</td>
</tr>
<tr>
<td>orientational</td>
<td>under</td>
</tr>
<tr>
<td></td>
<td>front</td>
</tr>
<tr>
<td></td>
<td>above</td>
</tr>
<tr>
<td>distential</td>
<td>deictic side</td>
</tr>
<tr>
<td></td>
<td>adverbial</td>
</tr>
<tr>
<td>Relational</td>
<td>comitative</td>
</tr>
<tr>
<td></td>
<td>simulative</td>
</tr>
<tr>
<td></td>
<td>instrumental</td>
</tr>
<tr>
<td></td>
<td>comparative</td>
</tr>
<tr>
<td>Mental state</td>
<td>cognitive</td>
</tr>
<tr>
<td></td>
<td>emotional</td>
</tr>
</tbody>
</table>

This chapter focuses on the morphology, syntax and semantics of Karijona spatial postpositions. It is structured as follows. §3.1 explores the morphology of Karijona spatial postpositions. §3.2 presents their syntactic characteristics. A semantic description of spatial postpositions is presented in §3.3. §3.4 provides an overview of spatial postpositions in several

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7 This chapter is based on Guerrero-Beltran & Wojtylak’s article ‘Locating and relating, feeling and knowing: the system of postpositions in Karijona (Cariban, Northwest Amazonia)’ (submitted).
Cariban languages and draws a brief comparative analogy with Karijona postpositions. Finally, §3.5 offers a summary.

### 3.1 Morphology of postpositions in Karijona

Together with verbs and nouns, Karijona postpositions belong to the word classes of the Type I (see §2.5). As such, they can be cross-referenced for person and number, which is also a criterion to consider them as heads of a phrase. Karijona postpositions employ O-markers (similarly to verbs and nouns) to cross-reference for person. Unlike verbs and nouns, postpositions take the suffix \(-ne\) to mark the augmented number (instead of \(-tə\), used with verbs or \(-ko\) with nouns (cf. examples (2.1) and (2.2) in §2.5)). Additionally, the free pronoun \(aŋa\) always expresses the 1st person augmented without any cross-reference marker. Many postpositions with inanimate arguments, such as the classificatory postpositions (§3.3.1), are not cross-referenced for person and number. Postpositional cross-reference markers are shown in Table 14.

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Person</th>
<th>Postposition</th>
<th>Suffix Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>djɨ- (1.MIN)</td>
<td>postpositional stem</td>
<td>implicit in the person prefix</td>
<td></td>
</tr>
<tr>
<td>ədɨ- (2)</td>
<td></td>
<td>-Ø (min)</td>
<td></td>
</tr>
<tr>
<td>ki- (1+2)</td>
<td></td>
<td>-ne (AUG)</td>
<td></td>
</tr>
<tr>
<td>i- (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aŋa (1.AUG)</td>
<td>implicit in the pronoun</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In example (3.1), the postposition \(marə\) ‘with’ is cross-referenced for person (\(ədɨ-\) ‘you’) and number (the augmented suffix \(-ne\)):

"The Grammar of Space in Karijona"
Karijona postpositions can undergo nominalisation, which is used as a relativisation strategy.\(^8\) In (3.2), -doko nominalises the postposition  tôra ‘on (bounded place)’. The resulting NP — *baroni tôradoko* ‘the place where the ball is’ — functions as postpositional argument of *reto* ‘on’.

\[(3.2) \text{ ireo məɾə nai baroni tôradoko} \]
\[i-reto \quad məɾə \quad ni-a-i \quad baroni \quad tô-rə-doko \]
\[3-SUPE.SUPPORT\quad 3.INAN.DIST\quad 3.SA-COP-IPFV\quad \text{ball.Sp} \quad \text{BOUND-LOC2-NMZ.AUG} \]
\[‘\text{That is on the place where the ball is.}’ \]
\[‘\text{Eso está en el lugar donde está el balón.}’ \]

The system of Karijona postpositions distinguishes between ‘segmentable’ and ‘non-segmentable’ stems. Stems of the first type, composed of two separate morphemes, are similar to other Cariban languages, such as Apalai, Hixkariana, Makushi, and Wai Wai (cf. Table 20 in §3.4). Stems of the second type, such as marə ‘with’ in example (3.2) above, make up one morphological unit.

Segmentable postpositional stems encode spatial information through *locative roots* and *locative suffixes*. Examples (3.3) and (3.4) below illustrate the locative roots paradigm. The postpositional stems *kawə* ‘in (water)’ and *kaka* ‘into (water)’ share the element *ka* and take arguments that have aquatic meanings but express two different spatial relations, inessive ‘in’ in (3.3) and illative ‘into (inside of)’ in (3.4):

\[(3.3) \text{ ḏʒanuru kawə} \]
\[\text{[dʒanuru \quad ka-wə]} \quad \text{PP} \quad \text{stream} \quad \text{AQU-INE} \]
\[‘\text{in the stream}’ \]
\[‘\text{en el caño}’ \]

---

8 Grammatical nominalizations, where a nominalized clause functions as a modifier within an NP is a well attested function of nominalizations in Amazonian languages (Author 2018: 9). Examples of such uses in Northwest Amazonia include Murui (Witotoan), a neighboring group to the south (Author 2018: 19-45).
Example (3.3) above and (3.5) below illustrate the choice of locative suffixes. In those examples, the postpositional stems kawə ‘in (water)’ and tawə ‘in (bounded place)’ express the same inessive relation ‘into, inside of’. They highlight different semantic qualities of their arguments (compare the elements ka and ta): djanuru ‘stream’ is a place of an aquatic nature, while itu ‘forest’ is a place that has some physical bounds or limits (hereafter referred to as ‘bounded’) (see §3.3.1):

(3.5) itu tawə
[itu  ta-wə]p
forest BOUND-INE
‘in the forest’
‘en el bosque’

The paradigms of the segmentable stems therefore include:

- **A. Locative roots.** Locative roots, such as ka and ta in (3.3)-(3.5) above, carry referential and orientational meanings. They divide into **CLASSIFICATORY** (‘general’, ‘bound’, ‘aquatic’, ‘long’, and ‘animate’) and **ORIENTATIONAL** (‘postessive’ and ‘subessive’). The first type classifies the postpositional arguments, while the second type expresses the orientation of one object to another (see §5.2.1 for details). Karijona locative roots are shown in Table 15.

<table>
<thead>
<tr>
<th>Semantics</th>
<th>Locative root</th>
<th>Gloss</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classificatory</td>
<td>ka</td>
<td>AQUATIC</td>
<td>aquatic</td>
</tr>
<tr>
<td></td>
<td>rana</td>
<td>LONG</td>
<td>elongated</td>
</tr>
<tr>
<td></td>
<td>ho</td>
<td>GENERAL</td>
<td>general</td>
</tr>
<tr>
<td></td>
<td>ta/tə</td>
<td>BOUND</td>
<td>bounded</td>
</tr>
<tr>
<td></td>
<td>dʒa</td>
<td>ANIMATE</td>
<td>animate</td>
</tr>
<tr>
<td>Orientational</td>
<td>ga/gə</td>
<td>POSTESSIVE</td>
<td>behind</td>
</tr>
<tr>
<td></td>
<td>da/də</td>
<td>SUBESSIVE</td>
<td>under</td>
</tr>
</tbody>
</table>

The locative roots ta, ga, and da undergo a process of vowel assimilation if followed by the locative suffixes -rə ‘at/from’ and -kə ‘(cross) close to’. The combination of ta and -rə forms the postposition tərə ‘at (bounded place)’, while the combination of ga and da with -kə forms dəkə ‘(cross) underneath’ and gəkə ‘(cross) behind’ (see examples (3.27), (3.35) and
Processes of vowel harmony within the word are well attested among several Cariban languages, such as Wai Wai, Hixkariana, and Trió (Carlin, 2004, pp. 63–65; Derbyshire, 1999, pp. 28–29). The postpositions ho ‘at’ and dga ‘to/by (someone)’ occur in the form of a locative root without locative suffixes (see Table 19 in §3.3).

- **B. LOCATIVE SUFFIXES** – locative suffixes ‘complement’ the meanings of the locative roots. They encode the meanings of static location (at/in) and direction of movement (to/from/into/through). In (3.6), the locative root ka ‘aquatic’ classifies the postpositional argument tuna ‘river’ into the class of water-like places. The illative locative suffix -ka ‘into’ conveys the direction of motion of tehu ‘stone’ towards the river. Table 16 shows Karijona locative suffixes.

(3.6)  
<table>
<thead>
<tr>
<th>tohu nanota tuna kaka</th>
<th>tuna kha-ka</th>
<th>PP:SPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>stone 3.S.S.-FALL.-PFV</td>
<td>AQU-ILLAT</td>
<td></td>
</tr>
</tbody>
</table>

‘The stone fell into the river.’  
‘La piedra cayó al río.’

Table 16. Semantics of locative suffixes in segmentable stems in Karijona

<table>
<thead>
<tr>
<th>State of movement</th>
<th>Gloss</th>
<th>Locative suffix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static location</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INESSIVE</td>
<td>-wə</td>
<td>inessive ‘in’</td>
<td></td>
</tr>
<tr>
<td>LOCATIVE1</td>
<td>-e</td>
<td>locative ‘at’</td>
<td></td>
</tr>
<tr>
<td>LOCATIVE2</td>
<td>-rə</td>
<td>locative ‘at’</td>
<td></td>
</tr>
<tr>
<td>Direction of movement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCATIVE1</td>
<td>-e</td>
<td>perlative ‘along’</td>
<td></td>
</tr>
<tr>
<td>ALLATIVE</td>
<td>-na</td>
<td>allative ‘to’</td>
<td></td>
</tr>
<tr>
<td>ILLATIVE</td>
<td>-ka</td>
<td>illative ‘into’</td>
<td></td>
</tr>
<tr>
<td>TRANSLATIVE</td>
<td>-kə</td>
<td>translatve ‘across’</td>
<td></td>
</tr>
</tbody>
</table>

The inessive -wə ‘in’ indicates a static position within an object. The locative suffixes -e (LOCATIVE 1) and -rə (LOCATIVE 2) indicate the direction of movement (along/at) and static location (at). The suffix -e has static meanings when it follows the locative roots ho ‘at (general place)’ and ga ‘behind’ (i.e. hoe ‘close’ and gae ‘behind’, in Table 18 in §3.2). When -e follows the locative root ta ‘bounded place’ (i.e. tae ‘along (bounded place)’), it has perlative meanings (‘along’). The locative -rə ‘at’ is limited to the locative root ta ‘bounded place’ (i.e. tərə ‘at (bounded place)’). The allative -na co-occurs only with the locative root ho ‘at (general place)’, forming the postpositional stem hona ‘towards’. The illative -ka ‘into’, allative -na ‘to’, and translatve -kə ‘(cross) close to’, are limited to predicates that involve motion. They refer to the Goal or the Path (a point between the Source and the Goal). Additionally, the illative -ka has
overtones of a containment relation, as in *tuna kaka* ‘into the river’ (river being a container of sorts), as in (3.6) above (see §3.3).

Non-segmentable stems are monomorphemic. In terms of their semantics, non-segmentable stems refer to orientation, distance, relation, and mental state. This is illustrated in Table 17.

Table 17. Non-segmentable postpositions in Karijona

<table>
<thead>
<tr>
<th>Semantics</th>
<th>Postpositional stem</th>
<th>Gloss</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Orientational</td>
<td><strong>under</strong></td>
<td>ehine</td>
<td>SUBESSIVE, ADESSIVE</td>
</tr>
<tr>
<td></td>
<td><strong>front</strong></td>
<td>waho</td>
<td>OBESSIVE</td>
</tr>
<tr>
<td></td>
<td><strong>above</strong></td>
<td>reto</td>
<td>SUPERESSIVE, SUPPORTIVE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>hāko</td>
<td>SUPERESSIVE, ADESSIVE</td>
</tr>
<tr>
<td>C. Distantial</td>
<td><strong>deictic side</strong></td>
<td>kināko</td>
<td>SIDE, PROXIMAL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>babəko</td>
<td>SIDE, DISTAL</td>
</tr>
<tr>
<td></td>
<td><strong>adverbial</strong></td>
<td>miha</td>
<td>NEAR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mihake</td>
<td>FAR</td>
</tr>
<tr>
<td>D. Relational</td>
<td><strong>cognitive</strong></td>
<td>mara</td>
<td>COMITATIVE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ke</td>
<td>INSTRUMENTAL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aho</td>
<td>SIMILATIVE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>boe</td>
<td>COMPARATIVE</td>
</tr>
<tr>
<td>E. Mental state</td>
<td><strong>cognitive</strong></td>
<td>wara</td>
<td>COGNITIVE, THEORETIC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wameke</td>
<td>IGNORATIVE, THEORETIC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>edudə</td>
<td>COGNITIVE, PRACTICAL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>edudəha</td>
<td>IGNORATIVE, PRACTICAL</td>
</tr>
<tr>
<td></td>
<td><strong>emotional</strong></td>
<td>se</td>
<td>DESIDERATIVE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>no</td>
<td>APPREHENSIVE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>eʃirə</td>
<td>ODIATIVE</td>
</tr>
</tbody>
</table>

Synchronically, the composition of non-segmentable postpositions is unclear. The postpositions *həko* ‘on top’, *kinəko* ‘at this side’, and *babəko* ‘at the other side’ share the word-final element *kə*. It might be related to the transitive locative suffix *-kə* ‘(cross) close to’ (Table 16).9 Furthermore, the locative *toɾa*, the comitative *marə*, the cognitive *warə*, and the odiative *eʃirə*, share the form *rə*, which might be related to the emphatic particle =*rə*.10 The postpositions of deictic side *kinəko* ‘at this side’ and *babəko* ‘at that side’, and the superessive

---

9 The exact correspondences between the meanings between *həko*, *kinəko*, and *babəko*, and the segmentable *gəko* ‘(cross) behind’ and *dəko* ‘(cross) underneath’ will be a topic for further study.

10 The lexicalization of the emphatic particle =*rə* is attested in Karijona personal and demonstrative pronouns (Meira, 2000: 58-61).
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həkə share the form kə, which could be related to the postpositions gə-kə (POSTE-TRANS) ‘(cross) behind’ and də-kə (SUBLE-TRANS) ‘(cross) underneath’.

When the monosyllabic postpositions ho ‘at’, ʤa ‘to/by’, se ‘want (desiderative)’, and no ‘fear (apprehensive)’ are not cross-referenced for person and number, they are phonologically dependent on the NP argument within the postpositional phrase (see Table 18 in §3.2). Generally, postpositions differ from the closed word classes of particles (see word classes Type II in §2.5) in that they can cross-reference for person and number, unlike particles. Cross-referenced postpositions often occur in narrations when the postpositional argument has already been mentioned, such as the postposition ʤa ‘to (dative)’ in (3.7):

(3.7) ɨrətiwə məkə əkorono ɨdə ganə ‘marati’ ganə
təniwə [məkə əkorono]NP A i-ʤəPP,E ka-nəPRED ‘marati’O ka-nəPRED
THEN.AFTER 3.AN.DIST.MIN other 3-AN.DAT 3.say-DUR Marati 3.say-DUR
‘Then, that other (person) says to him “Marati”, he says.’
‘Y entonces, el otro dijo “Marati”, le dijo.’

In contrast, postpositional arguments are overtly expressed when they are not retrievable from the context. In such cases, monosyllabic postpositions are attached to the noun as enclitics. This is illustrated by the postposition =ʤa in (3.8):

(3.8) ‘mane enee!’ ganə marati
[‘ma-ne ene-se!’]PRED ka-nəPRED maratiA
1+2.go-HORT look-SUP 3.say-DUR Marati
məkə əkoronoʤa
[məkə ti-əkorono=ʤə]PP,E
3.AN.DIST.MIN 3.COREF.R-other=AN.DAT
‘“Let’s go look!” Marati is saying to that other (person).’
‘“¡Vaya mire!”, le está diciendo Marati al otro.’

3.2 Syntax of postpositional phrases in Karijona

Karijona postpositions head postpositional phrases (PPs). They determine the distribution and function of the elements within the phrase, having noun phrases (NP) as their arguments and relating them with the core arguments of the clause. As mentioned in §3.1, the postpositional arguments can be cross-referenced on postpositions, which indicates that postpositions are the only obligatory element within the postpositional phrase. PPs can function as either copula complements (CC), spatial arguments (SpA) of verbs of movement (such as ‘run’, ‘go’, and ‘come’), oblique arguments (OBL) (i.e. those that are neither spatial arguments nor copula complements), and predicates (PRED). When a PP functions as a CC, the postposition defines a relation between its argument and the copula subject (CS). Postpositions that involve
meanings of static location require the copula, such as the obsessive *waho* ‘in front’ in (3.9). It is also the case with relational postpositions, such as the similitative *aho* in (3.10). As shown in (3.9) and (3.10), the CC is often located preceding the copula and the oblique argument follows it.

(3.9)  
\[
tuna \text{ dji}-\text{waho} \text{nai} \\
tuna_{\text{CS}} \text{ dji-} \text{waho}_{\text{PP,CC}} \text{ ni-} \text{a-}i_{\text{COP}} \\
\text{river} \text{ 1.MIN-} \text{OBE} \text{ 3.S_3-} \text{COP-IPFV} \\
\text{‘The river is in front of me.’} \\
\text{‘El río está al frente mío.’}
\]

(3.10)  
\[
sekame \text{ irahoreketoto nai} \\
\text{sekame} \text{ [ir=aho=reh]_{\text{PP,CC}=\text{toto}_{\text{CS}}} \text{ ni-} \text{a-}i_{\text{COP}}} \\
\text{THEN.} \text{CONSEQUENCE} \text{ 3.ANAPH=} \text{SIM=} \text{RSTR=} \text{3.COL} \text{ 3.S_3-} \text{COP-IPFV} \\
\text{irakuʧa mar}\text{=} \\
\text{[irakuʧa mar]=_{\text{PP,OBL}}} \\
\text{non.indigenous} \text{ COM} \\
\text{‘Then, they are only in this way (lit. like this), with the non-indigenous people.’} \\
\text{‘Y entones ellos se quedaron así mismo, con los blancos.’}
\]

In most cases, verbs of movement require a specification of the direction of movement. This function is expressed by PPs, hereafter as ‘spatial arguments’. In (3.11), the PP *dʒəḏskə* ‘(cross) underneath me’ functions as a spatial argument of the verb ‘go’:

(3.11)  
\[
kaikuʧi \text{ dəm} \text{ dʒəḏskə} \\
kaikuʧi_{\text{CS}} \text{ to-}m_{\text{PRED}} \text{ dʒi-}də-kə_{\text{PP,SPA}} \\
tiger \text{ 3.S_3-} \text{go-} \text{PFV} \text{ 1-SUBE-TRANS} \\
\text{‘(The) tiger crossed (lit. went) beneath me’} \\
\text{‘El tigre pasó debajo mío.’}
\]

Postpositions can specify contextual information of the main predicate by introducing oblique arguments (OBL). Oblique arguments are optional, as in example (3.12) below, where the postpositions *tawə* ‘in (bounded place)’ and *həkə* ‘on top’ add contextual information to *anita* ‘to grow’ (foregrounding where it grew and what it did to grow), in contrast to CCs and SpAs, as in (3.9) and (3.11) above.
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1. S A-grow-NFUT-PFV non.indigenous BOUND-INE

[okomoiho-ri həkə][PP:OBL]

study-NMZ SUPE.ADE

‘I grew (up) studying, among the non-indigenous people’.  
‘Yo crecí en medio de los blancos, estudiando.’

(Robayo, 2000, p. 177)

The distinction between oblique and spatial arguments requires further study. For instance, it is unclear whether verbs that involve temporal processes, such as anita ‘to grow’ in (3.12), require spatial or comitative arguments, such as tawə ‘in (bounded place)’ in (3.12) above.

In Karijona, the only postpositions that can function as (non-verbal) predicates are mental state postpositions, as in (3.14). They can also be expressed within copula clauses, such as the apprehensive no ‘fear’ in (3.13).

When postpositional arguments are not expressed, they are replaced by cross-reference markers on the postposition. In (3.14) above, the 2nd person pronoun apamorə ‘you-all’ is not expressed; to refer to the 2nd person, the cross-reference markers ki- (1+2) and -ne (AUG) are used instead.

Several postpositions can take nominalised verbs as their arguments. In those cases, a nominalised verb functions as the head of an NP. In (3.15) below, apa womiri ehori ‘finding our language’ is the argument of the desiderative postposition se ‘want’:
They do not want to learn our language (lit. they unwilling finding our language).’
‘Ellos no quieren aprender (lit. encontrar) nuestra lengua.’
(Meira, 2001)

The semantics of the verb can condition the distribution of Karijona spatial postpositions. Those marked with locative suffixes referring to static location (see Table 16) cannot function as spatial arguments of verbs of movement. Similarly, postpositions that take suffixes with meanings of direction of movement rarely function as CC.

Karijona postpositions can divide into five types in terms of their morphosyntactic characteristics:

- Postpositions of the TYPE I are segmentable and form either copula complements or oblique arguments.
- TYPE II covers non-segmentable postpositions that form copula complements and oblique arguments, but not spatial arguments.
- TYPE III includes non-segmentable postpositions that form copula complements, and spatial and oblique arguments.
- Postpositions of TYPE VI are segmentable that can form only spatial arguments.
- Unlike the other types, TYPE V involves the postpositions that are non-verbal predicates.

Table 18 offers an overview of the morphosyntactic characteristics of Karijona postpositions.
Table 18. Morphosyntactic characteristics of postpositions in Karijona

<table>
<thead>
<tr>
<th>Formal type</th>
<th>Semantics</th>
<th>Cross-referencing</th>
<th>Morphology</th>
<th>Syntactic functions*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC</td>
</tr>
<tr>
<td>I</td>
<td>A. classificatory</td>
<td>only tə-ra (BOUND-INESSIVE)</td>
<td>(take a locative suffix, with the semantics of ‘stative’ location)</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>B. orientational</td>
<td>yes segmentable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>A. classificatory</td>
<td>no</td>
<td>(take a locative suffix, with the semantics of ‘direction of movement’)</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td>B. orientational</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>D. relational</td>
<td>yes, except for ke (INSTRUMENTAL)</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>IV</td>
<td>B. orientational</td>
<td>yes, except for bəbəkə (SIDE.DISTAL)</td>
<td>non-segmentable</td>
<td>only waho (OBESSIVE)</td>
</tr>
<tr>
<td></td>
<td>C. distinal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>E. mental state</td>
<td>yes</td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>

CC stands for copula complements, SpA - spatial arguments, OBL - oblique arguments, and PRED - predicates
3.3 Semantics of postpositions

Spatial postpositions in Karijona encode several types of Figure-Ground spatial relations. Spatial postpositions include: i) those postpositions that refer to certain semantic characteristics of the Ground encoding specific Figure-Ground relations (adjacency and containment) (§3.3.1), ii) those that describe the orientation of the Figure with respect to the Ground (§0), and iii) those that indicate the distance of the Figure relatively to the Ground (§3.3.3). The argument of a spatial postposition is always the Ground. The meanings of Karijona spatial postpositions are outlined in Table 19.
Table 19. Semantics of spatial postpositions in Karijona

<table>
<thead>
<tr>
<th>Semantics of spatial postpositions</th>
<th>Spatial relation</th>
<th>Locative</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Root</td>
<td>Suffix</td>
<td></td>
</tr>
<tr>
<td><strong>A. Classificatory</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. general</td>
<td>adjacency</td>
<td>ho</td>
<td>at</td>
</tr>
<tr>
<td>ii. aquatic</td>
<td>submersion</td>
<td>ka</td>
<td>-wə in (water)</td>
</tr>
<tr>
<td>iii. elongated</td>
<td>inclusion</td>
<td>rana</td>
<td>-wə in (elongated place)</td>
</tr>
<tr>
<td>iv. bounded</td>
<td>containment</td>
<td>ta</td>
<td>-wə in (bounded place)</td>
</tr>
<tr>
<td><strong>B. Orientational</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. behind</td>
<td>ga</td>
<td>-e</td>
<td>behind</td>
</tr>
<tr>
<td>ii. under</td>
<td>gə</td>
<td>-kə (cross) behind</td>
<td></td>
</tr>
<tr>
<td>iii. front</td>
<td>da</td>
<td>-wə</td>
<td>under</td>
</tr>
<tr>
<td>iv. above</td>
<td>də</td>
<td>-kə (cross) underneath</td>
<td></td>
</tr>
<tr>
<td><strong>C. Distantial</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. deictic sides</td>
<td>kinəkə</td>
<td>at this side (close to)</td>
<td></td>
</tr>
<tr>
<td>ii. adverbial</td>
<td>bəbəkə</td>
<td>at the other side</td>
<td></td>
</tr>
<tr>
<td></td>
<td>mihake</td>
<td>near</td>
<td></td>
</tr>
<tr>
<td></td>
<td>miha</td>
<td>far</td>
<td></td>
</tr>
</tbody>
</table>
3.3.1 Classificatory postpositions

Karijona classificatory postpositions, referred to as locative classifiers in Aikhenvald (2000, pp. 172–179), classify the following types of Grounds (cf. locative roots): general, aquatic, elongated, and bounded (all referring to the notion of ‘place’). There is also one postposition for animate referents (see Table 19 above). By means of locative suffixes, they encode spatial relations of adjacency and containment (including submersion and inclusion), as well as the state of movement (direction of movement and static location). The choice of the classificatory postpositions depends on the semantic character of their argument, referring the salient characteristics of the Ground. Almost all classificatory postpositions are segmentable, being composed of locative roots and suffixes (cf. Table 11).

A-i. General place and the locative root ho – the postpositions ho, hoe, and hona encode that the Figure is adjacent to or at the Ground.\(^\text{11}\) These postpositions do not specify semantic characteristics of the Ground; they are often used with landscape elements (such as rivers or fields) and inanimate demonstratives. This is illustrated in (3.16), where the demonstrative eni ‘this (inanimate)’ is an argument of ho ‘at’, giving eniho ‘here’. In (3.17), the narrator is describing a place where one can find salt. In this case, the locative hoe expresses the adjacency between the Figure (the salt) and the Ground (the stream):

\[(3.16)\] eni\_horok\_ako\_d\_ae

\[
\text{[eni}=\text{ho}=\text{rak\_}][\text{IPF-OB}\ L]
\]

\[
\text{i-ako-}\emptyset-\text{c\_PRED}
\]

\[
3.\text{INAN.PROX=GEN=RSTR}
\]

\[
1.\text{A-cut-NFUT-IPFV}
\]

‘Only here (lit. at this) I am cutting.’
‘Estoy cortando solo ahí (lit. en este).’
(Robayo Romero, 1989: 177)

---

\(^{11}\) Robayo Romero (p.c.) informs that in 1980s, Karijona speakers also associated the locative root ho with the notion of ‘support’ (where the Figure is supported by the Ground). Today, these postpositions are not common due to the language obsolescence, making it difficult to identify the reading of ‘support’ of the locative root ho.
(3.17) ani haməi mə irə ti enə
[ənɨ hama-ima]sp [irə=ti eni=aho_pp]vc
3.INAN.PROX salt-AUGTV 3.ANAPH=REP 3.INAN.PROX=SIM
tikoro enəo nai
[tikoro eni=aho_pp]vc ni-a-iCop
white.salt 3.INAN.PROX=SIM 3.S̃A-COP-IPFV
tefirə tuna hoć nai
3.COREF-daughter river GEN-LOC 3.S̃A-COP-IPFV
‘This big salt, this (salt) like this, like white salt, is (located) close to the stream (lit. the daughter of the river).’ (an elder describing the location of where one can find salt)
‘Esa sal grande, esa así, como la sal blanca, está al pie del río.’

The postposition hona expresses that an inanimate Ground is the goal of the movement. In
(3.18), hona expresses that ədʒehuruko ‘your stick’ is the goal of ‘take away’:

(3.18) tekito kənəhahidəna ərəta kəmə ədʒehuruko hona erəkome arəta
[ti-eki-tɔ ki-ənə=ha₃p:RED hidʒana]o ərə-tə-kəp:RED mərəo
3.COREF-pet-AUG.POSS 3-call=EMPH eagle take.away-AUG-IMP 3.INAN.MED
2.R-stick-MIN.POSS-AUG.R GEN-ILLAT fast-ADVZ take.away-AUG-IMP
‘(He) called his eagle pets (saying) “Take away that, take it away towards your stick!”.’
‘Llamó a sus mascotas las águilas “súbalo rápido al palo”.’

A-ii. AQUATIC PLACE AND THE LOCATIVE ROOT ka – kawə ‘in (water)’ and kaka ‘into (water)’ share the locative root ka ‘aquatic’ referes to aquatic places (such as rivers, streams, and lagoons). They indicate that the Figure is (partially or fully) submerged. Kawə has
inressive reading illustrated in (3.19), and refers to the static location inside the water; kaka,
with illative meanings as shown in (3.20), indicates that the goal of a predicate of movement is an aquatic Ground – ‘into the water’.

(3.19) oro tuma kawə ahihi meti nai
orocS [tuma ka-wɔ ahihi-me=tə]pp:CC ni-a-iCop
‘(People say that) there is gold (submerged) in the shallow part of the river.’
‘Entre el agua dizque hay oro (sumergido), en lo pandito.’
Kaka in (3.20) also marks a change of the spatial relation — the movement begins with the Figure being located outside the (aquatic) Ground and ends with the Figure being placed within the Ground.

A-iii. **Elongated Place and the Locative Root rana**\(^{12}\) — the postpositions ranawə ‘in (elongated place)’ and ranaka ‘into (elongated place)’ encode that the Figure is located within the ‘middle’ of an elongated Ground, such as trails, roads, traditional communal houses (*malocas* in Spanish), and rivers. These postpositions share the locative root *rana* ‘long’, and take the locative suffixes -wə ‘in’ and -ka ‘into’. The postposition ranawə refers to the static location ‘in the middle of’. This is illustrated in (3.21), where the speaker refers to a man who is in the river, ‘floating’ on surface of the water. The Figure (the man) is not submerged within the Ground (the river) but is located on its surface. That is why, the ranawə is chosen, instead of the aquatic kawə ‘in (water)’ (cf. (3.19) above).

\[
(3.20) \quad \text{məkə idəeti ehoriri ino tuna kaka} \\
\quad \begin{array}{ll}
{\text{məkə}} & \text{en} \text{dəeti}\text{er} \text{i} \text{n} \text{o} \text{tuna} \text{kaka} \text{PP} \text{VCS} \\
{\text{3.AN.DIST}} & {\text{3.R-bones}} \text{PP} \text{NMZ} \text{PP} \text{NMZ} \text{PP} \text{NMZ} \text{PP} \text{NMZ}
\end{array} \\
\text{‘He was afraid of finding the bones into the river.’} \\
\text{‘Tenía miedo de encontrar los huesos adentro del río.’}
\]

\[
(3.21) \quad \text{tuna ranawə nai} \\
\quad \begin{array}{ll}
{\text{tuna}} & \text{ranawə} \text{PP} \text{CC} \text{ni-a-i} \text{COP} \\
{\text{river}} & \text{LONG-NIE} \text{SA-COP-IPFV}
\end{array} \\
\text{‘He finds himself (lit. is) in the middle of the river.’} \\
\text{‘Está a la mitad del río.’}
\]

*Ranaka* with illative meanings refers to the direction of movement; it specifies the goal of a predicate of movement ‘(going) into the middle of’. In (3.22), Kuwai (i.e. the owner of the animals *manakənə*) is calling them to go out of the forest into the center of the (elongated) *maloca*, where he is standing:

\[
(3.22) \quad \text{manakənə manaka nai} \\
\quad \begin{array}{ll}
{\text{manakənə}} & \text{manaka} \text{PP} \text{CC} \text{ni-a-i} \text{COP} \\
{\text{animal}} & \text{LONG-NIE} \text{SA-COP-IPFV}
\end{array} \\
\text{‘Kuwai (i.e. the owner of the animals) is calling them to go out of the forest into the center of the (elongated) maloca, where he is standing:}’
\]

---

\(^{12}\) The locative *rana* can be expressed as *na* when its postpositional argument ends with a rV syllable (i.e. *ro* and *re*), such as in (3.23) below.
When the inessive *ranawə* takes human arguments, it refers to the proximity of a human being located in an elongated place. In (3.23), the postpositional argument *iŋo ahere* ‘husband (owner of the *maloca*’) is located inside the *maloca*, the place where Karijona people perform the traditional dance ritual:

(3.23)  
\[\text{‘iŋo ahere nawə meharagae’ ganətoto} \]
\[\text{[i-ŋo ahere na-wə]pp:obl mi-eharaga-e’pred ka-na\text{pred}=totoA} \]
\[3.R\text{-husband owner long-ine 2.S\text{-dance-ifv say-DUR=3.COL} \]
\[\text{‘They say “You are dancing close to the husband, the owner (of the *maloca*)”.} \]
\[\text{‘‘Están bailando al pie del esposo, el dueño (de la maloca)’, dijeron.’} \]

A-iv. **Bounded Place and the Locative Root *ta*** – the postpositions with the locative root *ta* refer to places that have some type of a physical boundary (therefore, ‘bounded’). They encode a containment relation where the Figure is enclosed in the Ground. Those postpositions are *tawə* ‘in (bounded place)’, *tae* ‘along (bounded place)’, *taka* ‘into (bounded place)’, and *tərə* ‘at (bounded place)’.

The inessive *tawə* encodes the relation between a container and an object which is contained. Unlike the inessive *nawə* in (3.23) above, *tawə* does not encode a specific position of the Figure within the bounded Ground; it only specifies that the Figure is inside of it, as in (3.24):
The meaning of the inessive tawə can extend to cover temporal meanings. When it takes temporal expressions as arguments (e.g. day, week), tawə indicates an event occurring within a particular period, such as teɲi semana tawə ‘for one week’ in (3.24) above.

The perlative tae encodes the direction of movement of the Figure through a bounded Ground (i.e. trails, streams, or rivers). This is illustrated in (3.25):

(3.25) irətiwə nehítoto esemar tae
irətiwə ni-eh-iRED=toto5 [esemar ta-e]PP:SPA
THEN.AFTER 3.SA-come-PFV=3.COL trail BOUND-LOC1
‘Then, they came along the trail.’
‘Entonces, se fueron por el camino.’

The illative taka, similar to naka ‘into (elongated) place’ and kaka ‘into (water)’, refer to the goal (Ground) of the movement. In (3.26), the narrator is telling a story about the wars between the Karijona and Witoto people in the past. He mentions one occasion on which Karijona people left their settlement and went onto the trial of the Witoto. There, the goal of the movement is witoto esemari ‘Witoto trail’, which is the argument of taka:

(3.26) nehukatitoto esemari taka
ni-ehuka-i=tįPRED=toto5 [i-esemari-ri-ko ta-ka]PP:SPA
witoto esemari takati
[[witoto esemari-ri]NP ta-ka=ti]PP:SPA
Witoto people trail-MIN.POSS BOUND-ILLAT=REP
‘They left and went to (into) their trail, to (into) the Witoto trail.’
‘Salieron al camino de ellos, de los Huitoto.’

The locative tərə is used mostly to refer to place names (names of rivers, villages, etc.), as in (3.27), places that witnessed certain events, as in (3.28)-b, places which one inhabits, as in (3.28)-c. Tərə can involve spatial deixis (‘here’ and ‘there’) when used with
the inanimate demonstratives *irə* (anaphoric), *enɨ* (proximal), and *mənɨ* (medial), as in (3.28)-a:

(3.27)  
\[ \text{apa damoa tani nare təra} \]  
\[ \text{aŋas tə-məPRED tani [nare ta-ra]P\text{F}:SPA} \]  
1.AUG 3.SA-go-PFV here Nare BOUND-LOC2  
‘We left from here, (from) Nare.’  
‘Nos fuimos de aquí, de Nare.’

(3.28) a. *irə* təra məkə finao baldomero hidəgifi  
\[ \text{[irə ta-ra]PP:OBL [məkə finao baldomero hidəgifi]SPA} \]  
3.ANAPH BOUND-LOC2 3.AN.DIST.MIN decedent Baldomero shaman  
‘There (this place previously mentioned), that decedent shaman called Baldomero’  
‘Allá, el finado payé Baldomero’

b.  
\[ \text{ʧiriga widjaŋəkə puerto bitoria təra} \]  
\[ \text{ʧirigaO i-wi-∅-kədəkPRED [puerto vitoria ta-ra]P\text{F}:OBL} \]  
rubber.tree 3.SO-grate-NFUT-HAB Puerto Victoria BOUND-LOC2  
‘(He) grated rubber tree, at Puerto Victoria.’  
‘rayaba caucho, en Puerto Victoria.’

c.  
\[ \text{makamoro kəʃiwa minə təra} \]  
\[ \text{makamoro kəʃiwa minə ta-ra]PP:OBL} \]  
3.AN.DIST.AUG Chiva.people house BOUND-LOC2  
‘At the house of those Chiva people.’  
‘En la casa de los chivas.’

**A-v. ANIMATE REFERENTS AND THE POSTPOSITION *ʤə* –** the postposition *ʤə* ‘to’ has animate referents. Like its cognate *ja* in Trió (Carlin, 2003), *ʤə* has three meanings: allative (for spatial argument), and dative and agentive (for oblique arguments). The allative meaning of *ʤə* refers to the direction of movement towards an animate goal Ground.13 In (3.29), the allative *ʤə* expresses the direction towards someone’s house:

---

13 Cf. the allative *hona* ‘towards’, which always takes inanimate Grounds, as is the case of *ʤəhuruko* ‘your stick’ in (3.18) in §3.3.1.
As an instance of metonymy, inhabitable places (such as houses or villages) can be arguments of ʤa, as illustrated in (3.30) and (3.31):

(3.30) iratiwɤ kidəmɤa timinaʤa marati gogori
       iratiwɤ ni-tə-mə=haPP ti-minə=ʤaPP SPA marati gogori
       THEN.AFTER 3-go-PFV=EMPH 3.COREF-house=AN.ALLAT Marati Gogori
       ‘Then, they go to his house, Marati’s (house).’

(3.31) iradə  kədəkəkətoto ihatunase
       iradə=ʤaPP ni-tə-kədəkətotoPRED=toTO5 ihatu-na-se
       3.ANAPH=AN.ALLAT 3.SA-go-HAB=COL  coca-VBZ=SUP
       ‘There (at that house), they used to go (to chew) coca.’
       ‘Allá iban a mambear.’

The dative and agentive meanings of ʤa are shown in (3.32) and (3.33). In (3.32), idənane ‘to them’ refers to the Recipient of ganɤ ‘say’, and dədə ʤa ‘by me’ is the semantic Agent of ‘clean’ in (3.33).

(3.32) ateko neturuwana ganatoto idənane
       [atego ni-eturuwa-na]PRED ka-nə=toTO5 i-ʤa-nePP,OBL
       how 3.SA-announce-DUR 3.say-DUR=3.COL 3.AN.DAT-AUG
       ‘They are saying to them: “How (the animal) is announcing?”.’
       “¿Cómo canta (el animal)” preguntaban (lit. dijeron) a ellos.’

(3.33) marə edu akoroko dədə
       [marə  edu]INP i-akoroko-riPRED dədəPP,OBL
       3.INAN,MED base 3.O-clean-NMZ 1-AN.AGEN
       ‘That base (of the tree) is cleaned by me.’
       ‘La cepa del árbol la estoy limpiando.’

(Robayo Romero, 1989, p. 197)

### 3.3.2 Orientational postpositions

Karijona orientational postpositions refer to the location of the Figure in relation with the Ground, such as ‘behind’ or ‘under’, on the basis of a coordinate system (see §1.2.2).
**B-i. Behind and the Locative Root ga** – the ga postpositions (gae ‘behind’ and gəkə ‘(cross) behind’), indicate that the Figure is located behind the Ground, as in (3.34):

(3.34)  
\[ \text{təhù gae nai tuna} \]
\[ [təhù \text{ ga-e}]_{\text{PP,CC}} \ ni-a_{\text{cop}} \ tuna_{\text{CS}} \]
\[ \text{stone \ POSTE-LOC1 \ 3.S,-COP-IPFV \ river} \]
\[ \text{‘The river is behind the boulders (lit. stone).’} \]
\[ \text{‘El río está detrás de las piedras.’} \]

The translative gəkə in (3.35) specifies that the S argument of ‘go’ (the vulture) is located behind ‘them’ (which is the postpositional argument of the postpositional phrase):

(3.35)  
\[ \text{kurugo igəkane dəmə charaganə həkə} \]
\[ \text{kurugo_{S} i-ga-kə-ne_{PP,SPA} \ tə-mə_{PRED} [charaga-nə \ həkə]_{PP,OBL}} \]
\[ \text{vulture \ 3-POSTE-TRANS-AUG \ 3.go-IPFV \ dance-DUR \ SUPE,ADE} \]
\[ \text{‘The vulture went behind them, dancing (lit. on top of dancing).’} \]
\[ \text{‘El chulo vino detrás de ellos, bailando.’} \]

**B-ii. Under and the Locative Root da, Including ehine** – the postpositions containing the locative root da — dawə ‘under’ and dəkə ‘(cross) underneath’ — situate the Figure under the Ground. In (3.36), repeated from (3.11), the postposition dəkə specifies the displacement of kaikuʧi ‘tiger /dog’ with respect of the postpositional argument dʒi- ‘I’:

(3.36)  
\[ \text{kaikuʧi dəməʤədəkə} \]
\[ \text{kaikuʧi_{S} tə-mə_{PRED} \ dʒi-da-kə_{PP}} \]
\[ \text{tiger \ 3.S,A,-go-IPFV \ 1-SUBE-TRANS} \]
\[ \text{‘The tiger crossed beneath me.’} \]
\[ \text{‘El tigre pasó debajo mío.’} \]

The non-segmentable postposition ehine ‘under (covered)’, morphologically different from dawə and dəkə, is used when the Figure is somehow covered (not visible) with the Ground. In most cases, it involves physical contact, as in (3.37):
ruhuh ei chine nai mə ꜏ kufara
[ruhuh chineppcc ni-a-iCop]cs cloth sube.ade 3.sA-cop-ipfv 3.inan.dist spoon.sp
‘That spoon is under (covered with) the cloth.’
‘Esa cuchara está debajo del trapo.’

B-iii. FRONT AND THE NON-SEGMENTABLE waho – the obsessive waho (‘in front’) points to the location of the Figure situated in front of the Ground, as in (3.38). It can also extend to cover temporal relations, as in (3.39):

(3.38) tuna djiwaho nai
tuna[s] dji-waho_ppcc ni-a-iCop
river 1.min-obe 3.sA-cop-ipfv
‘The river is in front of me.’
‘El río está al frente mío.’

(3.39) awi djituda iwaho
awi[s] dji-tuda-i_pred i-waho_pp
1.min 1.sA-arrive-pfv 3-obe
‘I arrived first (lit. in front of him).’
‘Yo llegué primero (lit. en frente de ellos.’

B-iv. ABOVE AND THE NON-SEGMENTABLE ḥaka AND reto – the postpositions reto ‘on (support)’ and ḥaka ‘on top (adhesion)’ situate the Figure above (on top of) the Ground. The former is used when the Ground is in a horizontal posture within a support topological relation, such as mesa ‘table’ in (3.40), and the latter when the position is vertical, involving overtones of adhesion, such as wewe ‘(tree) stick’ in (3.41):

(3.40) mə ꜏ tasa nai mesa reto
[mə ꜏ tasa]spcs ni-a-iCop [mesa reto]ppcc
3.inan.dist cup.sp 3.sA-cop-ipfv table.sp supe.support
‘That cup is on the table.’
‘Ese pocillo está encima de la mesa.’
The postposition *həkə* can be used metaphorically with the sense of ‘about’, as in (3.12) in §3.2.

### 3.3.3 Distantial postpositions

Distantial postpositions encode spatial relations of distance between the Figure and the Ground. There are two types: deictic sides and adverbial.

- **C-i. Deictic sides and the non-segmentable *kinəkə* and *babəkə*** – the postpositions *kinəkə* ‘at this side’ and *babəkə* ‘at that side’ involve location on the horizontal axis. They situate the Figure at either the proximal or distal side of the Ground in relation to the position of the speaker. For instance, in (3.42), *kinəkə* points to the proximity between the speaker (1st person) and the postpositional argument (*maʃuhuri* ‘tapir’). In contrast, in (3.43), *babəkə* indicates the distance between the Figure (the trail to Miraflores) not with respect to the Ground (the river), but with respect to the speaker:

(3.41) wewe həkə nai məkə tawəʧi

[wewe *həkə*]_{PP:CC} ni-a-icop [məkə] tawəʧi]_{NP:CS}

‘That spider is on top of the (tree) stick.’

‘Esa araña está encima de ese palo.’

(3.42) maʃuhuri kinəkə wae

[maʃuhuri *kinəkə*]_{PP:CC} wi-a-icop

tapir SIDE.PROX 1.SA-COP-IPFV

‘I am close to (lit. at this side of) the tapir’.

‘Estoy al pie de la danta.’

(3.43) tuna babəkə nai esema mirafloredʒa

tuna *babəkə* ni-a-e esema miraflore=dʒa

river SIDE.DIST 3.SA-COP-IPFV trail Miraflores=AN.ALLAT

‘The trail to Miraflores is at the other side of the river.’

‘El camino a Miraflores está al otro lado del río.’
C-ii. The adverbial miha and mihake – the postpositions miha ‘far’ and mihake ‘near (lit. not far\textsuperscript{14})’ refer to the distance of the Figure with respect to the Ground. They have adverbial origin, but unlike adverbs, they can be cross-referenced for person. An example is given in (3.44):

(3.44) \texttt{tehu nai djimihake}
\hspace{1cm} \texttt{tehu}_{cs} \hspace{0.5cm} \texttt{ni-i-cop} \hspace{0.5cm} \texttt{djimihake} = \texttt{ake}_{pp,cc}
\hspace{1cm} \texttt{stone} \hspace{0.5cm} \texttt{3.S,c-cop-ipfv} \hspace{0.5cm} \texttt{1-far=NEG}
\hspace{1cm} ‘The stone is close to me.’
\hspace{1cm} ‘La piedra está cerca mío.’

To further specify the location, the adverbial postpositions can co-occur with an adverbial demonstrative, such as \texttt{ʧia} ‘there’ in (3.45):

(3.45) \texttt{ihatwaʧia miha nai}
\hspace{1cm} \texttt{ihatwa} \hspace{0.5cm} \texttt{ʧia miha}_{cc} \hspace{0.5cm} \texttt{ni-i-cop}
\hspace{1cm} \texttt{THEN,after} \hspace{0.5cm} \texttt{there} \hspace{0.5cm} \texttt{far} \hspace{0.5cm} \texttt{3.S,c-cop-ipfv}
\hspace{1cm} \texttt{akorono imaititogo mina}
\hspace{1cm} \texttt{[akorono i-maiti-to-ko mina]}_{np,cs}
\hspace{1cm} \texttt{other} \hspace{0.5cm} \texttt{3-family-aug,poss-aug.r} \hspace{0.5cm} \texttt{house}
\hspace{1cm} ‘Then, far (over there), there was the house of the other’s family.’
\hspace{1cm} ‘Y entonces allá lejos estaba la casa de la familia del otro.’

Unlike other postpositions, adverbial postpositions can occur in a clause without an argument, as in (3.46) (see §4.2.3).

\textsuperscript{14} The adverbial mihake is in fact miha followed by the negative particle =ake.
Karijona makes no ‘right-hand’ and ‘left-hand’ side distinction. In order to describe relations of adjacency or proximity on the horizontal axis, speakers employ various types of postpositions, including orientational and distancial postpositions (see §5.2.1).

### 3.4 Spatial postpositions in Cariban languages — a brief overview

The systems of Cariban postpositions were given attention to in a number of reference and sketch grammars, such as that of Hixkariana (Derbyshire, 1979), Apalai (Koehn & Koehn, 1986), Macushi (Abbott, 1991), Wai Wai (Hawkins, 1998), Trió (Tiriyó) (Carlin, 2004; Meira, 1999), Carib (Courtz, 2008), Wayana (Hough, 2008; Tavares, 2005), Kalapalo (Basso, 2012), Panare (Payne & Payne, 2012), and Ye’kwana (Caceres, 2011). Other works on Cariban postpositions include a study of the Experiencer role in Trió (Carlin, 2003) and an analysis of Trió topological relations, frames of reference, and motion (Meira 2006). Derbyshire (1999) and Meira (2000, 2004) are comparative analyses of postpositional systems in a number of Cariban languages.15

This section outlines a preliminary analysis of a number of the Karijona postposition, briefly comparing their forms with other Cariban languages. A thorough comparative work is required to establish the existing cognates of all types of postpositions shared among Cariban languages.

Karijona postpositions are similar in form and function to those of other Cariban languages. Several Cariban languages, such as Apalai, Hixkariana, Makushi, and Wai Wai, have classificatory postpositions (cf.§3.3.1) with segmentable stems (cf. §3.1) (Aikhenvald,

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15 In those works, Derbyshire discusses ‘locative postpositions’ (i.e. referred to as ‘spatial postpositions’ in this paper). Meira’s focus are mental state postpositions.
2000: 175-176; 2017; Derbyshire, 1999: 42-43). A comparative analysis of the Karijona postpositions with those found in other Cariban languages shows that many of the classificatory postpositions (more specifically, their locative roots and locative suffixes) share a common origin and are in fact cognates. The only exception is the Karijona postposition *tara, which may have originated from the Proto-Taranoan adverb *tarə ‘here’ (Meira, 2000: 114). The existence of those cognates suggests that the segmentality of the stems of postpositions (at least the classificatory ones) is not rare for the Cariban language family. Table 20 illustrates the cognate forms.

Table 20. Classificatory postpositions in six Cariban languages

<table>
<thead>
<tr>
<th>Classificatory postpositions (type A)</th>
<th>Cariban languages</th>
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<tbody>
<tr>
<td></td>
<td>Karijona</td>
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<tr>
<td>place</td>
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<td>general</td>
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<td>elongated</td>
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<td>rana-wə</td>
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<td>rana-ka</td>
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<td>-</td>
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<td>bounded</td>
<td>in/on/at</td>
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<tr>
<td></td>
<td>ta-wə</td>
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<td></td>
<td>ta-ka</td>
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<td></td>
<td>ta-e</td>
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<tr>
<td>referent</td>
<td>animate</td>
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<td></td>
<td>dʒa</td>
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</tbody>
</table>

17 Table 20 has been adapted and modified from Derbyshire (1999: 43) based on a revision of primary sources (Abbott, 1991; Carlin, 2004; Derbyshire, 1979, 1985; Hawkins, 1998; Koehn & Koehn, 1986; Meira, 1999, 2006).
3.5 Summary

This chapter presents the description of spatial postpositions in Karijona. We show that Karijona postpositions consist of segmentable and non-segmentable stems. Stems of the first type do not form one morphological unit and consist of locative roots and locative suffixes, each having their own morphological form, function, and semantics. Similarly to nouns and verbs, many of Karijona postpositions can be cross-referenced for person and number. Those markers include the augmented -ne, which is one of the main morphological criteria to identify postpositions and distinguish them from other word classes in the language.

Postpositions in Karijona head postpositional phrases (evidenced by the fact that they are the only obligatory element within a PP), and can take noun phrases as their arguments. On the morphological and syntactic grounds, Karijona distinguishes five different types of postpositions, whose meanings cover spatial, relational, and mental state semantics. Spatial postpositions classify the reference of their arguments (general/aquatic/elongated/bound/animate), and encode the Figure-Ground relations in terms of their orientation (behind/under/front/above) and distance (this/that side and near/far). While relational postpositions include instrumental, comitative, similative, and comparative meanings, mental state postpositions are predicates with the semantics covering cognition and emotions.

Karijona postpositions are typologically very unusual. Classificatory postpositions (known also as ‘locative classifiers’) and mental state postpositions have only been described for a handful of language families in the world. While classificatory postpositions are a feature of Cariban and some Arawak languages in the Amazon, mental state postpositions are found only in Cariban, Oceanic, and Daghestanian families (Aikhenvald, 2017: 380-282; Hagège, 2010: 325-327).

‘Deictic side’ postpositions that refer to ‘deictic side’ (this side/that side) are unusual. The distinction between distal and proximal sides of the Ground has not been taken into account in the existing semantic typologies of frames of reference, and it remains to be seen whether this category can be considered as a type of relative frame of reference (see: Lum, 2018; Palmer et al., 2017).
The system of pronouns and spatial adverbs in Karijona

Karijona has a complex system of pronouns and spatial adverbs. They are free forms with different grammatical and semantic characteristics. Two macrosystems and five subsystems can be set by means of these differences: pronouns (personal pronouns, demonstrative pronouns), and spatial adverbs (demonstrative, distance, and orientational adverbs). Morphologically, unlike a number of spatial postpositions, pronouns and spatial adverbs are non-segmentable\(^\text{18}\) and do not require arguments. Karijona pronouns function as verbal and postpositional arguments, while spatial adverbs (and, in some contexts, demonstrative pronouns) function as modifiers. They form a continuum between pronominal and adverbial deictic elements. The more pronominal-like elements in the scale (personal pronouns) point to specific referential entities; in particular, to the deictic centre (the SAPs). By contrast, the more adverbial-like elements point to referential qualities and spatial characteristics on which the deixis is defined, such as the distance and the orientation. The deictical continuum between pronominal and adverbial elements is illustrated in Figure 2:

\[
\begin{array}{cccc}
\text{Pronominal} & \text{← deictical continuum →} & \text{Adverbial} \\
\text{(Referential entities)} & & \text{(Referential qualities)} \\
\text{Pronouns} & & \text{Spatial adverbs} \\
\text{Personal pronouns} & \text{Demonstrative pronouns} & \text{Demonstrative adverbs} & \text{Distance adverbs} & \text{Orientational adverbs}
\end{array}
\]

Figure 2. Karijona deictical continuum between pronouns and adverbs

The Karijona system of pronouns and spatial adverbs is illustrated in Table 21:

\[\text{\ldots} \]

\(^{18}\) The only exceptions are the distance adverbs \textit{mihake} ‘not far’ and \textit{didifake} ‘not near’, which are derivations from \textit{miha} ‘far’ and \textit{didifa} ‘near’ (see §4.2.3).
<table>
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<th>Sub-systems</th>
<th>Demonstrative and pronouns</th>
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<td>1.MINIMAL</td>
<td>I'</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aŋa</td>
<td>1.AUGMENTED</td>
<td>we (without you)</td>
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<td></td>
<td></td>
<td>amarə</td>
<td>2.MINIMAL</td>
<td>you</td>
</tr>
<tr>
<td></td>
<td></td>
<td>aŋamoro</td>
<td>2.AUGMENTED</td>
<td>you'll</td>
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<td></td>
<td></td>
<td>kɨmərə</td>
<td>1+2.MINIMAL</td>
<td>we (only you and me)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kɨɲamoro</td>
<td>1+2.AUGMENTED</td>
<td>we (all of us)</td>
</tr>
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<td><strong>Pronouns</strong></td>
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<td>nərə</td>
<td>3.HUMAN.MINIMAL.PROXIMAL</td>
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<td>3.HUMAN.AUGMENTED.PROXIMAL</td>
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<td>məje</td>
<td>3.NONHUMAN.MINIMAL.PROXIMAL</td>
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<td>3.NONHUMAN.AUGMENTED.PROXIMAL</td>
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<td>3.INANIMATE.BIG.PROXIMAL</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>mənɨ</td>
<td>3.INANIMATE.BIG.DISTAL</td>
<td>that (place)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>irə</td>
<td>3.ANAPHORA</td>
<td>it</td>
</tr>
<tr>
<td><strong>Inanimate</strong></td>
<td></td>
<td>tanə</td>
<td>LOCATIVE.PROXIMAL</td>
<td>here</td>
</tr>
<tr>
<td></td>
<td></td>
<td>gɨrə</td>
<td>ALLATIVE.PROXIMAL</td>
<td>to here</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ɡia</td>
<td>DISTAL</td>
<td>there</td>
</tr>
<tr>
<td></td>
<td><strong>Spatial adverbs</strong></td>
<td></td>
<td>didi ɡa</td>
<td>NEAR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>miha=ke</td>
<td>NEAR-NEG</td>
<td>near (not far)</td>
</tr>
<tr>
<td></td>
<td><strong>Distance adverbs</strong></td>
<td></td>
<td>didi ɡa=ke</td>
<td>NEAR-NEG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>miha</td>
<td>FAR</td>
<td>far (away)</td>
</tr>
<tr>
<td></td>
<td><strong>Orientation adverbs</strong></td>
<td></td>
<td>akenaka</td>
<td>PERLATIVE.UP.STREAM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kakəɡi</td>
<td>PERLATIVE.DOWN.STREAM</td>
<td>down stream</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kawə</td>
<td>TALL.SUPERRESSIVE</td>
<td>tall/on top</td>
</tr>
</tbody>
</table>
4.1 Morphosyntax of pronouns and demonstratives

Karijona pronouns and spatial adverbs belong to the TYPE II word classes, together with quantifiers and particles (see §2.5). Therefore, they do not receive person-number affixes neither take modifiers (except from miha ‘far’ and mihake ‘not far’, see §3.3.3). They can be characterized according to their morphosyntactic and semantic characteristics.

Karijona pronouns, unlike spatial adverbs and the other Type II word classes, encode the grammatical categories of person and number (among others). In example (4.1), the personal pronoun kɨɲamoro codifies the 1 person inclusive augmented (‘we, including you’) and the demonstrative pronoun məra refers to a medial small inanimate referent (the moss).

(4.1) kami məra ʤanuru tawədoko kisematowi kɨɲamoro

\[
\begin{array}{ll}
\text{kami} & \text{məra} \\
\text{məra} & \text{ʤanuru} \\
\text{ʤanuru} & \text{tawədoko} \\
\text{tawədoko} & \text{kisematowi} \\
\text{kisematowi} & \text{kɨɲamoro} \\
\end{array}
\]

moss 3.inan.small.med stream BOUND-INE=NMZ 1+2.A-throw-AUG-PFV 1+2.AUG

‘That is the moss that we threw, the one in the stream.’

‘Ese es lama, que está en el caño, nosotros lo botamos.’

[FLoc2_AnB_171]

Pronouns in Karijona are morphologically fusional words on which the stem encodes a considerable number of categories without morphological segmentation, such as məra in (4.1) above and məkamoro ‘those (animals/persons)’ in (4.2) bellow:

(4.2) məkamoro nənəna

\[
\begin{array}{ll}
məkamoro & nənəna \\
3.AN.AUG.DIST & 3.A-look-DUR \\
\end{array}
\]

‘They (those persons) are looking (the shotgun).’

‘Ellos están mirando (esa escopeta).’

[Ncamp_CR]

Similarly, spatial adverbs cannot be segmented morphologically. Nevertheless, unlike pronouns, those adverbs only encode spatial meanings. For instance, the adverbial demonstrative ʧəra ‘to here’ codifies distance (proximal) and direction of movement (allative) in example (4.3).
Karijona pronouns function as predicate and postpositional arguments, such as common nouns and noun phrases. In (4.4), the personal pronoun əwi ‘I’ function as subject of the verb aheh ‘die’. Similarly occurs in (4.5), in which the demonstrative pronoun məkə ‘that (person)’ functions as the subject of the verb aheh ‘die’ and the cross-reference marker of 3 person ni- (3.Sa) is prefixed to the verb root.

In other contexts, demonstrative pronouns function as nominal modifiers, preceding noun heads of NPs, as in (4.6). In this case, the demonstratives are used to emphasize that the reference of the noun head is definite. Otherwise, the noun head of the NP would have an indefinite or contextually defined reference, as in (4.7).
When karijona demonstrative pronouns function as noun modifiers within a NP, they precede the noun head, such as in (4.6) above. Otherwise, it is understood as a non-verbal predication instead of a nominal modification (4.8).

(4.7) kaheri \( \textit{ṣhinədæae} \)
kaheri\(_i\) \( \textit{i-hinəh-∅-c}\text{PRED} \)
hen \( \textit{1.A-kill-NFUT-IPFV} \)
‘I am going to kill a hen.’
‘Voy matar gallina.’

When functioning as arguments, the distribution of Karijona pronouns is restricted to their respective argument position. In (4.9) and (4.10) above, \( \textit{namoro} \) ‘they’ and \( \textit{apamoro} \) ‘you-

As it is shown in example (4.8) above, demonstrative pronouns also function as subjects in verbless-clauses when they immediately follow a common name, such as \( \textit{kaheri} \) ‘hen’.

In contrast to personal pronouns, demonstrative pronouns do not trigger number inflection on verbs. In (4.9), the demonstrative \( \textit{namoro} \) gives the information of augmented number without any inflection of number on the verb \( \textit{ənəh} \) ‘eat meat’, while in (4.10), the personal pronoun \( \textit{apamoro} \) co-occur on the verb with the augmented number suffix \( -tə \).
all’ function as A arguments. In example (4.11) bellow, \( \text{məkə} \) ‘that’ is the argument of the postposition \( jəkə \) ‘on top (adhered)’. In contrast, adverbial demonstratives are free on their distribution, such as \( ʧəa \) ‘there’ in (4.12).

(4.11) \( \text{esekikhiə məkə həkə nai irakuə həkə okomo} \)
\( \text{0-eseki-ki-həcc} \quad \text{[məkə həkə]}_{\text{PP:OBL}} \)
\( \text{3.O-be.stuck-REDUP-PST.NMZ} \quad \text{3.AN.MIN.DIST} \quad \text{SUPE.ADE} \)
\( \text{ni-a-e_cop} \quad \text{[irakuə həkə]}_{\text{PP:OBL}} \quad \text{okomo_cs} \)
\( \text{3.SA-COP-IPFV} \quad \text{non-indigenous} \quad \text{SUPE.ADE} \quad \text{wisp} \)

‘The wisp is stuck on that non-indigenous guy.’

‘Está pegado esa avispa donde ese señor.’

[FLoc1_AnB_010]

(4.12) \( ʧəa dəmə esema tae \)
\( ʧəa_{\text{MOD}} \quad də-mə_{\text{RED}} \quad \text{[esema ta-e]}_{\text{PP:SPA}} \)
\( \text{LOC.DIST} \quad \text{3.go-IPFV} \quad \text{path} \quad \text{BOUND-LOC}_1 \)

‘They went yonder, along the path.’

‘Allá se fueron por el camino.’

[HTgr_HeC_109]

Karijona pronouns can be omitted if their reference is inferred by the context and the cross-reference markers, such as the 1 person pronoun \( ɔwɨ \) ‘I’ in example (4.13).

(4.13) \( \text{nekə wɨtəe itu taka} \)
\( \text{ene-kə wi-tə-e itu ta-ka} \)
\( \text{look-IMP 1.MIN-go-IPFV forest} \quad \text{BOUND-ILLAT} \)

‘look! I’m going into the forest.’

‘¡Mire! Me voy pal monte.’


Adverbial demonstratives function as predicate modifiers specifying spatial information into the event. For instance, \( ʧəa \) ‘there’ in (4.12) above is modifying the predicate \( dəmə \) ‘(they) went’. Nevertheless, likewise the postpositional phrases, adverbial demonstratives can take a part into the structure of the clause, functioning as spatial arguments or copula complements. In examples (4.14) and (4.15), the adverbial demonstrative the postpositional phrase \( təhu gae \) ‘behind the stone’ and \( kakaʧfɨ \) ‘upstream’ function as copula complements.
(4.14)  təhu gae nai tunə
  \[ təhu \; ga-e ]_{\text{PP,CC}} \; ni-ə-\text{COP} \; tunə_{\text{CS}} \\
  \text{stone \; POSTE-LOC}_1 \; 3.S_a-\text{COP-IPFV} \; \text{river} \\
  \text{‘The river is behind the stone.’} \\
  \text{‘La piedra está cerquita mío.’} \\
  \text{[Post_MaN}_012\text{]} \\

(4.15)  kakəʧi nai mirafrore
  \[ kakəʧi ]_{\text{CC}} \; ni-ə-\text{COP} \; mirafrore_{\text{CS}} \\
  \text{UPSTREAM \; 3.S_a-\text{COP-IPFV} \; Miraflores} \\
  \text{‘Miraflores is upstream.’} \\
  \text{‘Miraflores queda río arriba.’} \\
  \text{[FLoc2_AnB}_137\text{]} \\

Adverbial demonstratives can also form chains (one after the other) in order to provide further spatial specifications, even combining with other adverbs, such as ʧia ‘there’, akenaka ‘downstream’, and erekome ‘fast’ in example (4.16):

(4.16)  erekome ʧia akenaka kɨtətai
  \[ erekome_{\text{MOD}} \; ʧia_{\text{MOD}} \; akenaka_{\text{MOD}} \; ki-tə-tə-e_{\text{PRED}} \]
  \text{FAST-ADVZ \; DIST \; DOWNSTREAM \; 1+2.S_o-go-AUG-IPFV} \\
  \text{‘We are quickly going there downstream.’} \\
  \text{‘Rápido nos vamos pa allá abajo nosotros’} \\
  \text{[HTMir_AnB}_013\text{]} \\

Additionally, adverbial demonstratives can be nominalized in the same way that it occurs on other adverbs and postpositions. In examples (4.17) and (4.18), the augmented and minimal nominalizers -doko ‘those, which...’ and -no ‘that, which...’ derive the adverbial demonstratives didiʧa ‘near’ and kakəʧi ‘upstream’ into nouns.

(4.17)  uməha didiʧatoko uməha mihadoko
  \[ umə=ha \; didiʧa-doko \; umə=ha \; mihadoko \]
  \text{MANY=NEG \; MED-AUG.NMZ \; MANY=NEG \; FAR-AUG.NMZ} \\
  \text{‘Some (blowpipes) (which) were short, and others (which) were long.’} \\
  \text{‘Unos que eran cortos y otros que eran largos.’} \\
  \text{[PMM_ErC}_049\text{]}
The morphosyntactic characteristics of Karijona pronouns and demonstratives is summarized in Table 22.
<table>
<thead>
<tr>
<th>Macro-systems</th>
<th>Subsystems</th>
<th>Segmentability</th>
<th>Nominalization</th>
<th>Grammatical Categories</th>
<th>Syntactic Function</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pronouns</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personal pronouns</td>
<td>diachronically segmentable</td>
<td></td>
<td>Person and number</td>
<td>-Predicate arguments</td>
<td>restricted to argument positions</td>
</tr>
<tr>
<td></td>
<td>Animate</td>
<td></td>
<td></td>
<td></td>
<td>-Postpositional arguments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrative pronouns</td>
<td></td>
<td></td>
<td>Number, distance, classification</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inanimate</td>
<td></td>
<td>no</td>
<td></td>
<td>-Predicate arguments</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Postpositional arguments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrative adverbs</td>
<td>non-segmentable</td>
<td></td>
<td>Distance, spatial case</td>
<td>-Predicate modifiers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Copula complements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Distance adverbs</td>
<td>yes</td>
<td></td>
<td>Distance</td>
<td>-Spatial arguments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Orientational adverbs</td>
<td></td>
<td></td>
<td>Orientation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.2 Semantics of pronouns and spatial adverbs

4.2.1 Karijona personal pronouns

There is a set of six personal pronouns referring to the speech act participants: the speaker (1 person), the addressee (2 person), and both the speaker and the addressee (1+2 person). All personal pronouns contrast by minimal (equivalent to singular or non-collective in other number systems) and augmented number (equivalent to plural or collective), as given in Table 23.

Table 23. Personal pronouns in Karijona

<table>
<thead>
<tr>
<th>Person</th>
<th>Pronoun</th>
<th>Gloss</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
<td>aəwɨ</td>
<td>1.MINIMAL</td>
<td>‘I’</td>
</tr>
<tr>
<td></td>
<td>aɲa</td>
<td>1.AUGMENTED</td>
<td>‘We (exclusive)’</td>
</tr>
<tr>
<td>Second person</td>
<td>amɛrə</td>
<td>2.MINIMAL</td>
<td>‘You’</td>
</tr>
<tr>
<td></td>
<td>aɲamoro</td>
<td>2.AUGMENTED</td>
<td>‘You-all’</td>
</tr>
<tr>
<td>First person</td>
<td>kɨmɛrə</td>
<td>1+2.MINIMAL</td>
<td>‘You and I’</td>
</tr>
<tr>
<td>inclusive</td>
<td>kɨɲamoro</td>
<td>1+2.AUGMENTED</td>
<td>‘We (inclusive)”</td>
</tr>
</tbody>
</table>

A.i. The 1 person pronouns aəwɨ (1.MINIMAL) ‘I’ and aɲa (1.AUGMENTED) ‘we (exclusive)’ point to the Speaker or a group on which the Speaker is. Aəwɨ refers specifically to the Speaker without any other participant (minimal) (see (4.4) above). The augmented aɲa is used for exclusive groups on which the Speaker is involved (without including the Addressee). In example (4.19), Marati, the main character of the narration, is telling to the werewereweru people (one karijona clan) that he and his friend (exclusive group) was arrived after them.

(4.19) ɨrətiwə aɲa ɲituda ɡana
ɨrə=tɨ=ɓə aɲa ni-tuda-i  ka-ŋə
ANAPH=REP=ABLAT 1.AUG 3.SA-arrive-PFV 3.say-DUR
"Then (from it) we arrived (without you)”, he was saying,’
“‘Después nosotros llegamos”, dijo’
[Hmar_LuC_102]
Nevertheless, the nowadays speakers occasionally use *apa* as the default 1 person augmented for both the inclusive and exclusive interpretations, as in (4.20).

(4.20)  
apa dœ itu taka  
\[\text{apa}_s \text{ tœ-}c\text{PREd} \quad \text{itu ta-ka}\text{PP}_{SPA}\]  
1.AUG 3.go-IPFV forest BOUND-ILLAT  
‘We are going to the forest.’  
‘Vamos pal monte.’  
[JEsp_AnB_077]  

A.ii. The 2 person pronouns are *əmarə* (2.MINIMAL) ‘you’ (4.21) and *anamoro* (2.AUGMENTED) ‘you-all’ (4.22).

(4.21) migiri *əmarə*  
\[\text{mi-gir-i}c\text{PREd} \quad \text{əmarə}_A\]  
2.A- remove-PFV 2.MIN  
‘did you remove (it)?’  
‘¿Usted lo quitó?’  
[FLoc1_AnB_001]  

(4.22) *anamoro* ihinataka  
\[\text{anamoro}_A \text{ i-hinah-tœ-ka}\text{PREd}\]  
2.AUG 3.O-kill-AUG-IMP  
‘You-all, kill him!’  
‘¡Ustedes mátienlo!’  
[PMM_ErC_054]  

A.iii. The 1st person inclusive pronouns *kiməra* (1+2.minimal) ‘you and I’ and *kijamoro* (1+2.augmented) ‘we (including you)’ refer to both the Speaker and the Addressee and the 1+2 pronouns. *Kiməra* points to a minimal group composed by the Speaker and the Addressee (only you and I), while *kijamoro* involves an augmented group (we, including you). It is exemplified in (4.23).

(4.23) notonagarehe kijamoro djeʃiʃatogo tidʒahoro  
\[\text{ni-otonaga-i-rehe}\text{PREd} \quad \text{kijamoro dʒi-ŋʃ-ʃa-to-ko} \quad \text{tidʒahoro}\text{AP}_{SPA}\]  
‘All our ancestors almost emerged.’  
‘Todos nuestros padres casi que aparecieron.’  
[Kaj_EuM_001]  

### 4.2.2 Karijona demonstrative pronouns

Demonstrative pronouns refer to non-Speech Act Participants (SAPs). They specify the reference classification, distance, number, and size of animate and inanimate nouns. According to the typological proposal of Aikhenvald (2000, pp. 176–181), the Karijona demonstrative pronouns function as deictic classifiers, given that they specify and group their referents in terms of their salient semantic characteristics. Their choice depends on the
animacy, humanity, and size of the entities they refer. For instance, some of them can only refer to human beings, while others can only refer to inanimate big-sized objects. Karijona demonstrative pronouns are presented in Table 24.

Table 24. Semantics of Karijona demonstrative pronouns

<table>
<thead>
<tr>
<th>Reference classification</th>
<th>Distance</th>
<th>Demonstrative pronouns</th>
<th>Glosses</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human/proximal</td>
<td>nərə</td>
<td>3.HUMAN.MINIMAL.PROXIMAL</td>
<td>‘he’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>namoro</td>
<td>3.HUMAN.AUGMENTED.PROXIMAL</td>
<td>‘they’</td>
<td></td>
</tr>
<tr>
<td>nonhuman/proximal</td>
<td>məje</td>
<td>3.NONHUMAN.MINIMAL.PROXIMAL</td>
<td>‘this’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>məsa</td>
<td>3.NONHUMAN.AUGMENTED.PROXIMAL</td>
<td>‘these’</td>
<td></td>
</tr>
<tr>
<td>audible</td>
<td>məki</td>
<td>3.ANIMATE.MINIMAL.AUDIBLE</td>
<td>‘that (heard)’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>məka</td>
<td>3.ANIMATE.AUGMENTED.AUDIBLE</td>
<td>‘those (heard)’</td>
<td></td>
</tr>
<tr>
<td>distal</td>
<td>məko</td>
<td>3.ANIMATE.MINIMAL.DISTAL</td>
<td>‘that (looked)’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>məkamoro</td>
<td>3.ANIMATE.AUGMENTED.DISTAL</td>
<td>‘those (looked)’</td>
<td></td>
</tr>
<tr>
<td>proximal</td>
<td>eni</td>
<td>3.INANIMATE.SMALL.PROXIMAL</td>
<td>‘this (object)’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>nəřə</td>
<td>3.INANIMATE.BIG.PROXIMAL</td>
<td>‘this (place)’</td>
<td></td>
</tr>
<tr>
<td>Inanimate</td>
<td>nəřə</td>
<td>3.INANIMATE.SMALL.PROXIMAL</td>
<td>‘this (object)’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>nəmə</td>
<td>3.INANIMATE.BIG.DISTAL</td>
<td>‘that (place)’</td>
<td></td>
</tr>
<tr>
<td>anaphora</td>
<td>irə</td>
<td>3.ANAPHORA</td>
<td>‘it’</td>
<td></td>
</tr>
</tbody>
</table>

As it is showed in Table 24 above, Karijona demonstrative pronouns distinguish between animate and inanimate referents, proximal, medial, and distal distances, and between small sized (objects) and big sized referents (places), forming the following semantic groups:

4.2.2.1 Animate demonstrative pronouns

B-i. Human proximal referents. The demonstrative pronouns nərə ‘he’ and namoro ‘they’ encode human referents close to the SAPs. The former has a minimal number value, while the latter is used for referring to groups. In most of cases, they have an anaphoric reference, as in (4.24); but they are also used to point exophoric referents, as in example (4.25).

(4.24)

nərəʤa anə nataruka

nərə=dʒa\textsubscript{SARG} anəni-ataruka-i\textsubscript{PRED}

3.HUM.MIN.PROX=ALL 1.AUG 3.S\textsubscript{A}-arrive-PFV

‘We came to his house.’

‘Vinimos a la casa de él.’
(4.25) nara ikanaqae ganə
nara i-kanə=∅-e ka-na
3.HUM.MIN.PROX 1.A-call-NFUT-IPFV 3.say-DUR
"I'm going to call him", he was saying.
"'Voy a llamarlo a él", dijo.'

B- ii. Non-human proximal referents. *Moje* ‘this’ and *məsa* ‘these’ refer to non-human animate referents close to the SAPs. They are commonly used in Karijona traditional stories for animals with human characteristics (example(4.27)) or human-like forest beings, such as spirits and guardians of the forest (example (4.26)). They are also used to refer to the Witoto people, which were historical enemies of the Karijona, such as in example (4.28).

(4.26) tamukene mahe ta ganat
tamukene=EMPH.VIS mahe ta ka-na=ti
granfather=EMPH.VIS 3.NHUM.MIN.PROX INTERJ say-DUR=REP
"This (spirit) is my granfather", he was saying.
"este es pero mi abuelo", dijo.'

(4.27) eharagari ko tawə nituda məsa əɾə tədoko
dance-NMZ-AUG.R TEMP 3.SA-arrive-IPFV

3.NHUM.AUG.PROX 3.INAN.BIG.PROX BOUND-LOC2-AUG.NMZ
‘They (these animals), which are from here, arrived when they were dancing.’
‘Llegaron estos, los de aquí, cuando estaban bailando.’

(4.28) witoto dirə məsa do!
witoto dihirə məsa do
Witoto.people EMPH 3NHUM.AUG.PROX INTERJ.MASC
‘These really are Witoto people.’
‘Estos son los mismos Uitoto.’

(4.29) wətətə dətə məsa do!
wətətə dətə məsa do
Witoto.people EMPH 3NHUM.AUG.PROX INTERJ.MASC
‘These really are Witoto people.’

B-iii. Audible referents. *Mɔki* ‘that (heard)’ and *mɔka* ‘those (heard)’ are chosen for non-visible referents close enough to the SAPs (example (4.29)).
(4.29)  ihitidʒa   ganə   noti   erehatakə   məki
        i-hiti=ŋa   ka-ŋa   noti   eserehat-ə-kə   məki
3.R-wife=ALLAT 3.say-DUR  woman.MIN  eat-IMP 3.AN.MIN.AUD

‘He said to his wife “feed him (this person)”’

’Le dijo a la mujer, “vieja dele de comer a ese”.’

[HTgr_HeC_008]

However B-ii and B-iii demonstrative pronouns are relatively common in Robayó’s corpus, they are rarely used among the alive consultants (see §1.3.2).

B-iv. Distal referents. The demonstratives məko ‘that’ and məkamoro ‘those’ have three main uses: (i) referring to animals with a definite reference, as in (4.30); (ii) referring to human referents that are far away or absent from the SAPs, as in (4.31); and (iii) introducing new animate referents in a narration or a description. In (4.32), the narrator is introducing Marati Gongori, the main character of the story.

(4.30)  kaheriŋhinadʒae
        kaheri_o   i-hinaŋ-Ø-CPRED
Hen   1.A-kill-NFUT-IPFV
‘I am going to kill a hen.’
‘Voy matar gallina.’
(Repeated from (4.7) in §4.1)

(4.31)  mine muguru tawə nai məkamoro irakuʃa kurakedoko
        [mine   muguru   ta-wə]PCC   ni-a-ICOP
house  child.small  BOUND-INES  3.S-AUX.NFUT-IPFV

        [məkamoro   irakuʃa   kure=ake-doko]NP,CS
3.HUM.AUG.DIST  non.indigenous  good-ADVZ-NEG-NMZ.AUG
‘There are bad white people in that small house.’
‘Hay blancos malos en esa casita.’

(4.32)  marati gogori məko
        [marati  gogori]NCC  məkəVCS
Marati Gongori  3.AN.MIN.DIST
"He was Marati Gongori.’
‘Èl era Marati Gōngori.’
[HMat_LuC_001]
4.2.2.2 Inanimate demonstrative pronouns

C-i Proximal referents. The demonstratives eni ‘this (object)’ and ara ‘this (place)’ refer to inanimate referents close to the SAPs. The main difference between both comes from the type of referents they point. Eni is commonly used for small-and middle-size objects, while ara is used for referring to places and big-size objects. In example (4.33), eni refers to an small object which is inside a closed hand. In contrast, ara refers to the place where the Speaker is in example (4.34).

(4.33) enari tawar eni
0-enar-ta-wa eni
3.R-hand-POSS BOUND-INE 3.INAN.SMALL.PROX
this (object) is inside the hand.’
'eso está en la mano.'
[RTop2_AnB_010]

(4.34) fiarekeha ara=fiar=meni ara=ga
fiar=ke=ha i-ar=e fiar
DIST=RSTR=EMPH.ITER 1.A-bring-IPFV DIST
meni ara=ga
3.INAN,BIG,DIST 3.INAN,BIG,PROX=ALLAT
‘I'm going to bring that (canoe) back to here.’
‘Voy a llevar esto para acá otra vez.’

C-ii Medial and distal referents. For referring to middle and distal referents, Karijona speakers employ the demonstratives mara ‘that (object)’ and mani ‘that (place)’. These demonstratives contrast in distance. The former is used for non-proximal (medial) referents and the later for referents far away from the SAPs (distal). Nevertheless, mara and mani also differ in terms of the kind of referents they usually refer to. Mara is mostly used for small and medial-size objects, and mani for places. In example (4.35) bellow, mara is referring to a ball (baroni) and a hole (tigendi). By contrast, mani points to a canoe in example (4.34) above.


(4.35)  bàro ni-ama-0-na  tàkà


‘That ball is entering into the hole.’

‘el balón se metió en ese hueco.’

[EyS_AnB_001]

C-iii Anaphoric inanimate referents. The demonstrative *irə* (3.ANAPH) ‘it’ is the only one that functions exclusively as an anaphora. In example (4.36)-b, the reference of the anaphoric *irə* is the NP *akorono imaititogo minə* ‘the house of the other men’s families’, which is mentioned in the previous clause in (4.36)-a.

(4.36)  a.  irə=ʤa  kɨ-də-kədəkə=toto  ihatu-na-se

irə  kɨ-də-kədəkə=toto  ihatu-na-se

AFTER.THAT  THERE  FAR  3.SA-COP-IPFV

*[akorono  i-maiti-to-go]  minə]*_{np,cs}

akorono  i-maiti-to-ko  minə

other  3.R-family-AUG.D-AUG.R  house

‘Then, the house of the other men's families, was over there (far away).’

b.  irə=dɡa  ki-də-kədəkə=toto  ihatu-na-se

irə=dɡa  ni-to-kədəkə=toto  ihatu-na-se

3.ANAPH=ALLAT  3.SA-go-HAB=COLL  coca-VBZ-SUP

‘There, they used to go (to chew) coca.’

**4.2.3 Karijona spatial adverbs**

Karijona adverbial demonstratives specify the location and direction of movement of a predicated event. They are classified into three types: (i) those that specify the location in terms of distance of a place with an specific reference (i.e. ‘here’, ‘there’), (ii) those that point to the distance of an unspecified place; and (iii) those that express the orientation with respect to the course of the river or a vertical configured Grounds. Table 25 shows the semantics of the Karijona adverbial demonstratives.
Table 25. Semantics of the Karijona spatial adverbs

<table>
<thead>
<tr>
<th>Deixis</th>
<th>Adverbial demonstratives</th>
<th>glosses</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrative adverbs</td>
<td>tanə</td>
<td>LOCATIVE.PROXIMAL</td>
<td>‘here’</td>
</tr>
<tr>
<td></td>
<td>ʧarə</td>
<td>ALLATIVE.PROXIMAL</td>
<td>‘to here’</td>
</tr>
<tr>
<td></td>
<td>ʧia</td>
<td>DISTAL</td>
<td>‘there’</td>
</tr>
<tr>
<td>Distance adverbs</td>
<td>didiʧa</td>
<td>NEAR</td>
<td>‘near (close)’</td>
</tr>
<tr>
<td></td>
<td>miha=ke</td>
<td>FEAR-NEG</td>
<td>‘near (not far)’</td>
</tr>
<tr>
<td></td>
<td>didiʧa=ke</td>
<td>NEAR-NEG</td>
<td>‘far (not near)’</td>
</tr>
<tr>
<td></td>
<td>miha</td>
<td>FAR</td>
<td>‘far (away)’</td>
</tr>
<tr>
<td>Orientational adverbs</td>
<td>akenaka</td>
<td>DOWNSTREAM</td>
<td>‘downstream’</td>
</tr>
<tr>
<td></td>
<td>kakəʧi</td>
<td>UPSTREAM</td>
<td>‘upstream’</td>
</tr>
<tr>
<td></td>
<td>kawə</td>
<td>UP</td>
<td>‘up/on top’</td>
</tr>
</tbody>
</table>

Karijona demonstrative adverbs specify the place where an event takes place in terms of the distance with respect to the SAPs and the direction towards it. The proximal tanə points to the place on which the SAPs are present (i.e. ‘here’), as in example (4.37), while the proximal allative ʧarə ‘to here’ points to a motion event towards the place on which the SAPs are present (example (4.38)). In contrast, the distal ʧia is used for referring to non-proximal places with respect to the SAPs, as it is shown in (4.36)-a above.

(4.37)  səkənɔŋə hura tanə ʧiŋkakeme nai

\[
\text{[səkənɔŋə hura]}_\text{SP:S} \quad \text{tanə}_\text{CC} \quad ʧiŋka_\text{PRED-keme}_\text{SP:CS} \quad \text{ni-a-e}_\text{COP}
\]

Q: TWO paddle LOC.PROX go.out-NMZ.POT 3.SA-COP-IPFV

‘Two paddles can be removed from here.’

‘Dos ramas pueden salir (ser extraídas) de aquí.’


(4.38)  koko arito nai natanonana ʧarə nono hona

\[
\text{[koko]}_\text{SP:CS} \quad \text{ari-to}_\text{SP:CS} \quad \text{ni-a-e}_\text{COP} \quad \text{ni-atanona-nə}_\text{PRED}
\]


‘The coconut’s leafs are breaking off towards the floor.’

‘Se está desgajando las hojas de coco al suelo.’

(FLoc2_AnB_047)

The Karijona distance adverbs are not prototypical deictics, given that they do not refer to specific referents within the context; they refer to the deictic characteristics of those referents.
Karijona has two basic (underived) distance adverbs: *didifa* ‘near’ (exp (4.39)) and *miha* ‘far’ (exp (4.36)) above.

(4.39)  
\[
\begin{align*}
\text{didif}=\text{ak} & \quad \text{dji-efi} \\
\text{NEAR}=\text{NEG} & \quad \text{1.So-COP.PFV}
\end{align*}
\]

\[
\begin{align*}
\text{maka} & \quad \text{mafuhuri} & \quad \text{i-woki-ri}=\text{dja} & \quad \text{dji-tuda}=0 \\
\text{3.AN.AUG.DIST} & \quad \text{tapir} & \quad 3.R-drink-MIN.D=\text{ALLAT} & \quad \text{1.S}=\text{arrive-PFV}
\end{align*}
\]

'I became far (not near), I arrived at the place where the tapirs go for drinking.'

'Ya estoy lejos (no cerca), llego donde toman las dantas.'

Both *miha* ‘far’ and *didifa* ‘near’ can be affected by the negative particle =ake, deriving on *mihake* ‘not far’ and *didifake* ‘not near’. This is exemplified in example (4.39) above and (4.40) below.

(4.40)  
\[
\begin{align*}
\text{ir}=\text{ta}=\text{mihake} & \quad \text{nefana}=\text{ikutuho} \\
\text{ir} & \quad \text{ta-r}=\text{miha}=\text{ake} & \quad \text{ni}=\text{efi}=\text{n}=\text{i-kutu}=\text{h}=\text{a} \\
\text{3.ANAPH} & \quad \text{BOUND-LOC}=\text{FAR}=\text{NEG} & \quad \text{3.A}=\text{became} & \quad \text{3.R}=\text{lagoon-FMR.MIN}
\end{align*}
\]

'There (in it), the lagoon became closer.'

'Ahi ya se pone cerquita al lago.'

[JEsp_ErC_016]

*Miha* and *mihake* also behave as postpositions in many cases, such as *miha* in example (4.41) (see adverbial postpositions in §3.3.3).

(4.41)  
\[
\begin{align*}
\text{tehu}=\text{nai}=\text{dji=mihake} \\
\text{tehu}=\text{C} & \quad \text{ni}-\text{a}-\text{cop} & \quad \text{dji}=\text{miha}=\text{ake}=\text{PP}\text{.CC} \\
\text{stone} & \quad 3.S=\text{COP-IPFV} & \quad 1\text{-FAR}=\text{NEG}
\end{align*}
\]

'The stone is close to me.'

'La piedra está cerca mío.'

(Repeated from (3.44) in §3.3.3)

The Karijona orientational adverbs *akenaka* ‘(going) upstream’ and *kakəʧi* ‘(going) downstream’ point the orientation of a Figure with respect of the course of the river or the stream (Ground). The Figure can correspond to a place, such as *Miraflores* and *Nare* in example (4.42), and an event, as it is the case of the nominalized *ejori* ‘finding’ in (4.43).
(4.42) mirafrore nai kakəfi nare ʧarə nai akenaka
mirafrore  ni-a-e_{COP}  kakəfi
Miraflores 3.S_{A}-COP-IPFV  UPSTREAM
nare ʧarə  ni-a-e_{COP}  akenaka
Nare  ALLAT.PROX 3.S_{A}-COP-IPFV  DOWNSTREAM
‘Miraflores is upstream and Nare is (going to) here, downstream.’
‘Miraflores está arriba y Nare está pa acá pa abajo.’

[FLoc2_AnB_138]

(4.43) irətiwə ikufə aheremi wəkə nikomì kakəfi akenaka ehorihagərahe neʧi nilatii
irətiwə  ikufə  aheremi  i-wa-ri  wəkə  ni-kom-i
THEN.AFTER  fish  owner  3.A-search-NMZ  SUPER.ADE  3.S_{A}-COP2-PFV
kakəfi  akenaka  eho-ri=ha=gəra=ha  ni-eʧi  ni-tat-i
DOWNSTREAM  UPSTREAM  find-NMZ=NEG=STILL=ITER  3S_{A}-COP.PFV  3.S_{A}-lose-PFV
‘Then, the owner of the fish was spending the day on searching it, downstream, upstream, he
did not find it, it get lose.’
‘Y Después el dueño estaba buscando se quedó todo el día pa arriba, pa abajo y no encontró
nada, se perdió pa siempre.’

[PesDes_AnB_011]

The orientational kawə ‘up/on top’ also points to the orientation of the Figure, but with
respect to a vertical distance to the ground, as in example (4.44).

(4.44) təhu anəndʒəna kawə
 təhu  anəni-dʒa-nə  kawə
stone  raise-NFUT-DUR  UP
‘(They) are raising up the stones.’
‘Están alzando la piedra pa arriba.’

[Man-Tri_AnB_025]

Those adverbs can codify both the location or the direction of the Figure, depending on which
is the main verb of the clause. In (4.42) and (4.43) above, akenaka and kakeʧi modify the
copula nai, they are so referring to the location on which the ‘finding’ event occurred with
respect to the SAPs (both upstream and downstream). In (4.45) (repeated from (4.9)), in
contrast, akenaka is modifying the motion verb to ‘to go’. In the same way, kawə ‘up/on top’
is modifying the motion verb anəbidʒəna ‘it is raising’ in (4.44) above.
(4.45) erekome nyiaakenaka kítətai
erekome\textsubscript{MOD} nyia\textsubscript{MOD} akenak\textsubscript{MOD} ki-tə-tə-e\textsubscript{PRED}
FAST-\textsc{ADVZ} DIST DOWNSTREAM 1+2.S\textsc{O}-go-AUG-\textsc{IPFV}

‘We are quickly going there downstream.’
‘Rápido nos vamos pa allá abajo nosotros’

4.3 Summary

This chapter has presented the complex system of Karijona pronouns and spatial adverbs. It is composed by two macro-systems: the pronouns and the spatial adverbs. Personal pronouns are divided into personal and demonstrative pronouns, while spatial adverbs consist on demonstrative, distance, and orientational adverbs.

Personal pronouns distinguish between the first (‘I’) and second person (‘you’), and the first person inclusive (‘you and I’). All of them contrast in number, according to the structure of a minimal-augmented person-number grammatical system. The fact that the first person inclusive is included into the person-number system implies a substantial semantic difference with respect to the singular-plural number systems when regarding to groups on which the Speaker is involved. Within this system, it is possible to distinguish the Addressee exclusive collectivity (‘we (without you)’), the inclusive minimal collectivity (‘we (only you and I)’), and the inclusive augmented collectivity (‘we (all of us including you)’).

Demonstrative pronouns can be subdivided in terms of those that point to animate and inanimate referents. They function as decictic classifiers, given that they specify their referents regarding to salient semantic characteristics, such as animacity or size. All the animate demonstrative pronouns contrast in terms of number (minimal and augment) and distance (proximal, medial, and distal). There is a competition between the proximal animate pronouns. The human and the nonhuman animate demonstratives define different but not exclusive semantic domains and categories. The former refer exclusively to human referents, while the latter can refer to human-like animals, human females, enemies, and children. The inanimate demonstrative pronouns contrast in terms of distance as well but also in terms of the size of the referents. For instance, there are two inanimate demonstrative pronouns referring to proximal referents. One of them is used only for small objects close to the SAPs whereas the other is used for big sized objects and places on which the SAPs are.
Spatial adverbs cover three different subsystems. Adverbial demonstratives have three elements: two proximal ('here') and one distal ('there'). Proximal demonstratives contrast in terms of the state of movement. One of them is used exclusively for referring to the static location on which the SAPs are present, while the other points the direction of movement towards the SAPs, which is typologically unusual throughout the systems of adverbial demonstratives (see §1.2.1).

The distance adverbs have two basic elements defining near and far distances, and two derived counterparts. They thus form a subsystem of four elements: far, not near, not fat and near.

Finally, the Karijona orientational adverbs refer to the direction and location of an object, a place or an event with respect to the course of the river or their upper position with respect to the deictic center.

Demonstrative, distance and orientational adverbs are members of the same grammatical system. Despite that the semantics of the distance and orientational adverbs are not prototypically associated to spatial deixis, the grammatical and semantic evidence, such as their similarities in terms of distribution, function, and semantic proximity, shows that together they form one grammatical system.

As it was evidenced in this chapter, Karijona forms a complex system of pronouns and adverbs on which a deictical continuum can be defined. However two different macro-systems were identified, it is not possible to understand the grammatical codification of the spatial deixis looking at each one as separate and independent systems. Moreover, when comparing pronouns and spatial adverbs, the semantic proximity between them becomes evident that a deep understanding of the grammatical basis of the spatial deixis can only be achieved when regarding those macro-systems, and their subsequent subsystems, as parts of the same (complex) system; which make it plausible to propose the pronominal-adverbial continuum in terms of the spatial deixis.

When regarding into the current typology of spatial deixis and demonstratives presented in §1.2.1, this chapter’s results become relevant. The grammatical behavior of Karijona pronouns and spatial adverbs shows that the spatial deixis can be set in terms of a continuum between pronominal and adverbial elements, on which one extreme of the scale
leads to an aspect of deixis focused on specific referential entities, while the referential qualities of those entities are the focus of the deixis on the other extreme of the scale (see Figure 2 in §4). This suggest that it could be accurate to consider the semantics of lexical items like ‘far’ or ‘near’ into the typology of spatial deixis.
5 The syntax and semantics of space in Karijona

5.1 The Syntax of Spatial Constructions in Karijona

Karijona has basic and complex spatial constructions. Basic spatial constructions are monoclusal sentences on which the head of the clause is either a copulative verb (basic static construction) or a motion verb (basic motion construction). The complex spatial constructions involve sentences on which there is a codification of spatial information with non-spatial predicates playing a role in it. They consist of sentences with motion imperatives, spatial auxiliary verbs, and oblique arguments.

5.1.1 Basic spatial constructions

Karijona basic spatial constructions are monoclusal sentences involving at least one spatial element. They vary depending on which lexical unit is the head of the clause. If the head of the clause is a copula or postural verb, they form a locative construction. If the head of the clause is a verb of motion, it is a motion construction.

5.1.1.1 Static constructions

The Karijona basic static constructions are copulative clauses (CCs) with a noun phrase functioning as copula subject (CS) and a prepositional phrase or spatial adverbs functioning as the copula complement (CC).

According to Grinevald’s typology of locative predicates (Grinevald, 2006, p. 33), the Karijona system of locative predicates historically belongs from the type 0, but there is an emerging system of type III. Karijona speakers use the copulative verb *nai* ‘be/ exist/have’ as the default verb for basic locative constructions. In those constructions, the CS and the CC codify the Figure and the Ground, respectively. The CC also codifies the Figure-Ground relation. In example (5.1), the spatial relation between the Figure (*tuna* ‘river’) and the Ground (*ʤi- ‘me’) is expressed through the postposition *waho* ‘in front’.
THE GRAMMAR OF SPACE IN KARIJONA

There is a set of five postural and positional verbs functioning as locative predicates: esewai ‘be sitting/sit’, etuhanə ‘be laying/lay’, etunutə ‘be standing/stand’, atasokə ‘be squat’, and eseki ‘be stuck’. They can occur as heads of the clause, as in example (5.2), but they more frequently occur together with the copula, as in example (5.3).

(5.1) tuna ɗiwiho nai
    tuna[cs]         ɗi-wiho[pp,cc]   ni-a-[icop]
    river          1.MIN-obe        3.Sa-COP-IPFV
  ‘The river is in front of me.’
  ‘El río está al frente mío.’
  (Repeated from (3.9) in §3.2)

There is a set of five postural and positional verbs functioning as locative predicates: esewai ‘be sitting/sit’, etuhanə ‘be laying/lay’, etunutə ‘be standing/stand’, atasokə ‘be squat’, and eseki ‘be stuck’. They can occur as heads of the clause, as in example (5.2), but they more frequently occur together with the copula, as in example (5.3).

(5.2) ṭəhu reto məkə irakuʧə nesewai
    [ṭəhu  reto][pp,cc]  [məkə  irakuʧə][jnc,cs]  ni-esewai-[icop]
    rock       SUPER, SUPPORT 3.AN.MIN.DIST  non-indigenous 3.Sa-sit-IPFV
  ‘That non-indigenous man was sitting/sat over the rock.’
  ‘Ese blanco se sentó/estaba sentado encima de esa piedra.’
  [FLoc1_AnB_012]

(5.3) məkə mure tetunutə kama kinkə nai
    [məkə  mure][jnc,cs]  ti-etunutə-e-[cop]
    [kama  kinkə][jnc,cs]  ni-a-[icop]
  ‘That child is standing close to the bed.’
  ‘El niño está parado al pie de la cama.’
  [FLoc1_AnB_106]

If nominalised, a set of transitive verbs specify the position of the CS, such as atamosetəhə ‘be hanging’ in example (5.4).

(5.4) məɾə sapato nai məɾə huroro reto atamosetəhə
    [məɾə  sapato][jnc,cs]  ni-a-[icop]
    3.INAN.SMALL,MED  shoe.Sp  3.Sa-COP-IPFV

    [məɾə  huroro  reto][jpp,cc]  atamosetə-[hə][cop]
    3.INAN.SMALL,MED  yard  SUPER, SUPPORT  hang-PST,NMZ
  ‘That shoe is hanging over the yard.’
  ‘El zapato está colgao en el patio.’
  [FLoc2_AnB_008]

The copula subject is usually placed at the beginning of the sentences, followed by the copula complement and the copula or postural verb, as in example (5.1) above.
Nevertheless, the order can change depending on the context, such as in examples (5.2) and (5.3) above, or (5.5) below.

(5.5) tahu gae nai tuna
[thou ga-e]pp,cc ni-a-cop tuna,cs
stone poste-loc1 3.s,-c-op-ifv river
‘The river is behind the boulders (lit. stone).’
‘El río está detrás de las piedras.’
(repeated from example (3.34) in §0)

Demonstrative pronouns can function as arguments of spatial postpositions. In those cases, the resulting PP is a mechanism of deictic spatial specification, similar to adverbal demonstratives, such as irə tərə ‘there (in it)’ in example (5.6) (see §5.2.1.5).

(5.6) irə tərə mihake negfanə ikutuhə
irə ta-tə miha=ake ni-ejə-nə i-kutu-hə
3.anaph bound-loc2 far=neg 3.a-became 3.r-lagoon-fmr.min
‘There (in it), the lagoon became closer.’
‘Ahí ya se pone cerquita al lago.’
(repeated from example (4.40) in §4.2.3)

In most cases, the CCs are PPs. Nevertheless, spatial adverbs can also take place within basic locative constructions as CC, such as akenaka ‘upstream’ in (5.7).

(5.7) mirafrore nai kakəfi nare ʃara nai akenaka
mirafrore,cs ni-a-cop kakəfi,cc
Miraflores 3.s,-c-op-ifv upstream
‘Miraflores is upstream.’
‘Miraflores está río arriba.’
(repeated from example (4.42) in §4.2.3)

5.1.1.2 Motional constructions

Karijona motional constructions are extended intransitive clauses with verbs of motion functioning as predicates of the clause. A noun phrase function as the intransitive subject (S) of the verb and postpositional phrases (or spatial adverbs) function as the spatial argument (SArg) of the clause, as in example (5.8).
5.1.2 Complex spatial constructions

Complex spatial constructions are characterised by having grammatical mechanisms of spatial specification involving: (i) non-spatial predicates functioning as clause heads, (ii) multiverb constructions with spatial auxiliary verbs, and (iii) peripheral arguments and modifiers.

5.1.2.1 A hint of associated motion: motion imperatives

Karijona motion imperatives, named as future imperatives by Guerrero Beltrán (2016) and mediate imperatives by Robayo (2000), consist of a command that involves a movement. These kinds of constructions have non-spatial verbs functioning as predicates of the clause. In those constructions, the verb inflects the future marker -\(ta\) (FUT) and the imperative marker -\(kə\) (IMP), as in example (5.9).

(5.9) \(\text{haru ehi iwata}\text{ka}^\circ\)

\[
\begin{align*}
\text{haru} & \quad \text{ehi} \quad \text{i-wa-ta-kə}\text{PRED} \\
\text{banana} & \quad \text{stick} \quad \text{3.O-search-FUT-AUG-IMP}
\end{align*}
\]

‘(You-all) go and search sticks of banana trees.’

‘Vaya busquen palos de plátano.’

According to Robayo (2000), the imperative suffix -\(kə\) do not overtly co-occur with the future marker -\(ta\) (as in the example (5.10) below), unless the augmented suffix -\(tə\) were also expressed between them (as in example (5.9) above).

(5.10) ‘iwata’ gana akorono

\[
\begin{align*}
\text{i-wa-ta-kə}\text{PRED} & \quad \text{ka-nə}\text{PRED} \quad \text{akorono}_A \\
\text{3.O-search-FUT-IMP} & \quad \text{say-DUR} \quad \text{other.person}
\end{align*}
\]

‘Go and search (her), is saying the other person.’

‘Vaya buscuela, dijo el otro.’

[HTgr_HeC_012]
5.1.2.2 Motion in multi-verb constructions: supine

There is one type of multi-verb construction involved in the Karijona grammar of space. These constructions have an embedded non-finite verb and a spatial auxiliary verb. The embedded verb receives the supine suffix -se (SUP) and a person cross-reference marker, while the auxiliary verb is fully inflected. The spatial auxiliary verb is either the Goal-anchored eh ‘to come’ or the Source-anchored to ‘to go’, as in example (5.11).

(5.11) onise witæ
      onik-se wi-tæ-e
    sleep-SUP 1.MIN-go-IPFV
    ‘I’m going for sleeping.’
    ‘Me voy a dormir.’
    [NCamp_DFGB]

If the embedded verb is intransitive, its core argument is co-referential to the argument of the auxiliary verb, as in example (5.11) above. In contrast, embedded transitive verbs agree with the argument that is not co-referential to the argument of the auxiliary verb. For instance, in (5.12) the S argument of the auxiliary eh ‘come’ (the 1st person) controls the reference of the A argument of the embedded verb wa. Consequently, wa agrees with its O argument (the 2nd person). The same occurs if the S argument of the auxiliary verb controls the reference of the embedded O argument, such as the embedded iwae ‘I search’ and the auxiliary mitæ ‘you are coming’ in example (5.13).

(5.12) adʒiwañ dʒehi
      adʒi-wa-e dʒi-eh-i
    2.O-search-IPFV 1.SΛ-come- PFV
    ‘I came looking for you.’
    ‘Vine a buscarlo.’
    [NCamp_CR]

(5.13) awi iwañ mitæ
      awi i-wa-e mi-tæ-e
    ‘I’m going to search for you (Lit. You are going to be searched by me).’
    ‘Vine a buscarlo (Lit. Usted vino a ser buscado por mi).’
    [NCamp_CR]
5.1.2.3 Syntactic specification of space

Karijona has syntactic mechanisms for specifying the spatial location of non-spatial events. Following Dixon (2010b), languages can specify contextual temporal and spatial information of the events. The first mechanism involves the introduction of peripheral arguments. In Karijona, peripheral arguments are introduced by postpositions, forming postpositional phrases. In those constructions, it is possible to add a more significant number of PPs within a clause in order to give further or deeper spatial specifications, as in example (5.14).

(5.14)  dʒanita irakuʧa tawɔ okomoihori həko
         1.SA-grow-NFUT-PFV non.indigenous BOUND-INE

         [okomoiho-ri     həko]\[PP:OBL
          study-NMZ SUPE.ADE
          ‘I grew (up) studying, among the non-indigenous people’.
          ‘Yo crecí en medio de los blancos, estudiando.’
          (repeated from example (3.12) in §3.2)

The use of modifiers (i.e. spatial adverbs) into the clause is also a mechanism for expressing spatial specifications. Formally, those modifiers are spatial adverbs, such as ʧarə ‘to here’ in example (5.15) (further information about spatial adverbs is in §4.2.3).

(5.15)  ‘etaja atawɔ mitudatɔwi ʧarə’ ganɔ
         [[eta=ja  atawɔ]\[PP:OBL mi-tuda-tɔ-i\[PRED  ʧarə\[MOD]\[PRED
          hear=NEG TEMP 2.A-arrive-AUG-PFV ALLAT.PROX say-DUR
          ‘“When it was not heard, you-all arrived here" he was saying.’
          ‘“Cuando no se oía, ustedes llegaron aquí”, decía’
          (repeated from example (4.3) in §4.1)

Like PPs, it is possible to add more than one adverbial demonstrative in order to enhance the spatial specification of the event, as in (5.16):
At this point, there are no grammatical criteria to distinguish between spatial and oblique arguments in those kinds of constructions.

5.2 The semantic representation of space in Karijona

The Karijona grammar of space has a semantic division between static and motion events (see §1.2.2). The first type refers to the static location of the Figure for the Ground; in this case, both elements have a fixed position. The second one involves a change in the position (a movement) of the Figure to, across, or from the Ground.

5.2.1 Static location

In Karijona, five semantic domains represent static location events: (i) place names and landscape terms; (ii) the Figure and Ground configuration; (iii) Frames of Reference; (iv) Topological relations; and (v) spatial deixis. This section presents the main characteristics and parameters of these semantic domains.

5.2.1.1 Karijona place names and landscape terms

Place names and landscape terms are significant among the Carijona people. Given the topographic characteristics of the territory within the Amazonian rainforest, place names and landscape terms are essential for spatial navigation, especially those referring to bodies of water.

The Karijona people traditionally divide their territory into three main kinds. According to Rodriguez (2016) and fieldwork observations, the ancestral Karijona territory splits into three worlds: the world of the water, the world of the earth (forest), and the world
of the air. This split is evident in the Karijona oral literature. In traditional myths and stories, each world has its own space in the territory and hosts specific groups of beings with specific characteristics. For instance, fishes, amphibians, and aquatic mammals belong to the world of the water, whilst birds and monkeys come from the world of the air. For a more in-depth analysis of the conception of space in the Karijona version of the myth of Kuwai, see Rodriguez (2016).

Currently, the division of the Karijona territory has had several changes due to social dynamics. The arriving of non-indigenous people in the Karijona territory throughout the second half of the 20th century, among other factors (such as armed conflict, urbanisation, narcotraffic, and globalisation), involved a new parameter on the categorisation of the territory: the indigenous vs the non-indigenous territories. This new spatial division between indigenous and non-indigenous is mainly present in the epistemological domain (i.e. medicine, agricultural techniques, languages, and tools). The indigenous territory thus contains traditional knowledge, while the non-indigenous territory contains western knowledge. Table 26 presents the Karijona scattered landscape terms.
The world of the water involves fishing activities, aquatic plants used in traditional medicine, and sacred places. The bodies of water are the primary way of transportation of the Karijona people, especially in the wet season. Therefore, they are essential for big-scale orientation within the territory. The world of the earth involves the places for living, for cultivating, and for hunter-gathering practices. In the categorisation of the world of the earth, there is a progression between the human and the forest domains. The human domain has the house of the people as the centre, and it starts to get closer to the forest, which goes beyond

<table>
<thead>
<tr>
<th>Domains</th>
<th>Landscape terms</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bodies of water</td>
<td>tuna</td>
<td>river</td>
</tr>
<tr>
<td></td>
<td>dʒanuru</td>
<td>stream</td>
</tr>
<tr>
<td></td>
<td>dʒanuru hutuhə́</td>
<td>river source</td>
</tr>
<tr>
<td></td>
<td>ikutuhə</td>
<td>lagoon</td>
</tr>
<tr>
<td></td>
<td>ekuru</td>
<td>creek</td>
</tr>
<tr>
<td>Aquatic landmarks</td>
<td>waʃinakanəo</td>
<td>channel</td>
</tr>
<tr>
<td></td>
<td>iwaŋəti</td>
<td>whirlpool</td>
</tr>
<tr>
<td></td>
<td>kaʧiwəra</td>
<td>torrent</td>
</tr>
<tr>
<td></td>
<td>igari</td>
<td>floodplain</td>
</tr>
<tr>
<td></td>
<td>chukari</td>
<td>river mouth</td>
</tr>
<tr>
<td>Earth subdivision</td>
<td>itawari</td>
<td>salt lick</td>
</tr>
<tr>
<td></td>
<td>itu</td>
<td>forest</td>
</tr>
<tr>
<td></td>
<td>tuhitəho</td>
<td>stubble</td>
</tr>
<tr>
<td></td>
<td>hatari</td>
<td>place (for a living)</td>
</tr>
<tr>
<td></td>
<td>tuhi(ta)</td>
<td>chagra</td>
</tr>
<tr>
<td></td>
<td>huroro</td>
<td>yard</td>
</tr>
<tr>
<td></td>
<td>minə</td>
<td>house</td>
</tr>
<tr>
<td></td>
<td>minaimə /maroka</td>
<td>Maloca</td>
</tr>
<tr>
<td></td>
<td>ahketi</td>
<td>grass/field</td>
</tr>
<tr>
<td></td>
<td>potrero</td>
<td>paddock (borrowing from Spanish)</td>
</tr>
<tr>
<td></td>
<td>kaʧa</td>
<td>soccer court (borrowing from Spanish)</td>
</tr>
<tr>
<td>Landmarks</td>
<td>təhu</td>
<td>rock</td>
</tr>
<tr>
<td></td>
<td>hibi</td>
<td>hill</td>
</tr>
<tr>
<td></td>
<td>nono</td>
<td>earth</td>
</tr>
<tr>
<td>world of the air</td>
<td>kahu</td>
<td>sky</td>
</tr>
<tr>
<td></td>
<td>ʧiriŋo</td>
<td>star</td>
</tr>
<tr>
<td></td>
<td>nunə</td>
<td>moon</td>
</tr>
<tr>
<td></td>
<td>wei</td>
<td>sun</td>
</tr>
<tr>
<td></td>
<td>kanaŋai</td>
<td>rainbow</td>
</tr>
</tbody>
</table>
the human domain. The yard is the region closest to the house, with a few raised fruit plants. The Chagra is usually located next to the yard, in a middle point between the yard and the forest. The stubble is a region of transition between the Chagra and the forest. Figure 3 shows the progression between the human and forest domains.

Human domain ←-----------------------------------------------Forest domain

   house    yard    Chagra    stubble    forest

Figure 3. Human and forest domains.

Within the world of the air, Karijona distinguishes some celestial objects, such as the stars, the moon, the son, the sky, and the rainbow. Those objects are essential for the measure of time, such as months and seasons; but also for some spatial notions, such as the absolute frames of reference (see §5.2.1.3).

Karijona speakers use two strategies for expressing place names. The first one is using proper names that are place names by themselves. The second one considers possessive constructions on which the first component, the Possessor, is the owner of the place, and the second component, the Possessed, is a landscape term. The first strategy usually refers to non-indigenous places, such as towns or cities, as in (5.19).

(5.17)    dəmə tanə nare tərə
tə-mə tanə nare ta-rə
go-PFV LOC.PROX Nare BOUND-LOC2
‘We left (from) here, at Nare.’
‘Nos fuimos de aquí de Nare.’
[kaj_EuMir-OtMir]

The second strategy divides into two main types: the first one considers places with human owners, such as chagras and houses (as in (5.20)-a); the second type consists on places in the forest which have non-human owners, such as animals or spirits (see (5.20)-b).

(5.18) a.  kaʧarero tuhi
      eneto minə
   ‘Kacharro’s chagra’
   ‘Ernesto’s house.’

b.  maʧuhuri ekuru
    saha saha yanuru
   ‘tapir’s creek.’
   ‘ants’ stream.’
5.2.1.2 Figure and ground Configuration

Different linguistic elements codify the Karijona Figure and Ground configuration, such as verbs, adverbs, demonstratives, and postpositions. They express Figure postures and positions and Ground consistency, form, and animacy.

1. **Figure configuration** is expressed by posture and positional verbs, which can be transitive (i.e. ‘squash’) and intransitive (i.e. ‘be sitting’). The codification of Figure configuration involves four verbs of postures: *esewai* ‘be sitting/sit’, *etuhan* ‘be lying/lie’, *etunut* ‘be standing/stand’, and *atasoka* ‘be squatting/squat’. Additionally, there is one intransitive positional verb (*eseki* ‘be stuck/stick’), and five transitive verbs on which there is an Agent (i.e. another argument) affecting or causing the Figure to have a particular position: *atamoseta* ‘hang’, *iwad* ‘roll’, *hihama* ‘squash’, *ad* ‘surround’, and *aməm* ‘wrap’. Karijona Figure configuration verbs are presented in Table 27.

<table>
<thead>
<tr>
<th>Type of predicate</th>
<th>Type of configuration</th>
<th>Verbs</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intransitive</td>
<td>Posture</td>
<td><em>esewai</em></td>
<td>be sitting/sit</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>etuhan</em></td>
<td>lie</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>etunut</em></td>
<td>be standing/stand</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>atasoka</em></td>
<td>be squatting/squat</td>
</tr>
<tr>
<td></td>
<td>Position</td>
<td><em>eseki</em></td>
<td>be stuck/stick</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>atamoseta</em></td>
<td>hang</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>iwad</em></td>
<td>roll</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>hihama</em></td>
<td>squash</td>
</tr>
<tr>
<td></td>
<td>Position (modified by an Agent)</td>
<td><em>ad</em></td>
<td>surround</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>aməm</em></td>
<td>wrap</td>
</tr>
</tbody>
</table>

Like other languages from Northwest Amazonia (see Kotiria and Waikana posture verbs in: Stenzel, 2013), the Karijona Figure configuration verbs can have both active and stative uses. When those verbs are the main predicates of intransitive clauses, they usually have an active interpretation (such as in example (5.19)).
(5.19) nesewaite tudai ino
n-esewai-ti t-eduda-ri i-no
3.sa-sit-pfv=rep 3.coref-cog.prac-nmz.min 3-appr
‘He sat (because) he was afraid of being recognised (by the man).’
‘Se sentó para que no lo distinguiera (el hombre).’

In contrast, speakers nominalise those verbs using the suffix -hə (FORMER.POSSESSED) for stative interpretations, as in example (5.20).

(5.20) nai ma-re tarə esewaihə etunutəhə
ni-a-i ma-re ta-re esewai-hə etunut-hə
3.Sa-COP-IPFV 3.INAN.SMALL.MED BOUND-LOC_2 sit-PST.NMZ stand-PST.NMZ
‘There (she) is sitting, (she) is standing.’
‘Ahí mismo está parado ella, sentado.’

Karijona transitive verbs of Figure configuration function in a similar way. If those verbs are the main predicates of the clause, the Figure function grammatically as the Object (O) of the clause, while the Agent or Causer is the transitive subject (A), as in example X. In contrast, they function as stative position predicates of the Figure (without a reference of an Agent) if they are nominalized, as in example (5.21).

(5.21) nai mesa aho nai ma-re adə-hə
ni-a-iCOP mesa aho ni-a-iCOP ma-re adə-hə
‘That thing, similar to a table, is surrounded.’
‘Está cercado eso como mesa.’

II. Spatial postpositions codify GROUND CONFIGURATION. They specify the reference of the Ground in terms of its salient characteristics, such as their animacy, consistency (specific for aquatic places), form (elongated, general, and bounded places), and posture (horizontal and vertical). Further information on the specific semantic and grammatical characteristics of those postpositions is in §3.3. Table 28 shows the Karijona Ground configuration postpositions.
Table 28. Karijona Ground configuration postpositions

<table>
<thead>
<tr>
<th>Semantic parameters</th>
<th>Locative root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animacy</td>
<td>ʤa</td>
<td>animate</td>
</tr>
<tr>
<td>Consistency</td>
<td>ka</td>
<td>aquatic</td>
</tr>
<tr>
<td></td>
<td>ekume</td>
<td></td>
</tr>
<tr>
<td></td>
<td>bəbəkə</td>
<td>aquatic-elongated</td>
</tr>
<tr>
<td>Form</td>
<td>na</td>
<td>elongated</td>
</tr>
<tr>
<td></td>
<td>ho</td>
<td>general</td>
</tr>
<tr>
<td></td>
<td>ta/tə</td>
<td>bounded</td>
</tr>
<tr>
<td>Posture</td>
<td>reto</td>
<td>horizontal</td>
</tr>
<tr>
<td></td>
<td>həkə</td>
<td>vertical</td>
</tr>
</tbody>
</table>

The Karijona demonstrative pronouns also express overtones of the Figure and Ground configuration. The Karijona demonstrative pronouns function as deictic classifiers (see §4.2.2). In particular, the inanimate demonstrative pronouns codify the configuration of their referents in terms of their size. The demonstratives ənɨ ‘this (object)’ and mənə ‘that (object)’ refer to objects (small-sized referents), while ənə ‘this (place)’ and məni ‘that (place)’ refer to places (big sized referents). Table 29 summarises the semantic characteristics on the codification of the Karijona Figure and Ground configuration.
Table 29. Karijona configuration of Figure and Ground.

<table>
<thead>
<tr>
<th>Type configuration of configuration</th>
<th>Semantic parameters</th>
<th>Syntactic class</th>
<th>Linguistic element</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure configuration</td>
<td>Posture</td>
<td>Spatial Verbs</td>
<td>esewai</td>
<td>be sitting/sit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>etuhanə</td>
<td>lie</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>etunutə</td>
<td>be standing/stand</td>
</tr>
<tr>
<td></td>
<td>Position</td>
<td>Spatial Verbs</td>
<td>atasoka</td>
<td>be squatting/squat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>eseki</td>
<td>be stuck/stick</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>atamosetə</td>
<td>hang</td>
</tr>
<tr>
<td></td>
<td>Position (modified by an Agent)</td>
<td></td>
<td>iwada</td>
<td>roll</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spatial Verbs</td>
<td>hihama</td>
<td>squash</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ado</td>
<td>surround</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>aməm</td>
<td>wrap</td>
</tr>
<tr>
<td>Ground configuration</td>
<td>Animacy</td>
<td></td>
<td>dʒa</td>
<td>animate</td>
</tr>
<tr>
<td></td>
<td>Consistency</td>
<td></td>
<td>ka</td>
<td>aquatic</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ekume</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Form</td>
<td>Spatial postpositions</td>
<td>bəbəkə</td>
<td>aquatic-elongated</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>na</td>
<td>elongated</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ho</td>
<td>general</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ta/tə</td>
<td>bounded</td>
</tr>
<tr>
<td></td>
<td>Posture</td>
<td></td>
<td>reto</td>
<td>horizontal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>həkə</td>
<td>vertical</td>
</tr>
<tr>
<td>Figure/Ground configuration</td>
<td>Size of the referents</td>
<td>Objects</td>
<td>Demonstrative pronouns</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Demonstrative pronouns</td>
<td>eni</td>
<td>‘this (object)’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mərə</td>
<td>‘that (object)’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>əɾə</td>
<td>‘this (place)’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>mənɨ</td>
<td>‘that (place)’</td>
</tr>
</tbody>
</table>

5.2.1.3 Defining Frames of Reference

In terms of angular location, the three types of frames of reference occur in the Karijona grammar of space. Several spatial postpositions and adverbs codify the absolute, intrinsic, and relative frames of reference (see §3.3 and §4.2). Table 30 presents the codification of the angular location in Karijona.
### Table 30. The angular location in Karijona (frames of reference)

<table>
<thead>
<tr>
<th>Type of frame of reference</th>
<th>Semantic parameters</th>
<th>Grammatical status</th>
<th>Linguistic element</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute</td>
<td>Direction of the River</td>
<td>adverb</td>
<td>akanaka</td>
<td>upstream</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kakəʧi</td>
<td>downstream</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>verb</td>
<td>ḣənənuk</td>
<td>move upstream</td>
</tr>
<tr>
<td></td>
<td>Position of the sun</td>
<td>noun phrase</td>
<td>ḣəɨtə</td>
<td>move downstream</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wei efikatoho</td>
<td>east (the place where the sun rises)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>wei əmədoho</td>
<td>west (the place where the sun enter)</td>
<td></td>
</tr>
<tr>
<td>Intrinsic</td>
<td>Vertical axis</td>
<td>Down</td>
<td>dawə</td>
<td>under</td>
</tr>
<tr>
<td></td>
<td></td>
<td>postposition</td>
<td>ḥəkə</td>
<td>on (support)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Up</td>
<td>ḥəkə</td>
<td>on top (adhesion)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>adverb</td>
<td>kawə</td>
<td>up/on top</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Forth</td>
<td>waho</td>
<td>in front</td>
</tr>
<tr>
<td>Relative</td>
<td>Horizontal axis</td>
<td>postposition</td>
<td>ga</td>
<td>behind</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deictic sides</td>
<td>kinakə</td>
<td>at this side (close to)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>babaka</td>
<td>on the other side</td>
</tr>
</tbody>
</table>
I. Spatial adverbs, verbs, and derived noun phrases express the **Absolute Frames of Reference**. Absolute frames of references follow two parameters: the position of the sun and the course of the river.

Nominalized verb phrases codify one kind of absolute frames of reference. The motion verbs *efika* ‘go out’ and *əməm* ‘go in’ are nominalised by the circumstantial suffix *-toho*, resulting on ‘the place where something enters into/exits from’. Then, when those verbs have the noun *wei* ‘sun’ as their subject, this nominalisation results on *wei efikatoho* ‘the place where the sun rises’ and *wei əmədoho* ‘the place where the sun enters’.

The course of the river is codified by the verbs *ənənuk* ‘move upstream’ and *ehita* ‘move downstream’, and the spatial adverbs *akenaka* ‘upstream’ and *kakəʧi* ‘downstream’ codify the orientation of the Figure concerning the course of the river (see §4.2.3).

**Intrinsic Frames of Reference** are codified by spatial postpositions. They mark the orientation of the Figure with respect to the Ground in terms of the vertical axis (up and down), by the superessive and subessive postpositions *reto* ‘on (support)’, *həkə* ‘on top (adhesion)’, *dawə* ‘under’, *dəkə* ‘(cross) underneath’, and *ehine* ‘under (covered)’. The postpositions *gae* ‘behind’, *gəkə* ‘(cross) behind’, and *waho* ‘in front’ codifies intrinsic frames of reference in terms of the horizontal axis, marking the Figure being in front and back to the Ground. The selection of those postpositions only depends on the position of the Ground, independently of the position of the viewer.

**Relative Frames of Reference.** In Karijona, there is no left-right distinction in terms of relative frames of reference. The speakers codify the distance of the Figure concerning the Ground instead. Karijona has a postposition (*kinəkə* ‘at this side (close to)’) that codifies the proximity of the Figure to the Ground independently of laterality. Additionally, there is another postposition (*bəbəkə* ‘at the other side’) that codifies the location of the Figure at the other side of a body of water (stream or river) from the viewer’s perspective. This feature is also present in other languages from Northwest Amazonia, such as the Murui or the Tariana languages (Wojtylak and Aikhevald, p.c.). Nevertheless, it is essential to mention that this postposition has not been observed frequently in the discourse and the most frequent spatial markers are those that refer to topological relations.
5.2.1.4 Encoding Topology

In Karijona, topological relations are the most common strategy for the codification of spatial relations. It covers a vast range of relations which are related to the referential classification. Karijona topological relations cover adjacency, contact, support, and containment, as well as the definition of specific topological regions. Table 31 shows the set of Karijona topological relations.

Table 31. Karijona topological relations

<table>
<thead>
<tr>
<th>Topological relation</th>
<th>Linguistic element</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjacency</td>
<td>ho</td>
<td>at</td>
</tr>
<tr>
<td></td>
<td>kinəkə</td>
<td>at this side (close to)</td>
</tr>
<tr>
<td>Contact</td>
<td>adhesion</td>
<td>hakə</td>
</tr>
<tr>
<td></td>
<td>on top (adhesion)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>covering</td>
<td>ehine</td>
</tr>
<tr>
<td></td>
<td>under (covered)</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td>reto</td>
<td>on (support)</td>
</tr>
<tr>
<td>Containment</td>
<td>ka</td>
<td>in (water)</td>
</tr>
<tr>
<td></td>
<td>ta</td>
<td>in (bounded place)</td>
</tr>
<tr>
<td>Topological region</td>
<td>upper part</td>
<td>kawə</td>
</tr>
<tr>
<td></td>
<td>up/on top</td>
<td></td>
</tr>
<tr>
<td></td>
<td>horokə</td>
<td>in the middle</td>
</tr>
<tr>
<td></td>
<td>rana</td>
<td>in the middle (elongated place)</td>
</tr>
<tr>
<td></td>
<td>Middle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inner edge</td>
<td>edʒena</td>
</tr>
<tr>
<td></td>
<td>in the edge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outer edge</td>
<td>ekume</td>
</tr>
<tr>
<td></td>
<td>at the edge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Upper part</td>
<td>dʒanuru hutuhə</td>
</tr>
<tr>
<td></td>
<td>river source</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lower part</td>
<td>ehukari</td>
</tr>
<tr>
<td></td>
<td>river mouth</td>
<td></td>
</tr>
</tbody>
</table>

Postpositions codify the adjacency by the locative root ho (ho ‘at’, hoe ‘close’, and hona ‘towards’), and the postposition kinəkə ‘at this side (close to)’, which express the contiguity of the Figure to the Ground.

Three postpositions (həkə ‘on top (adhesion)’, reto ‘on (support)’, and ehine ‘under (covered)’) codify contact relations. They mark different kinds of contact between the Figure and the Ground: support (5.22), adhesion (5.23), and covering (5.24).
The classificatory postpositions of aquatic and bounded referents express containment relations. Those postpositions (such as *kawe* ‘in (water)’ and *taka* ‘into (bounded place)’, and *tərə* ‘at (bounded place)’) codify schemas on which the Ground contains the Figure.

In terms of markers of topological regions, it is essential to distinguish between those that specifically codify regions within an aquatic Ground (such as *ehukari* ‘river mouth’), and those that codify topological regions of the Ground independently of their consistency. Those markers codify topological relations on which the Figure location associates with a specific region into the configuration of the Ground. For instance, the Figure can be located by the orientation adverb *kawe* ‘up/on top’ if the Ground is a vertical or big sized object. The markers of aquatic topological regions differentiate whether the Figure is contained into the Ground and adjacent to one edge (*edgena* ‘at the inner edge’), not contained into the Ground but close to one edge (*ekume* ‘at the outer edge’), in the middle of the Ground (i.e. far from any edge; *rana* ‘in the middle (elongated place)’), close to the river source (lit. river head) (*d̃anuru hutuhə*) and close to river mouth (*ehukari*).
5.2.1.5 Spatial deixis

Different kinds of linguistic elements codify karijona spatial deixis: demonstrative pronouns, adverbial demonstratives, and distance adverbs. Similar to other Cariban languages, the combination of demonstrative pronouns and spatial postpositions also express spatial deixis. Table 32 illustrates the Karijona deictic elements.

<table>
<thead>
<tr>
<th>Deixis</th>
<th>Grammatical status</th>
<th>Linguistic element</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximal</td>
<td>Demonstrative pronoun</td>
<td>nərə</td>
<td>‘he’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>namoro</td>
<td>‘they’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mæje</td>
<td>‘this’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>məsəa</td>
<td>‘these’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>eni</td>
<td>‘this (object)’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ærə</td>
<td>‘this (place)’</td>
</tr>
<tr>
<td></td>
<td>Demonstrative adverb</td>
<td>tanə</td>
<td>‘here’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ṭʃarə</td>
<td>‘to here’</td>
</tr>
<tr>
<td></td>
<td>Distance adverb</td>
<td>didiʃa</td>
<td>‘near (close)’</td>
</tr>
<tr>
<td>Medial</td>
<td>Demonstrative pronoun</td>
<td>məki</td>
<td>‘that (heard)’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>məka</td>
<td>‘those (heard)’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mərə</td>
<td>‘that (object)’</td>
</tr>
<tr>
<td></td>
<td>Distance adverb</td>
<td>miha=ke</td>
<td>‘near (not far)’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>didiʃa=ke</td>
<td>‘far (not near)’</td>
</tr>
<tr>
<td>Non-proximal</td>
<td>Demonstrative pronoun</td>
<td>məkə</td>
<td>‘that (looked)’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>məkamoro</td>
<td>‘those (looked)’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>məni</td>
<td>‘that (place)’</td>
</tr>
<tr>
<td>Distal</td>
<td>Demonstrative adverb</td>
<td>ʧia</td>
<td>‘there’</td>
</tr>
<tr>
<td></td>
<td>Distance adverb</td>
<td>miha</td>
<td>‘far (away)’</td>
</tr>
</tbody>
</table>

For referring to proximal referents, six personal demonstratives contrast in terms of animacy, humanity, and size. A group of two demonstrative adverbs codify the proximity of the place on which an event occurs from the deictic centre. Besides, one distance adverb (didiʃa ‘near (close)’) codifies the distance of an undefined referent to the deictic centre.
The Karijona deictic elements for non-proximal elements fall into two categories: medial and distal deictics. Medial distance referents are also pointed by demonstrative pronouns: məki ‘that (heard)’, məka ‘those (heard)’, məra ‘that (object)’. There is also a group of two derived distance adverbs marking the medial distance (mihake ‘not far’ and didifə ‘not near’). No demonstrative adverbs express medial distances. Three demonstrative pronouns and two spatial adverbs express the deixis of distal referents. Those are məka ‘that (looked)’, məkamoro ‘those (looked)’, məni ‘that (place)’, ʧiə ‘there’, and miha ‘far’.

However non-proximal demonstrative pronouns seem to contrast according to metrical terms, the semantic distinction between them follows different parameters. Medial demonstrative pronouns usually refer to heard animate and small-sized inanimate referents, while distal ones refer to visual or absent animate referents, and big sized inanimate referents. Nevertheless, the distribution of medial and distal deictics is not complementary. In many contexts, such as those of non-proximal medial sized referents, those demonstratives are interchangeable.

The most common strategy for spatial deixis considers the combination of inanimate demonstrative pronouns and spatial postpositions. In particular, there is a productive distribution of those demonstratives occurring together with the postposition locative təra ‘at (bounded place)’, which are equivalent to their use to the demonstrative adverbs. Table 33 presents the combinations of demonstratives and postpositions in Karijona.

<table>
<thead>
<tr>
<th>Postpositions</th>
<th>Demonstratives</th>
<th>eni (small scale)</th>
<th>əra (big scale)</th>
<th>məra</th>
<th>məni</th>
</tr>
</thead>
<tbody>
<tr>
<td>təra</td>
<td>here (at this)</td>
<td>there (at that)</td>
<td>yonder (at that place)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tae</td>
<td>along here (through this)</td>
<td>along there (through that)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tawə</td>
<td>in here (in this)</td>
<td>in there (in that)</td>
<td>not attested</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dəa</td>
<td>to here (to this)</td>
<td>to there (to that)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Given the semantic complexity of spatial postpositions, the demonstrative-postpositional combinations usually codify not only the location of a place on which an event occurs but also the direction of movement on which it occurs (see example (5.25)).
5.2.2 Motion

In Karijona, verbs, postpositions, and adverbs codify motion. Motion verbs can codify the events in terms of translocation through the vertical and horizontal axis, change of locative relations, change of location, manner, and involving the cause of the movement. Table 34 present the list of scattered verbs of motion.
### Table 34. Karijona movement predicates

<table>
<thead>
<tr>
<th>Type of movement</th>
<th>Predicate</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Horizontal axis</strong></td>
<td>tə</td>
<td>go</td>
</tr>
<tr>
<td></td>
<td>eh</td>
<td>come</td>
</tr>
<tr>
<td></td>
<td>tuda</td>
<td>arrive</td>
</tr>
<tr>
<td>Translocation</td>
<td>ataruka</td>
<td>come closer</td>
</tr>
<tr>
<td></td>
<td>erama</td>
<td>go back</td>
</tr>
<tr>
<td><strong>Vertical axis</strong></td>
<td>ənənuk</td>
<td>go up</td>
</tr>
<tr>
<td></td>
<td>chitə</td>
<td>go down</td>
</tr>
<tr>
<td></td>
<td>taka</td>
<td>fall from a tree</td>
</tr>
<tr>
<td></td>
<td>anota</td>
<td>fall</td>
</tr>
<tr>
<td><strong>Change of locative relation</strong></td>
<td>ehuka</td>
<td>go out</td>
</tr>
<tr>
<td></td>
<td>efika</td>
<td>exit</td>
</tr>
<tr>
<td></td>
<td>əməm</td>
<td>go in</td>
</tr>
<tr>
<td><strong>Change of location</strong></td>
<td>otonaga</td>
<td>emerge</td>
</tr>
<tr>
<td><strong>Manner</strong></td>
<td>əhəna</td>
<td>run</td>
</tr>
<tr>
<td></td>
<td>ewoʤoma</td>
<td>turn</td>
</tr>
<tr>
<td></td>
<td>etakaka</td>
<td>shake (himself)</td>
</tr>
<tr>
<td></td>
<td>erema</td>
<td>chase for scaring</td>
</tr>
<tr>
<td></td>
<td>arə</td>
<td>carry</td>
</tr>
<tr>
<td></td>
<td>anom</td>
<td>lift</td>
</tr>
<tr>
<td></td>
<td>aruka</td>
<td>put in</td>
</tr>
<tr>
<td></td>
<td>aʧiʧə</td>
<td>push</td>
</tr>
<tr>
<td><strong>Caused by an Agent</strong></td>
<td>hanama</td>
<td>rotate</td>
</tr>
<tr>
<td></td>
<td>tomaka</td>
<td>take out</td>
</tr>
<tr>
<td></td>
<td>nam</td>
<td>drop</td>
</tr>
<tr>
<td></td>
<td>karama</td>
<td>give</td>
</tr>
<tr>
<td></td>
<td>gir</td>
<td>remove</td>
</tr>
<tr>
<td></td>
<td>someka</td>
<td>seize</td>
</tr>
</tbody>
</table>

### 5.2.2.1 Vector

In Karijona, the postpositional locative roots codify the Vector. They set the direction of the movement in terms of the association of the Ground to one motion component (Source, Path, and Goal). The morphological marks for the expression of the Vector are presented in Table 35.
Table 35. Karijona postpositional Vector markers

<table>
<thead>
<tr>
<th>Motion components</th>
<th>Linguistic element (locative suffixes)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>-bə</td>
<td>from</td>
</tr>
<tr>
<td>Goal</td>
<td>-na</td>
<td>to</td>
</tr>
<tr>
<td>Path</td>
<td>-kə</td>
<td>across</td>
</tr>
<tr>
<td></td>
<td>-e</td>
<td>along</td>
</tr>
<tr>
<td>Location</td>
<td>-wə</td>
<td>in</td>
</tr>
<tr>
<td></td>
<td>-rə</td>
<td>at</td>
</tr>
</tbody>
</table>

The ablative suffix -bə ‘from’ codifies the Source of movement in Karijona. In most of cases, -bə takes nominalized postpositional phrases, as in example (5.26).

(5.26) 

marə tahu tareno nefika mərə baroni
marə tahu ta-ra-no-bə
3.INAN.SMALL.MED rock BOUND-LOC2-NMZ.MIN-ABLAT
n-eʃika-i mərə baroni
3.SA-exit-PFV 3.INAN.SMALL.MED ball.Sp
‘That ball exited from that rock.’
‘De la piedra Salió el balon.’
[FyF_AnB_005]

In order to inform the Goal, Karijona has two different marks: the illative -na ‘to’ and the allative -ka ‘into’, which can be found in the spatial postpositions with the locative roots ho ‘general place’, ta ‘bounded’ and ka ‘aquatic’.

Two marks codify the Path in Karijona: the perlative -e ‘at’ and the translative -ke ‘across’. The main difference between them is that the perlative -e can have locative interpretations, while the translative -ke only occurs for referring to motion. For the location, Karijona speakers use the inessive -wə ‘in’ and the locative -rə ‘at’, which occur with the locative roots ta ‘bounded’, ka ‘aquatic’, and na ‘elongated’.

5.2.2.2 Deictic direction:

The Karijona motion verbs split in terms of deictic direction. A group of verbs make a correspondence between the Source of the movement and the deictic centre (Source-
anchored). In the same way, a group of verbs associate the Goal with the deictic centre (Goal-anchored). Table 36 presents the verbs that encode the deictic direction.

Table 36. Karijona Deictic direction predicates

<table>
<thead>
<tr>
<th>Vector</th>
<th>Linguistic element</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal anchored</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>eh</td>
<td>eh</td>
<td>come</td>
</tr>
<tr>
<td>tuda</td>
<td>tuda</td>
<td>arrive</td>
</tr>
<tr>
<td>ataruka</td>
<td>ataruka</td>
<td>come closer</td>
</tr>
<tr>
<td>aməm</td>
<td>aməm</td>
<td>go in</td>
</tr>
<tr>
<td>aruka</td>
<td>aruka</td>
<td>put in</td>
</tr>
<tr>
<td><strong>Source anchored</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tə</td>
<td>tə</td>
<td>go</td>
</tr>
<tr>
<td>anənuk</td>
<td>anənuk</td>
<td>go up</td>
</tr>
<tr>
<td>ehɨtə</td>
<td>ehɨtə</td>
<td>go down</td>
</tr>
<tr>
<td>ehuka</td>
<td>ehuka</td>
<td>go out</td>
</tr>
<tr>
<td>eʃika</td>
<td>eʃika</td>
<td>exit</td>
</tr>
<tr>
<td>arə</td>
<td>arə</td>
<td>carry</td>
</tr>
<tr>
<td>aʧiə</td>
<td>aʧiə</td>
<td>push</td>
</tr>
<tr>
<td>tomaka</td>
<td>tomaka</td>
<td>take out</td>
</tr>
<tr>
<td>nəm</td>
<td>nəm</td>
<td>drop</td>
</tr>
<tr>
<td>karama</td>
<td>karama</td>
<td>give</td>
</tr>
</tbody>
</table>

Goal-anchored verbs include *eh* ‘come’, *ataruka* ‘come closer’, and *aməm* ‘go in’. The Source-anchored verbs include not only the prototypical *tə* ‘go’ and *eʃika* ‘exit’, but also predicates like *tomaka* ‘take out’, *nəm* ‘drop’, *aʧiə* ‘push’, and *arə* ‘carry’.

5.3 Summary

This chapter addressed the syntactic and semantic characteristics of basic and complex spatial constructions in Karijona. Syntactically and semantically, Karijona basic spatial constructions distinguished between those that refer to static and motion events.

Syntactically, copula or postural verb, a copula subject functioning as the Figure, and a postpositional phrase or spatial adverb functioning as the Ground compose the basic static constructions. Karijona locative predicates form a system of the type 0 with an emerging system of postural and positional verbs of type III not completely grammaticalised. The basic motion constructions are structurally similar to static ones, but with a motion verb
functioning as the predicate of the clause. Karijona complex spatial constructions consider those that expresses spatial relations within the predication of non-spatial events. There are three different mechanisms for expressing spatial relations in complex constructions: those involving associated motion throughout the combination of tense and mood markers, those involving multiverb constructions with spatial auxiliary verbs, and clauses with spatial obliques (postpositional phrases) and spatial modifiers (adverbs).

Semantically, Karijona landscape terms and place names distinguish the spatial domains of the water, the earth, and the air. It is also possible to distinguish between the indigenous and non-indigenous spatial domains. Figure and Ground configuration is codified by multiple grammatical mechanisms. The Figure configuration is codified by positional and postural verbs, whilst the Ground configuration is codified by spatial postpositions. Figure and Ground configuration can also be codified by demonstrative pronouns by means of their size.

The orientation in Karijona can be codified by absolute, intrinsic, and relative frames of reference. Absolute frames of reference are defined using the position of the sun and the course of the river as landmarks in adverbs, noun phrases, and motion verbs. Spatial postpositions codify intrinsic and relative frames of reference. Karijona distinguishes the up/down and the front/back intrinsic oppositions, and the close/distant relative oppositions.

Karijona spatial postpositions codify adjacency, contact, containment, and topological regions. Personal pronouns, demonstrative pronouns, and spatial adverbs express spatial deixis, forming a system of proximal, medial, and distal distances.

Karijona motion predicates consider those that express translocation through the horizontal and vertical axis, change of locative relations, change of location, manner, and the movement caused by an Agent. Locative suffixes codify the Vector. Specific suffixes codify the Source, the Path, and the Goal. Some motion verbs, classified into Goal-anchored and Source-anchored, codify deictic direction.

Many aspects warrant further research. The linguistic asymmetries and co-relations within the Karijona GS in the lights of the categorisation of space. For instance, Karijona alders mentioned that in the past, the Karijona people orientated at night using the position of the stars. They also mentioned a complex system of constellations which are not included
in the analysis. Additionally, it kept understudied which grammatical mechanisms communicate spatial relations involved in hunter-gathering activities.

Karijona grammar of space also requires a more in-depth characterisation of the schematization of posture and motion predicates. The absolute frames of reference that consider the position of the sun only occurred in elicited data. It, therefore, requires an inquiry in a more significant corpus. A comparative analysis between Karijona and genetic and areal related languages would be essential in order to identify innovational processes and contact-induced changes.
Chapter 6

6 Conclusions

This thesis has presented the first systematic description of the grammar of space in Karijona, an endangered Cariban language from Colombia. The following pages summarise the main findings. A discussion about their implications for typological and descriptive research on the grammar of space in the Amazonian context is also included. Finally, I mention some topics for further research.

Chapter 2 reviewed the state of the art of the Karijona people and their language. The chapter presented an ethnohistorical background focused on the main migratory episodes, contact processes in the Northwest Amazon, and a few traces of linguistic contact that remains in the Karijona language. The chapter also presented a few comments on the sociolinguistic state of the language, state of the art on the linguistic investigation of Karijona, and a typological profile of the language.

Chapter 3 described the system of spatial postpositions in Karijona. It analysed the word structure of Karijona postposition. In particular, the morphological division of locative roots and locative suffixes within segmentable stems. The highly grammaticalised cross-reference and spatial case marking are unusual features that require a consideration in current typologies. Spatial postpositions classify the reference of their arguments (general/aquatic/elongated/bound/animate) and encode the Figure-Ground relations in terms of their orientation (behind/under/front/above) and distance (this/that side and near/far).

Karijona postpositions are typologically very unusual. Classificatory postpositions (also known as ‘locative classifiers’) have only been described for the Cariban and Arawak language families in the world (A. Y. Aikhenvald, 2017, pp. 380–282; Hagège, 2010, pp. 325–327). ‘Deictic side’ postpositions are also unusual. The distinction between distal and proximal sides of the Ground is not present in the existing semantic typologies of frames of reference, and it remains to be seen whether this category can be considered as a type of relative frame of reference (see: Lum, 2018; Palmer et al., 2017).
Chapter 4 presented the complex system of Karijona pronouns and spatial adverbs. It splits into two macro-systems: the pronouns and the spatial adverbs. Personal pronouns are divided into personal and demonstrative pronouns, while spatial adverbs consist of demonstrative, distance, and orientational adverbs. The grammatical and semantic evidence showed that demonstrative, distance and orientational adverbs form together one grammatical system. The chapter showed that the Karijona complex system of pronouns and adverbs from a deictic continuum, given that they cannot be properly analysed as separate or independent systems.

Concerning the current typology of spatial deixis and demonstratives presented in Chapter 1, the results become relevant. The grammatical behaviour of Karijona pronouns and spatial adverbs shows that the spatial deixis can be set in terms of a continuum between pronominal and adverbal elements. One extreme of the scale leads to an aspect of deixis focused on specific referential entities, while the referential qualities of those entities are the focus of the deixis on the other extreme of the scale (see Figure 2 in §4). This proposal suggests that it could be theoretically insightful to consider the semantics of lexical items like ‘far’ or ‘near’ into the typology of spatial deixis.

Chapter 5 addressed the syntactic and semantic characteristics of basic and complex spatial constructions in Karijona. Syntactically, Karijona locative predicates form a system of the type 0 with an emerging system of postural and positional verbs of type III. The basic static and motional constructions are structurally similar, with the intransitive subject codifying the Figure, and the copula complement or the spatial argument codifying the Ground as a core argument of the clause. Karijona showed three mechanisms of expressing complex spatial constructions: associated motion, multiverb constructions, and clauses with spatial obliques and modifiers.

Semantically, Karijona landscape terms and place names distinguish the aquatic, terrestrial, and aerial spatial domains. It is also possible to distinguish between the indigenous and non-indigenous spatial domains. Positional and postural verbs, spatial postpositions, and demonstrative pronouns codify the Figure and Ground configuration. The Karijona absolute, intrinsic, and relative frames of reference are codified by adverbs, noun phrases, motion verbs, and postpositions. Karijona topological relations consider adjacency,
contact, containment, and topological regions. All of them are codified by spatial postpositions. Karijona has a system of proximal, medial, and distal deixis expressed through personal pronouns, demonstrative pronouns, and spatial adverbs. Karijona motion predicates consider those that express translocation, change of locative relations and location, manner, and cause. Locative suffixes codify the Vector, while the deictic direction is codified in some motion verbs.

Several aspects of Karijona spatial constructions call for further research. The linguistic asymmetries and co-relations within the grammar of space in the lights of the categorisation of space, as well as the schematization of motion verbs, was not thoroughly studied. Additionally, it kept understudied which grammatical mechanisms refer to hunter-gathering activities, location strategies at different stages of the day (i.e. at night) and the year (i.e. location and motion at the wet or the dry seasons), metaphorical correlations between spatial and temporal relations, and the extra-linguistic cognition of space. A comparative analysis between Karijona and genetic and areal related languages is also required in order to identify innovations, contact-induced changes, and areal spatial features in languages from the Northwest Amazon.
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APPENDIX A: PICTURES FROM THE TOPOLOGICAL RELATION PICTURES

The following pictures come from the collection of pictures of topological relations (Bowerman & Pederson, 1992) (§1.3.2):

Figure 4. Picture #01

Figure 5. Picture #07
APPENDIX B: PICTURES FROM THE LOCAL SPATIAL PHOTOGRAPHS

The following picture comes from the collection of local spatial photographs (§1.3.2):

Figure 6. Picture #162
Figure 7. Picture #200
This text was recorded in April 2017 at Puerto Nare. Ernesto Carijona and José Romero narrate the story of a man that tricked the spirits of the forest (madremontes) covering himself with moss and acting like an animal.

(6.1) anaki maka itutari hiti nai
       anaki   maka           itutari hiti ni-a-e
       INT.AN 3.AN.MIN.DIST spirit wife 3.A-COP-IPFV
'Who is the spirit's wife?'
'¿Quién es mujer de madre monte?'

(6.2) maka itutari womiri edudiri hak a timafa wi hina mete maka
       maka              itutari womi-ri edu-ri hak a ti-mafia-ri hini-me maka=aho
       3.AN.MIN.DIST spirit word-POSS COG.PRAC-NMZ SUPE.VERV 3.R-matapi-POSS mean-ADVZ 3.INAN.DIST=SIM
‘He wanted to know the language of the spirit, he dressed in the path hidding the matapí (fish trap).’
‘Quería saber cómo es que habla madremonte; mesquinando el kakurí se vistió así en el camino.’

(6.3) timafa wi hinahi ni nehihodo maka muguru fiku
       ti-mafia-ri miha=ke=ti ni-a-e ni-ehihodo=∅ maka muguru fiku
‘Close to the fish trap, he covered himself like a child.’
‘Cerquita del machiwa de él mismo se arropó así como pequeñito.’

(6.4) maka itutari ahafi seti nai
       maka              itutari ahafi-se=ti ni-a-e
       3.AN.MIN.DIST spirit catch-SUP=REP 3.A-COP-IPFV
‘He wanted to catch the spirit.’
‘Para ver si podía coger la madremonte.’
(6.5) bidjogdaemara mako itutari ganati
hidjo-dja-e-mara mako itutari ka-na=ti
1.hit-NFUT-IPFV=DOUBT 3.AN.MIN.DIST spirit 3.say-DUR=REP
‘He thought: 'could the spirit hit me?''
‘¿Será que me da fuerte ese madremonte?, dizque pensó.’

(6.6) sekamere mako nehioda
sekamere mako ni-chioda-∅
then 3.AN.MIN.DIST 3.AN-dress-PFV
‘Then he covered himself,’’
‘Por eso se vistió él así.’

(6.7) ahogdagae nekata mako manakane tu: nanotat netuhanow
i-ahog-dja-em nekata mako manakane tu: ni-anota-∅=ti ni-etuhaow-∅
‘I’m sure I’m going to cacth him' (he thought. then) he lay down, he was lying.’
‘Él pensó ‘ahora sí voy a coger ese animal', y se tiró a tierra, acostado.’

(6.8) nesenehoti mako inadomo itutari
ni-es-enehoti mako i-nadomo itutari
‘The owner of the forest (the spirit) showed himself.’
‘Ya se hizo ver el patrón, la madremonte.’

(6.9) tiwuakuru eneho hiriwa dhumu
ti-wuaku-ri ene-ho hiriwa dhumu
3.ANAPH-guts-POSS look-CAUS palm.tree father.MIN
‘The father of the palm tree showed his guts.’
‘Se dejó ver la tripota.’
(6.10) tiwadahɔ taet ikuʧa məɾɔ maʧiwa honakereketi
tiwada-hɔ ta-e=ti ikuʧa məɾɔ maʧiwa hona=ke=reke=ti
3.R-accustom-MIN.FMR BOUND-LOC=REP fish 3.INAN.SMALL.MED matapi watch=RSTR=REP
‘He was watching the fish trap, as he used to do.’
‘Como acostumbrado iba mirando apenas a la trampa.’

(6.11) dʒiroho hirohono do ganɔtì
dʒi-hiroho hirohono do ka-na=ti
1.O-curse curse-NMZ.MIN INTERJ.MASC 3.say-DUR=REP
‘That animal cursed me!’ said the spirit.
‘Uy, me hizo mala seña este animal’, que dijo.’

(6.12) aŋakitomara məkɔ ganɔtì məkɔ manakoŋə itutari
aŋaki-to=mara məkɔ ka-na=ti məkɔ manakoŋə itutari
INT.AN-AUG=DOUBT 3.AN.MIN.DIST say-DUR=REP 3.AN.MIN.DIST animal spirit
‘What kind of animal is this?’, the spirit said.
‘Qué será ese animal?’ diquez dijo el bicho, la madremonte.’

(6.13) aŋaki timiʃiri anomu?
aŋaki timiʃiri anomu-∅?
INT.AN truncheon lift-PFV
who lifted up the truncheon?’
‘¿Quién levantó el garrote?’
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(6.14) əsa kene məkə tamu itutari
 əsa kene məkə tamu itutari
INT.LOC VIS.EMPH 3.AN.MIN.DIST grandfather spirit
‘Where is the grandfather of the spirits?’
‘Entonces pues el abuelo, la madremonte.’

(6.15) itutari gir iihutagae ʒiŋə mahe manakənə ganəti
itutari gir i-hutag-e ʒiŋə mahe manakənə ka-na=tı
spirit partner.masc 3.O-hit-IPFV DIM 3.NHUM.MIC.PROX animal say-DUR=REP
‘I am going to hit this little animal, he said.’
‘Mmm... voy a garrotear este animalito, dizque dijo.’

(6.16) manakənə ɛʧiwədaŋə
manakənə ɛʧiwəda-hə
animal shelter-MIN.FMR
‘The animal (the dressed man) sheltered.’
‘El animal se acobijó.’

(6.17) əsa iihutagae igari ʒiŋə iihamae
əsa i-hutaga-e i-ga-ri ʒiŋə i-hiham-a-e
‘Where i’m going to hit him? i’m going to squash their back.’
‘¿De dónde lo voy a garrotear? las costillas le voy a apachurrar.’

(6.18) tuhutaga sanori tawəreti teŋar i anomu
ti-hutaga-∅ sano-ri tawəreti ti-eŋa-ri anomu-∅
3.ANAPH-hit-IPFV want-NMZ BOUND-INE=EMPH=REP 3.ANAPH-hand-POSS move-IPFV
‘When he wanted to hit the man, he (the man) moved his hand, (the spirit) ran with his guts lightened (quickly).’
‘A lo que él levantó para garrotearlo, levanta la mano (el hombre) y la madremonte sale corriendo atrás de él.’