UNIVERSITÉ DU QUÉBEC À MONTRÉAL

L'ERGATIVITÉ DANS LES LANGUES MICRONÉSIENNES : DE LA DIACHRONIE À LA SYNCHRONIE

THÈSE

PRÉSENTÉE

COMME EXIGENCE PARTIELLE

DOCTORAT EN LINGUISTIQUE

PAR

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JUIN 2024

UNIVERSITÉ DU QUÉBEC À MONTRÉAL

ERGATIVITY IN MICRONESIAN LANGUAGES: SYNCHRONIC AND DIACHRONIC EVIDENCE

DISSERTATION

SUBMITTED

IN PARTIAL SATISFACTION FOR THE DEGREE

DOCTOR OF PHILOSOPHY IN LINGUISTICS

BY CATHERINE PROVENCHER

JUNE 2024

REMERCIEMENTS

Rédiger une thèse est un exercice fastidieux et parfois pénible. Ce projet a commencé alors que ma fille avait 4 ans et qu'elle s'amusait à courir dans les couloirs de l'université (ce que je ne recommande à aucun parent) et il se terminera alors que ma fille adolescente se demande bien pourquoi je passe mes fins de semaine le nez dans les livres ou devant mon ordinateur. Entre les deux, plusieurs personnes ont eu la gentillesse et la patience d'attendre que je finisse après plusieurs reports de ma date d'échéance. Ils ont su faire en sorte que je reste motivée malgré l'incertitude constante du bien-fondé de cette entreprise.

Je désire tout d'abord remercier ma directrice de thèse, Anna Maria Di Sciullo, qui, non seulement a su reconnaître ma capacité à faire de la recherche en m'engageant dans son projet de recherche au début de ma maîtrise, mais qui, en plus, a su me conseiller sur la direction à suivre, autant pendant ma maîtrise que mon doctorat. Son meilleur conseil étant qu'on ne peut pas tout lire et régler tous les problèmes dans une seule dissertation. Elle m'a appris la concision, mais aussi la précision dans la recherche. Pour cela, je lui en serai toujours reconnaissante.

Je tiens également à souligner l'aide et les encouragements de Richard Compton et Diane Massam qui ont gracieusement accepté de faire partie de mon comité de lecture. Vos conseils m'ont permis eux aussi d'orienter ma recherche dans une direction précise sans m'éparpiller.

Pendant mon parcours universitaire, j'ai eu la chance de rencontrer des linguistes passionnés qui m'ont donné le goût de poursuivre dans cette voie. Notamment Mark Hale pour m'avoir fait découvrir les langues micronésiennes et la linguistique historique. Dana Isac et Charles Reiss avec qui j'ai découvert le cadre théorique avec lequel je travaille encore en ce jour. Mohamed Guerssel et John Lumsden pour avoir piqué ma curiosité pour d'autres matières que la syntaxe.

Je voudrais également remercier mon équipe de rêve pour les encouragements constants : Isabelle, Daniela, Meriem, Mariana, Jing, Erika, Erica, et Kayla, sans qui mes journées seraient beaucoup moins intéressantes et amusantes.

Finalement, un grand merci à Myriam, Karine, Sophie, Lily, Maman, Papa, Nathalie, Carl et à tous les autres qui me posent la même question depuis des années : 'Pis, quand est-ce que tu finis?'

Je tiens à souligner que ce projet n'aurait pas pu aboutir sans l'aide financière apportée par l'Université du Québec à Montréal : Bourse de recrutement du programme FARE de l'Université du Québec à Montréal (2012); Bourse J-A De Sève (2013); Bourse d'excellence de la faculté des sciences humaines de l'Université du Québec à Montréal (2014-2015); Bourse Judith McA'nulty (2015); Bourse Anne Rochette (2016).

Je tiens finalement à remercier le CRSH pour le support financier obtenu à titre d'assistante de recherche au sein des Grands Travaux de Recherche concertée sur Les asymétries d'interface et leur traitement cognitif (2004-2012) et des subventions du Fond de Recherche du Québec sur les Interfaces Dynamiques (2014-2019) octroyées à Anna Maria Di Sciullo.

DÉDICACE

À Lily

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LIST OF ABBREVIATIONS

1	First person
2	Second person
3	Third person
ABS	Absolutive case
ADV	Adverb
AGR	Agreement morpheme
ASP	Aspect
CAUS	Causative
COND	Conditional
DEM	Demonstrative
DET	Determiner
DIR	Directionals
DUR	Durative
ERG	Ergative case
FUT	Future tense
HAB	Habitual
INTR	Intransitive verb
KIR	Kiribati
KOS	Kosrean
MOK	Mokilese
MRS	Marshallese
NEG	Negative particle
PERF	Perfective
PL	Plural
PON	Pohnpean
POSS	Possessive suffix
PREP	Preposition
PROG	Progressive
Q	Question particle
SG	Singular
SUBJ	Subject
PMc	Proto-Micronesian
PMP	Proto-Malayo-Polynesian
POC	Proto-Oceanic
PST	Past tense
PRS	Present tense
T	Tense
TRUK	Trukese
TR	Transitive verb form
v	Little/light verb
V	Verb

RÉSUMÉ

Résumé :

Le but de cette thèse est d'explorer l'histoire des changements qui se sont produits dans les langues micronésiennes afin de définir quels sont les processus et mécanismes propres à la variation linguistique, autant synchronique que diachronique. Nous partons de l'hypothèse que la variation linguistique est le résultat d'un changement de traits non interprétables dans les catégories fonctionnelles (Chomsky, 1995). En étudiant l'incorporation du nom, la position des arguments, la fonction des pronominaux et la réduplication, nous tenterons de déterminer les modifications de traits qui sont responsables de la variation entre plusieurs langues micronésiennes. De plus, nous ferons l'hypothèse qu'un ancêtre des langues micronésiennes avait un alignement ergatif et qu'on peut en retrouver des traces dans certaines de ces langues.

Mots clés : LANGUES MICRONÉSIENNES, ERGATIVITÉ, VARIATION, SYNTAXE, MINIMALISME, ASYMMÉTRIE

ABSTRACT

Abstract

The goal of this dissertation is to explore the history of changes that took place in the Micronesian languages to determine the mechanisms pertaining to linguistic variation, both synchronically and diachronically. I will assume that linguistic variation results from a change in the uninterpretable features of functional categories (Chomsky, 1995). In analyzing morpho-syntactic processes such as noun incorporation, the position of arguments, the function of pronominals as well as reduplication, I will attempt to determine the specific modifications in features that are responsible for variation among six Micronesian languages. Moreover, I will propose that an ancestor of the Micronesian languages had an ergative alignment and that its effects are still visible in some of those languages.

Keywords: MICRONESIAN LANGUAGES, ERGATIVITY, VARIATION, SYNTAX, MINIMALISM, ASYMMETRY

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INTRODUCTION

This dissertation argues for a diachronic syntactic realignment of the Micronesian family of languages. Although these languages have an accusative alignment, many morpho-syntactic phenomena point to an ergative origin. The position of subjects may vary within a language as well as across languages such that the word-order can be SVO, VOS, or VS for intransitive sentences. Moreover, Micronesian languages can be divided into two subgroups: (i) tense-based languages and (ii) aspect-based languages, which in turn may be subdivided in two. Both subtypes have their own characteristics regarding word-order, the sets of pronouns and object incorporation, among many others. In this respect, an analysis of the data suggests that the Micronesian languages studied herein can be divided into three groups:

(1) a. Languages with a three-way pronominal system in which the subject pronoun is obligatory, a tense-based expression of time, and a lack of noun incorporation.

b. Languages with a two-way pronominal system with an aspect-based expression of time, and noun incorporation.

c. One language with a three-way pronominal system in which subject pronouns are in complementary distribution with the full subject, with an aspect-based expression of time and the presence of incorporation.

I will argue that languages in (b) are closer to an ergative alignment compared to (a), and that (c) is an intermediate step between (a) and (b). I begin this dissertation by situating Micronesian languages in the broader context of Oceanic languages, since the former share a number of similarities with the latter. Among these are many properties found in verb-first (V1) languages as described by (Clemens & Polinsky, 2017):[1]

[1] Carnie & Guilfoyle (2000) mention nine distinct traits that are correlated to verb initial languages. In addition to (2) below, the following traits may be present as well: Head initiality, prepositional, post-nominal adjectives, preverbal tense/aspect/mood/question and negation particles, inflected prepositions, and verbal noun infinitives.

(2) a. lack of a non-finite verb form

b. absence of an overt copula

c. absence of a verbal expression meaning 'have'

d. an ergative alignment[2]

These properties are not features of accusative languages, and even though most Micronesian languages are not V1 (except for Kiribati), the presence of (2a-b-c) highlights a discrepancy in terms of what is the actual syntactic alignment of Micronesian languages. Moreover, since Micronesian languages are part of the Oceanic family, they might all have a common ancestor that had these features. Therefore, I propose that (2d) evolved in a different direction in Micronesian languages, yet the effects of the presence of ergativity at an earlier point in time is still visible, at least partially. The evolution from this common ancestor to the Micronesian descendant languages will be the topic of investigation of this thesis.[3]

I adopt the usual method in generative grammar which consists in gathering data on an object of inquiry. In the case at hand, I gather data from six different Micronesian languages in order to provide a novel account for facts which are left unexplained by previous analyses. I will then propose a new analysis that aims to provide a better understanding of the historical changes under consideration. In addition, the proposed analysis describes the facts adequately in terms of independently motivated operations, as well as providing the simplest explanation of these facts, as defined in the Minimalist Program (Chomsky 1995, 2005 *et seq.*), which I adopt as a general framework of inquiry. I also adopt the Directional Asymmetry Principle (Di Sciullo, 2011*, et seq.*), which is a Third Factor Principle of efficient computation, independent of the Language Faculty, intervening in the derivations to account for the directionality of the changes for the two sets of Micronesian languages under consideration.

[2] Clemens & Polinsky (2017) do not elaborate on the type of ergativity, whether morphological or syntactic. Their data comes from a wide range of languages from different families, with a special emphasis on Mayan and Austronesian languages.

[3] A note must be added as to the data used in this dissertation: most of the data comes from dictionaries (Elbert, 1947); (Abo et al., 1976); (Goodenough & Sugita, 1976), articles (Sugita, 1973) (Harrison, 1978) (M. Hale, 1998), PhD dissertations (Willson, 2008), as well as grammar books (K. D. Lee, 1975) (Harrison, 1976) (Zewen, 1977) (B. W. Bender, 1978). These works cited come from different theoretical frameworks. The author did not conduct any fieldwork. Therefore, there will be some gaps in the data, but they will be addressed in time.

The first chapter will focus on data from six different Micronesian languages: Marshallese (MRS), Kiribati (KIR), Trukese (TRUK), Pohnpeian (PON), Mokilese (MOK), and Kosraean (KOS).[4] More precisely, I will investigate the word-order of both transitive and intransitive clauses including the type of pronouns found within each type of clause, tense and aspect including tense markers and aspect markers as well as aspectual affixation, object incorporation and the lack thereof. I will leave aside many other morpho-syntactic phenomena or mention them only briefly to focus on the central questions of this thesis. From this data, I will subcategorize the Micronesian languages into two main subtypes, each with their own specificities. This subcategorization will be the basis of my analysis of syntactic change from an ancestor of the Micronesian languages, possibly Proto-Micronesian (PMc), to the modern languages studied in this dissertation.

The second chapter will focus on the history of pronouns in Oceanic languages. As in many Oceanic languages, Micronesian languages possess four types of pronominal sets: (i) subject pronouns, (ii) independent pronouns, (iii) object pronouns, and (iv) possessive pronouns. The first three types will be investigated in this dissertation. A characteristic of Oceanic languages is that there are two types of pronouns that may be used for subjects: subject pronouns that are sometimes analyzed as agreement markers (or morphemes) and independent pronouns that may be used as topics in topicalized sentences, subjects of intransitive clauses (whether unaccusative, stative, or equational) as well as objects of transitive clauses, although the latter function is less widespread.

[4] In most literature on Micronesian languages (and to some extent Oceanic) the use of abbreviations in place of the complete name of the languages is quite common. I will follow this tradition and only use the full name when a new language is introduced. The abbreviations will always be in upper case forms.

Figure 0.1 Oceanic family of languages

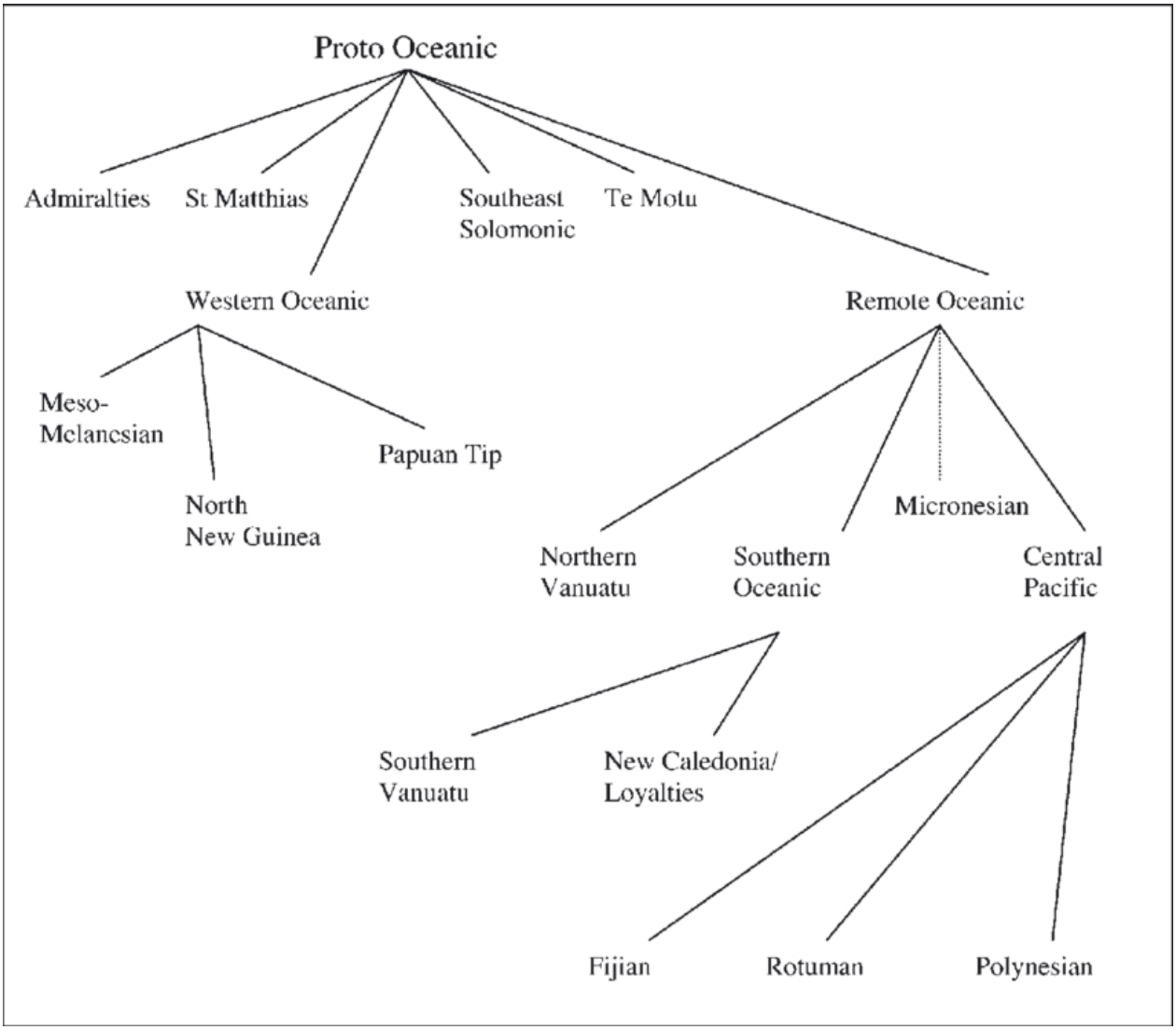


Image taken from (Pawley, 2007)

I will argue that the origin of these pronouns stems from a previous ergative alignment. I will demonstrate that a direct ancestor of Oceanic languages i.e., Proto Malayo-Polynesian (PMP) may have had an ergative alignment even though the commonly accepted analysis points to a voice system. I will propose that PMP cases as reconstructed by (Lynch et al., 2002) were in fact ergative, absolutive, and partitive, as opposed to genitive, nominative, and accusative. Moreover, I will propose that the passive forms of PMP verbs are the true transitives which means that the active forms (in which the object checks the partitive case) may be reanalyzed as intransitives (see also (Aldridge, 2016) for an ergative analysis of Proto-Austronesian which preceded PMP). If my analysis is correct, ergativity in Oceanic languages may be traced to an earlier

point than what is accepted nowadays. Although Micronesian languages do not display an ergative alignment, we can find similarities between Micronesian languages, PMP, and Oceanic languages that point to a shared origin.

The third chapter will focus on the historical development of Micronesian languages, more precisely from a direct ancestor that I will call Proto-Micronesian (PMc), although the characteristics found in Micronesian languages might date from an even earlier proto language. I will demonstrate that syntactic changes from this ancestor to the descendant languages vary across those languages, yielding their many different morpho-syntactic characteristics. However, I will try to provide sufficient explanation as to the reasons why each change took place. Moreover, I will attempt to reconstruct the many different chains of events, identifying the triggers of one event that led to another in the process. Although explaining all the points of variation encountered in Micronesian languages is beyond the scope of this thesis, my goal is to paint a broader picture from which further investigation can be conducted in the future.

In the fourth chapter, I will turn my attention to more theoretical observations with regards to language change. Although there are several theories that purport to explain language change and variation, I will mostly focus on Economy Principles within the Minimalist Program framework. This section of the dissertation will be a little bit more speculative as to the reasons the Micronesian languages evolved into their present form. My observations on the Micronesian data might bring some insights into how languages evolve and change over time.

Finally, I will conclude with further observations that I have not investigated in depth and questions left unanswered that could be the basis of future research.

CHAPTER 1

THE MICRONESIAN LANGUAGES

In this chapter, I will situate the Micronesian languages within the broader family of Oceanic languages and briefly discuss the syntactic alignments and typological features found in Oceania, focusing on properties also shared by Micronesian languages. Then I will give a more detailed overview of the Micronesian family of languages and describe many phenomena of the Micronesian languages such as word order, noun incorporation, and the pronominal systems. I will divide the Micronesian languages into two subgroups that share similar properties and discuss the relationship between each one of the features encountered in the data. I will propose that each of these phenomena directly relates to diachronic changes that were brought about from an earlier ergative alignment to an accusative one.

1.1 Typological properties of Oceanic languages

The Micronesian languages are part of the Oceanic family along with Melanesian and Polynesian languages (Lynch et al., 2002). Micronesia is in the western Pacific Ocean with Polynesia in the east and Melanesia in the south:

Figure 1.1 Map of Oceania

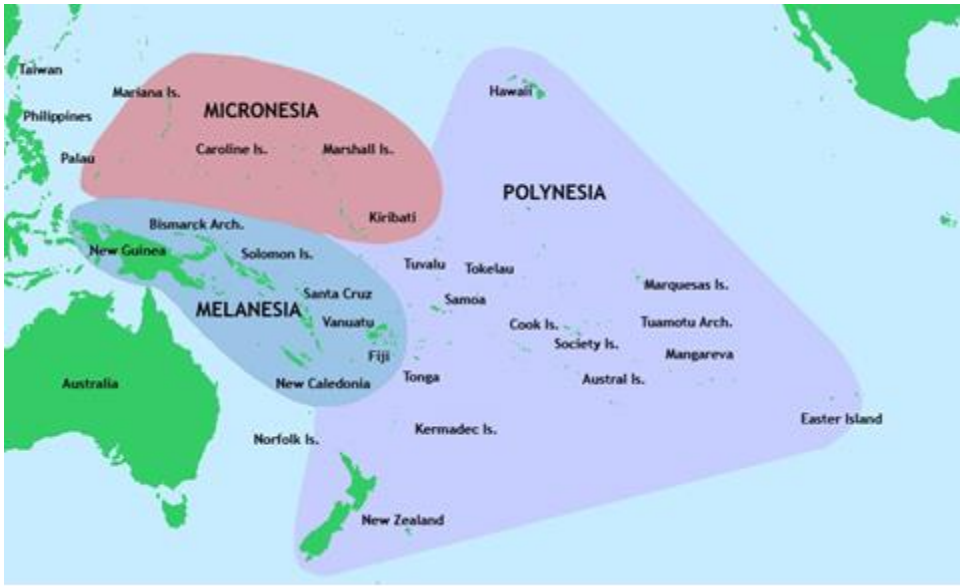


Image taken from The Grid: http://thegrid.co.nz/listing/pacific-ocean/

Many properties are shared across most Oceanic languages while others are restricted to a smaller subset of these languages. In the next sections, I will briefly describe each of the most salient properties that are present not only in Micronesian languages, but other types of Oceanic languages as well. Even though Micronesian languages do not possess an ergative alignment, I will nevertheless highlight certain characteristics of Oceanic languages that display an ergative alignment since some of them are also found in Micronesian languages.

1.1.1 Oceanic pronominal systems

Most Oceanic languages have four sets of pronouns: (i) subject pronouns, (ii) object pronouns, (iii) independent[5] pronouns and, (iv) possessive pronouns (Lynch et al., 2002). Since there is no possessive verb 'to have' in Oceanic languages, possession is indicated by another type of pronoun which have been analyzed as suffixes that may attach directly to inalienable nouns (such as body parts or kinship terms) or to possessive classifiers with alienable nouns. The possessive pronouns will not be addressed in this work. In the following example from MRS, we can see three types of pronouns. The object of the clause *ajiri ro* could also be replaced by the 3PL human object pronoun *er* (from Willson, 2008: 21):[6]

(3) Na i-j yokwe ajiri ro nej-ū.
1SG.IND 1SG.SUBJ-PRES love child DET cher.POSS-1SG.GEN
'Me, I love my children.'

In example (3), the independent pronoun is at the beginning of the sentence, followed by the subject pronoun (both with the same number and person), and the general possessive pronoun *-ū* cliticizes to a possessive classifier. Possessive classifiers are mandatory for alienable possessions, whereas with inalienable possessions (such as body parts and kinship nouns), the possessive pronouns directly cliticize to the inalienable possession (from Willson, 2008: 64):

(4) Re-metak nei-n leddik eo.
3PL.SUBJ-be.hurt leg-3SG-GEN girl DET
'The girl's legs hurt.'

[5] In the Micronesian literature, independent pronouns are sometimes called absolute or absolutive depending on the language or the author. I will however use the term independent throughout this dissertation.
[6] The fact that 3rd person pronouns, as well as determiners, may indicate the features [± human] will not be discussed in this dissertation as it is beyond the scope of this research.

In Micronesian languages, the subject pronouns may either be pre-verbal clitics, affixes, or free forms. They always reflect the person and number of the subjects.[7] In Micronesian as well as in Melanesian languages, subject pronouns precede Tense-Aspect-Mood (TAM) markers and may even phonologically merge with the TAM marker. As we will see below, not all clauses are verbal in Oceanic languages. In verbless clauses, the pronoun will precede a lexical category other than verb or TAM marker. It is important to note that, in many languages, subject pronouns are obligatory whether the full subject DP is present or not. In a few Micronesian languages, these pronouns have disappeared and are replaced by independent pronouns. This topic will be investigated further in subsequent sections.

Independent pronouns are usually free and may function as subjects or objects replacing the DP in topicalized sentences. They may also be prepositional objects and be used as possessors in certain cases. The function (as well as the history) of independent pronouns will be investigated thoroughly especially since they can be used for a variety of arguments. The fact that they can either replace the subject or the object is puzzling. In a typical clause, there may be a subject pronoun and an independent pronoun, both representing the subject. However, it is unclear why independent pronouns may also be used as objects since some languages also have a set of object pronouns. For example, in MRS, Bender (1984: 444), states that: 'absolutive [independent] pronouns may generally be substituted for the object pronouns in the positions they typically occupy, following transitive verbs as their object, or as objects of prepositions […].' This is illustrated in the following examples adapted from Bender 1984: 444:

(5) a. E-maron Jeptoba-ik kwe na an-in.
3SG.SUBJ-able September-DIR 2SG.IND LOC islet-DET
'September might still see you on the island.'

b. E-ar jab eltok nan eo.
3SG.SUBJ-PAST NEG pay.attention to 1SG.OBJ
'He did not pay attention to me.'

c. E-ar jab eltok nan ña.
3SG.SUBJ-PAST NEG pay.attention to 1SG.IND
'He did not pay attention to me.'

[7] Pronouns are never inflected for gender in Oceanic languages.

However, object pronouns are not widespread in Oceanic languages, they are mostly found in Melanesian and Micronesian languages.[8] Object pronouns can either be affixes or clitics and they reflect number and person of the object.

1.1.2 Verbal derivations

According to Lynch et al. (2002), verbal derivational morphology is quite minimal and consists mainly of a few prefixes such as causative and reciprocal prefixes that are not present in all the Oceanic languages. The Micronesian languages studied in this work do not have reciprocal prefixes for example. However, reduplication is widespread across Oceanic languages and may have a variety of uses such as deriving intransitive verbs from transitive ones, repetition, plurality of actors and patients, and randomness of action (among others). There are two types of reduplication: rightward and leftward reduplication. Rightward reduplication of verbal roots is associated with the argument structure of the verb while leftward reduplication is mainly aspectual.[9] In Micronesian languages, the functions of reduplication are not similar for all languages. Moreover, reduplication is still productive in some languages while in others, we only find fossilized forms. The same is also true for a transitivizing suffix *-i* found in many Oceanic languages. This suffix is present in many Micronesian languages, yet it may be replaced by object pronouns instead (see Willson 2008 for examples in Marshallese). Reduplication in Micronesian languages will be addressed further in later sections.

1.1.3 Types of clauses

As previously mentioned, there is no possessive verb 'to have' in Oceanic languages as well as no copula 'to be' in most of the languages.[10] A few exceptions are found in Vanuatu languages. While possession is indicated with possessive affixes, copular sentences are referred to as equational sentences when composed of two nouns (see example 6 below) and stative sentences when composed of a noun and an

[8] According to Harrison, (1978), object pronouns are an innovation in Micronesian languages.
[9] See (Harrison, 1973) for a detailed description of reduplication in Micronesian languages and Provencher (2012) for a lengthier analysis of reduplication patterns in Marshallese.
[10] The fact that these verbs are not externalized does not mean that they are absent in the syntactic derivation. For example, Hale & Keyser (1993) propose that English does not have an overt light verb, yet some verbs are formed by incorporating a noun into an abstract v (see section 3.2.1.2).

adjective-like verb.[11] These sentences do not contain any overt verbs. Therefore, according to Lynch et al. (2002) there are two types of clauses in Oceanic languages: verbless clauses and verbal clauses.

1.1.3.1 Verbless clauses

Equational sentences are composed of two DPs, one of them may be a pronoun. For example, in Marshallese (from Bender, 1984: 444):

(6) Ri.kaki ña
Person.who.teaches 1SG.IND
'I am a teacher.

We find this type of sentence in all Micronesian languages and the clause-final position of pronouns within these sentences illustrates the complex word-order patterns of Micronesian languages as well as the use of independent pronouns.

1.1.3.2 Verbal clauses

It is perhaps in the range of constituent orders that Oceanic languages show the greatest variation. The distribution of constituent orders is mostly related to geography although we can find a few languages whose word order does not correspond to their geographical neighborhood. The most common word order in Oceanic languages is SVO, which is found in languages from all parts of Oceania. The SOV word order is mainly concentrated in certain parts of Polynesia and New Guinea, and it is assumed that it derives from contacts with non-Austronesian languages. In Fijian and many Polynesian languages, VSO and VOS word orders are the basic types, but constituents can move rather freely (see example (7) below). In most Oceanic languages, we can find instances of topicalization even though the basic word orders are mostly fixed. This is also true for a subset of Micronesian languages.[12]

The majority of Oceanic languages are accusative, yet there are ergative languages as well, especially in the Samoan and Tongic groups of Polynesian languages. In these languages, case is expressed by preposed case markers to the DPs as illustrated below in Tongan (from Polinsky & Potsdam 2021: 64):

[11] According to Harrison (1973), the lexical category adjective does not exist in Micronesian languages. For a more in-depth analysis of adjective-like verbs and their properties, see Provencher (2012).
[12] This will be discussed further in section 1.2.4 below.

(7) a. Na‘e tuku ‘e Siale ‘a e pa‘anga. VSO
PAST leave ERG Siale ABS DET money
‘Siale left the money.’

b. Na‘e tuku ‘a e pa‘anga ‘e Siale VOS
PAST leave ABS DET money ERG Siale
‘Siale left the money.’

In contrast, SVO languages with an accusative alignment have a fixed word order with the nominative argument preceding the verb and the accusative argument following the verb (see examples of Micronesian languages in section 1.2.2.1). There are also a few languages in Papua that have optional ergative and absolutive clitics following transitive subjects and objects (ergative) and intransitive subjects (absolutive).

1.2 Grammatical properties of Micronesian languages

In this section, I will first give an overview of the Micronesian family of languages. Then I will describe a few typological properties of Micronesian languages such as word order, pronominal systems, the expression of time, and noun-incorporation (or the lack thereof). Furthermore, I will divide Micronesian languages into two distinct subgroups based on the grammatical properties studied.

1.2.1 The Micronesian family of languages

Micronesia is divided into four main island groups: the Mariana Islands in the northwest, the Caroline Islands in the center, the Marshall Islands in the east, and the Gilbert Islands (Kiribati) in the southeast.

Figure 1.2 Map of Micronesia

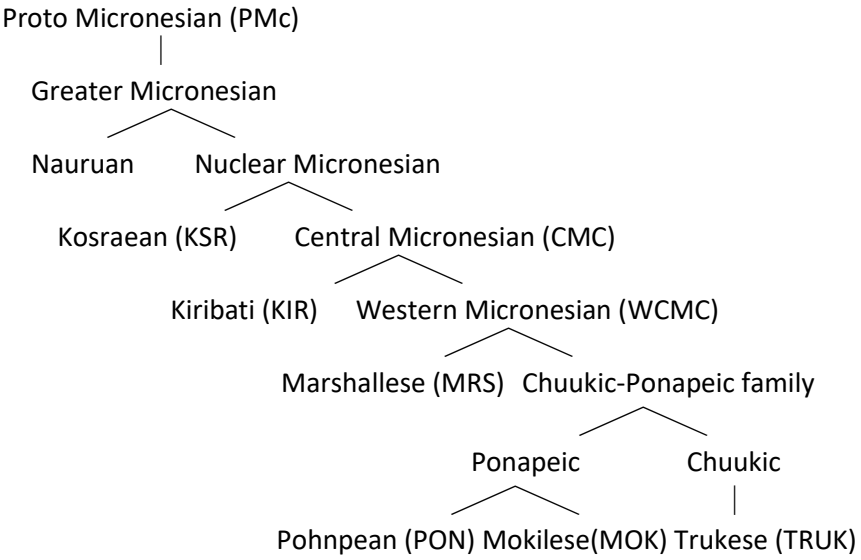
Image taken from: https://www.worldatlas.com/maps/micronesia-federated-states-of

Not all the languages spoken in Micronesia belong to the Micronesian family: Kapingamarangi and Nukuoro are Polynesian languages. Yapese is an Oceanic language that has proven difficult to classify. Moreover, there are also non-Oceanic languages spoken in Micronesia: Palauan and Chamorro (Lynch et al., 2002). The remaining languages spoken in Micronesia can be divided into three subfamilies: Greater Micronesian, Nuclear Micronesian, and Chuukic-Ponapeic. The genetic structure of the Micronesian language family is as follows (adapted from Jackson, 1983: 357):[13]

[13] As Hale (2007) points out, the term 'genetic' in historical linguistics does not refer to biological genes but rather to the verbal base of genesis which means 'origins'. In (8) the head of the tree is Proto-Micronesian, a hypothetical language from which all Micronesian languages descend. Proto languages are reconstructed languages based on evidence provided by cross-linguistic analysis of cognate lexical items and phonological properties of different languages that belong to the same family. By comparing data from as many (contemporary) languages as possible, a version of a possible ancestor of those languages can be reconstructed, assuming the languages compared share enough features to be classified as a subgroup of the same family. An extensive list of PMc phonemes and lexical items have been reconstructed through the comparative method (see Bender et al. 2003 among many others).

Another goal of the comparative method is to classify languages according to featural innovations (grammatical change, and by extent syntactic change, is due to variations in the features perceived by children in the Primary Linguistic Data (PLD) (see Chomsky, 1995 for more details). An innovation is thus always featural in essence. As shown in (8) Nuclear Micronesian may be divided into subfamilies, each of which displaying several innovations that are shared with any language lower in the tree (Bender et al. 2003). For instance, KSR should lack some properties shared by CMC languages while KIR should lack some properties of WCMC languages, etc. However, the subfamilies represented in (8) are differentiated based on phonological innovations and it is not clear if and how grammatical changes are accounted for in the subdivisions proposed above.

(8)



According to (Bender & Wang, 1985) work on comparative Micronesian grammars is scarce and, to my knowledge, no comprehensive reconstruction of a potential grammatical system of PMc has ever been proposed. A few studies on specific morphosyntactic characteristics of Micronesian languages point towards the direction of a grammar similar to Proto-Oceanic (POc) as reconstructed by Pawley (1973). These comparative analyses of grammatical properties of Micronesian languages include: (i) semitransitive verbs and object incorporation (Sugita, 1973); (ii) reduplication (Harrison 1973); (iii) transitive markings (Harrison, 1978); (iv) relative clause (Sohn, 1973); (v) pronominal systems (Song, 1994); and, (vi) diachronic aspects of clause structures (Hale, 1998). None of these analyses propose that an ancestor of Micronesian languages had an ergative alignment. However, they provide useful data and analyses that I will reanalyze to some extent to make my case about ergativity in Micronesian languages.

1.2.2 The word orders of Micronesian languages

Although the SVO word-order is mainly fixed in Micronesian languages, there are variations encountered depending on the type of clause. For instance, equational and existential sentences have a VS word-order. Moreover, in many Micronesian languages, the subject may follow the verb in intransitive clauses. In fact, according to Hale (1998) subjects of intransitive clauses are post-verbal in the unmarked order and the SV order is the result of topicalization. The subject may also be clause-final, after the direct object and other phrases such as PP and AdvP, yielding a VOS word-order. In the following sections, I will briefly describe the possible word-orders of selected Micronesian languages. I will divide the sections into types of clauses: transitive and intransitive clauses including unaccusative, unergative, equational and existential clauses. Examples are taken from the six target languages mentioned above. Moreover, I will provide information

about the type of pronouns that may be used in each type of clause. As said in 1.1.1, there are three types of pronouns in Micronesian languages: subject, object and independent. Both subject and independent pronouns may replace or be obligatorily used alongside subjects, and I will argue later that is relevant for the current research.

1.2.2.1 Transitive clauses

In this section, I will briefly describe the possible word orders of transitive declarative sentences in selected Micronesian languages, and I will provide information as to the status of subject pronouns – whether they are obligatory or not. Moreover, in some of these languages, SVO or VOS may be the result of topicalization or dislocation, which is marked by a break in intonation. In some cases, these syntactic processes involve a modification in the use of subject pronouns.

1.2.2.1.1 Marshallese

According to Willson (2008), SVO and VOS are both possible in MRS. However, with VOS, there is a break in intonation before the subject DP which leads Willson to conclude that VOS is an instance of right-dislocation (from Willson 2008: 94):

(9) a. Leddik eo e=ar kaplo-uk laddik eo.
girl DET 3SG.SUBJ-PAST spit-TR boy DET
'The girl spit on the boy.'

b. E=ar kaplo-uk laddik eo, leddik eo.
3SG.SUBJ-PAST spit-TR boy DET girl DET
'She spit on the boy, the girl.'

In both (9a-b), a subject pronoun is cliticized to the tense marker. In fact, subject pronouns are always obligatory in MRS, and the subject DPs may be omitted as this is arguably an instance of clitic doubling.[14]

[14] According to both Hale (1998) and Willson (2008) subject pronouns are agreement clitics. However, adverbs and negation particles may precede the verb, which makes the movement from v to T questionable. Therefore, I will propose in section 3.3.1.2 below that subject pronouns are actual pronouns following Bender (1969). See also a discussion in Willson (2008) on verb movement in MRS.

1.2.2.1.2 Kiribati

According to Jacobs (1984) and Lee & Timee (2019), the basic word-order of transitive sentences in Kiribati is VOS. However, the subject may be topicalized (from Jacobs 1984: 471):

(10) a. E-na rauna te umwa te mwaame.
3SG.SUBJ-FUT thatch ART house ART man
The man will thatch the house.'

b. Te mwaame, e-na rauna te umwa
ART man 3SG.SUBJ-FUT thatch ART house
'As for the man, he will thatch the house.'

According to Jacobs (1984), when the order is SVO, there is an intonational break after the subject that indicates a topicalized subject. In both instances, a subject pronoun obligatorily cliticizes the tense marker. When there is an adverb in the sentence, locative or temporal, the subject will obligatorily be sentence final (Lee and Timee 2019: 30):

(11) a. E-nori maninnara Meere inanon te auti.
3SG.SUBJ-see mosquitoes Meere inside ART house
'Meere sees mosquitoes in the house.'

b. *E-nori maninnara Meere ni katoatai.
3SG.SUBJ-see mosquitoes Meere often
'Meere often sees mosquitoes.'

c. E-nori maninnara ni katoatai Meere
3SG.SUBJ-see mosquitoes often Meere
'Meere often sees mosquitoes.'

1.2.2.1.3 Trukese

The word order of TRUK transitive clauses is SVO and the subject pronoun is obligatory. It cliticizes to the tense marker, whether there is a full DP subject (as in 13), or the full DP subject is omitted (as in 12):

(12) Wú-pwe wúnúm-i ewe kkónik. Hale (1998:350)
1SG.SUBJ-FUT drink-TR DET water
'I will drink the water.'

(13) Ngang wú-pwe féér-I (Dyen, 1965: 27
1SG.IND 1SG.SUBJ-FUT do-TR
'I, I will do it.'

Grammatical analyses of TRUK are quite scarce, although a short sketch was published by (Dyen, 1965) and two Trukese-English dictionaries were also published (Elbert, 1947; Goodenough & Sugita, 1976). The basic word-order is SVO but there is no sufficient data to conclude that there is a process of topicalization. However, the subject pronouns are obligatory (Goodenough & Sugita, 1990).

1.2.2.1.4 Pohnpeian

The basic word order of PON transitive clauses is SVO (from Hale 1998: 347):

(14) I pahn doakoa mwahmw-o.
1SG.SUBJ ASP.UNREAL spear fish-DET
'I will spear that fish.'

Unlike many Micronesian languages, the subject pronouns are not obligatory along with the subject; they are mutually exclusive (Rehg, 1981). However, when the subject is topicalized, the pronoun must be present (from Rehg 1981: 310):

(15) a. Ohl riemenet, ira loalekeng.
man two 3PL.SUBJ intelligent
'As for these two men, they were intelligent.'

b. Ohl akau, i sohte mwahukin-irail.
man DEM 1SG.SUBJ NEG like-3PL.OBJ
'As for those men, I don't like them.'

When the subject pronoun is present, it is part of the VP. Native speakers divide sentences differently according to the presence or absence of a pronoun. Consider the following sentences (from Rehg 1981: 258):

(16) a. Ohlo | daper mpweio
'That man | caught the ball'

b. E daper | mpweo
'He caught | the ball'

This division is corroborated by intonation patterns: an analysis of intonations conducted by Rehg (1981) shows that when the subject is a pronoun, it is part of the same intonational phrase as the verb. In fact, even when there is an aspect marker appearing before the verb, the subject pronoun, the aspect marker,

and the verb are part of the same intonational phrase. This is not the case when the subject is a proper noun or a full DP. In this case, only the aspect marker and the verb constitute an intonational phrase.

1.2.2.1.5 Mokilese

According to Harrison (1976), the word order of arguments depends on the type of verb. In transitive sentences, the basic word order is SVO whether the subject is agent or experiencer (from Harrison 1976: 299):[15]

(17) a. Charlie poadok-di suhkoahu.
Charlie plant-DIR tree-DET
'Charlie planted the tree.'

b. Woall-o kin mijik pwehk.
man-DEM ASP.HABITUAL afraid bats
'That man is afraid of bats.'

Notice in (17) that there are no subject pronouns preceding the verb or the aspect marker. However, the process of topicalization as seen in PON also exists in MOK. Both subjects and objects can be topicalized. When the object is topicalized, an object pronoun follows the verb. However, notice that an independent pronoun precedes the verb or aspect marker (from Harrison 1976: 308):[16]

(18) a. Nihra jerimweinn-o, ara kadar-la ih Pohnpei.
POSS.CLASS. boy-POSS.3.PL. 3PL.IND send-PERF 3SG.OBJ Ponape
'Their son, they sent him to Poanape.'

b. Bob, ih kin poki pah-ioahu.
Bob, 3SG.IND ASP.HABITUAL beat spouse-POSS.3SG
'Bob, he beats his wife.'

1.2.2.1.6 Kosraean

In KOS, the word order is also SVO in transitive clauses and the third singular independent pronoun is only used alongside a proper noun (as in 19b). If the subject is a common noun or a pronoun, there is no subject pronoun (from Lee, 1975: 61):

[15] As discussed in section 1.2.2.2, the thematic role of the subject of intransitive clauses modifies the word order.
[16] As it will be discussed in section 1.2.4., MOK and KOS do not have a set of subject pronouns. Sets of pronouns in Micronesian languages are also the topic of Chapter 2.

(19) a. Nga kihte tuhlihk se.
1SG.IND feed child DET
'I feed a child.'

b. Sepe el tol-lah yot sac nuh sin muhtwacn sac.
Sepe 3SG.IND throw-DIR stone DET to woman DET
'Sepe threw the stone to the woman.'

Topicalized subjects however must be obligatorily followed by an independent pronoun that agrees in person and number with the subject (from Lee 1975: 327):

(20) a. Finnwe nga, nga tiyac kuh in riti puk se inge.
Even 1SG.IND 1SG.IND NEG PARTICLE read book DET here
'Even I cannot read this book here.'

b. Finnwe ke mwet mahtuh uh, eltahl enenuh in pahtuhr mihsenge.
Even men old DET 3PL.IND need fish.INTR today
'Even the old men have to fish today.'

1.2.2.1.7 Summary

Table 1.1 below illustrates the possible word-orders for transitive clauses in Micronesian languages, whether the pronoun is a subject pronoun or an independent pronoun, and if the pronouns are always obligatory or only obligatory with topicalized subject DPs.

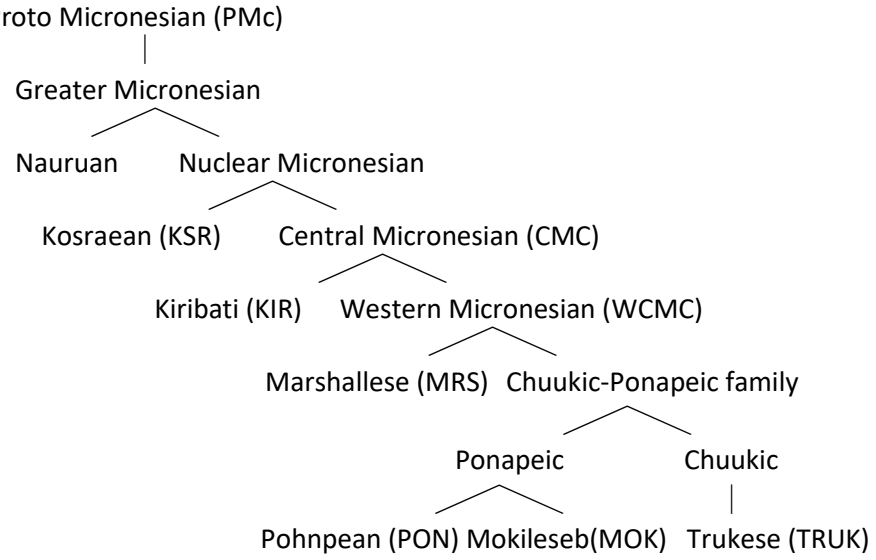
Table 1.1 Transitive word orders and pronouns of Micronesian languages

	SVO	VOS	Subject Pronouns	Independent Pronouns
MRS	√	√	obligatory	replace DP subject in topics
KIR	√	√	obligatory	replace DP subject in topics
TRUK	√	NA	obligatory	replace DP subject in topics
PON	√	x	complementary distribution with subject DP	obligatory in topics
MOK	√	x	x	obligatory in topics
KOS	√	x	x	obligatory in topics

We can observe a correlation between the possibility of VOS and the obligatoriness of the subject pronouns.[17] Although I have not found any data to confirm that VOS is possible in TRUK, it is plausible to assume that the obligatory presence of the subject pronoun would allow it. Moreover, topicalization involves pronouns in all Micronesian languages. However, as we will see in the next section, some Micronesian languages, namely MOK and KOS, do not have a set of subject pronouns that are distinct from the independent pronouns.

We can already observe here that there is a clear subdivision of Micronesian languages into two distinct subsets; one that has a variable word order with obligatory subject pronouns (MRS, KIR, and TRUK), and one with a fixed word order in which there is either no sets of subject pronouns (MOK and KOS) or in which subject pronouns are not obligatory (PON). This questions the traditional family tree of Micronesian languages as shown in (8) and repeated here:

(21)



We can see here that PON and MOK are grouped together at the bottom of the tree, but KOS is far above, with KIR and MRS intervening in between. As mentioned in footnote 13, the subgrouping of Micronesian languages, and every family of languages worldwide, results from cross-linguistic analysis of cognate lexical items and phonological properties of different languages that belong to the same family (as in 21). Although it is beyond the scope of this research, a closer reanalysis of the internal structure of the family

[17] As discussed in section 3.3.1.2, the pronominal argument hypothesis stipulates that the fixed order of obligatory pronouns in the TP domain allows DP arguments to be free in the syntax, at least to a certain degree. In Micronesian languages with obligatory subject pronouns, the word order may be SVO or VOS.

using morpho-syntactic criteria instead of the traditional ones would be interesting and might yield different results.

1.2.2.2 Intransitive clauses

There are many types of clauses in Micronesian languages that do not take an object: unergative, unaccusative, equational, and existential. In the following subsections, I will give examples of each type (if data is available) for every language studied.

1.2.2.2.1 Marshallese

In MRS, the word order in unergative clauses may be either SV or VS. Consider the following examples from Willson (2008: 105):

(22) a. Irooj ro re-naaj ettor.
chiefs DET 3PL.SUBJ-FUT run
'The chiefs will run.'

b. Re-naaj ettor irooj ro.
3PL.SUBJ-FUT run chiefs DET
'The chiefs will run.'

When there is a PP, the word order may either be S-V-PP, V-S-PP or V-PP-S (from Willson 2008: 108-109):

(23) a. Re-j konono ippa-n leddik ro, jet laddik.
3PL.SUBJ-PRS talk with-3SG girl DET DET boy
'Some boys are talking with the girls.'

b. Re-j konono jet laddik ippa-n leddik ro.
3PL.SUBJ-PRS talk DET boy with-3SG girl DET
'Some boys are talking with the girls.'

In MRS, the subject may follow the verb directly or be sentence-final after a PP. I assume that the latter is an instance of right-dislocation as discussed in section 1.2.2.1.1. According to Willson (2008), there is no

pause before initial and internal subjects, so it is not clear which position is the unmarked word order. The same is also true for unaccusative sentences (from Willson 2008: 109-110):[18]

(24) a. Irooj ro re-kar buromoj ilo bade eo.
chiefs DET 3PL.SUBJ-PAST be.sad during party DET
'The chiefs were sad during the party.'

b. Re-kar buromoj ilo bade eo irooj ro.
3PL.SUBJ-PAST be.sad during party DET chiefs DET
'The chiefs were sad during the party.'

c. Re-kar buromoj irooj ro ilo bade eo.
3PL.SUBJ-PAST be.sad chiefs DET during party DET
'The chiefs were sad during the party.'

We saw in (24) that MRS has no copula and that stative sentences are possible with adjective-like verbs. Another type of verbless sentence is an equational sentence with two nouns. The word-order may be SV or VS (from Zewen, 1977: 82-83):

(25) a. Armij ri-jerawiwi.
man one.who-sin
'Man (is) a sinner.'

b. Ir-ro alab.
2PL.ABS-2 head.of.a.clan
'They two are heads of a clan.'

c. Win ña, raj kwe.
Turtle 1SG.ABS whale 2SG.ABS
'I am a turtle, you are a whale.'

[18] In examples from Erdland (1914) the subject pronouns in unaccusative clauses do not agree in person and number with the subject:

E buromuij iroj ro (Erdland 1914: 198)
3SG.SUBJ be.sad chief DET
'The chiefs are sad.'

According to Hale (1998) these are expletives only generated to check the EPP feature. However, Willson (2008) points out that her informants find those examples ungrammatical. I assume that there was a reinterpretation of the expletive as a regular subject pronoun. One of the consequences of this change is that sentence-final subjects as in (22b) are now grammatical, which was not the case during Erdland's time.

Notice in (25b-c) that if the subject is a pronoun, it will not be from the set of subject pronouns, but rather an independent pronoun.[19] The use of independent pronouns with equational sentences is widespread among Micronesian languages. However, in MRS, when the sentence is negative, both subject pronoun and either full subject or independent pronouns must be used (from Willson 2008: 69):

(26) a. Armej e-j jab ri-jerowiwi.
man 3SG.SUBJ-PRES NEG one.who-sin
'Man is not a sinner.'

b. Er-ro re-j jab alap.
3PL.IND-2 3PL.SUBJ-PRES NEG head.of.a.clan
'They two are not heads of a clan.'

From these examples, it is clear that a negation marker triggers the obligatoriness of subject pronouns. I propose that it is because negation markers must occur with an overt TP and that only subject pronouns may occupy the Spec TP position. The independent pronoun in (26b) is thus topicalized.

The existential verb *wor* or *or* is often used with possessive constructions (from Willson 2008: 67):

(27) a. E-wor bwijin neji-n Tina leddik.
3SG-exist many cher.POSS-3SG.GEN Tina girl
'Tina has many daughters.'

b. E-or ruo a-ō waj.
3SG-exist two GNR.POSS-1SG.GEN watch
'I have two watches.'

It is unclear whether the pronoun cliticized to the verb is a subject pronoun or an independent pronoun as they both have the same form. There are no examples involving a pronoun with a different person feature, probably because this construction is invariable. However, we will see that in other Micronesian languages, independent pronouns are used in existential clauses, and they will agree in person and number with the subject.

[19] Independent pronouns are also called absolutive or absolute pronouns. In the original glosses, these pronouns may either be glossed ABS or IND. However, I will always use IND, both in the glosses and in the text.

1.2.2.2.2 Kiribati

The word-order of KIR intransitive unergative sentences is VS, the full subject follows the verb, but a subject pronoun must precede it. Moreover, when the full subject is replaced by a pronoun, it must be an independent pronoun (from Trussel, 2010):[20]

(28) a. E nakonako te-uaarei.
3SG.SUBJ walk DET-man
'That man walks.'

b. I nakonako ngai.
1SG.SUBJ walk 1SG.IND.
'I walk.'

c. E nakonako nakon te titooa te-uaarei.
3SG.SUBJ walk to DET store DET-man
'That man walks to the store.'

When there is a PP, it must directly follow the verb and the subject is clause-final yielding a V-PP-S word order. Equational sentences made of two nominal expressions are also possible in KIR. Although the word order may be SV or VS, note that when the subject is a pronoun it must be an independent pronoun (from Groves et al., 1985: 104):

(29) a. Te beretitenti ngaia.
DET president 3SG.IND
'S/he is the president.'

Ngaia te beretitenti.
3SG.IND DET president
'S/he is the president.'

b. Te beretitenti boni ngaia.
DET president PRTL 3SG.IND
'S/he is the president.'

Boni ngaia te beretitenti.
PRTL 3SG.IND DET president
'S/he is the president.'

In (29a) both VS and SV are grammatical, and the pronoun is independent. In (29b) the particle *boni* adds emphasis and both these sentences could be the answer to the question: 'Who is the president?'. The use of the particle does not change the choice of pronoun. There are also clauses headed by adjective-like verbs in KIR (from Groves et al., 1985: 107):

(30) a. E tikiraoi Nei Teiti.
3SG.SUBJ pretty Nei Teiti
'Nei Titi is pretty.'

[20] There is no page number as this is from an online source.

b. Ti b'atab'ata ngaira.
1PL.SUBJ dark 1PL.IND
'We are dark.'

In descriptive clauses, when the full subject is present (as in 30a), the subject pronoun must precede the verb. However, when the subject is a pronoun then the independent pronoun is used at the end of the clause, yielding a VS word-order just like regular transitive and intransitive clauses. Therefore, only in equational sentences do we find the subject in both pre-verbal and post-verbal positions and the subject must be an independent pronoun, without the subject pronoun preceding the verb.

1.2.2.2.3 Trukese

In TRUK, unergative intransitive clauses have a SV word order and may contain both a subject and an independent pronoun. The independent pronoun is used to replace the subject DP whereas the subject pronoun is obligatory in all instances (from Dyen 1965: 27):[21]

(31) a. Kiich, si pwe no.
1PL.IND 1PL.SUBJ FUT go
'We, we will go.'

b. Ewe énú Barisia a pwer.
DET spirit Mwarisi 3SG.SUBJ arrive
'That spirit-of Mwarisi (he) arrived.'

There are also equational sentences in TRUK in which we find independent pronouns rather than subject pronouns (from Dyen 1965: 22):

(32) a. Ngaang Ejiwe.
1SG.IND Eiwe
"I am Eiwe.'

b. Pwii een.
Brother 2SG.IND
'You are my brother.'

[21] There are many different orthographies used in Trukese. I will convert Dyen's into the one used by Goodenough and Sugita (1990) as it is the most recent.

As we can see in (32a-b) the word order of equational sentences may be SV and VS. However, stative sentences follow the noun + adjective pattern. Moreover, a stative marker must be present with adjectives as well as verbs (Sugita, 1987: 60):

(33) a. Ermes meyi samwaaw.
Ermes STAT sick
'Ermes is sick.'

b. *Ermes e-meyi samwaaw.
Ermes 3SG.SUBJ-STAT sick
'Ermes is sick.'

Notice that the subject pronoun in (33b) is ungrammatical in stative sentences. However, it is possible to replace the subject by an independent pronoun (from Elbert 1947: 9):

(34) En meyi pwapwa.
2SG.IND STAT happy
'You are happy.'

In TRUK, independent pronouns are used with equational and stative sentences, without the subject pronoun, whereas the subject pronoun is obligatory with unergative sentences. The attested word order is SV in unergative clauses, although I have not been able to verify that VS could be ungrammatical.

1.2.2.2.4 Pohnpeian

In PON, intransitive clauses may have a SV or VS word order depending on the type of verb. Moreover, as opposed to MRS, KIR and TRUK, subject pronouns are not obligatory in verbal sentences. In fact, full subjects and subject pronouns are mutually exclusive (from Rehg 1981: 279):[22]

(35) a. Lahp-o noahrok
man-DET be.greedy
'That man is greedy.'

b. Soulik pahn duhdu
Soulik UNREAL bather
'Soulik will bathe.'

[22] I did not find ungrammatical examples with the full subject and the subject pronoun. However, whenever the full subject is present, there is no subject pronoun, and when there is a subject pronoun, the full subject is absent.

As we will see in the next sections, this is also the case for KOS and MOK. In PON, unergative intransitive clauses have a SV word-order and if a pronoun is used in place of the subject, it will be from the subject pronouns set (from Rehg 1981: 248):

(36) a. I pahn seil-ahng mwahmw akau.
1SG.SUBJ UNREAL paddle-DIR fish DET
'I will paddle to those fish.'

b. I papal-ahng wahr-o.
1SG.SUBJ swim-DIR canoe-DET
'I swam to that canoe.'

With equational sentences, the word order is SV, and the pronoun must be independent (from Rehg 1981: 160):

(37) a. Ngehi mehn Pohnpei.
1SG.IND one Pohnpei
'I am a Ponapean.'

b. Ih sounpadahk men.
3SG.IND teach one
'I am a teacher.'

Stative verbs require subject pronouns, and the word order is also SV. Notice that even with a stative marker me the subject pronoun must be used as opposed to TRUK (see previous section). The following examples are from Rehg (1981: 199):

(38) a. E kehlail.
3SG.SUBJ strong
'He is strong.'

b. E me kehlail!
3SG STAT strong
'He is strong!'

The difference between the two is a question of emphasis. Note that the stative marker can only be used with adjective-like verbs. Rehg (1981) notes that subject pronouns are part of the VP because they may not appear in equational sentences. However, they can be used with statives because these are considered non-active verbs in PON as in every other Micronesian language. The only type of intransitive clause with a VS word order in PON is the existential clause (from Rehg 1981: 280):

(39) a. Mie rais.
exists rice
'Rice exists.' Or 'There is rice.'

b. Mie nei pwuhk.
exists my book
'My book exists.' or 'I have a book.'

In PON, the word order of intransitive sentences is mostly SV with the exception of existential sentences as in (39). However, the type of pronouns used varies depending on the type of clause. Unergative and stative verbs require a subject pronoun whereas verbless sentences require an independent pronoun. There is no data available for the type of pronoun used in existential clauses.

1.2.2.2.5 Mokilese

The word order of Mokilese unergative clauses is SV. Moreover, the only pronouns for subjects in MOK are independent pronouns (from Harrison, 1976: 151):[23]

(40) a. Ih in-la.
3SG.IND. leave-PERF
'He left.'

b. Ngoah pirin ken alu.
1SG.IND AUX just walk
'I am going to go for a walk.'

Equational sentences also have a SV word order (from Harrison 1976: 142):

(41) a. Pediro kahdilikmen.
Pediro catholic
'Pediro is a catholic.'

b. John johnpadahkmen
John teacher
'John is a teacher.'

With stative verbs, both SV and VS is possible (from Harrison 1976: 300):

(42) a. Sakaie soausoau.

[23] I will consider these pronouns independent as their forms are closely related to the independent pronouns of all Micronesian languages that have both subject and independent pronouns.

rock be.heavy
'This rock is heavy.'

b. Soausoau sakaie.
be.heavy rock
'This rock is heavy.'

However, in sentences involving an experiencer subject, if the verb describes the state of the subject, the subject must precede the verb. If the verb describes a change of state, then the subject may either follow or precede the verb (from Harrison 1976: 300-301):[24]

(43) a. Lih-o injijued.
Woman-DET be.sad
'That woman is sad.'

b. Injijued-la lih-o.
be.sad-PERF woman-DET
'That woman became sad.'

Lih-o injijued-la.
woman-DET be.sad-PERF
'That woman became sad.'

Existential sentences have a VS word order. In MOK, existential verbs, of which there is a small set, describe the existence (or lack thereof) of an object (from Harrison 1976: 302):

(44) a. Mine oai sohri.
Exist POSS zori
'I have zoris.'

b. Joh-la mwani.
To.not.exist-PERF money
'There is no more money.'

Notice that in (44a-b) the object is indefinite i.e., there is no determiner. The absence of determiner to indicate indefiniteness is widespread in Micronesian languages. This is also the case for Oceanic languages

[24] One could argue that the difference between (43a) and (43b) is that (43a) is an example of an unaccusative verb, whereas examples in (43b) are unergative. This would subsume the idea that an external agent caused the change of state. However, one can argue that *that woman* in (43b) is not the agent but the experiencer and as such, these examples are unaccusatives.

(Lynch et al., 2002).[25] However, when the object is definite, it must precede the verb (from Harrison 1976: 302):

(45) Woall-o mine nehn najj-o.
man-DET exist in boathouse-DET
'That man is in the boathouse.'

In MOK, most intransitive sentences have a SV word order except when there is a stative or existential verb. However, SV is also possible with these verbs depending on specific criteria. Since there are no subject pronouns in MOK, the pronoun replacing the subject is always independent, regardless of the type of verb or the word order.

1.2.2.2.6 Kosraean

In KOS, unergative clauses have a SV word order and like MOK, there is only one set of pronouns that can replace the subject (from Lee 1975: 250):

(46) a. Won sac kahskahs.
bird DET chirp
'The bird is chirping.'

b. El tuhng-yak
3SG.IND cry-DIR
'He began to cry.'

VS word order is possible when the intransitive sentence is in the completive aspect (from Lee 1975: 319):[26,27]

(47) a. Nuknuk ah owo-lac.
clothes DET wash-PERF
'The clothes are washed.'

[25] In section 1.2.3.4, I argue that indefinite nouns are incorporated into the verb root in MOK, KOS, and PON, and that they check partitive case in MRS, KIR, and TRUK.
[26] The examples in (40) are not passive sentences since the passive suffix *-yuhk* is not present. Note that in passive sentences, both SV and VS are possible.
[27] Lee (1975) notes that in the imperfective aspect VS is also possible but quite uncommon.

b. Owo-lac nuknuk ah.
Wash-PERF clothes DET
'The clothes are washed.'

There are two types of equational sentences, either (i) the argument DP is strictly indefinite and demonstrates that the subject has the property denoted by the predicate, or (ii) the predicate must be definite and signals the identity of the subject. In the latter, the particle *pa* is used as a linker between the subject and the predicate. In both types of sentences the order is SV (from Lee 1975: 252-253):

(48) a. Nga tuhlihk lutlut se.
1SG.IND child school DET
'I am a student.'

b. Kom pa Sah.
2SG.IND PRTL Sah
'You are Sah.'

Sentences with a stative verb may have SV or VS word order if the subject is a DP as in (49a). However, VS is not possible when the subject is a pronoun as in the examples of (49b) (from Lee 1975: 318):

(49) a. Mwet sac arulac puhlaik.
man DET very brave
'The man is very brave.'

Arulac puhlaik mwet sac.
very brave man DET
'The man is very brave.'

b. El arlac fuhng.
3SG.IND very handsome
'He is very handsome.'

*Arlac fuhng el.
very handsome 3SG.IND
'He is very handsome.'

In KOS, as in all Micronesian languages, the word order of intransitive sentences vary according to the type of verb. Moreover, there are special cases in which pronouns cannot be sentence final or the aspectual properties of the clause have a direct effect on the word order.

1.2.2.2.7 Summary

From the data of the previous sections on intransitive clauses, there are a few key observations to be made. The following table illustrates the word orders and the type of pronouns for three types of intransitive clauses.[28]

Table 1.2 Micronesian intransitive clauses

	UNERGATIVE	UNACCUSATIVE/STATIVE	EQUATIONAL
MRS	SV/VS subject	SV/VS subject	SV/VS independent
KIR	VS subject	VS independent	SV/VS independent
TRUK	SV subject	SV independent	SV/VS independent
PON	SV subject	SV subject	SV independent
MOK	SV independent	SV/VS independent	SV independent
KOS	SV independent	SV/VS independent	SV independent

The most salient observation is that in all Micronesian languages, independent pronouns are used in equational sentences. This type of sentence is composed of two nouns without an overt copula. In MRS, KIR and TRUK, there is variation in the order of the subject DPs (whether nominals or independent pronouns), whereas it is fixed in PON, MOK and KOS. I propose that this results from the lack of obligatory subject pronouns in the three latter languages (see Table 1.1). Only PON and MRS use subject pronouns in unaccusative/stative sentences and all languages that possess a set of subject pronouns will use them in unergative sentences.

Independent pronouns seem to be correlated with verbless sentences.[29] In the examples provided in the previous sections, all unaccusative/stative sentences had 'verbs' that corresponded to adjectives in English.

[28] I will leave aside existential sentences since I could not find data in all the languages surveyed. However, their description in the previous sections shows variation even in languages that seem to have a stricter word-order, i.e., PON and MOK.

[29] According to a reviewer, this could be an instance of phonological focus: if the focus normally falls on the verb, then it must fall somewhere else in verbless sentences. However, this will not be addressed here as it is beyond the

According to Harrison (1973), there is no lexical category 'adjective' in Micronesian languages which is why I use the term stative to describe this type of predicate and, since there is no agent, the argument structure is obviously unaccusative. However, I assume that a covert copula [BE] is present in both stative and equational sentences and that the widespread use of independent pronouns in equational sentences (barring MRS and PON) is not accidental. Independent pronouns may also be used as topicalized and right-dislocated subjects and, in some instances, they may even replace an object. A unification of their functions is not evident, and this is the topic of Chapter 2 on Case and the origin of these pronouns.

So far, I have discussed word orders and the use of pronouns to replace or emphasize a subject. Subject pronouns, when obligatory, always cliticize to a tense marker as in MRS, KIR and TRUK. However, languages without obligatory subject pronouns do not express time in the same way, and instead use aspectual markers and adverbs. The next section provides a description of temporal relations and how they are expressed in Micronesian languages.

1.2.3 Tense and aspect in Micronesian languages

Micronesian languages use a variety of morphosyntactic devices to situate events on the time axis: (i) preverbal markers such as auxiliaries or adverbs, (ii) reduplication and (iii) verbal suffixes. The following subsections will investigate these three different processes in turn and show that they are not used in the same fashion in each Micronesian language.[30] The different expressions of tense and aspect is important to understand the obligatoriness of subject pronouns in a subset of Micronesian languages on the one hand, and the loss of subject pronouns in the other subset of Micronesian languages on the other hand. This, in turn, is directly correlated to variability in word order. These observations will be further discussed in chapter 2.

scope of this research. Moreover, except for PON (see section 1.2.2.1.4) and MRS (see section 1.2.2.1.1) the topic of intonation is not covered. Therefore, I cannot propose an explanation that would explain the use of independent pronouns in verbless sentences in all Micronesian languages.

[30] According to Comrie (1985: 6), 'tense is grammaticalization of location in time, and aspect is "grammaticalization of expression of internal temporal constituency" (of events, processes etc.).' The topic of aspect will be further discussed in section 3.2.1.3.2.

1.2.3.1 Preverbal markers

All Micronesian languages have a set of preverbal markers indicating tense and the aspectual properties of an event. However, only three of these languages have specific tense markers for general present, past, and future tenses, namely MRS, KIR and TRUK:

(50) a. MRS: -j (PRES), -naaj (FUT), - ar/-kar (PAST)
b. KIR: tabe n (PRES), na (FUT), a tia n (COMPLETED PAST)
c. TRUK: a (PRES/PAST in context), pwe (FUT)

There are many other preverbal particles in these three languages that may express aspectual and modal properties of an event. Although PON, MOK, and KOS may also have general tense markers, there are three key differences: (i) these markers may combine to provide additional meaning, (ii) they may express other concepts than tense, and (iii) they are not obligatory with action-oriented verbs.

For example, in KOS, *fah* may indicate the future or the volition of the subject. Lee (1975) considers that these markers would be better described as 'tense-mood markers' since they convey meanings such as probability, irrealis, etc. Moreover, sentences may have an unmarked tense characterized by a lack of tense marker. According to Lee (1975) the meaning of such sentences can be ambiguous and either the context or the addition of an adverbial may provide more details about when the event takes place (from Lee 1975: 300):[31]

(51) a. Sepe el mas.
Sepe 3SG sick
'Sepe is sick.' or 'Sepe was sick.'

b. Sepe el mas ekweyah.
Sepe 3SG sick yesterday
'Sepe was sick yesterday.'

c. Sepe el mas ingena.
Sepe 3SG sick now
'Sepe is sick now.'

[31] Although the following examples are instances of stative sentences, the same holds true for action-oriented sentences.

In MOK, there are three types of preverbal particles: (i) auxiliaries, (ii) pre-predicates and (iii) pre-verbs. Harrison (1976) refers to these as modals. There can only be one auxiliary in a given sentence which might indicate that they belong to the same functional head. The same is true for the pre-predicates. However, pre-verbs can combine such that one may precede the auxiliary and the other may precede the pre-predicate. Both auxiliaries and pre-predicates have a fixed word order whereas pre-verbs may occur in different positions within the predicate. Like KOS, MOK sentences do not require any modal (from Harrison 1976: 173):

(52) a. Woall-o alu.
Man-DET walk
'The man is walking.'

b. Woall-o ne pirin ken alu.
Man-DET PRE-PRED.already FUT PRE-V.then walk
'The man is just about to take a walk.'

As we can see in (52b) a combination of preverbal particles is quite common in MOK. The auxiliary *pirin* although translated as a future marker, is better interpreted as "expressing intention or likelihood" (Harrison 1976: 173).

According to Rehg (1981: 268) "PON may be described as a tenseless language" and "PON employs what we will call an aspect system." Like KOS and MOK, preverbal particles are not obligatory in PON (from Rehg 1981: 268-269):

(53) a. Soulik soumwahu.
Soulik sick
'Soulik is sick.' or 'Soulik was sick.'

b. Soulik soumwahu nan sounpar samwalahro.
Soulik sick in year last
'Soulik was sick last year.'

c. Soulik soumwahu met.
Soulik sick now
'Soulik is sick now.'

Another key difference between languages with general tense markers and those with aspectual markers is that subject pronouns must cliticize to the tense markers in the languages that have them, but subject pronouns do not cliticize to aspectual markers in the languages that do have tense markers. If one assumes

that subject pronouns occupy the TP specifier, then it is clear that general tense markers occupy the T position. However, the same is not so clear for the other three languages. The syntax of Micronesian languages will be investigated further in a later section where I will propose that languages which do not have tense markers do not project a TP. Aside from preverbal markers, aspectual properties can also be conveyed through the process of reduplication which is the topic of the next section.

1.2.3.2 Reduplication

All Micronesian languages investigated in this dissertation display two types of reduplication: (i) leftward reduplication of the first syllable or consonant and (ii) rightward reduplication of the final syllable. Moreover, some languages such as MOK may even have triplication. According to Harrison (1973: 424):

> The existence of two dominant reduplication patterns (-CVCV# and #CVC-) is supported by the fact that these tend to correspond to two distinct functions: the former to a process deriving descriptive or facultative statives from nouns or verbs and the latter to a progressive-continuative inflection on predicates of all types.

However, in PON, TRUK and MOK, rightward reduplication is not productive. This type of reduplication will not be investigated in this research since it is a derivational process. I will focus on leftward reduplication since it results in different aspectual properties of the event. I will also provide evidence that there is variation in the aspectual properties among the Micronesian languages.

In MRS, leftward reduplication is associated with the intransitivity of the verb (from Abo et al., 1976):[32]

(54) a. Eṃṃan jijibur ñe kwō-j piọ.
nice cuddle when 2SG.SUBJ-PRES cold
'It's nice to cuddle when you are cold.'

b. Ledik eo e-j jibur-i kuuj eo.
girl DET 3SG.SUBJ-PRES cuddle-TR cat DET
'The girl is cuddling the cat.'

Notice that there is no indication of a change in the grammatical aspect of the event as both (54a) and (54b) are ongoing actions with no reference to an ending point. Moreover, in (54b), a transitive suffix is added to the root verb.

[32] Since the examples are taken in an online dictionary, there is no page number.

In KIR, the reduplication of the first syllable of the verb does have an impact on the aspectual properties of the verb. It may indicate habituality or continuity of the verb (from Trussel, 1979: 212):

(55) a. tang ‘to cry’
taatang ‘to usually cry’

b. tang ‘to cry’
tangitang ‘to continually cry.’

In (55a) only the first part of the syllable is reduplicated (with a long vowel), whereas in (55b) the whole syllable is reduplicated yielding a different meaning.

According to Elbert (1947) and Dyen (1965) TRUK reduplication of an initial syllable results in repetition or duration of an event. Moreover, Harrison (1973) notes that Trukic languages (as well as PON) mark the progressive aspect with reduplication (from Harrison 1973: 442):

(56) a. móót ‘to sit’
mómmóót ‘to be sitting’

b. turufi ‘to seize’
tutturufi ‘to be seizing’

However, Sugita (1987: 68) presents compelling evidence that the progressive or durative aspects are not marked categories in TRUK:

> The primary function of initial syllable reduplication is not to express "durative" or “progressive" aspect, but that it is to express "recurrence of a state or event." "Habitualness" can be interpreted as a case of "regular recurrence." "Potentiality" and “capability" of being in a state is also based on the concept of recurrence. “Persistent continuation" of an action which is inherently "durative” may also be interpreted as a case of "successive recurrence of an event." Truly "progressive" interpretation of an expression with reduplicated verb forms has not been obtained. Whenever "progressive" interpretation is suspected, we always find elements of "persistence," "intentional repetition," or "indulgence." Thus, I conclude that "durativeness" or "progressiveness" is not a marked aspectual category in Trukese.

If Sugita is right, then it would be the lexical aspect of the verb that is affected by reduplication as opposed to the aspectual properties of the event.

In PON, the durative aspect is expressed with initial reduplication (from Rehg 1981: 271):

(57) a. I kang rais.
1SG.SUBJ eat rice
‘I eat/ate rice.’

b. I kangkang rais.
1SG.SUBJ eat.DUR rice
'I am/was eating rice.'

Notice that the tense of the action is not specified in (57). Reduplication can also indicate the formation of an intransitive verb from a transitive root, but verbs of this type are uncommon, and we may assume that this process is not productive.

In MOK, the main function of leftward reduplication is to express the progressive and durative aspects (from Harrison 1973: 426):

(58) roar 'to give a shudder'
roarroar 'to be shuddering'
roarroarroar 'to continue to shudder'

In (58) there is an example of triplication where the progressive becomes durative. There are a number of reduplicated verbs that are intransitive even though there is an unreduplicated intransitive form. However, the reduplicated form cannot be used with an incorporated object whereas the unreduplicated form can. Incorporation will be discussed further in section 1.2.3.4. In any case, it seems that reduplication for the purpose of intransitivity is productive.

In KOS, reduplication of both transitive and intransitive verbs denotes a series of events. According to Lee (1975) reduplicated verbs related to sounds and motions indicates such series. However, other types of verbs convey intermittent continued actions or a gradual development of the action (from Lee 1975: 223-224):

(59) a. kahs 'to make a chirp'
kahskahs 'to make a series of chirps'

b. tuhlak 'to jerk'
tuhltuhlak 'to make a series of jerks'

c. Sohn el furfurok nuht se.
John 3SG.IND turn nut DET
'John is turning the nut little by little.'

It is also possible to derive intransitive verbs from transitive verbs with reduplication (from Lee 1975: 264):

(60) a. Sepe el twem mitmita sac.
Sepe 3SG.IND sharpen knife DET
'Sepe is sharpening the knife.'

b. Sepe el twetwe.
Sepe 3SG.IND sharpen
'Sepe is sharpening.'

It seems that among the Micronesian languages studied here, there are three possible interpretations of leftward reduplication: (i) a change in the argument structure, (ii) a progressive or durative aspect and, (iii) the repetition of a series of event or the habitual aspect.

Table 1.3 Reduplication interpretation

	Argument structure	Durative/ progressive	Repetition Habitual
MRS	√		?
KIR			√
TRUK			√
PON	√ (not productive)	√	
MOK	√	√	
KOS	√		√

Although there are many functions to leftward reduplication in Micronesian languages, we may assert that they all affect the aspectual properties. Whereas the durative/progressive aspect is mainly concerned with the grammatical aspect of the event, a change in the argument structure as well as the repetition of an action seem to affect the lexical aspect of the verb. In the former, the removal of the goal indicates the lack of final boundary to the event and in the latter, the repetition indicates an ongoing activity. In some Micronesian languages, there is another morphological process that results in the boundedness of an event i.e., directional affixes on the verb. This is the topic of the next section.

1.2.3.3 Directional suffixes and aspectual properties

All Micronesian languages have a series of directional suffixes but three of the languages studied also use these directional suffixes as markers of perfective aspect namely, PON, KOS and MOK.[33] The directionals are directly affixed to the verb, preceding any object (except in the case of object incorporation as we will see later).

According to Rehg (1981), the suffix *-da* in PON has many interpretations: with verbs of motion, it has the meaning 'up' or 'upward'. With other types of verbs, this suffix 'indicates that an action or activity has been carried through to its logical conclusion.' (Rehg 1981: 233):

(61) a. I kukih rais-o.
1SG.SUBJ cook rice-DET
'I cooked that rice.'

b. I kukih-da rais-o.
1SG.SUBJ cook-DIR rice-DET
'I cooked that rice (and it is ready to be eaten).'

There is another suffix in PON that denotes the perfective aspect, i.e. *-ehr*. Although it is not a directional, it still shows that the alternance between perfective and imperfective aspect is marked directly on the verb in PON (from Rehg 1981: 273):[34]

(62) I kang-ehr rais.
1SG.SUBJ eat-PERF rice
'I have eaten rice.'

In KOS, the suffixes *-lah, -yac*, and *-ack* when used with verbs of motion have a directional meaning. However, when the verb does not indicate any motion, these suffixes denote that the action has come to an end (from Lee 1975: 283):

(63) a. Nga fotong-lah pohl sac.
1SG.IND kick-DIR ball DET
'I kicked the ball away.'

[33] See Di Sciullo (2005a; 2005b) for aspectual properties of affixes.
[34] As we saw in 1.2.3.1 there are preverbal markers of aspect in PON such as habitual, unrealized, etc.

b. Nga etwac-lah puropuhrwacm sac.
ISG.IND figure-DIR problem DET
'I figured out the problem.'

c. Sohn el sruok-yac won se.
John 3SG.IND catch-DIR bird DET
'John caught the bird.'

d. Nga ahkos-ack insin soko ah.
1SG.IND start-DIR motor boat DET
'I started up the motor boat.'

In MOK, the suffixes *-da* and *-la* are used in the same fashion as in KOS (from Harrison 1976: 224):

(64) a. Ih lios-la.
3SG.IND angry-DIR
'He got angry.'

b. Arai kang-la raiss-o.
3PL.IND eat-DIR rice-DET
'They ate up that rice.'

c. Ngoah loakjidih-da mwumw koalikmen.
ISG.IND catch-DIR fish big
'I caught a big fish.'

In those three languages, a directional suffix may indicate the completion or the perfectivity of an action. In MRS, TRUK and KIR, directional suffixes are not used for that purpose. Although these languages also possess a series of preverbal aspectual markers, the alternation between perfectivity and imperfectivity is not as clearly marked as in PON, KOS and MOK. The distinction between tense and aspect separates the two groups of languages. Another clear separation must be made between the languages that allow object incorporation and the languages that do not. This is the topic of the next section.

1.2.3.4 Object incorporation

A subset of the languages studied in this research allow the incorporation of objects within the verb.[35] More specifically, indefinite objects may incorporate whereas definite objects cannot. However, the

[35] Noun incorporation as Head Movement (Baker, 1988; 2009) has been debated since Di Sciullo & Williams (1987). Many authors conclude that Head Movement cannot explain all the facts of incorporation cross-linguistically (see for example Barrie & Mathieu, 2012). Moreover, in current Minimalist syntax, Head Movement is not part of narrow syntax as it violates the Extension Condition (Chomsky, 1993). See also (Dékány, 2018) for an overview of the debate

languages that do not allow incorporation treat indefinite objects distinctly from definite objects. The languages that allow incorporation are PON, KOS, and MOK (PON and KOS examples are taken from Hale 1998: 348 and MOK examples from Harrison 1976: 162):

(65) Ponapean

a. I kang-la wini-o.
1SG.SUBJ eat.TR-DIR medicine-DET
'I have taken (all) that medecine.'

b. I keng-winih-la.
1SG.SUBJ eat.INTR-medecine-DIR
'I have completed my medicine taking.'

(66) Kosraean

a. Nga twem-lah mitmit sac.
ISG.IND sharpen.TR-DIR knife DET
'I have sharpened the knife to completion.'

b. Nga twetwe mimit-lac.
1SG.IND sharpen.INTR knife-DIR
'I have completed knife-sharpening.'

(67) Mokilese

a. Ngoah audoh-la rimeh-i.
1SG.IND fill.TR-DIR bottle-DET
'I filled this bottle.'

b. Ngoah audohd rimeh-la.
1SG.IND fill.INTR bottle-DIR
'I finished filling bottles'; 'I finished bottle-filling.'

In (65-67), we notice three things in the (a) examples: (i) the verbs are transitive, (ii) there is a directional suffix attached to the verb that marks the completion of the event, and (iii) the object is definite as shown by the presence of a determiner. On the other hand, in the (b) examples: (i) the verbs are intransitive, (ii) the directional suffix follows the object, and (iii) there is no determiner, which shows that the object is indefinite. The position of the directionals in the (b) examples indicates that the object has been

on Head Movement as well as Chomsky (2019; 2021). In section 2.3.2.3, I will adopt Massam (2000)'s phrasal movement for pseudo noun-incorporation to analyze Oceanic and Micronesian object incorporation.

incorporated into an intransitive verb root. Since the object is part of the activity, it subsumes that it cannot be specific, hence the lack of determiners. As discussed further in section 2.4, Lynch et al. (2002) states that in Oceanic languages, an object occurring with an intransitive root was obligatorily incorporated, due to the loss of the partitive article **ta* which was a marker of indefiniteness. The analysis of noun incorporation as lexical compounding of an indefinite object to a verb root is also discussed in Mithun (1984) and (Johns, 2017) amongst others.

The non-incorporating languages are MRS, TRUK and KIR.[36] The following examples are from (Hale 1998: 350-351):

(68) Marshallese

a. E-ar kañ ek eo.
3SG.SUBJ-PAST eat.TR fish DET
'He ate the fish.'

b. E-ar mōñā-tok ek.
3SG.SUBJ-PAST eat.INTR-DIR fish
'He ate some fish (coming hither).'

c. E-ar mōñā ewe ek.
3SG.SUBJ-PAST eat.INTR fish DET
'He ate of the fish.'

(69) Trukese

a. Wú-pwe wúnúmi ewe kkónik.
1SG.SUBJ-FUT drink.TR DET water
'I will drink the water.'

b. Wú-pwe wúnú-nó kkónik.
1SG.SUBJ-FUT drink-INTR-DIR water
"I will drink some water.'

[36] There are no examples of the types of alternation shown in (68) and (69) in KIR. However, no mention is made of object incorporation in KIR in any grammar or article consulted. The only reference that I found is in (Sabel, 2013) in footnote 3 (p.7):

I anga-mane [nakon-teuaarei].
1SG give-rnoney to DET-man
'I give money to this man.'

Although Sabel (2013) considers this an example of object incorporation, this example appears to be the equivalent of (68b-69b) examples without the directional suffix. Therefore, I conclude that object incorporation is not possible in Kiribati.

c. Wú-pwe wún ewe kkónik.
1SG.SUBJ-FUT drink.INTR DET water.
'I will drink of the water.'

In both MRS and TRUK, the directional suffixes must always directly follow the verb, which demonstrates that object incorporation is not possible. In the (c) examples of (68) and (69), we also notice that definite objects may be used with an intransitive verb yielding a partitive interpretation which is not possible in PON, KOS and MOK (Hale 1998). It seems therefore that partitive case is not a feature of verbs in the latter three languages as opposed to MRS and TRUK (and perhaps KIR).[37] This might explain why MOK and KOS only have two types of pronouns (independent and object) and PON is restricted in the use of subject pronouns as opposed to MRS, TRUK and KIR which possess three types of pronouns (subject, independent and object). Many other correlations may be observed between the two groups of languages, and this is the topic of the following section.

1.2.4 Observations and correlations

When analyzing the word orders of transitive clauses of Micronesian languages, it is clear that a division must be made between MRS, KIR and TRUK on the one hand, and PON, KOS and MOK on the other, based on the different properties that have been described in the sections above.[38] The first subgroup allowed more flexibility in terms of word orders (SVO and VOS), whereas the second had a fixed SVO. I concluded that it was related to the obligatoriness of the subject pronouns in the first group (as seen in Table 1.1 repeated here):[39]

[37] Partitive case will be discussed in section 2.3.2.1.
[38] See Table 1.4 below.
[39] As will be discussed in section 2.4.1., obligatory subject pronouns are the true arguments of the verb, occupying the specifier of TP position, which allows the Subject DP to occupy different syntactic positions.

Table 1.1 Transitive word-orders and pronouns

	SVO	VOS	Subject Pronouns	Independent Pronouns
MRS	√	√	obligatory	replace DP subject in topics
KIR	√	√	obligatory	replace DP subject in topics
TRUK	√	NA	obligatory	replace DP subject in topics
PON	√	x	complementary distribution with subject DP	obligatory in topics
MOK	√	x	x	obligatory in topics
KOS	√	x	x	obligatory in topics

Note also that when a subject is topicalized or right-dislocated, a pronoun is obligatory in all languages. Moreover, as we saw above, both MOK and KOS do not have a set of subject pronouns but rather only independent pronouns. In intransitive sentences, the division was not so obvious except for the equational sentences, which again divided the Micronesian languages into two subgroups. The interesting thing with intransitive sentences was the type of pronoun used in both stative and equational sentences: the independent pronouns were favored in most languages in stative sentences and in all equational sentences (as shown in Table 1.2 repeated here):

Table 1.2 Micronesian intransitive clauses

	UNERGATIVE	UNACCUSATIVE/STATIVE	EQUATIONAL
MRS	SV/VS subject	SV/VS subject	SV/VS independent
KIR	VS subject	VS independent	SV/VS independent
TRUK	SV subject	SV independent	SV/VS independent
PON	SV subject	SV subject	SV independent
MOK	SV independent	SV/VS independent	SV independent
KOS	SV independent	SV/VS independent	SV independent

Only MRS and PON use subject pronouns in unaccusative/stative sentences; independent pronouns are correlated to verbless sentences. Moreover, recall that in MRS, KIR and TRUK, independent pronouns may replace the full subject when the subject is topicalized or right-dislocated.[40] Consequently, the functions of subject and independent pronouns are not the same. In fact, independent pronouns may also replace objects, at least in MRS. Both MOK and KOS lack a set of subject pronouns and use independent pronouns in the same fashion as MRS, KIR, TRUK and PON.

There is also a division between two groups of Micronesian languages regarding the way tense is expressed: while MRS, TRUK and KIR have obligatory general tense markers, KOS, MOK and PON do not. Although all Micronesian languages investigated in this research have many aspectual markers, only the three latter languages rely solely on these markers to express temporal relations between events. The same three languages also use directional markers (or other particles) as suffixes to express perfectivity of the event. As we will see in the next chapter, there is a contrast between two types of grammatical aspects: perfectivity/imperfectivity on the one hand, and perfect/progressive aspects on the other hand. From the data analyzed so far, the two types of aspects show another marked division between the two subgroups of Micronesian languages.

Finally, object incorporation is present in only a subset of Micronesian languages. These are the same languages that do not have tense markers and that have a fixed SVO word order that is correlated with the non-obligatoriness of subject pronouns. Table 1.4 below illustrates the two subgroups of Micronesian languages.

[40] I have not found examples in PON where the topicalized subject is in fact a pronoun. It might be the case however that an independent pronoun may be used in conjunction with the obligatory subject pronoun.

Table 1.4 Micronesian languages subgroups

	MRS	KIR	TRUK	PON	MOK	KOS
Fixed SV order				√	√	√
Sets of pronouns for subjects	2	2	2	2	1	1
Obligatory subject pronouns	√	√	√			
General tense markers	√	√	√			
Aspectual properties of directional suffixes				√	√	√
Object incorporation				√	√	√

1.2.5 Chapter conclusion

In this chapter, I explored a number of salient morpho-syntactic processes of a selected group of Micronesian languages. I have concluded that there are two subgroups of Micronesian languages each with their own properties. Moreover, there is a direct correlation between the presence or absence of many of those syntactic properties within languages. In the next chapter, I will explore the history of Micronesian pronouns, tracing their origin back to Proto-Malayo-Polynesian (PMP), and the subsequent changes in Proto-Oceanic (POc). Furthermore, I will propose that subject pronouns descend from an earlier set of ergative pronouns and that independent pronouns descend from an earlier set of absolutive pronouns. I will also discuss the syntax of PMP and the historical changes that took place from PMP to POc.

CHAPTER 2

THE CASE OF MICRONESIAN PRONOUNS

In this chapter, I will focus on the set of pronouns of Micronesian languages. The types of pronouns and their syntactic positions are key elements that illustrate a possible earlier ergative alignment in Micronesian languages. I will first start with the description of pronouns and try to uncover the function of each type of pronoun. Moreover, I will look at the historical development of these pronouns. Next, I will explore the historical development of Oceanic pronouns and their functions. Finally, I will describe the correlation between the subject pronouns and the word order of Micronesian languages. As we saw previously, there is a strong link between the presence of such pronouns and variations in word order.

2.1 Pronouns in Micronesian languages

In this section, I will describe the pronominal paradigms of Micronesian languages. I will show that Micronesian languages may be divided into two subgroups regarding the number of pronominal sets. Moreover, I will demonstrate that each type of pronoun has a specific function related to case assignment and that variation is the result of diachronic innovations triggering syntactic change.

2.1.1 Types of pronouns in Micronesian languages

Among the Micronesian languages, there are languages with three sets of pronouns and languages with two sets of pronouns. Both independent pronouns and object pronouns are present in all Micronesian languages, whereas only a subset of languages have subject pronouns.[41] The use of the term 'subject pronouns' might be misleading in the grammars of MOK and KOS because these pronouns have the same origins as the independent pronouns of all the other languages as illustrated in Table 2.1 below.

Table 2.1 Comparison of Micronesian pronouns

TYPE OF PRONOUN	PERSON/NUMBER	MRS	KIR	TRUK	PON	MOK	KOS
SUBJECT	1SG	i	i	wú	i	ø	ø
INDEPENDENT	1SG	ŋah	ŋai	ŋaaŋ	ŋɛɛy	ngoah	ŋa

[41] As stated in Chapter 1, the possessive pronouns will not be included in this dissertation.

From the table above, it is clear that both MOK and KOS pronouns, which are always used as subject pronouns, share the same origin as independent pronouns of all the other languages. As we saw in the preceding chapter, subject pronouns of the form in the first row of Table 2.1 are obligatory in all languages in which there is a set of subject pronouns. These pronouns are clitics to tense markers or aspectual markers (in the case of PON). The independent pronouns are free pronouns. According to Song (1994) these are *functionally ambiguous agreement markers* because they always agree in person and number with the overt DP. However, they are functionally ambiguous because they also have a referential use when the overt DP is not present. In contrast, referential pronouns may never be used as agreement markers. In his analysis of Micronesian pronouns, Song (1994) notes that PON, MOK, and KOS subjects are not agreement markers, functionally ambiguous or otherwise, but rather referential pronouns that may replace the subject DP.

Given these facts, Micronesian languages may be divided into two subgroups: (i) languages with agreement markers that may be used with or without the subject DPs (or independent pronouns) and, (ii) languages that either lack such pronouns (MOK and KOS) and PON which do have these pronouns, yet they are in complementary distribution with subject DPs. In the first subgroup, the us of these pronouns is an instance of clitic doubling, which is not the case for PON because the pronouns may never be used in conjunction with the full DP subject.

According to Kikusawa (2017), agreement markers often develop from case-marking pronouns. If this is valid for Micronesian languages, we must discover which case was marked by the proto-forms of subject pronouns and why do MOK and KOS do not have such pronouns. Moreover, the case of PON will also be addressed as, even though it possesses such pronouns, they do not serve as functionally ambiguous agreement markers.

The following section will focus on the development of Micronesian pronouns, and based on Harrison (1978)'s analysis, what the Proto-Micronesian (PMc) sets of pronouns were and what was their function.

2.1.2 The historical development of Micronesian pronouns

According to Harrison (1978), PMc independent pronouns had the syntax of DPs and they appeared both in equational sentences and as emphatic subjects in the subject DP position. This is what we find in

daughter languages for equational sentences (see table 1.2 repeated below), but not in other types of sentences in which we find variations both in unergative and unaccusative/stative sentences.

Table 1.2 Micronesian intransitive clauses

	UNERGATIVE	UNACCUSATIVE/STATIVE	EQUATIONAL
MRS	SV/VS subject	SV/VS subject	SV/VS independent
KIR	VS subject	VS independent	SV/VS independent
TRUK	SV subject	SV independent	SV/VS independent
PON	SV subject	SV subject	SV independent
MOK	SV independent	SV/VS independent	SV independent
KOS	SV independent	SV/VS independent	SV independent

In Harrison's analysis, subject pronouns were obligatory in PMc and were subject markers that cliticized to the verb, which means that they did not occupy the specifier of TP as in MRS, KIR, and TRUK. These subject markers were reanalyzed as pronouns at a later stage (see section 3.3.1.2.1). He further concludes that independent pronouns also served the function of object pronouns, at least in their plural forms, and that they seem to have been able to appear as topics in topicalized sentences. The reconstruction of object and independent pronouns illustrated below shows that, in the plural forms, these two sets of pronouns were syncretic.[42]

[42] As stated in Chapter 1, the terms absolute, absolutive, and independent are all used to refer to the same set of pronouns. Harrison (1978) uses the term absolute, but for clarity reasons, I will refer to them as independent.

Table 2.2 Reconstruction of PMc object and independent pronouns

	OBJECT	INDEPENDENT
1SG	*ai	*ngai
2SG	*ko	*koe
3SG	*a	*ai
1PL.INCLUS.	*ki (t',t) a	* ki (t',t) a
1PL.EXCLUS.	*ka (ma) mi	*ka (ma) mi
2PL.	*kamiu	*kamiu
3PL.	*ira	*ira

Harrison (1978) also mentions that singular second and third object pronouns were VP-internal enclitics and that the first-person singular pronoun was a verbal suffix. This subsumes the idea that there were no free object pronouns in PMc. He concludes that in a pre-PMc stage, all pronominal objects were independent pronouns.

It is interesting to note that MOK does not have a set of object pronouns distinct from independent pronouns. This is also true for some Micronesian languages not investigated in this dissertation. It seems then that not all languages developed a set of object pronouns, but rather still have independent pronouns that may be used both for subjects and objects. Moreover, according to Harrison (1978) all other Micronesian languages investigated in this dissertation have pronominal enclitics and suffixes.

Considering this, the ancestor of the Micronesian languages had only one set of pronouns that could be used for both subjects and objects, and a set of agreement makers for subjects that were part of the VP. Going back to Kikusawa (2017), we need to investigate the origins of these agreement markers and their function. If they marked case as suggested by Kikusawa, it is unclear which case they marked and how it differed from the independent pronouns used as subjects.

Micronesian languages being part of the Oceanic family of languages, a closer look at the sets of pronouns used across Oceania might provide clues as to the function of those pre-PMc pronouns and agreement markers. The following sections will be dedicated to the historical development of pronouns in Oceanic languages in order to uncover the historical development of Micronesian pronouns, especially subject

pronouns and independent pronouns and how they came to be used for different functions in the modern languages.

2.2 The Oceanic pronouns

According to Lynch et al. (2002), most Oceanic languages have four types of pronouns: (i) independent pronouns which are free forms that may be used as subjects, topics in topic-comment constructions, object, possessor, or prepositional object; (ii) subject pronouns which indicate the person and number of the subject.[43] These are considered preverbal morphemes, and they may be clitics, prefixes, or free forms; and (iii) object pronouns which consist of postverbal clitics or suffixes. These are not as widespread in Oceanic languages and may be found mostly in Melanesia and Micronesia. The fact that object pronouns are not present in most of the Oceanic languages point to an innovation post Proto-Oceanic (POc) present only in Melanesian and Micronesian languages.

The pronominal system of Oceanic languages is best understood if we analyze not only the grammatical function of pronouns, but also their semantic interpretation. As the goal of this research is not to investigate all different Oceanic languages, the following sections will mainly focus on what Ross (2004) calls the canonic Oceanic languages. As in most languages, the interpretation of arguments is directly correlated with the interpretation of verbs. The following section will describe the types of verbs found in canonic Oceanic languages.

2.2.1 A-Verbs and U-Verbs

In languages like English, verbs can either be transitive or intransitive and in some cases, the same verb can be both depending on the context. When the object of a transitive verb is omitted, it is nevertheless understood that there is an argument undergoing the action.[44] Therefore, a transitive verb will become intransitive with the loss of the undergoer argument (U), and the actor (A) will remain as the sole argument. However, in canonic Oceanic languages, there is a type of intransitive verb where the undergoer argument is the subject. Ross (2004 and references therein) calls these verbs U-verbs. For example, in Boumaa Fijian (from Dixon, 1988:204):

[43] The fourth type of pronouns are possessor suffixes. These will not be investigated.
[44] See Pérez-Leroux et al., (2018) for an extensive analysis of object omission.

(70) a. e gagi a dovu
3SG.SUBJ crush ART sugarcane
'The sugarcane is being crushed'

b. au gagi-a a dovu
1SG.SUBJ crush-3SG.OBJ ART sugarcane
'I'm crushing the sugarcane'

According to Dixon (1988), in (70a) the undergoer is the subject, whereas in (70b) it is the object. In the intransitive form in (70a) the subject is coindexed with a pronoun that precedes the verb and, in the transitive form in (70b), the same argument is coindexed with an object pronoun following the verb. Another type of U-verb is the stative or adjectival verb as in Boumaa Fijian (Ross 2004: 505):

(71) e loaloa a ʔolii ya
3SG.SUBJ be.black ART dog this
'This dog is black'

The two subclasses of intransitive verbs found in Oceanic languages are not that different from the ones in English in terms of their argument structures.[45] For example, an intransitive verb like *to arrive* does not have an agent or actor argument but rather a theme. Therefore, the subject of this verb is not an external argument; it originates from inside the VP. Clearly, both the English and the Oceanic verbs have an unaccusative argument structure. The difference is that it is possible in Oceanic languages to create a verb with an unaccusative argument structure without relying on passivization.[46] In English, the verb must be inherently unaccusative. Otherwise, the only solution is passivization. It is therefore not surprising to find that most canonic Oceanic languages lack a passive form (Ross 2004). Derivational processes such as affixation and reduplication may be used to change the valency of a verb, but these are fairly unpredictable and synchronically unproductive (Ross 2004). Therefore, most forms attested today are the result of lexicalization. However, some rules are noticeable even though one would not know why they apply to

[45] The two types of intransitive verbs are unaccusative and unergative. The subject of unaccusative verbs is not the agent of the predicate which means that it originates has the complement of the verb, whereas the subject of unergatives verbs is the agent of the predicate which means that it originates in the specifier position of the vP.

[46] This is not the same as a pivot argument 'the clause's privileged argument' (Paillé, 2021: 83) in Austronesian languages in which the pivot can be extracted to move to Spec-Voice P, above the external argument. In this case, the subject is still overt as opposed to the process of passivization which either eliminates the agent or demote it to a *by*-phrase. See also (Erlewine et al., 2017) and (Erlewine & Lim, 2023) on Austronesian voice systems and the pivot argument.

some verbs but not to others. For example, in MRS, some verbs are underlyingly intransitive but may be transitivized by the addition of the phonologically determined suffixes *-uk* or *-ik* (from Willson 2008: 42):

(72) a. Leddik ro r-ar wia-ik mona ko
girl DET.PL.H. 3PL-PST buy-TR food DET.PL.NH.
'The girls bought the food.'

b. Laddik eo e-j kaplo-uk leddik eo
boy DET.SG.H 3SG-PRES spit-TR girl DET.SG.H
'The boy is spitting on the girl.'

However, other verbs are underlyingly transitive, and they may be detransitivized by reduplication of the whole word or the first syllable (from Willson 2008: 43-44):[47]

(73) a. Emmaan eo e-ar mwijmwij (from mwijit)
man DET.SG.H 3 SG-PST cut.INTR
'The man did some cutting'

b. Leddik ro r-ar keke (from kiij) ilo jadede
girl DET.SG.H 3SG-PST sew.INTR on Saturday
'The girls sewed on Saturday,'

According to Ross (2004) reduplication is used in many Oceanic languages to create U-verbs. However, there is no mention in the literature that such verbs exist in MRS or other Micronesian languages. In the examples in (73) both subjects are actors (or agents) and not undergoers. Even though the process of reduplication retained its detransitivizing effect, the restrictions in terms of promoting the internal argument as subject seem to have disappeared. Maybe this is why there are some Micronesian languages that have a voice system that permits passivization.[48] The split between A-verbs and U-verbs gave rise to a system of valency changing processes distinct from the voice systems common in typologically different languages. It would follow that constituent order and general syntactic alignments of Oceanic languages are greatly influenced by the lack of a voice system. This topic is investigated further in the next section.

[47] Sometimes reduplication results in other phonological processes such as vowel dissimilation and the loss of a final syllable.
[48] Willson (2010) proposes an analysis in which there is a passive voice in MRS.

2.2.2 Oceanic constituent orders and syntactic alignments

The most common word order of Oceanic languages is SVO, yet there are languages that exhibit VOS and VSO patterns as well. According to Ross (2004) SVO and VOS are typologically closer than they appear since they share many properties such as: (i) subject proclitics; (ii) VO word-order; (iii) the absence of the subject DP in many instances and, finally; (iv) the subject DP in VOS languages is often topicalized giving an SVO word order. The VSO order is most common within the Polynesian branch of the Oceanic languages, but these languages are not considered to be part of the canonic Oceanic type because they have an ergative alignment, as in the Niuean language (from Massam, 2000: 98):

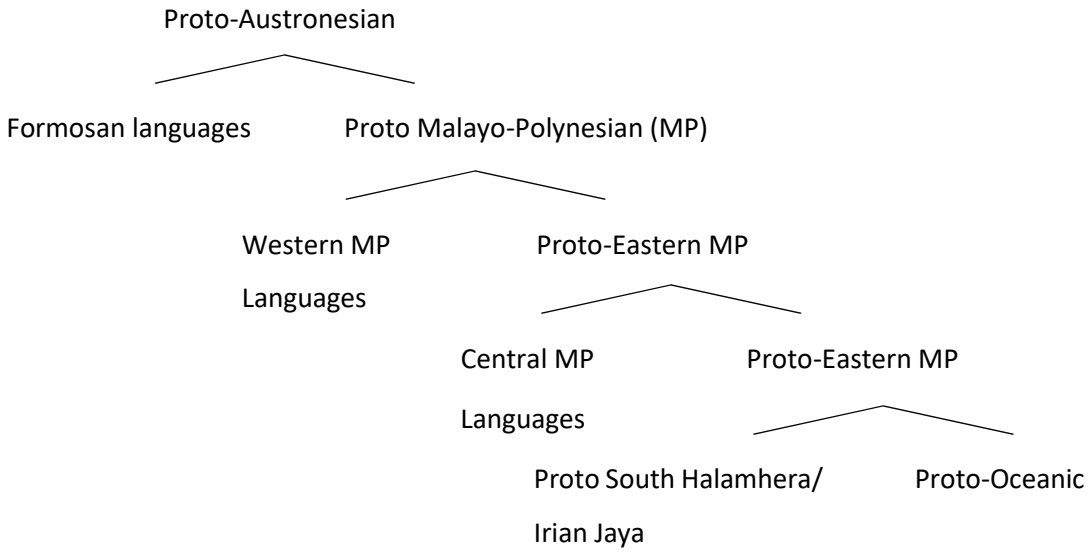
(74) Ne inu e Sione e kofe.
PST drink ERG Sione ABS coffee
'Sione drank the coffee.'

The exclusion of ergativity in canonic Oceanic languages results from the fact that it is only found in the Polynesian branch, excluding Eastern Polynesian languages which are accusative (Clark, 1973). Because we find two different alignments in the same family of languages, the question regarding which syntactic alignment Proto-Polynesian has has been debated for decades. More recently, Ball (2007) concludes that Proto-Polynesian was accusative whereas Kikusawa (2002) claims it was ergative, on the basis that pronominal forms in Polynesian languages are similar to the set of genitive pronouns belonging to the Malayo-Polynesian branch of the Austronesian family. Considering that Proto-Austronesian was ergative, Kikusawa (2002) assumes that the similarity between these sets of pronouns indicates the continuation of the ergative function. The hypothesis that Proto-Austronesian (PAn) was ergative is, of course, debated as well (see Aldridge, 2016). However, I will assume, along Kikusawa (2002) and Starosta et al. (1981), that ergativity was a feature of PAn. According to them, ergative agents and possessors were marked by the genitive case form associated with ergative syntax. The word order was VSO (as in Polynesian languages) and the genitive argument, which was the subject of transitive clauses, directly followed the verb.

Assuming that PAn was indeed ergative, and that some features of ergativity were passed down to some Polynesian languages, as well as languages of New Caledonia (Blust, 2013), then accusativity in Oceanic languages must be an innovation that took place in later stages. According to Lynch et al. (2002), Proto Malayo-Polynesian (PMP) was already accusative. However, I will attempt to demonstrate in the next section that PMP displayed an ergative alignment and that the transition from ergative to accusative took place after the breakdown of Proto-Oceanic (POc).

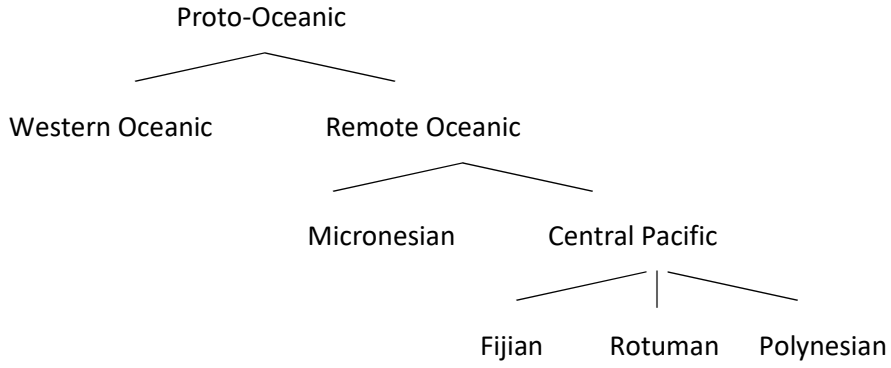
POc is usually compared to PMP in terms of innovations and both are descendants of Proto-Austronesian (PAn) (from Lynch et al., 2002: 4):

(75)



Proto-Oceanic and its daughter languages are further illustrated below in a simplified version (from Pawley 2007: 23):

(76)



According to the illustrations above, if PAn indeed had an ergative alignment that continued into PMP, the fact that Polynesian languages are ergative would demonstrate that accusativity in Oceanic languages is an innovation. It is plausible then that some families of languages (such as Micronesian) retained some of the features of ergativity. Moreover, it was stated in section 2.1.2 that object pronouns were an innovation present solely in Micronesian and Melanesian languages. Such innovation may have either triggered

accusative features or, at least, was a consequence of a reinterpretation of syntactic features that resulted in accusativity.

2.3 Ergativity in Proto Malayo-Polynesian

In this section, I will first describe the PMP grammatical system as proposed by Lynch et al. (2002). Then, I will attempt to revise some of their assumptions about its case system. Finally, I will propose an analysis of PMP syntax, based on Massam (2000), that indicates an ergative alignment.

2.3.1 Proto Malayo-Polynesian grammatical system

According to Lynch et al. (2002), PMP displayed the voice system (also called focus system) typical of Austronesian languages in which the arguments are marked depending on whether the verb is in the active or the passive form. Affixes on the verb are responsible for the interpretation of the thematic role of the argument that checks the NOM case. For example, in Tagalog, a Malayo-Polynesian language, the perfective infix <*um*> appears on the verb when the subject is NOM in both transitive and intransitive clauses. When the object of a transitive clause is NOM, the infix used on the verb is <*in*> as showed below (examples from Aldridge 2016: 28):

(77) a. D<um>ating ang babae
<INTR.PERF>arrive NOM woman
'The woman arrived.'

b. B<in>ili ng babae ang isda
<TR.PERF >buy GEN woman NOM fish
'The woman bought the fish.'

The thematic role of the NOM argument is patient in (77a) and agent in (77b) thus, the focus shifts from agent to patient depending on the affix used. The reconstructed grammar of PMP follows the same pattern with a few key differences. The reconstructed PMP verbal system shows that there were three possible cases for DPs to check: genitive (GEN), nominative (NOM), and accusative (ACC). The articles preceding the DPs reflected case-marking: **a* = NOM, **na* = GEN, **ta* = ACC. The verbal system had both active and passive voices but, quite unusually, the passive voice did not require the demotion of an argument. According to Lynch et al., (2002) transitive verbs could be in the passive voice which will become the basic voice of transitive clauses in PMP. The distribution of cases is as follows (adapted from Lynch et al., 2002: 58):

(78) a. Intransitive b. Transitive ACTIVE c. Transitive PASSIVE

A-like = NOM	A = NOM	A = GEN
	O = ACC	O = NOM

The NOM DP always occupied the last position in the clause, unless it was a pronominal enclitic (in this case, the enclitic preceded the ACC DP). The verb was always in the first position (except when a negation marker or an auxiliary was present). The basic word order was thus VOS regardless of the voice (from Lynch et al., 2002: 59)[49]:

(79) a. *kaRat-ən na manuk a wai. [Reconstructed]
bite-DIRECT.PASS GEN chicken NOM mango
'The chicken is biting the mango.' or 'The mango is being bitten by the chicken.'

b. *k<um>aRat ta wai a manuk. [Reconstructed]
<ACTIVE> bite ACC mango NOM chicken
'The chicken is biting a mango.'

In (79a) the DP 'the mango' is the patient and 'the chicken' is the agent. However, the patient checks the NOM case and is considered the subject whereas the agent checks the GEN case and represents the object. In the passive voice, agents are usually demoted or postposed, yet this is not the case in PMP "where both voices were transitive, taking two core noun phrases" (Lynch et al., 2002: 58). One would be tempted to conclude that it is a focus system where the verbal morphology changes the case an argument can check depending on whether it is the agent or the patient. However, it is difficult to generalize this notion when there are three possible cases to check. The alternation between NOM and GEN as in the Austronesian focus system is not as straightforward when the ACC case must also be considered. Moreover, the GEN case must obligatorily be checked in the passive voice and, as a core argument, it is not an oblique like English by-phrases. Therefore, the GEN case cannot be associated with a preposition but rather belongs to the set of verbal features, challenging the idea that the GEN argument is the object and not the subject. In (79b) it is the agent that checks the NOM case while the patient checks the ACC case, as expected when a clause is in the active voice.

[49] In historical linguistics, the asterisk before a sentence represents an unattested reconstructed sentence. All examples pertaining to proto languages will thus be preceded by an asterisk as well as an annotation on the right-edge of the examples.

In PMP, The GEN and the ACC cases are mutually exclusive: they both appear in conjunction with the NOM case. However, the articles marked for each case have different properties: the GEN article is definite, and the ACC article is indefinite.[50] Moreover, an ACC object is associated with the active voice whereas the GEN object will be checked in the passive voice. This is illustrated in (79) with nominals and as follows with pronominals (from Lynch et al., 2002: 60):

(80) a. *kaRat-ən-mu a wai [Reconstructed]
bite-DIRECT.PASS-2SG.GEN NOM mango
'You are biting the mango' or 'The mango is being bitten by you'

b. *k<um>aRat-kaw ta wai [Reconstructed]
<ACTIVE> bite-2SG.NOM ACC mango
'You are biting a mango'

In (80a) the NOM DP appears at the end of the clause as expected. However, notice that in (80b) the NOM pronoun is cliticized to the verb which gives a VSO word order. The reason for this is that there are no sets of ACC pronouns in PMP (from Lynch et al., 2002: 60):

Table 2.3 PMP Pronouns

	1INCL	1EXCL	2	3
NOM SG	__	aku	kaw	ya
GEN SG	__	ku	mu	(y)a, ña
both PL	ta	Ø	Ø	da

Therefore, no ACC pronouns can cliticize to the verb in the active voice. Yet, the presence of the subject before the object in (80b) might have other origins. Perhaps the term accusative for objects in the active voice is misleading since (i) it is restricted to indefinite nouns; (ii) a pronoun cannot check the ACC case, and (iii) it occupies the final position when the subject is a pronominal clitic. Taking this into account, it might be appropriate to address the question of the PMP case system and its interaction with constituent orders and syntactic alignment. More precisely, I will challenge the idea that PMP had a nominative

[50] According to Kaufman (2017), in Tagalog, the infix *<um>* is a marker of antipassive that can only be used with indefinite objects. In such constructions, the agent is marked with absolutive case. As we will see in the next section, I propose that nominative case in PMP is absolutive case. Example (80b) is thus similar to Tagalog except for the fact that Tagalog marks oblique case on the indefinite object which is not the case in PMP. Moreover, as I will discuss in section 2.4, the sets of PMP infixes disappear in Proto-Oceanic, whereas it is still present in Polynesian languages like Tagalog.

accusative alignment and propose that PMP was ergative and that the arguments could check ERG, ABS, and PART cases.

2.3.2 The PMP case system

Since PMP is reconstructed with the assumption that it had a voice system akin to many Polynesian languages such as Tagalog above, it obviously follows that there should be a NOM case and an ACC case for arguments to check. In PAn, non-subject agents checked the GEN case of the verb (Reid, 1981). This case, as well as the NOM and the ACC, were still present by the time of PMP. However, the alternation between GEN and ACC must be accounted for. If both were checked by the objects, one was checked by the agent (GEN) and the other by the patient (ACC). The NOM case was thus left to check the agent in the active voice and the patient in the passive voice. However, this does not explain the differences encountered in the semantics and distribution of arguments that checks the ACC case. I will thus propose that ACC case was a partitive case and, as such, it explains other properties encountered in the grammar of PMP.

2.3.2.1 Accusative case as partitive case

Since the ACC article is indefinite, the more appropriate term might be partitive (PART).[51] According to Kiparsky (1998) the PART case has two functions: (i) grammatically, it can only be checked by 'quantitatively indeterminate NPs' and (ii) semantically, it marks aspectually unbounded events such as activities. Therefore, the PART case is used for events with no endpoint.[52] In languages with a PART case, it often alternates with the ACC case resulting in different aspectual interpretations (examples from Finnish in Kiparsky 1998: 2):

(81) a. Ammu-i-n karhu-a / kah-ta karhu-a /karhu-j-a.
shoot-PST-1SG bear-PART / two-PART bear-PART/bear-PL-PART
'I shot at the (a) bear / at (the) two bears / at (the) bears.'

[51] In the Southern Oceanic language Mwotlap, there is a nominal partitive prefix *tɛ-* that could presumably descend from PMP **ta*.

[52] This alternation between accusative and dative and the resulting interpretation can also be found in ergative languages with an antipassive construction. According to (Polinsky, 2017: 310) the definition of antipassive as follows:

> ANTIPASSIVE: a clause with a transitive predicate whose logical object is demoted to a non-core argument or non-argument.

Of all the many interpretations of the antipassive, the antipassive-imperfective correlation is the equivalent of the alternation illustrated in (81).

b. Ammu-i-n karhu-n / kaksi karhu-a / karhu-t.
shoot-PST-1SG bear-ACC / two-ACC bear-PART /bear-PL.ACC
'I shot the (a) bear / two bears / the bears.'

In (81a) the object(s) have the PART case and the verb is interpreted as an activity (in Vendler, 1967's sense): the outcome of the shooting is irrelevant; it might implicate that the shots missed. Moreover, the number of times the action was performed is not inferred in the reading, but one could assume that it took place several times which fits the description of an activity as a series of subintervals. In (81b) however, the objects are marked for the ACC case, and it denotes an accomplishment, and the result is not ambiguous. The subintervals are thus followed by a terminus which makes the event bounded. According to Kratzer (2002) an event culminates when all relevant parts of a direct object is affected. This is the case in (81b) but not in (81a). The Aksionsart of the verb is also important for determining which case the DP will check in Finnish: atelic verbs (with no endpoint) will require the PART case while telic verbs will require the ACC case. The only exceptions are bare plurals and mass objects that always check a PART case regardless of the telicity of the verb.

In PMP, the ACC article clearly satisfies the first function of the PART case in that it denotes solely indefinite DPs. However, the alternation between ACC and GEN cases in PMP does not correspond to the alternation between PART and ACC cases in Finnish in which both PART and ACC cases are checked by the internal argument, whereas, in PMP, the ACC case is checked by the patient, but the GEN case is checked by the agent. Since passivization is a detransitivizing process, we cannot conclude that, in PMP, the agent becomes the object (whether oblique or not) of the passive clause on a par with the ACC object of the active clause and that the alternation is solely the result of the definiteness of the DP. If we look again at (80) repeated here as (82):

(82) a. *kaRat-ən na manuk a wai [Reconstructed]
bite-DIRECT.PASS GEN chicken NOM mango
'The chicken is biting the mango' or 'The mango is being bitten by the chicken'

b. *k<um>aRat ta wai a manuk [Reconstructed]
<ACTIVE> bite ACC mango NOM chicken
'The chicken is biting a mango'

The examples in (82a) illustrates that the patient is definite whereas in (82b) the patient is indefinite. However, the alternation in cases is between NOM and ACC while we would expect it to be between GEN and ACC if PMP grammar was similar to Finnish. According to Dixon (1994), the agent of a passive clause is not a core argument, yet Lynch et al., (2002) describe PMP passive voice as having two core arguments. It might be conceivable that the so-called 'passive voice' of PMP is a misnomer. Going back to the subject of PART case in PMP, there is no indication that the Aksionsart of the verb has any relevance in the checking of a precise case. The verbs in (82) are telic and both cases may be checked. The question is therefore: what does the verbal morphology change in the argument structure of the verb? According to Hale & Keyser (2002) the argument structure of a verb is the syntactic configuration projected by a lexical item. This configuration may be modified by morphological processes such as affixation and reduplication (Di Sciullo, 1997); 2005a; 2005b).

The root *kaRat* in (82) may be modified in four different ways, resulting in four different voices: (i) the addition of the suffix **-ən* for the direct passive voice; (ii) the addition of the infix **<um>* for the active voice; (iii) the addition of the suffix **-an* for the local passive voice; and (iv) the addition of the prefix **i-* for the benefactive/instrumental voice. (Lynch et al., 2002). In other words, the argument selected to check the NOM case is reflected in the choice of affix: **<um>* = subject, **-ən* = object, **-an* = locative (oblique) and **-i* = instrument or benefactor. Moreover, the infix **<in>* indicates the perfective aspect. Both suffixes **-ən* and **-an* are predicate modifiers: they change the argument structure of the verb.

According to (82a) when the root has the suffix **-ən*, the patient checks the NOM case, and the agent checks the GEN case. Moreover, the patient is definite indicating a bounded event. I might therefore assume that the suffix **-ən*, being a predicate modifier, marks a transitive argument structure. The local passive suffix **-an* is also a predicate modifier (from Lynch et al., 2002: 59):

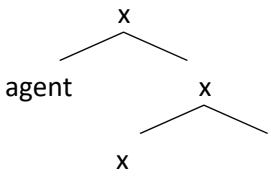
(83) *kaʔən-an na manuk a kahiw
eat-LOC.PASS GEN chicken NOM tree
'The chicken is eating in the tree'

Both in (82a) and in (83) the agent checks the GEN case, and the NOM case is checked by the direct complement, whether objective or locative. It is quite straightforward then to assume that in both instances, the argument structure is the same, i.e. transitive.

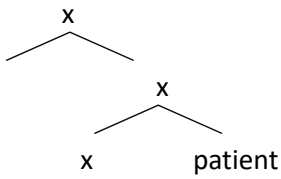
In (82b) the root is marked with the infix **<um>* which indicates the active voice. PMP has another infix **<in>* which indicates the perfective aspect. According to Lynch et al. (2002), PMP contrasted perfective and neutral aspect. The perfective aspect relates to the whole event while the imperfective aspect focusses on the subintervals of an event. Let us assume for a moment that the infix **<um>* marks the imperfective aspect. This would mean that the active voice indicates a series of subintervals with no endpoint. If this is correct, then the second function of the PART case, namely that it marks an unbounded event, is found in PMP ACC case. The fact that **<in>* and **<um>* are mutually exclusive thus follows straightforwardly.

According to Di Sciullo (1997; 2005a; 2005b), aspectual affixes may also modify the argument structure of a predicate. In examples such as (82b) the argument structure is considered to be transitive, yet, according to Lynch et al. (2002) the active voice was 'the less transitive voice'. In fact, Beguš (2016) suggests that *<*um>* was, at some point, a marker of intransitivity. I will thus assume that the argument structure of verbs in the active voice is intransitive. Intransitive verbs have only one argument that may be in the specifier position or in the complement position of the argument structure. The former has an unergative structure with an agent, the latter an unaccusative structure with a patient:

(84) a. unergative



b. unaccusative



Therefore, an intransitive verb with the infix *<*um>* has an argument in the specifier position, leaving the complement position empty. However, the argument that checks the ACC case must be considered. The fact that it cannot be replaced by a pronoun might indicate that it is rather a predicate modifier. Predicate modifiers modify the way the action is performed but not the whole sentence. For example, in the sentence "*The boy ate the apple in a hurry*", the PP *in a hurry* does not modify the apple nor the boy but only the way the eating was performed. Moreover, a predicate modifier can never be the subject of a clause and they can be freely omitted. This describes the characteristics of ACC DPs in PMP. As for the aspectual properties associated with the ACC case, it might be that the outcome of the biting in (82b) is irrelevant just like the outcome of the shooting is irrelevant in (81a). According to the Austronesian comparative dictionary (Blust & Trussel, 2020), *<*um>* was a "marker of actor focus for intransitive verbs,

and of inchoatives." An inchoative verb describes the beginning of an event, leaving the completeness or incompleteness of the event aside. In this respect, we may conclude that, since the result of the action in (81b) is irrelevant, the event must be regarded as an activity and not an accomplishment.

Since the ACC article in PMP is only used for indefinite objects and is associated with an intransitive unergative verb, then the correlation between ACC case and unbounded events is straightforward.[53] Therefore, we may consider that the ACC case of PMP is actually a PART case. Moreover, according to Belletti (1988), PART case is an inherent case, meaning that the argument will check its case in its theta assigning position, i.e. the complement of V.[54]

To summarize, when a verb has the active voice infix, the aspectual properties of the root are modified so that it becomes imperfective. Its argument structure is unergative and the complement of the verb is a predicate modifier that checks the inherent PART case. The imperfective aspect expresses the same incompleteness property as the irresultative aspect of Finnish. That, and the indefiniteness associated with the ACC article of PMP points to the reinterpretation of PMP ACC case as being, in fact, PART. If PMP verbs in the active voice are intransitive, the passive forms of PMP are the true transitives. Therefore, it seems that the NOM case is available for subjects of intransitive verbs (in the active voice) and for objects of transitive verbs (in the passive voice) which fits Deal (2015) 's description of the absolutive property. [55] Therefore, I will propose in the next section that the GEN case is in fact ERG and the NOM case is ABS.

[53] The unbounded events would be activities and not states as Lynch et al. (2002) do not provide any examples involving verbs of state.

[54] The topic of PART case as an inherent case will be discussed in depth in the next chapter.

[55] Deal (2015: 654) proposes the following description of ergative properties:

> a. The ergative property
>
> Subjects of transitive clauses behave differently from subjects of intransitive clauses for some grammatical generalization(s).
>
> b. The absolutive property
>
> Objects of transitive clauses and subjects of intransitive clauses behave identically for some grammatical generalization(s).
>
> c. The argument-structural property
>
> Subjects of unaccusative verbs behave differently from subjects of unergative and transitive verbs for some grammatical generalization(s).

2.3.2.2 Genitive as ergative and nominative as absolutive

In PMP, the GEN case is checked by the agent of a transitive clause whereas the NOM case is checked by the agent of intransitive clauses and the patient of transitive clauses. This describes an ergative alignment, at least one that is morphologically marked. To propose that PMP displays ergative properties is not controversial: many Malayo-Polynesian languages are ergative and, more importantly, not as a result of innovation but rather as a continuation from earlier stages of the language (Kikusawa, 2012). Herein, I argue that the function of these cases supports the hypothesis that PMP had an ergative alignment.

According to Lynch et al. (2002), the GEN case in these languages owes its name to the fact that possessors and GEN arguments are marked identically in many languages of the Malayo-Polynesian family such as Tagalog (from Aldridge 2016: 29):[56]

(85) a. B<in>ili ng babae ang isda
<TR.PRV> buy GEN woman NOM fish
'The woman bought fish'

b. isda ng babae
fish GEN woman
'(the) woman's fish'

In the transitive sentence of (85a), the GEN marker is for the agent subject, whereas in (85b) it marks the possessor in nominal constructions. According to Starosta et al. (1981) ergative markers and possessive markers are often the same in ergative languages. In their reconstruction of PAn, the passive forms of verbs were nominalizations that were somehow possessed by the agent argument. For example, (85a) could be read as 'The woman's buying of the fish'. In PMP, the GEN case is always checked by the agent of a transitive clause in the direct passive voice. I assume then that, from PAn to PMP (and then to many Malayo-Polynesian languages) this aspect of the grammar did not change so much. The ergative/possessive link is not restricted to Malayo-Polynesian languages: Coon (2008) proposes that the aspect-based split in Chol, a language of the Mayan family, is the nominalization of imperfective clauses. In Chol, perfective clauses show an ergative pattern, whereas imperfective clauses show an accusative pattern (from Coon 2008: 99):

[56] In a 2012 paper, Aldridge uses the same example as in (85a) but the glosses differ in that *ng* and *ang* are glossed as ERG and ABS respectively.

(86) a. Tyi i-mek'-e-yoñ
PERF A.3SG-hug-TR-B.1SG
'She hugged me'

b. Tyi wäy-i-yoñ
PERF sleep-INTR- B.1SG
'I slept'

The examples in (86) display an ergative pattern: in (86a) the subject morpheme precedes the verb and belongs to the A set (the ergative set of agreement affixes) while the object morpheme follows the verb and belongs to the B set (the absolutive set of agreement affixes). In (86b) the subject morpheme follows the verb and is identical in form with the object in (86a). Therefore, the object of a transitive clause is treated like the subject of an intransitive clause in the perfective aspect. However, the pattern is different in the imperfective aspect (from Coon 2008:99):

(87) a. Mi i-mek'-oñ
IMPF A.3SG-hug-B.1SG
'She hugs me'

b. Mi k-wäy-el
IMPF A.1SG-sleep-NML
'I sleep'

In both (87a-b) the subject morpheme precedes the verb and belongs to the A set, treating the subject of a transitive and of an intransitive clause alike. The difference lies in that in (87b), a nominalizing affix follows the verb instead of an object morpheme as in (87a). According to Coon (2008) the examples in (87) do not actually show an accusative pattern but rather a possessed nominal. Since the set of pronoun markers used in imperfective clauses are identical to the set of Chol grammatical possessors, her conclusion is that ERGATIVE = GENITIVE. Therefore, what appears to be an accusative alignment in imperfective clauses is, in fact, ergative. Nominalization in PMP was also quite common but only in the passive voice. This is expected if we consider that nominalizations should be analyzed as possessive constructions, and that passive voice required a GEN case to be checked. The active voice on the other hand, only had a NOM case, or more appropriately, an ABS case to check. Since there is only one argument in the clause, the subject is automatically ABS.

Besides the correlation between ERG and GEN cases, Chol and PMP also share similarities concerning aspectual properties. I have argued in the previous section that the active voice in PMP was inherently

intransitive, and that the ACC case was a PART case. One of the features of PART case is that it marks an unbounded event. Therefore, there seem to be aspectual properties differentiating the passive and active voice in PMP. In fact, the infix <*um> that marks the active voice in PMP became a marker of non-perfective aspect in the Philippine languages, another subbranch of Austronesian languages (Pawley & Reid, 1979).

To summarize, the GEN case may only be checked by the subject of a transitive clause and the NOM case by the object of a transitive clause or the subject of an intransitive clause. Moreover, the only true transitives in PMP are verbs in the passive voice, challenging the idea that these are true passives, whereas clauses in the active voice are intransitive. These proposals challenge the hypothesis that PMP had a focus system that would assign the grammatical properties of the arguments based on verbal affixation. I have proposed that PMP morphologically showed an ergative alignment. If I am correct with this, it should follow that the word order of PMP was VSO and not VOS because the argument that checks the ERG case in transitive clauses directly follows the verb. This property will be explored further in the next section.

2.3.2.3 The syntax of PMP

Verb initial languages (V1) are quite common in the Austronesian family, to which the Malayo-Polynesian languages belong (Clemens & Polinsky 2017). They typically share many characteristics including: (i) the absence of an overt copula (BE), (ii) the absence of an overt possessive verb (HAVE), and (iii) an ergative alignment. Massam (2000) proposes that some V1 languages are in fact predicate initial as opposed to verb initial, as is the case for Niuean. This means that nonverbal predicates such as nominal or prepositional phrases may also move higher in the clause (from Massam 2000: 104-105):

(88) a. Ne inu e Sione e kofe
PAST drink ERG Sione ABS coffee
'Sione drank the coffee'

b. Ko[57] Mele e faiaoga
PRED Mele ABS teacher
'The teacher is Mele'

c. Ha he fale a ia
PRED in house ABS she
'She is in the house'

[57] *Ko* is also used as a nominal marker for topics and focused constituents (Seiter, 1980).

In (88a) the word order is VSO with the verb preceded only by a tense marker; this is the basic word order of Niuean. The subject is ERG, and the object is ABS. In (88b) and (88c) a predicate marker precedes the noun and the PP respectively. Notice the lack of copula in the last two examples which demonstrates the predicative function of the noun and the PP. According to this, the word order of both examples in (88b) and (88c) would be more accurately described as PredS rather than VS. From a Minimalist standpoint, the explanation as to why predicates and verbs are attracted to a higher position result from a strong feature that needs to be checked. Massam (2000) proposes that a PRED feature must be checked in the specifier position of Infl as opposed to an EPP feature in Tense found in languages that always require a subject. She bases her analysis on Chomsky (1995) in which the EPP feature is understood as a strong uninterpretable D feature that will attract a DP in the specifier of TP.[58]

Although the D feature explains the requirement that a grammatical subject must always move to Spec TP in languages such as English, Massam (2000) considers that there are no indications for such a D feature in Niuean and that instead of moving to Spec TP, predicates move to a lower functional head (Infl) which has its own PRED feature to check.[59] The predicate fronting analysis also provides an explanation for Pseudo Noun Incorporation (PNI) and the apparent VOS word order that results when an NP object (not a DP) moves along with the verb (from Massam 2000: 106):

(89) a. Ne kai [sipi mo e ika mitaki] a Sione.
PAST eat chip COM ABS fish good ABS Sione
'Sione ate good fish and chips.'

[58] EPP is no longer part of the formal features in recent versions of the Minimalist Program (Chomsky 2019; 2021). The Extended projection Principle states that every sentence must have a subject which is why an argument (whether overt or covert) in Spec TP must always check the EPP feature of T. As is the case for Niuean, there is no evidence that a T is projected in sentences such as (88b-c). Moreover, we can observe that (88a) has a Tense marker *ne,* yet it does not attract the subject *Sione* to its specifier.

[59] According to Massam (2000: 113), the unified description of what checks [PRED] is:
[[X YP] + clitics], where X is a lexical predicate, YP its internal argument.
If the verbs *eat* and *wash* move to the specifier of IP, the tense particle *ne,* being higher in the structure, must occupy a higher position such as T. As discussed in footnote 59, even with a tense marker, no argument is attracted to the specifier of T to check an EPP feature. In PMP, there is no tense particles such as *ne,* which leads me to conclude that PMP maximal projection should be Infl. As discussed by Massam (2000), T has a D feature that needs to be checked, whereas Infl attracts a predicate and its complement. The difference between T and Infl lies in their uninterpretable features. This raises questions as to why the subjects in Niuean are not attracted to the specifier position of T as in (88c) and (89). I propose that the arguments check their case in situ (this will be discussed further in Chapter 3).

b. Ne holoholo [kapiniu kiva] fakaeneena a Sione.
PAST wash dish dirty slowly ABS Sione
'Sione washed dirty dishes slowly.'

The objects in the examples in (89) are both indefinite and contain additional elements such as adjectives or adverbs. Traditionally, sentences such as the ones in (89) are analyzed as containing and incorporated object and although Seiter (1980) considers that the whole NP has incorporated into the verb, Massam (1998) argues that these constructions originate as NP direct objects as opposed to DP direct objects. The reason for this is the lack of case, number, and determiner particles as well as the impossibility for these objects to check case. Therefore, they move along with the verb in the specifier of Infl.

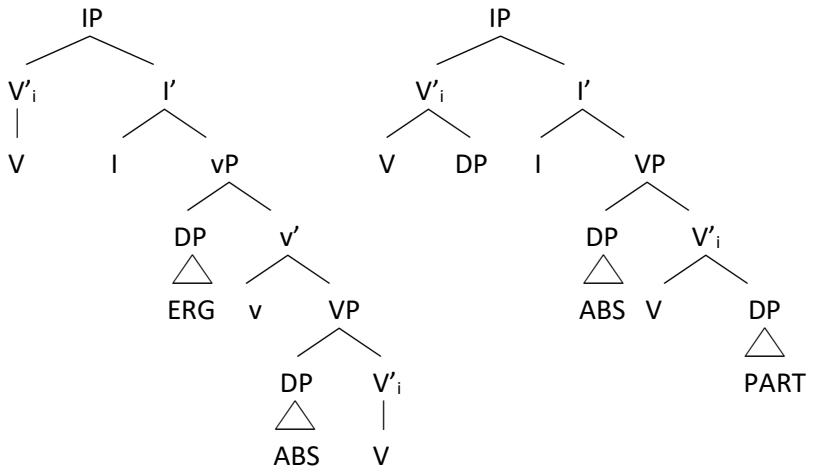
In PMP, the position of indefinite ACC objects seems to suggest that, in the active voice, the word order is VOS as opposed to VSO. However, I will propose that, in fact, these objects are (pseudo) incorporated into the verb like Niuean NPs and they are fronted along with the verb. Moreover, I will also propose that PMP V1 word order is the result of predicate fronting as opposed to verb fronting. In the active voice, the object incorporates into the verb and gets fronted along with it. In the passive voice however, the object (in the NOM case) remains in situ while the verb is fronted. An interesting fact is that some of the passive forms could also be nominalizations (from Lynch et al. 2002: 59):

(90) *a k<in>aʔən a wai. [Reconstructed]
ABS <PFTV:DIRECT.PASS> eat ABS mango
'The mango was what was eaten.'

Other predicates can be formed in the same fashion: **kaʔən-ən* 'thing to be eaten, food', **kaʔən-an* 'eating place' and **i-kaʔən* 'eating utensil'. The affixes *-ən, -an* and *i-* indicate a form of the passive whether direct, local, or benefactive respectively. The clauses containing a nominalized predicate differ from the Niuean nominal and prepositional predicates in that they are not preceded by a PRED particle indicating their function, but rather an ABS determiner which makes it clear that this is not a verbal form. Considering this, one might conclude that the syntax of PMP parallels that of Niuean. Adopting Massam's (2000) analysis of predicate fronting languages, transitive and intransitive clauses in PMP yield the following structures (adapted from Massam 2000:108):[60]

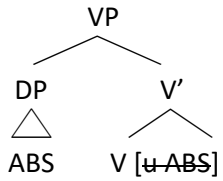
[60] As I have argued that in PMP NOM = ABS; GEN = ERG, and ACC = PART, I will henceforth use these cases instead of the original ones proposed by Lynch et al. (2002), including in the glosses.

(91) a. Transitive clauses in PMP b. Intransitive clauses in PMP



There is a crucial difference between Massam's proposal and (91): in the former, there is an AgrO node higher than VP where an argument can check the ABS case. However, I assume that this node is not necessary because the predicate always excludes the external argument whether located in Spec vP (for transitive verbs) or in Spec VP (for intransitive verbs).[61] Thus, only the verb and its complement constitute the predicate that may be fronted. In (91a) only the verb is fronted because in PMP, the object is ABS and checks its case in Spec VP. However, in (91b) both the verb and its complement move to the specifier of IP which is why the ABS subject remains in situ and appears at the end of the clause. In Lynch et al. (2002)'s analysis, the argument with the NOM case should normally move higher in the clause to check the features of T. However, Nominative arguments always remain clause final. I propose that in PMP, arguments that check ABS case do so in Spec VP and remain in situ while V moves higher. But as was proposed earlier, the ABS case of PMP is a lexical case, the argument checks the V case in situ in a Spec/Head configuration (see chapter 3 for a more detailed explanation):

(92) Lexical ABS case



[61] In PMP, the argument of a verb in the active voice occupies the specifier position of an unergative verbal structure, it is not an internal argument.

Moreover, I have argued that the GEN case of PMP is in fact the ERG case because, again, it behaves exactly as an inherent case that is checked in Spec vP and does not need to move further in the structure to check the NOM case of a TP. Finally, the ACC case of PMP fits the description of the PART case since it is only used for indefinite DPs and seems to aspectually mark irresultatives. As such, we may assume that they are pseudo incorporated into V, acting as predicate modifiers.

In PMP, when a functional head preceded the verb, as in (93) below,[62] it was always the actor argument that would cliticize to it, regardless of the case checked (from Lynch et al., 2002: 60):

(93) a. *qati=kaw kaRat ta wai.
NEG=2SG:ABS bite.ACTIVE PART mango
'You are not biting a mango.'

b. *qati=mu kaRat-a a wai.
NEG=2SG:ERG bite-DIRECT.PASS ABS mango
'You are not biting the mango' or 'The mango is not being bitten by you.'

The subject pronominal enclitics invariably attached to the leftmost element in the clause, whether a verb or a NEG particle as in (93). When both arguments were pronominals, the ERG pronoun would cliticize to the leftmost element of the clause and the ABS pronoun would remain free (Lynch et al., 2002). This is perhaps an indication that the argument checking the ERG case was the subject of the transitive clause. Since there were no auxiliaries in PMP, no T head needs to be generated. This would explain the movement of the verb to the specifier of an IP as opposed to the specifier of TP.

The transition from PMP to Proto-Oceanic (POc) shows an increase in the use of auxiliaries as the aspect/mood inflections of PMP decreased. The evolution of the morphosyntactic properties of POc will be investigated in the next section, adding more evidence to the proposal that Micronesian languages evolved from a previously ERG-ABS type of grammar.

[62] There was no tense marker in PMP; only aspect, mood, and voice markers attached to the verb. The only preverbal functional head is thus NEG as illustrated in (93).

2.4 The evolution of Oceanic grammar

The grammar of POc evolved through a series of changes in the verbal structure of PMP. Aspectual and mood inflections on the verbal roots disappeared and were replaced by separate functional heads (if present). Therefore, a process of grammaticalization took place such that mood and aspect markers occupied a syntactic position of their own (Lynch et al., 2002).[63] Moreover, the pronoun representing the actor was procliticized to the dependent verb which became the main verb (from Lynch et al., 2002: 61):

(94) a. *kaw=kaRat ta wai.
2SG.ABS=bite.ACTIVE PART mango
'You are biting a mango.'

b. *mu=kaRat-a a wai.
2SG.ERG=bite-DIRECT.PASSIVE ABS mango
'You are biting the mango' or 'The mango is being bitten by you.'

c. *kita-a=kaw na babinay.
see-DIRECT.PASSIVE=2SG.ABS ERG woman
'The woman sees you' or 'You are seen by the woman.'

In (94a) we can see that the active infix is missing from the verbal form (even though it is still interpreted as being in the active voice) and, according to Lynch et al. (2002), when that infix was lost, that was the end of the voice system of PMP. The affix **-a* indicating the direct passive voice in (94b-c) also disappeared at some point and was replaced by the suffix **-i* of the local passive form which became a transitivizer affix. Therefore, what was previously considered to be the passive voice form became the default transitive form. This is expected following the analysis proposed in the previous section where verbs in the passive voice were the only true transitive verbs in PMP. Moreover, the unaffixed form seen in (94a) became the regular intransitive form which also parallels the proposed analysis. What is interesting is that the ERG article **na* became the marker of transitive subjects and the ABS article **a* became the marker of intransitive subjects and transitive objects. As for the PART article **ta*, it became an indicator of indefiniteness whether the NP was subject or object. In addition, an object occurring with an intransitive root was obligatorily incorporated, with nothing intervening between the root and the object. Obviously, the loss of the PART article as object marker for verbs in the active voice coincides with the loss of the active voice. This is perhaps the last step towards the simplification of the verbal paradigm where bare roots became inherently intransitive forms.

[63] According to Lynch et al. (2002) Oceanic languages did not have a Tense category.

2.4.1 A shift in the pronominal paradigms

The syntactic position of pronouns changed from post-verbal to pre-verbal position. Moreover, they became obligatory, regardless of the presence or absence of a DP (from Lynch et al., 2002: 61-62):

(95) a. *mu=kaRat-i=a [ikoe] a wai
2SG.SUBJ=bite-TR=3SG.OBJ 2SG OBJ mango
'You are biting the mango.'

b. *ña=kaRat-i=a na manuk a wai
3SG.SUBJ=bite-TR=3SG.OBJ SUBJ bird OBJ mango
'The chicken is biting the mango.'

c. *ko=kaRat [ikoe]
2SG.SUBJ=bite.INTR 2SG
'You are biting.'

We can see in examples (95a-c) that the agreement clitics are coreferenced with another pronoun *ikoe* that is, in fact, an independent pronoun. These could serve as arguments in topicalized constructions as well as subjects, objects, possessors, or prepositional objects (Lynch et al. 2002). Therefore, there were two types of pronouns in POc: the obligatory clitics and the optional independent pronouns. If we compare the forms of both PMP and POc pronouns, we can see that the subject proclitics emerged from the former GEN (ERG) pronouns of PMP and that the POc independent pronouns seem to have descended from PMP NOM (ABS) pronouns (adapted from Lynch et al. 2002: 60; 67):[64]

[64] These forms are reconstructions made from many different descendant languages of PMP and POc. The level of exactitude of these forms is of course subject to debate. Notice that the second reconstructed forms of POc independent subject pronouns resembles PMP nominative pronouns. Perhaps PMP nominative pronouns evolved in two different directions depending on the languages: they became independent forms in some and clitics in others.

Table 2.4 PMP and Poc pronouns

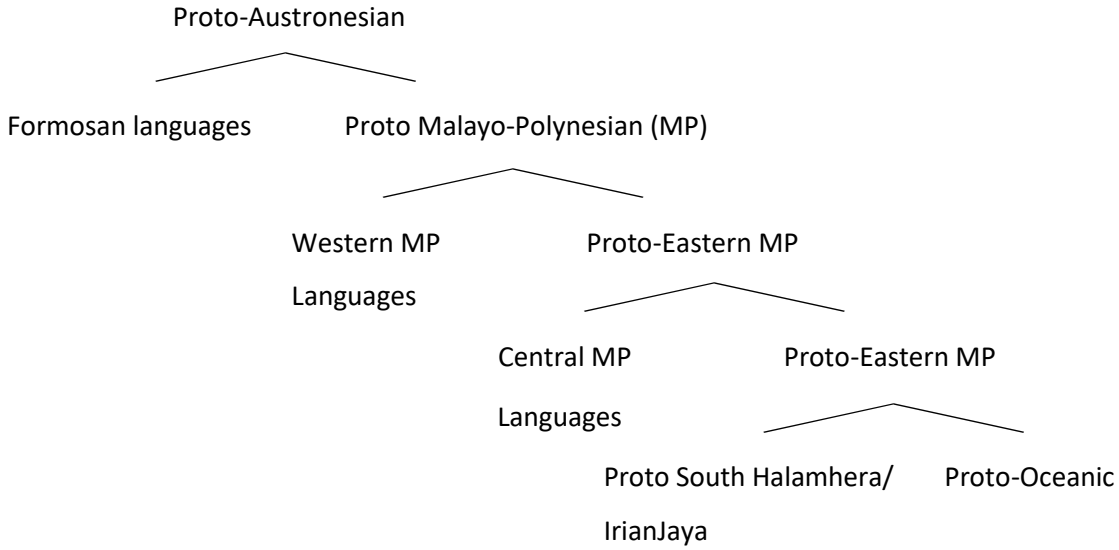
	1INCL	1 EXCL	2	3
PMP : ERG PRONOUNS	--------	=ku	=mu	=(y)a
POc : SUBJECT PROCLITICS	--------	ku=, au=	mu=, ko=	(y)a=, ña=, i=
PMP : ABS PRONOUNS	--------	=aku	=kaw	=ya
POc : INDEPENDENT	--------	(i) au	(i) ko (e)	ia

What Lynch et al. (2002) call subject proclitics are in fact agreement markers, coreferencing the subject, whereas the independent pronouns served as arguments of the predicate. There may be a parallel to make between the fact that the independent pronouns descended from the ABS forms and the fact that the ABS argument in PMP was always the independent one: when both arguments were in pronominal forms, the ERG pronouns would cliticize to the verb, not the ABS one. Moreover, independent pronouns may be used for both subjects and objects in POc, which is also true of the ABS pronouns in PMP. Nevertheless, the important point is that an additional set of pronouns with a distinct function evolved in POc.

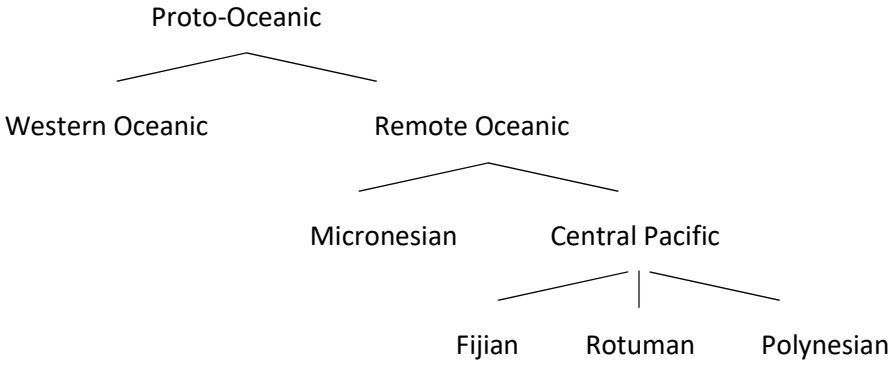
When the verb was transitive, the object was also coreferenced by an enclitic to the verb. Although the use of the ABS article for both subjects of intransitives and objects of transitives seem to suggest otherwise, Lynch et al. (2002) assume that when the voice system of PMP broke down, it was slowly replaced by an accusative alignment. However, through a careful examination of clitic pronouns in Polynesian languages, Kikusawa (2002) proposes that POc accusative pattern was preceded by an ergative pattern reflected in the reconstruction of another system of pronouns. She proposes that POc had two distinct sets of pronouns: one that expressed the agent of transitive verbs (as well as the possessor of nouns), and one that indicated the subject of intransitive verbs and the object of transitive verbs. These are the ERG and ABS pronouns respectively. The reconstructed object pronouns are, in her view, later innovations. She argues that POc retained the two sets of pronouns (contra Lynch et al., 2002) in the Proto-Oceanic daughter languages. Her argument is based on the reconstruction of two proto-languages, namely Proto-Eastern Polynesian and Proto-Eastern Formosan. She claims that Proto-Polynesian retained the two sets of clitics from Proto-Formosan. If we look at (75) and (76) repeated below as (96) and (97) respectively,

we can see that Formosan languages developed directly from Proto-Austronesian whereas Proto-Polynesian is a daughter of Proto-Oceanic.

(96)



(97)



The fact that both Proto-Formosan and Proto-Polynesian have comparable sets of pronouns indicates that pronominal systems in Polynesian languages are inherited from an ancestor rather than being later innovations. If this is true, Remote Oceanic must have had these sets of pronouns that were passed down to Micronesian languages before innovations such as a set of accusative pronouns (or in this case clitics) developed at a later period. Interestingly, Kikusawa (2002) proposes that the set of pronouns she reconstructed occurred when the clitic pronouns were enclitics following the highest verbal projection (either AUX or V) and that the subsequent accusative system emerged as proclitics preceding AUX or V. In Kikusawa's system, the object of a transitive verb was expressed by an independent pronoun when the verb had the transitivizing suffix **-i*, whereas in Lynch et al. (2002)'s system, possible object markers are reconstructed, but they do not act as arguments of the predicate. If, as Kikusawa (2002) proposes, POc

had a set of clitics that showed an ergative alignment, then it is possible that these clitics descended from earlier forms of PMP pronouns and that PMP had an ergative alignment instead of a voice system.

If a direct ancestor of Micronesian languages, whether Proto-Micronesian or an earlier proto-language still had these two sets of pronouns, one marking the agent of transitive sentences on the one hand and one marking the subject of intransitive sentences and objects of transitive sentences on the other, this would explain why independent pronouns in Micronesian languages may be used for both subjects and objects, at least in some languages. Moreover, all Micronesian languages use independent pronouns with equational sentences which are inherently intransitive. The question is therefore how to explain pronoun variation in verbal unaccusative sentences. As we saw in earlier sections, only MRS and PON use subject pronouns in unaccusative/stative sentences. Further developments such as accusative pronouns must have been triggered by a reorganization of the verbal paradigm.

With the gradual loss of mood and aspect markers on the verb, there was a parallel change in pronoun positions: subject clitics preceded the verb whereas object clitics followed it. It is as if these clitics occupied the thematic positions of the arguments they represented. At this stage, full DP subjects still followed the verb, as seen in (95) repeated here in (98) (from Lynch et al., 2002:61):

(98) a. *kaw=kaRat ta wai.
2SG.ABS=bite.ACTIVE PART mango
'You are biting a mango.'

b. *mu=kaRat-a a wai.
2SG.ERG=bite-DIRECT.PASSIVE ABS mango
'You are biting the mango' or 'The mango is being bitten by you.'

c. *kita-a=kaw na babinay
see-DIRECT.PASSIVE=2SG.ABS ERG woman
'The woman sees you' or 'You are seen by the woman.'

In (98a-b) the pronominal subjects precede the verb, and the nominal objects are post-verbal as usual. However, notice that in (98a) there is no infix on the verb indicating the active voice, and yet the verb in (98b) is still marked for the direct passive voice. As asserted above, the sentences containing a PART argument are intransitive. Thus, the subject in (98a) will check the ABS case of V. It seems that the bare root was already considered as the default intransitive form at that point. In (98b) the verb is transitive, it is marked with an affix expressing the direct passive voice and the subject checks the ERG) case of v.

According to Lynch et al. (2002) the passive voice was the basic voice, and the active voice was the 'marked' one. The loss of the active infix probably triggered a reinterpretation of the passive suffix **-a* as a mark for transitivity. In (98c) the pronominal object follows the verb, and the nominal subject occupies the last position. At that point, the verb still carries the TAM features (as well as voice) and thus, the predicate must move to the specifier of IP which is arguably why the subject in (98c) follows the predicate. However, the subject proclitics in (98a-b) seem to be carried by the predicate, possibly because they have no other root to attach to. One might also assume that the preverbal position of the subject clitic, which corresponds to the agent theta position, is specifically due to the loss of the active infix: in a focus system, the subject of the clause and the case it must check is determined by the morphological properties of the verb (Blust, 2013). A verb with the active infix had an ABS and a PART case to check and a verb with a passive infix had an ERG and an ABS case to check. In the examples in (98a-c) the ABS clitic is preverbal as a subject and post verbal as an object, whereas in PMP, all clitics were enclitics. This means that the position of pronominal clitics is now relevant in the interpretation of the clause in terms of the function of each argument.

With the complete loss of the voice system, the pronominal clitics became obligatory. They were reanalyzed as agreement markers and they both became attached to the verb. Because the presence of the nominal arguments was not obligatory, one may assume that the pronominal clitics acted as the bona fide arguments of the predicate. According to Lynch et al. (2002), the typical clause in narrative or conversations had no core DPs, reinforcing the hypothesis that clitics were probably more than just agreement markers. Since they cliticized to the verb and did not require further movement for case checking, we might conclude that they checked the non-structural cases ERG and ABS. The ERG case came to be checked by subjects of transitive clauses and the ABS case by subjects of intransitive clauses and objects of transitive clauses. Moreover, the articles **na* and **a* which were used as markers of the ERG and ABS case respectively, became articles that were used with subjects of transitive verbs (**na*) and subjects of intransitive verbs and objects of transitive verbs (**a*). The former PART article **ta* came to be used with all indefinite nouns regardless of case or of the function of the argument. Although POc is reconstructed with an accusative alignment, there are still evidence that an ergative origin is not only probable, but also that some remnant characteristics of ergativity remain in many Oceanic languages to varying degrees.

2.5 Chapter conclusion

The topic of pronominal sets within Micronesian languages was explored from a diachronic perspective in this chapter. I argued that subject and independent pronouns descend from earlier ergative and absolutive pronouns. Although Lynch et al. (2002) reconstruct PMP as a language with a voice system, I demonstrated that PMP could also be reconstructed as an ergative language along Kikusawa (2002)'s proposal based on Polynesian and Formosan sets of pronouns. I proposed that from PMP to POc, there were two sets of pronouns, one for agents of transitive sentences and one for subjects of intransitive sentences and objects of transitive sentences. In Micronesian languages, and possibly an ancestor of those languages, these two sets of pronouns correspond to subject pronouns and independent pronouns respectively.

Many other aspects of PMP also underwent change including the three case assigning articles and the verbal affixes of passive and active voices. Moreover, Micronesian languages may be divided into two subtypes as seen in Chapter 1: (i) aspect-oriented languages that allow noun-incorporation and has two sets of pronouns and (ii) tense-oriented languages that do not allow incorporation and has three sets of pronouns. The third set of pronouns is of course the accusative pronouns which are an innovation. Since PMP and later POc did not have tenses but rather mood and aspectual markers, it follows that the tense markers are also an innovation. The evolution of tense and noun-incorporation will be investigated further in the next chapter.

CHAPTER 3

EVOLUTION OF SOME GRAMMATICAL PROPERTIES OF MICRONESIAN LANGUAGES

In this chapter, I will investigate the evolution of grammatical properties of Micronesian languages. From PMP to POc, verbal affixes became independent functional categories, case assigning articles became caseless, the position of pronouns shifted from enclitics to obligatory subject proclitics. Moreover, PMP as well as POc expressed temporal relationships with aspect and mood markers. I propose that the tense markers of some Micronesian languages are innovations and that these are directly related to the absence of accusative pronouns on the one hand, and the presence of object-incorporation on the other. This will be investigated in the second part of this chapter. In analyzing these features of Micronesian languages, I will tentatively reconstruct the grammar of an ancestor of Micronesian languages – whether it is Proto-Micronesian (PMc), or another proto-language is not clear. For the purpose of this dissertation, I will call this language PMc – and demonstrate that this proto-language had an ergative alignment. Many grammatical properties of PMc have been reconstructed. The first part of this chapter will be a survey of these reconstructed grammatical properties. Finally, the shift from ergative to accusative alignment will be explored.

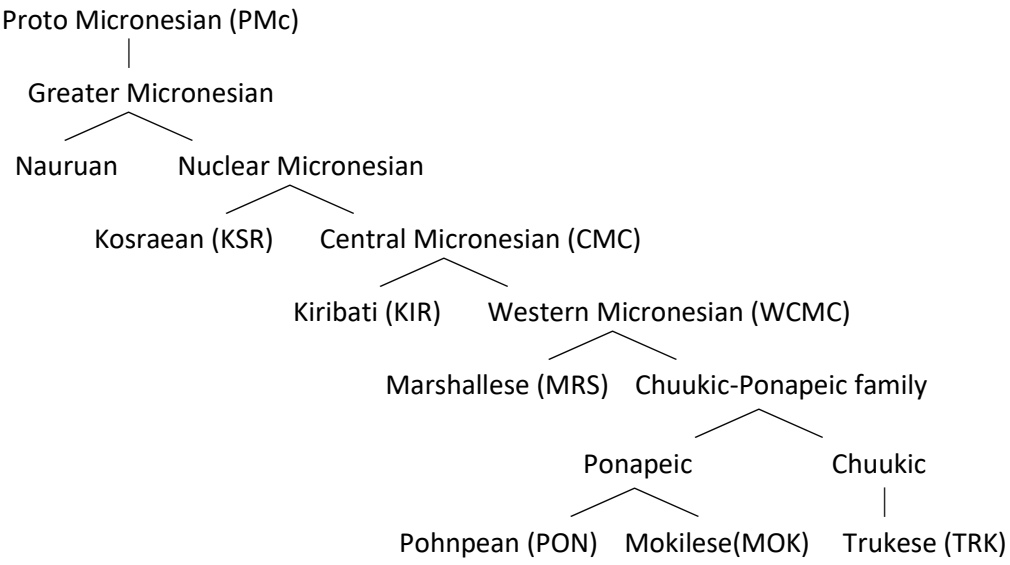
3.1 Some notes on Proto-Micronesian

As mentioned above, proto-languages are reconstructed languages based on evidence provided by cross-linguistic analysis of cognate lexical items and phonological properties of different languages that belong to the same family.[65] By comparing data from as many (contemporary) languages as possible, a version of a possible ancestor of those languages can be reconstructed, assuming the languages compared share enough features to be classified as a subgroup of the same family. An extensive list of PMc phonemes and lexical items have been reconstructed through the comparative method (see Bender et al., 2003 among many others).

[65] This is not to be confused with an evolutionary theory of language that posit the emergence of a primitive language-like protolanguage preceding human language as we know it as discussed in Jackendoff (2002) and Hurford 2012) as opposed to the emergentist theory of human language, as discussed in Chomsky (1986 et seq) and 2013).

Another goal of the comparative method is to classify languages according to featural innovations.[66] As shown in (99) below, Nuclear Micronesian may be divided into subfamilies, each of which displays a number of innovations that are shared with any language lower in the tree (Bender et al., 2003). For instance, KSR should lack some properties shared by CMC languages while KIR should lack some properties of WCMC languages, and so on and so forth.[67]

(99)



However, the subfamilies represented in (99) are differentiated on the basis of phonological innovations and it is not clear if and how grammatical changes are accounted for in the subdivisions proposed above. According to Bender and Wang (1986), work on comparative Micronesian grammars is scarce and, to my knowledge, no comprehensive reconstruction of a potential grammatical system of PMc has ever been proposed. A few studies on specific morphosyntactic characteristics of Micronesian languages point towards the direction of a grammar similar to Proto-Oceanic (POc), as reconstructed by Pawley (1973). These comparative analyses of grammatical properties of Micronesian languages include: (i) semitransitive verbs and object incorporation (Sugita 1973); (ii) reduplication (Harrisson 1973); (iii) transitive markings (Harrisson 1978); (iv) relative clauses (Sohn 1974); (v) pronominal systems (Song 1994), and (vi) diachronic aspects of clause structures (Hale 1998).

[66] Grammatical change, and by extent syntactic change, is due to variations in the features perceived by children in the Primary Linguistic Data (PLD) (see Chomsky 1995). An innovation is thus always featural in essence.
[67] According to the wave model, the diffusion of features goes from one region to another, expending geographically (Wolfram & Shilling-Estes (2003).

Some grammatical items (e.g., affixes and pronouns) have been reconstructed for PMc (Bender and Wang, 1986). Although their role within the whole grammatical system might seem limited, the tiniest innovation can bring about a reorganization of an entire grammatical system. While many affixes have been reconstructed, i.e. transitive suffixes, the passive suffix, and a causative prefix, I will focus on the reconstruction of the transitive suffixes as they are directly related to this research.

3.1.1 Transitive suffixes

Two transitivizing suffixes, **-i* and **-a*, which are still present in many Micronesian languages, have been reconstructed for PMc (Harrison 1978). The former is used with pronominal objects, plural NP objects, anaphorical constituents, and for plural non-human objects. The latter is used with singular NP objects. For example, in KIR (from Harrison 1978: 1068):

(100) a. i noor-a te ika
1SG saw-TR ART fish
'I saw the fish'

b. i noor-i waa akanne
1SG saw-TR canoes those
'I saw those canoes"

c. i noor-i
1SG saw-TR
'I saw them' (the canoes).

In (100a) the verb takes the suffix *-a* because the object is a singular NP. In (100b-c) the suffix is *-i* because the objects are plural. Reflexes of these former suffixes are also attested in other languages where they are no longer productive. This results from two processes: (i) the process of final consonant deletion (FCD) and (ii) the process of final short vowel deletion (FVD) as exemplified in MRS (from Bender, 1984: 445):

(101)

	UNSUFFIXED FORM	TRANSITIVE FORM
EARLIER FORM	deget	deget-a
AFTER FCD	dege	deget-a
AFTER FVD	deg	deget

As we can see in (101) the presence of the transitivizing vowel protected the final consonant of the root from being deleted. Then, when the vowel was deleted from the transitive form as the subsequent process of FVD took place, the final consonant remained in the transitive form but was deleted in the unsuffixed

form. Final consonant conservation after FVD is quite common in many Micronesian languages (from Harrison, 1978: 1069):

(102)	PMc	*masak-i	'ache'
	MRS	metak	
	KOS	atuck	
	MOK	moadak	
	TK	metek	

FVD was also blocked by the presence of suffixes such as possessive suffixes for inalienable nouns (from Harrison, 1978: 1069):

(103)	PMc	* mata 'eye'	*mata+ni	'eye of'
	MAR	māj	mejān	
	MOK	maj	mijen	
	TK	maas	mesen	

Therefore, due to the presence of the possessive suffix *-n* in many Micronesian languages, the former final vowel *a* of PMc remained in the suffixed forms (with some phonological changes that do not concern us here). According to Harrison (1978), the conservation of vowels in suffixed forms was important in the development of many Micronesian languages transitive marking. Moreover, Hale (1998) proposes that FCD and FVD might have triggered the reanalysis of many clause structures of an ancestor of the Micronesian languages due to the reinterpretation of verb endings.

3.1.2 The phonological hypothesis of Micronesian verbal system

In his analysis of multiple Micronesian languages, Hale (1998) proposes that there must have been a suffixal form on the verb that preceded specific objects that blocked FCD, whereas verb forms followed by bare object underwent this process. Therefore, the intransitive verb form and the transitive verb form that was followed by a bare object were identical. This resulted in a syntactic reanalysis such that only transitive verbs followed by a specific object had a verb form different from the intransitive. It follows that definite objects checked accusative case and bare objects could not. According to Hale, some languages acquired the partitive case feature for bare objects whereas other languages reanalyzed these objects as incorporated into the verb. For example, the reconstructed verb **arin* (to imitate, to mock) has the following syntactic frames:

Table 3.1 Reconstructed syntactic frames of Micronesian transitive morphology

No object	Bare N object	Specific Object
*arin	*arin N	*arin x NP

The attested intransitive form of **arin* is *ar*. To get to the attested form, there are two steps: (i) FCD: **arin > *ari* and (ii) FVD: **ari > ar*. This is used for both intransitive and transitive verbs followed by a bare object. However, the transitive verb followed by a specific object remains *arin* in the attested form. Hale (1998) considers that the X in Table 3.1 is almost certainly an object marker that cliticized to the verb. This object marker is reconstructed as **-i* for Proto-Oceanic. The presence of this vowel blocked FCD which in turn blocked FVD. The problem that arose is that the two different transitive forms could not check the same case features. Whereas specific objects checked the ACC case feature, the bare object could not. Two solutions to the Case Filter problem arose: (i) a partitive case for some languages and (ii) object incorporation for the other languages.

In Chapter 2, we saw that the PMP former ACC (reanalyzed here as PART) article **ta* came to be used with all indefinite nouns regardless of case or the function of the argument. Therefore, it seems that POc already distinguished bare objects from specific objects. Moreover, according to Lynch et al. (2002: 83-84):

> In all probability in POc, as in many Oceanic languages, the typical clause in narrative or conversation had no core noun phrase, or at most one as the task of referent tracking was performed by the clitics, which also remained when the relevant noun phrase was present. The one apparent exception to this occurred if the object was a generic referent – 'apparent exception' because the generic 'object' was incorporated into the verb phrase, forming a compound intransitive verb. This incorporation/detransitivization was signalled morphologically by the fact that an eligible verb did not take the close transitive suffix **-i* and no object enclitic occurred. Instead, the bare object noun directly followed the verb.

This corroborates Hale's hypothesis that noun incorporation derives from the absence of the transitive suffix **-i* when the verb was followed by an indefinite object. Moreover, not all Oceanic languages have noun incorporation which leads me to conclude that the partitive case might predate modern Micronesian languages as well. As we saw in the preceding chapter, PMP article **ta* was used for ACC objects. However, I analyzed these objects as partitive. The partitive case thus precedes the introduction of noun incorporation. The loss of voice markers and the reanalysis of **-i* as a transitive marker resulted in the

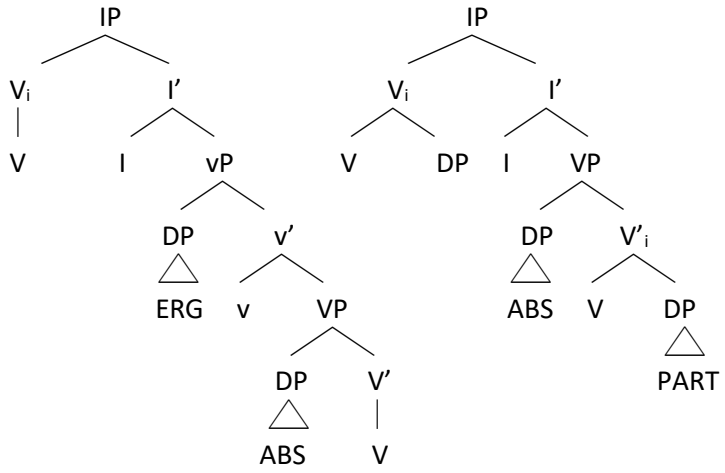
process of noun incorporation in POc. The data provided by Hale (1998) only accounts for Micronesian languages. In POc, probably all indefinite objects came to be incorporated once the transitivizing suffix *-i* was introduced. When the partitive article **ta* disappeared, it is plausible to assume that the reanalysis of the bare nominals took place in PMc.

From PMP to POc, another major innovation was the introduction of independent particles that expressed mood and aspectual properties. In PMP, mood/aspect was expressed by affixation directly on the verb. This change triggered a syntactic reorganization. I tentatively reconstructed the syntax of transitive and intransitive verbs of PMP based on Massam (2000)'s proposal for Niuean. However, I will refine my proposal in the next section and propose a series of syntactic changes from PMP to POc.

3.2 Syntactic reorganization from PMP to POc

I proposed in the preceding chapter that the syntax of PMP was similar to Niuean based on the fact that there were no tenses in PMP. Therefore, it was not necessary to project a TP. Moreover, PMP was a verb-first language like Niuean and many other Oceanic languages. Based on Massam's (2000) proposal, the following trees illustrated the basic clause structure of PMP:

(104) a. Transitive b. Intransitive



Massam (2000) proposed that there was an IP projected above vP to account for verb movement and the word-order of pseudo-incorporated nouns. In PMP, there was no incorporation, but the verb was always fronted. If the verb was in the direct passive voice, the word-order was V-ERG (subject)-ABS (object) as in (104a). If the verb was in the active voice, then the word order was V PART (object) – ABS (subject) because

the object would move along the verb in Spec IP as in (104b). If one of the arguments was a pronoun, either ERG or ABS (recall that there were no PART pronouns in PMP), then it would cliticize to the verb and follow it directly.

Two major changes occurred from PMP to POc: (i) subject pronouns became obligatory proclitics to the verb and (ii) the mood and aspect affixes became independent particles preceding the verb. The basic word-order of POc was thus (from Lynch et al., 2002: 83):

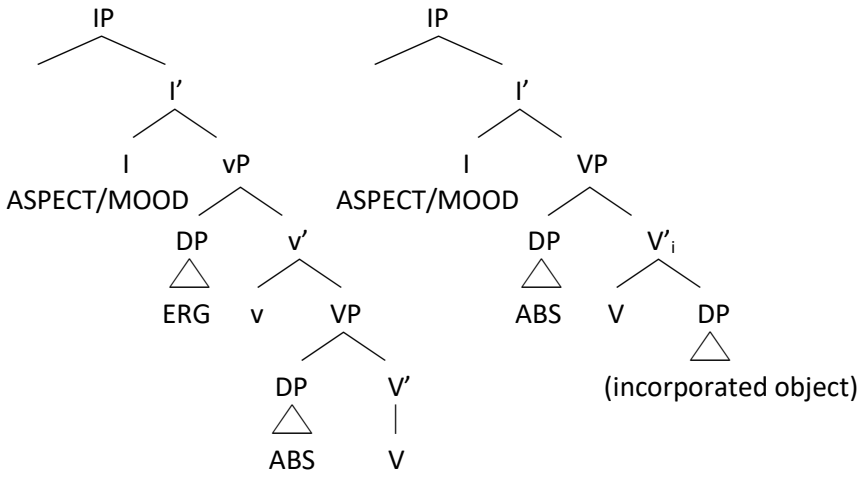
(105)	(ASPECT/MOOD=)	SUBJECT=	VERB	(= OBJECT)	(= DIRECTIONAL)
		subject proclitic	root (adverbial)	*(*-i*) object enclitic (no **-i*) incorporated object noun	

According to Lynch et al. (2002:84):

> We have labelled the first element as ASPECT/MOOD, since POc, like many of its descendants, seems to have lacked a tense category. From the widespread categories of these descendants we can be reasonably certain (i) that there was a mood distinction between a morphologically unmarked real and a marked irrealis (ii) that the continuative was marked by reduplication of the first one or two syllables of the root (not indicated in the formula) and that other aspects included a completive, and (iii) that the irrealis and the aspects other than the continuative were indicated by morphemes occupying a single aspect/mood slot.

The aspect/mood particles occupied the head position of IP (in 104a-b). However, we note that the subjects of PMP do not move to Spec IP since they are proclitics to the verb. It shows that most likely, the verb remained in situ. Recall that in the formula of (105), the subject proclitics may be used in conjunction with the DP it references. This DP would most likely be topicalized. There are two sets of pronouns for the subjects: (i) GEN (ERG) for transitive verbs and (ii) NOM (ABS) for intransitive verbs. Note also that NOM pronouns could be used for objects of intransitive verbs. The following trees depicts the syntax of POc transitive and intransitive verbs:

(106) a. Transitive b. Intransitive



According to Lynch et al. (2002) the object is automatically incorporated into the VP in (106b) if the verb does not have the transitive affix *-*i*. Therefore, the object does not check a case.[68] The subject proclitics checked the verb's case: the ERG in Spec vP and the ABS in Spec VP. The locus of ERG and ABS cases is a topic that's been debated among linguists for decades (see section 3.2.1.2 below). Massam (2000) proposed that the ERG case is checked in Spec vP and that the ABS case is checked lower than v' for transitive clauses. However, the AbsP node is projected directly under I' for intransitive clauses. The idea is that intransitive clauses without an agent do not project vP at all. I will follow this assumption. However, instead of projecting AbsP, I will assume that ABS case is a feature of V. The next section will further explore the syntax of ergativity.

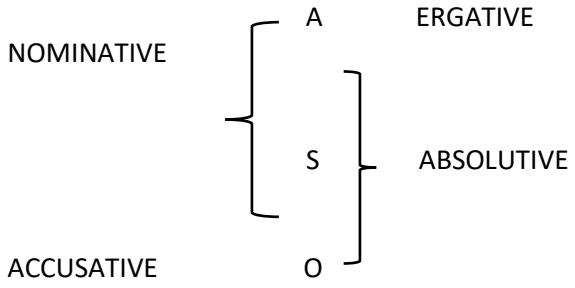
3.2.1 The syntax of ergativity

One of the ways in which languages vary is in their syntactic alignment. There is a great diversity in the possible syntactic positions of arguments depending on the type of verb used in the sentence. For example, in nominative-accusative languages, whether a verb is transitive, or intransitive is irrelevant in terms of determining the position or the morphological marking of a subject. In both instances, the subject will be NOM and the case will be assigned either by movement, with morphological marking, or both. However, this is not the same for ergative-absolutive alignments in which the type of verb will have an incidence on the position or case marking of the subject. As Dixon (1979) suggests, ergativity occurs when the subject

[68] For more discussion on object incorporation see Mithun (1984); Sadock (1986); and Massam (2000; 2001) amongst others).

of an intransitive verb is treated on a par with the object of a transitive verb and differently from the subject of a transitive verb (adapted from Dixon, 1979: 61):

(107)



The notion of subject is crucial to understand variation in syntactic alignments. In the preceding chapter, we saw that the position of DPs and their case checking with respect to the type of argument (whether subject or object) had an impact on the interpretation of the sentence (notwithstanding the voice alternation/aspectual properties which will be explored further in 3.2.2).

3.2.1.1 The notion of subject

In the terminology of Dixon (1979), A stands for the agent (or controller) of a predicate while S is for the subject of an intransitive verb and O is for the object. These are universal functions; we may find them in any language. However, the way these functions are expressed cross-linguistically vary a great deal. The notion of subjecthood is quite different in ergative languages because the licensing of case depends on transitivity, thematic roles attribution, and other syntactic properties. Accusative languages are different because all subjects may be thought of as belonging to the same class, i.e. receiving the same case or occupying the same syntactic position (Anderson, 1976). In ergative languages, subjects of transitive verbs check ergative (ERG) case and subjects of intransitive verbs check absolutive (ABS) case. Moreover, the checking of ERG case may depend on the argument's thematic role. This is turn may affect the argument structure of the VP and the syntactic distribution of arguments. Although the grammatical relations between the subject and the object of a transitive verb is the same as in accusative languages, the difference lies in the treatment of the single argument of an intransitive clause.

According to Anderson (1976: 17) there are no real syntactic difference between accusative and ergative languages and the only difference boils down to a "comparatively trivial fact about morphology" meaning that morphological markers do not reflect grammatical functions. Therefore, unlike accusative languages, ergative languages dissociate case marking and grammatical functions. The grammatical function is

reflected in the thematic role of an argument: the ERG case is associated with agentivity and control, and the ABS case relates to the patient theta role.[69] In the words of Bechert (1979: 50) "Ergativity, or ergative system, is a designation of the fact that the patient of the intransitive verb is coded in the same way as the patient of the transitive verb, and that the agent is coded differently." In this respect, ergativity has been compared with the passive voice of accusative languages in that the demotion of an agent produces a structure in which the internal argument or patient is reanalyzed as being the subject. What is considered to be the result of a transformation in an accusative language is believed to be obligatory in an ergative language (Hale, 1970). Yet, to say that the ABS argument in an intransitive clause is "passivized" obscures the fact that passive voice is always contrasted with active voice. According to Comrie (1978), this contrast does not exist in ergative languages. Moreover, it is usually clear that the subject of a passive sentence has been acted upon: "The boy was slapped". This interpretation is not necessarily appropriate for all intransitive clauses in ergative languages.

3.2.1.2 Ergativity and case

The way different languages check cases is subject to variation. Some languages use structural cases only, meaning that case is checked structurally via a spec/head relationship. This type of case is exclusively checked in syntax and requires movement. NOM, ACC, and GEN cases are purely structural, and subjects check NOM case. Moreover, objects must move to Spec VP to be in a structural relation with v to check ACC case. Non-structural cases must also be checked via a spec/head relationship but there is an additional condition of theta licensing. According to Woolford (2006) there are two types of non-structural cases: inherent and lexical. Inherent case is associated with theta positions: for example, the ERG case corresponds to the agent and is used for subjects of transitive clauses. Lexical case is dependent on the verb: some verbs may select the ACC case for their object, whereas others may select dative (DAT) case. These are language-specific and as such, entirely idiosyncratic. Lexical and inherent cases are in complementary distribution meaning that the former may only be checked by themes/internal arguments and the latter to external and shifted DP goal arguments (Woolford 2006). As such, the ABS case would therefore belong to the class of lexical cases because it does not represent the external argument even if it is the subject of an intransitive verb. It would thus be part of V and the internal argument would always be copied to the same position, i.e. the specifier of VP (as opposed to the specifier of vP for the ERG case).

[69] Some ergative languages distinguish between subjects of unaccusative vs unergative verbs (see footnote 55:c). For instance, in Inuktitut, the subject of an unergative verb will check the absolutive case (Compton 2017).

The difference between the ABS case and the ACC case would therefore be that the ACC case checks the features of v through copy deletion from the complement position of V to the specifier of VP, resulting in the appropriate spec/head relationship with little v (see 108b below), whereas the DP checking the ABS case would check the features of V (see 108a below). Moreover, the Spec vP position is the edge of a phase, allowing the argument in this position to be copied higher in the tree to check the features of T. Considering that the argument checking the ABS case does not need to be copied higher in the structure to check the features of T, it is not necessary for this argument to occupy Spec vP at any point during the derivation.

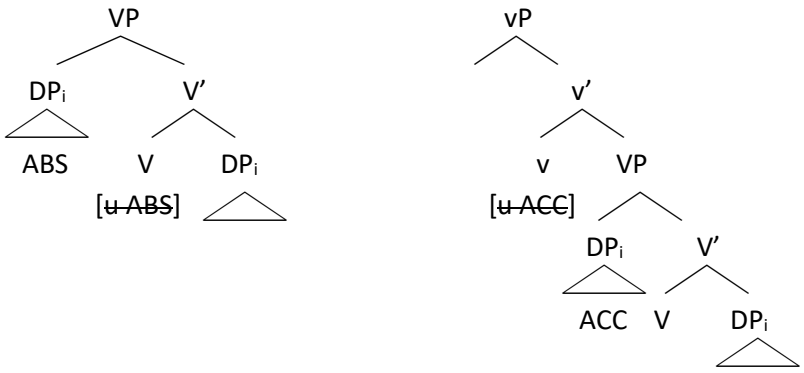
Considering Burzio's generalization, to check ACC case, an argument must be selected by a verb that assigns an external theta role. In other words, a vP layer must be projected for an argument to check v's case feature. However, the presence of an external argument is not mandatory for the ABS case to be licensed.[70] We would therefore consider that in ergative languages, intransitive verbs have the argument structure of an unaccusative verb and, following Noonan (1993), that a vP layer is not a necessary part of the argument structure of an unaccusative verb.[71] We would therefore use Woolford's proposal that lexical case is licensed only by lexical heads and thus, V has an ABS case feature to check. The obvious result being that an intransitive verb is not required to project a light v for the argument to check the ABS case as illustrated in (108a-b) below.

[70] Another theory that explains the obligatoriness of an object to check ERG case is the dependent case theory (DCT). According to Baker & Bobalijk (2017: 112):

a. If NP1 c-command NP2 and both are contained in the same domain, then value the case feature of NP1 as ERG.
b. Otherwise, NP is NOM/ABS

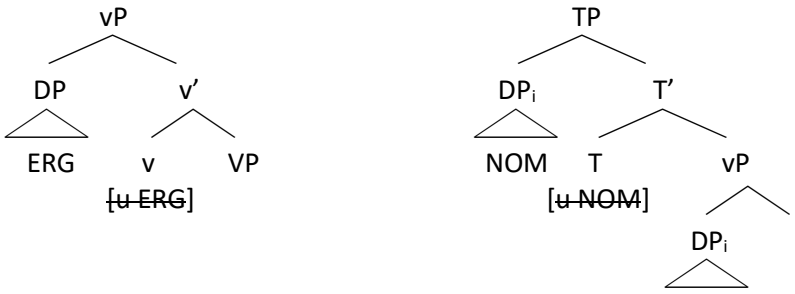
[71] For example, in Inuktitut, the subject of an intransitive clause always bears absolutive case, whether the verb is unergative or unaccusative (Compton, 2017). If all intransitive verbs in Inuktitut have an unaccusative argument structure as in (108a), then the only possible Case for the subject is absolutive because if a vP is generated (as in 109a) for unergative verbs, then subjects of unergative verbs would be ergative. However, it is possible to change the argument structure of unergative verbs by changing the verbal morphology thus projecting a vP with an ergative case to check.

(108) a. Lexical ABS case b. Structural ACC case



According to (108a), the ABS case of V may only be checked by the sole argument of a verb (the subject) with an unaccusative argument structure, whereas in (108b) the vP layer is obligatory for the internal argument to check its case. ERG and NOM cases (in transitive clauses) also require that a vP layer be generated (see 109a-b):

(109) a. Inherent ergative case b. Structural nominative case



In ergative languages, a vP layer will be projected iff there is an external argument because v has an ERG case feature to check. Therefore, all intransitive clauses will have an unaccusative argument structure. Moreover, the movement to Spec TP to check uninterpretable NOM case of T is not necessary since the subject has already checked some case feature, whether from V or v.

In accusative languages however, there is a class of verbs that require their only argument to be external, namely unergative verbs. According to Hale & Keyser (1993:54), unergative verbs "involves incorporation, into an abstract V, of the nominal head N of its NP complement". While some languages require an overt light verb, others like English don't. This means that in English, some verbs are formed from nouns that have been incorporated into a little v head. For example, verbs like *laugh, sneeze, dance*, etc. are tantamount to saying *have a laugh, make a sneeze, do a dance*, etc. The same is also true for locatum

verbs such as: *shelve, bottle*, etc.[72] This would mean that underlyingly, so to speak, unergative verbs are actually transitive in nature.[73] Therefore, any verb with an external argument has a transitive argument structure and must be set apart from unaccusative verbs whose argument structure is the only real intransitive.

I will assume that in ergative languages, all intransitive verbs have an unaccusative argument structure, unlike accusative languages whose only true intransitive verbs are those without an external argument. However, some ergative languages do have verbs which contain an external argument as their sole argument. The question is therefore how do these languages express unergativity. According to Dixon (1979) no languages are completely ergative, whether syntactically or morphologically. Some languages do have both ERG-ABS cases and NOM-ACC cases to check. This phenomenon is called Split-ergativity and there is a great deal of variation between the many languages with this type of alignment.

3.2.1.3 Split-ergativity

Every language needs a way to distinguish the two arguments of a transitive clause and their respective roles. One or both arguments must therefore be marked to differentiate their roles. When only one argument is marked, it is usually the ACC object or the ERG subject (Silverstein, 1976). These are the non-obligatory arguments in each type of syntactic alignment. It is interesting to note that they are both contingent upon the generation of a vP layer. Therefore, the unmarked cases are those that are not assigned by a v head such as the structural NOM case or the lexical ABS case.

There are many ways to mark an argument: (i) case inflections, as already discussed, (ii) separate particles such as prepositions or postpositions, and (iii) inflections on verbs, auxiliaries, or bound pronominals that cross-reference the features of an NP (Dixon 1979).[74] We saw in the previous section that Case systems vary widely and that they depend on thematic notions and argument structure. The same is true to a certain extent for inflections and particles. A good example of argument marking is the verbal inflection

[72] However, these are different in that the underlying forms require a preposition: *shelve the books = put the books on the shelves*. Thus, the noun that is incorporated did not occupy the Spec VP position, which is the internal subject position (see Hale & Keyser 1993 for more details).

[73] Noonan (1993) also proposes that stative verbs such as *love, know, respect*, etc.., may be paraphrased by a possessive construction and thus they contain the verb *have* that makes these stative verbs transitive. In this respect, stative verbs in English would also have a transitive argument structure, unlike languages that lack the verb *'to have'*, and thus express statives differently (see Noonan 1992 for more details).

[74] According to Deal (2015), case and verbal agreement have been the most studied along syntactic properties related to Ā-Bar movement and control.

on verbs in Spanish or Italian that cross reference the features of subjects. Sometimes the subject in these languages may be entirely omitted because the verbal inflections suffice to indicate the grammatical function of the argument. However, for these languages, the syntactic position of arguments and the inflections both reflect an accusative pattern. It is when a language combines an accusative alignment with an ergative one that we are in the presence of a split pattern. There are factors that may condition a split-pattern among which: (i) semantic factors, (ii) tense-aspect splits, and (iii) person-based splits. For the purpose of this research, I will only explore splits based on tense-aspect.

3.2.1.3.1 Tense and aspect splits

We saw that in PMP as well as in POc that there were no overt tense markers and I proposed that no TP was projected in those languages. This is also true for some Micronesian languages. Aspectual properties of clauses are important in order to understand the syntactic difference between languages that are aspect-based as opposed to languages that are tense-based. The study of aspect-splits might help us understand the difference in aspectual properties of tense-based languages as opposed to aspect-based languages. Moreover, in split-ergative languages, the type of case, whether ERG/ABS or NOM/ACC, depends on syntax and where the cases are checked. This will add evidence for my analysis of Micronesian languages as being divided into two subgroups: tense-based and aspect-based.

There are languages which have a split pattern conditioned by tense and aspect, the past tense and the perfective aspect being associated with ergativity as in Georgian (Comrie 1978: 343):[75]

(110) a. Ștudenț-i ceril-s cers
student-NOM letter-ACC write.PRST
'The student writes the letter'

b. Ștudenț-ma ceril-i dacera
student-ERG letter-ABS write.AORIST
'The student wrote the letter'

In (110a) the arguments are marked NOM-ACC, and the sentence is in the present tense whereas in (110b) the arguments are marked ERG-ABS and the verb is past and perfect (aorist). Both sentences are transitive

[75] According to Coon (2012) the existence of languages with only tense or mood splits is questionable and it is better to relate to this type of split as simply aspect-based.

and thus have the same argument structure. However, in (110a) the subject checks the NOM case of T and there is no indication of aspect but in (110b), the subject checks the ERG case of v, the verb is in the past tense and the action is completed. There are two possibilities here: either the case marking is only a morphological phenomenon separated from the syntax or, there is a correlation between the position in which an argument checks case and the aspectual properties of the clause. I will argue for the second option. The following sections will cover in depth the relationship between aspect and syntax, and I will propose that aspectual properties of verbs, both lexical and grammatical, have an effect on the syntactic structures of Micronesian languages.

3.2.1.3.2 The perfect and the perfective aspects

Demirdache & Uribe-Etxebarria (2000: 159) propose that tenses and aspects "are dyadic predicates of spatiotemporal ordering: they establish a typological relation between two time-denoting arguments." Following Hale (1986), they define these spatiotemporal relations as an opposition between central and noncentral coincidence. When a locative preposition is used in a sentence, it indicates the spatial orientation of one of the arguments, usually the subject. Basically, this subject (or FIGURE) is situated in relation to a place (or GROUND). See Talmy (1975) for foundational work on FIGURE and GROUND. When the FIGURE and the GROUND coincide, meaning that the FIGURE is at the center of the GROUND, then it is a central coincidence. When the FIGURE is at the beginning or at the end of the GROUND, then it is a noncentral coincidence (from Demirdache & Uribe-Etxebarria 2000: 177):

(111) a. CENTRAL COINCIDENCE
[I \\\\\\\\ F]

b. NONCENTRAL COINCIDENCE
\\\\\\ [I F]

c. [I F] \\\\\\

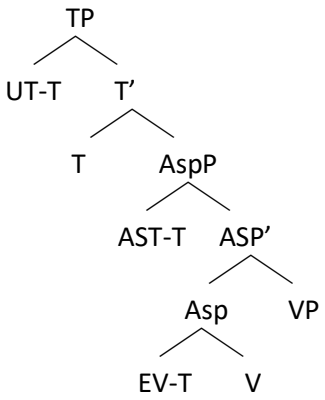
In (111a) the focus is on the parts of the event, represented by the slashes, comprised within the initial (I) and final (F) bound of the event. However, in (111b) and (111c) the focus is outside the initial and final bounds of the event. In English, these relations are expressed with locative prepositions:

(112) a. Central coincidence: *on, in, by, at*, etc...
b. Noncentral coincidence: *to, up to, into, from, out of, off of*, etc...

These relations of FIGURE and GROUND are also found in the expression of tense and aspect. Tense is the relation between utterance time (UT-T), the time at which the sentence is uttered, and the time of the event or state (EV-T). In syntactic terms, it is the relation between T and V. If the sentence refers to the event after it happened, the sentence will be in the past. If it is before the event happened, then it will be in the future and if it is during (or within) the event, then it is in the present. The past and future show noncentral coincidence whereas the present is a central coincidence.

Syntactic aspect on the other hand, describes an interval of the event and only that interval will be visible to semantic interpretation. It is the relation between assertion time (AST-T), the time for which an assertion about the event is made, and EV-T. When the AST-T is within the EV-T, the aspect is progressive. When AST-T is before EV-T, the aspect is perfect and, when it is after, the aspect is prospective. According to Demirdache & Uribe-Etxebarria (2000), there is a functional head Asp° that is the locus of aspect. Aspectual properties are a consequence of the relationship between Asp° and V. This is illustrated below (from Demirdache & Uribe-Etxebarria 2000: 163):

(113)



The prepositions used to express spatial relations between FIGURE and GROUND are very commonly the same as those used to express temporal relations. For example, prepositions and locative expressions of central coincidence are commonly used to express the progressive aspect (from Demirdache & Uribe-Etxebarria 2000: 178):

(114) a. Maritere euskara ikas-te-n ari da.
Maritere Basque learn-NOM-LOC engage AUX (BASQUE)
"Maritere is (engaged in) learning Basque."

b. Zazie est en train de jouer.
Zazie is in along of play (FRENCH)
"Zazie is engaged in playing."

c. Ik ben het huis aan het bouwen.
I am the house at the build (DUTCH)
"I am (at the) building (of) the house."

In fact, the correlation between locative and progressive is so common that Demirdache & Uribe-Etxebarria assume that the progressive aspect is a locative in all instances. Recall example (110) repeated here as (115):

(115) a. Ștudenț-i ceril-s cers.
student-NOM letter-ACC write.PRST
'The student writes the letter.'

b. Ștudenț-ma ceril-i dacera.
student-ERG letter-ABS write.AORIST
'The student wrote the letter.'

We notice that the verb in (115b) is in the perfective aspect and not the perfect. In Demirdache & Uribe-Etxebarria's analysis, the perfective and imperfective aspects are missing entirely. Coon (2010) proposes that the imperfective aspect should be analyzed as the progressive aspect, i.e. the AST-T is within the EV-T. On the other hand, the perfective aspect would then be the EV-T within the AST-T on the basis that one is the opposite of the other (from Coon 2010: 173):[76]

(116) a. IMPERFECTIVE/PROGRESSIVE
AST-T [ ]
EV-T \\\\\\\\\\

b. PERFECTIVE
AST-T [ ]
EV-T \\\\\\\

In the words of Comrie (1976: 16):

[76] Although her research focus on Chol, an analysis of aspect should be transferrable to any language if one works on a theory of Language. As we will see below, my own analysis differs from Coon (2010) but it is primarily based on her work.

> Perfectivity indicates the view of a situation as a single whole, without distinction of the various separate phases that make up that situation, while the imperfective pays essential attention to the internal structure of the situation.

The perfective aspect indicates an event with no internal structure, meaning that there are no intervals nor known initial and final bounds. Therefore, there are no possible relations between a FIGURE and a GROUND. According to Coon (2010), we cannot assume that the perfective is a relation of central coincidence between the AST-T and the EV-T. Besides, there are no possible prepositions to illustrate this relation between a FIGURE and a GROUND (Coon 2010). It was stated that the perfective is the opposite of the imperfective and that the perfective does not subsume a relation between AST-T and EV-T. I will propose that the imperfective is not to be analyzed as equivalent to the progressive (contra Coon 2010). The reason is simple: both the progressive and the perfect aspect are interpreted with respect to Tense which is not the case for the perfective and imperfective. According to Comrie (1976: 52) the perfect "relates some state to a preceding situation" [and] "indicates the continuing present relevance of a past situation." In English, as in many other languages, the use of an auxiliary in the present/past/future tenses, more commonly a verb of possession c.f. Anderson (1977), to construct the perfect form is an indication that Tense is still of relevance for the event. However, the lack of such an auxiliary is a characteristic of the perfective. The progressive aspect works in the same fashion as the perfect except that, instead of the auxiliary *have*, a form of the verb *to be* must be used: *I am/was/will be eating, running*, etc. Unlike the progressive, the imperfective cannot be used in the present or future: it is used to express an event that was ongoing in the past without reference to temporal boundaries. English does not have a general imperfective and must convey this particular meaning with the help of the progressive. For example: *he was eating when the phone rang*. In French the same sentence can be expressed with and without the progressive (examples from the author):

(117) a. Il mangeait quand le téléphone sonna.
He eat.IMPF when DET.MASC phone ring.3SING.PST (FRENCH)
"He was eating when the phone rang."

b. Il était en train de manger quand le téléphone sonna.
He was in along of eat.INF when DET.MASC phone ring.3SING.PST (FRENCH)
"He was eating when the phone rang."

As we can see, the imperfective and the progressive are not mutually exclusive. They share the property of expressing an ongoing event, but the progressive may include a final boundary unlike the imperfective. A characteristic of the progressive is that it may not be used with stative verbs and verbs of inner

perception such as see and hear. Stative verbs are, by definition, continuous, meaning that they are not made of a series of intervals nor are they bound in time. Verbs of inert perception share the same characteristics and, quite importantly, they are not intentional (I will return to this topic below). The question is therefore what properties of these verbs make them unavailable to the progressive aspect, but still available for the imperfective.

Vendler (1967) identifies four aspectual types of verbs: states, activities, accomplishments and achievements. Di Sciullo (1997) proposes to describe them in term of two binary features: [±S] and [±T]. See (118), where in addition subintervals are illustrated by slashes \\\\\, and terminus with a vertical line |:[77]

(118)

states: ----------	[-S/-T]
activities: \\\\\\\	[+S/-T]
accomplishments: \\\\\\\\\|	[+S/+T]
achievements: |	[-S/+T]

As stated above, states and verbs of perception both lack subintervals and a terminus, and they are both prohibited from the progressive aspect. Subintervals indicate that the event is dynamic, repeating itself over and over. The progressive can only apply to activities and accomplishments, i.e. events that have subintervals.[78] According to Moens (1987:79) "the result is a progressive state." I shall assume that both statives and progressives' internal structure may be represented by -------- meaning that the use of the progressive aspect erases the subintervals. Using the progressive with stative verbs and verbs of inner perception is thus redundant.

What distinguishes the progressive and the imperfective is that the imperfective retains the internal structure of the event, whether it is [+S] (\\\\\\\) or [-S] (---------). This is why the progressive may be used with the imperfective. However, it cannot be used with the perfective because the latter lacks an internal structure. In this regard, it may be analyzed as a punctual event similar to an achievement. A punctual situation requires a change of state: verbs of achievement such as *die* or *win* go from the time when someone was alive or has not won yet to the precise moment the event happens. The perfective may be

[77] See also (Di Sciullo, 2003) for the analysis of lexical aspect in Romance and Di Sciullo & Slabakova (2005) in Slavic languages.

[78] Although some might argue that achievements may be in the progressive provided that there is a final outcome (see Dowty 1977; 1979).

used to express punctuality: *At that moment, I knew/realized/understood he was guilty*. The same interpretation cannot be construed with the present tense nor with the perfect aspect. Hence Comrie's definition of the perfective as a single whole.

Given these facts, it appears that the perfective and the progressive are aspects that are tightly associated with tense whereas it is not the case for the perfective and imperfective. The perfective and imperfective aspects are different because, even though they are both related to tense in that they are in the past, they do not focus so much on tense properties but rather seem to reflect only on the event itself: the imperfective on the internal structure of the event and the perfective as the whole event. Recall that Micronesian languages, as well as Oceanic languages (and the reconstructed proto-Malayo-Polynesian) do not have an overt verb of possession (HAVE), nor a copula (BE). In languages that express tense with overt tense markers, there is a distinction between perfective/progressive on the one hand, and the perfect/imperfect on the other. This distinction is not present, at least in Micronesian languages, and probably in most Oceanic languages, which bears the question of the correlation between the lack of [HAVE] and [BE], and the absence of tense markers and, as a result, an aspect-based expression of temporal relations. Moreover, I concluded that, in ergative languages, all intransitive clauses had an unaccusative argument structure (following Noonan 1993). However, how do we account for the presence of ABS case for subjects of unergative clauses and how do we account for these properties in syntactic terms?

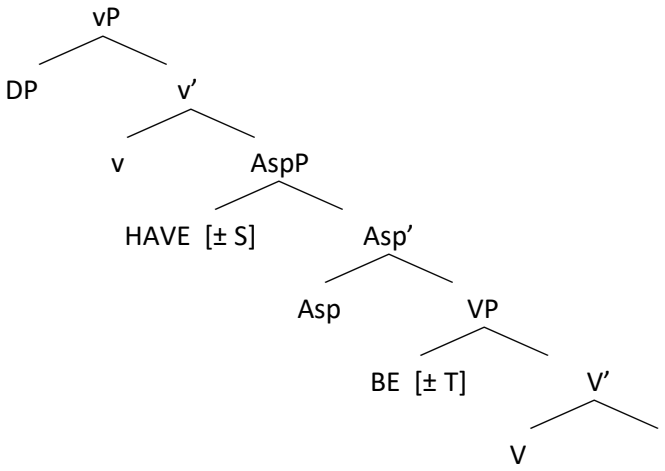
3.2.1.3.3 The syntax of Aspect

On a par with Di Sciullo (2005a) which proposes an extended Aspectual layer in morphological projections, including internal and external Aspectual projection (I-Asp and E-Asp), Travis (2010) extends to syntax the Aspectual features [± T] and [± S] proposed in (Di Sciullo 1997) for morphology." Travis (2010) proposes that there is an additional functional category within the VP that represents Inner Aspect or Aktionsart (in term of the binary features [± S] and [± T] proposed in Di Sciullo 1997). Moreover, it is the locus of the [±T] feature and semantically, it is to be interpreted as BE/BECOME. The [± S] feature is located within the vP layer that also represents CAUSE.[79] I will also assume, following Noonan (1993) that it is also the locus of

[79] Travis (2010) also assumes that the vP layer is not functional but rather lexical and that there is another functional layer above the vP. I will not follow her in this assumption and stick to a more conservative double VP shell with v being functional and dependent on the argument structure of the verb.

HAVE (the possessive light verb and not the auxiliary), hence the accusativity of stative verbs in accusative languages.

(119)



For Travis (2010), Inner Asp° is the locus for morphemes with aspectual properties such as a reduplicated syllable. However, according to Di Sciullo (2005a; 2005b) prefixes, such as leftward reduplicants, are aspectual modifiers, but these belong to the morphological domain (D_M) as opposed to the syntactic domain (S_M). Moreover, there are two types of aspectual modifiers: internal and external. Internal prefixes have spatial properties (directional and locational) and external prefixes are temporal (iterative and inverse). Only internal affixes may affect the Aktionsart of a verb. Rightward reduplicants and suffixes are argument structure modifiers, but they may also have some aspectual consequences: the addition of a complement may change an activity into an accomplishment. Di Sciullo's proposal is that these modifications are made in the morphological domain or D_M. Travis on the other hand assumes that affixation is syntactic. I will follow Di Sciullo in my analysis and consider that Aktionsart to be part of D_M. In other words, I assume the relationship between AspP and VP happens in the morphological domain and is constrained by the strict asymmetry of morphology. Nevertheless, a prefix on a verbal root may indicate a [± T] feature as proposed in Di Sciullo (2005a) and adopted by Travis (2010). For example, in the French words *courir* (*run*) and *accourir* (*run up*), the prefix *a-* changes an activity, which is [-T] into an achievement [+T]. See Di Sciullo (2005a) for discussion.

According to Dixon (1979), ergative marking will always be associated with perfective aspect and accusative marking with imperfective aspect. Both cases rely on the projection of a v head to be assigned. However, ERG is argued herein to be an inherent case whereas ACC is a structural case checked by copy deletion, just like NOM case. Anderson (1977) mentions that many languages construct perfect tense

forms with the help of a possessive verbal form HAVE treated as an auxiliary. Let us assume that there is a correlation between the fact that v represents HAVE as in (119) and the fact that the ERG case is a feature of v. In accusative systems, all subjects must move to Spec TP to check case whereas in ergative systems, both cases are checked within the vP domain.[80] What if perfect tense (in T) and perfective aspect in v both originate from HAVE and that, in ergative languages, since the external argument does not need to move to Spec TP to check case, v somehow carries the aspectual feature? According to Ura (2006) the telicity/boundedness involved with lexical/grammatical aspects are properties of v and variation across languages regarding the type of aspect relevant to syntactic processes depends on the features carried by the v head. Perhaps the ability to assign case to an external argument and a shift of the aspectual properties of an event are related. The difference between T and v is that, in terms of aspect, T has an impact on the whole clause, while v is restricted to the event itself. In ergative systems that do not show an aspectual split, the lack of v results in the imperfective aspect (examples of West Circassian from Anderson 1976: 21):

(120) a. č''aaλa-m č'əǧ-ər ya-ź a.
boy-ERG field-ABS 3SG-3SG.plow
'The boy is plowing the field'

b. č''aaλa-r č'əǧ-əm ya-ź a.
boy-ABS field-OBL 3SG-3SG.plow
'The boy is trying to plow the field, or the boy is doing some plowing, in the field'
'The boy is plowing at the field (but may not complete it)' (Comrie 1978 :347)

In (120a), the subject checks ERG case and the object ABS. Although the verb is in the present, the object is interpreted as the event terminus. In (120b), there are many possible interpretations, but they all convey the idea that the completeness of the event is doubtful. The object, being oblique, cannot be considered a terminus, hence the imperfectivity of the clause. I would suggest then that the difference between aspect split systems and ergative systems is that v corresponds to the grammatical aspect in the former (perfective) and the lexical aspect (accomplishment) in the latter.

[80] Many have proposed that in some languages, ERG is a high case checked in the TP/CP domain (see Chomsky 1993; Bittner & Hale, 1996; Bobaljik & Branigan, 2006). However, Legate (2017) demonstrates that for some of these languages, this is not the case. For example, in Kurdish, the past tense is an allomorph of the verb stem. Present and past verb stems both occur low in the clause, so she concludes that ERG is not checked in the TP domain but lower in the clause.

To summarize, in ergative systems v has an ERG case to check in the specifier of vP and a [+T] feature to its complement resulting in the completeness (telicity) of the event, regardless of tense. Therefore, in ergative systems, the [+T] feature means an accomplishment and not necessarily the perfective aspect. When v is not generated, then the interpretation must be atelic. In the presence of an aspectual split, v also has an ERG case and a [+T] feature, yet this time it results in the perfectivity of the event. When v has no ERG case to check, then there is no [+T] feature, the subject argument checks the NOM case of T, and the result is an imperfective reading. The next section will apply these findings to the syntax of PMP and the Micronesian languages.

3.2.2 Aspect and argument structure of PMP and Poc

In Chapter 2, I argued that the only transitive clauses of PMP were in the direct passive voice. The distribution of cases (repeated here) is as follows (adapted from Lynch et al., 2002: 58):[81]

(121)

a. Intransitive	b. Transitive ACTIVE	c. Transitive PASSIVE
A-like = ABS	A = ABS O = PART	A = ERG O = ABS

I proposed that the active voice was intransitive because the accusative article always represented an indefinite object. This is corroborated by the fact that there were no PART pronouns and that the PART article **ta* was reinterpreted as a marker for all indefinite DPs in POc. Moreover, the ERG pronouns became markers of agent and the ABS pronouns markers of subject of intransitive verbs and objects of transitive verbs (they will evolve into the independent pronouns of modern Oceanic languages). Since there were no independent tense or aspect markers in PMP, voice and aspect were located on the verb stem as affixes, so the cases could only be checked in the vP domain. An interesting fact is that PMP had a perfective infix that could not co-occur with the direct passive. I propose that this is for the same reason that the progressive cannot co-occur with a stative verb in English, it would be redundant (Dowty 1979). If we consider that the passive voice represented an event as a series of events with a terminus (accomplishment) or just a terminus (achievement), both the passive infix and the perfective infix had the same effect on the interpretation of the verb. Furthermore, the active voice would have indicated an activity. Recall that affixes have a direct effect on the argument structure and aspectual properties of a

[81] I substituted Lynch et al.'s cases with the ones I argued for above.

verb (Di Sciullo 1987, 2005a, 2005b). With the loss of voice and aspect affixes of PMP, the argument structure of verb stems could no longer be modified in the morphological domain.

From PMP to POc, a major innovation is that aspectual properties of events became part of the syntactic domain as mood and aspect were expressed by independent markers. The articles marking case were reinterpreted such that the ERG article became a marker of transitive subjects, the ABS article a marker of intransitive subject and a marker of transitive objects, and the PART article a marker of indefiniteness. There is in all probability a relationship between the two events; once the voice system, along with the morphological modification of the argument structure by affixation disappeared, arguments of the verb could no longer depend on the verbal form to assign case. This in turn triggered the movement of the subject pronouns as obligatory proclitics to the verb, and the object pronouns as enclitics, occupying the theta position of their argument, as it was necessary for case checking.

I proposed in chapter 2, following Kikusawa (2002; 2017) that GEN was in fact ERG, and that NOM was in fact ABS in PMP. Perhaps the ergative alignment is an innovation of POc instead of a feature of PMP. Nevertheless, POc was ergative because both sets of pronouns (and the articles that functioned as markers of subject and object) do not correspond to the function of pronouns and arguments in accusative languages but rather have the same function as case markers in ergative languages. Moreover, object-incorporation is a POc innovation as well and, as discussed in 3.1.2, it was triggered by a case-filter problem. Recall that there were articles representing the grammatical function of nouns and that subject and object clitics on the verb coreferenced these DPs:

(122) a. ERG proclitic with the article of transitive subjects.
b. ABS proclitic and enclitic with the article of intransitive subject and transitive object.

The NOM object enclitic of POc could only be used for definite NPs and in a transitive clause, the verb had a transitive suffix **-i*. However, with a bare noun, no object enclitic occurred, and the verb did not have a transitive suffix. In the next section, I will tentatively reconstruct the case system and the pronoun system of this proto-language and refer to it as PMc. Moreover, I will describe the historical development of Micronesian languages from PMc.

3.3 From PMc to modern Micronesian languages

In this section, I will first describe the grammatical properties of PMc and then illustrate how these features evolved to give rise to modern Micronesian languages. In chapter 1, I divided the Micronesian languages into two subsets with distinctive features. Each of these features is, I believe, directly connected with each other. I will propose that PMc retained the ergative alignment of POc yet, through a series of innovations, the Micronesian languages evolved in two different directions. I will propose that these innovations are the result of a reinterpretation of case features that triggered many other changes through time.

In the first chapter, I compared six different Micronesian languages based on the following grammatical properties: (i) the position of arguments within the sentence, (ii) the sets of pronouns and whether or not the subject pronouns were obligatory, (iii) the ways in which tense and aspect were expressed, (iv) the aspectual properties of directional affixes, and (v) object incorporation. My observations were illustrated in table 1.4, repeated here:

Table 1.4 Micronesian languages subgroups

	MRS	KIR	TRUK	PON	MOK	KOS
Fixed SV order				√	√	√
Sets of pronouns for subjects	2	2	2	2	1	1
Obligatory subject pronouns	√	√	√			
General tense markers	√	√	√			
Aspectual properties of directional suffixes				√	√	√
Object incorporation				√	√	√

The characteristics of POc and henceforth PMc are divided among the Micronesian languages. While PON, MOK and KOS (henceforth referred to as Set 2) have retained the fixed word-order and the object-incorporation of PMc, another set of languages, namely, MRS, KIR, and TRUK (henceforth referred to as Set 1) retained the obligatory subject pronouns. It is not clear if directional affixes had aspectual properties in POc. However, Lynch et al. (2002) note that post-verbal clitics with aspectual properties are widespread in Oceanic languages. In the following sections, I will compare each feature and propose that their presence or absence in Set 1 and Set 2 are directly correlated.

3.3.1.1 Variable word-order and obligatory subject pronouns of Set 1

Likely, PMc had a fixed word-order that depended on sentence type. Whereas the basic word-order of transitive sentences was SVO, intransitive sentences, including equational sentences, had a VS word-order (Harrison 1978; Hale 1998). If we look at table 3.2, we can see that in transitive sentences, Set 1 has obligatory pronouns and the word-order may vary. Moreover, in Set 2, MOK and KOS do not have a set of subject pronouns distinct from the independent pronouns. If we consider that Micronesian subject pronouns are POc subject pro-clitics, it might mean that these two languages lost these markers. However, PON retained those pronouns even though they are not obligatory except in topicalized sentences. The case of PON is interesting as it seems to be in between Set 1 and Set 2 in terms of language change.

Table 3.2 Overview of Set 1 and Set 2 properties in transitive clauses

SET	LANGUAGE	SVO	VOS	SUBJ. PRON	IND PRON	INCORPORATION
1	**MRS**	√	√	obligatory		
	KIR	√	√	obligatory		
	TRUK	√	NA	obligatory		
2	**PON**	√	-	Complementary distribution with subject DP		√
	MOK	√	-	No subj. pron	obligatory in topics	√
	KOS	√	-	No subj. pron	obligatory in topics	√

To account for the difference between Set 1 and Set 2, I propose that PMc obligatory subject pronouns, which were agent markers, became the true arguments of the verb in Set 1. I will use Jelinek's (1984) Pronominal Argument Hypothesis to describe the change that took place from PMc to the languages of Set 1.

3.3.1.2 The Pronominal Argument Hypothesis

In this section, I will outline the Pronominal Argument Hypothesis and propose that one of the innovations of Set 1 is the projection of a TP. I assume that PMc, just like POc, did not have tense markers but rather aspectual markers based on the fact that the languages of Set 2 did not develop tense markers. This subsumes the idea that a close ancestor of Micronesian languages did not have such a feature.

Ergative languages and split ergative languages vary greatly in their syntax and some of them display a non-configurational syntax with the following properties (from Hale, 1983):[82]

(123) a. ''free'' word order: arguments of the verb may occupy different positions without altering the meaning.
b. syntactically discontinuous expressions: parts of a DP may not be contiguous and still form a constituent.
c. null anaphora: a nominal expression can be absent from the structure.

In Warlpiri, the only fixed syntactic position is an AUX clitic sequence that always occurs in the second position (from Hale 1983: 6):

(124) a. Ngarra-ngku ka-Ø wawirri panyti-rni.
man-ERG. PRST kangaroo spear-NONPAST
"The man is spearing the kangaroo."

b. Wawirri kapi-rna panti-rni yalumpu.
kangaroo FUT-1SG spear-NONPAST that
"I will spear that kangaroo."

In example (124a) the subject checks ERG case and Ø represents the third person singular clitic. Both the subject and the object are in the third person singular, hence the lack of overt clitics on AUX. In example (124b) we see that the object occupies the first position, and the subject is represented by the first-person singular clitic on AUX. Moreover, the objective constituent is discontinuous: the determiner is at the end of the clause.

According to Jelinek (1984) the clitic pronouns are the true arguments of the predicate. Her assumption is that the NOM-ACC clitics are grammatical cases whereas the ERG-ABS cases on nominals are lexical cases. The grammatical cases have a fixed order (from Jelinek 1984: 50):

(125) *ngalu-rlu ka-ngku-rna nyuntu-Ø nya-nyi.
1SG-ERG PRST-2SG.ACC-1SG.NOM you-ABS see-NONPAST.
"I see you."

[82] Legate (2002) argues that Warlpiri is in fact configurational. She proposes that the subject occupies the highest position in the clause and that morphological absolutive case masks structural nominative and accusative case.

As we can see in (125) the ACC clitic cannot precede the NOM clitic. Therefore, the grammatical cases have a fixed order regardless of the full nominal's positions. Although Jelinek does not consider this as a sign of configurationality, it clearly shows that grammatical cases are more dependent on order for their interpretation. Moreover, they are associated with the AUX markers in the T position. Also notice the independent pronoun *ngalu*: these independent pronouns are used for emphasis and may be freely omitted. While grammatical cases reflect grammatical functions, the lexical cases reflect thematic roles (from Jelinek 1984: 60):

(126) a. Ngarrka-Ø ka-Ø-nyanu nya-nyi.
man-ABS PRST-3SG.NOM-REFL see-NONPAST
"He sees himself, (as) a man."

b. Ngarrka-ngku ka-Ø-nyanu nya-nyi.
man-ERG PRST-3SG.NOM-REFL see-NONPAST
"The man sees himself.'

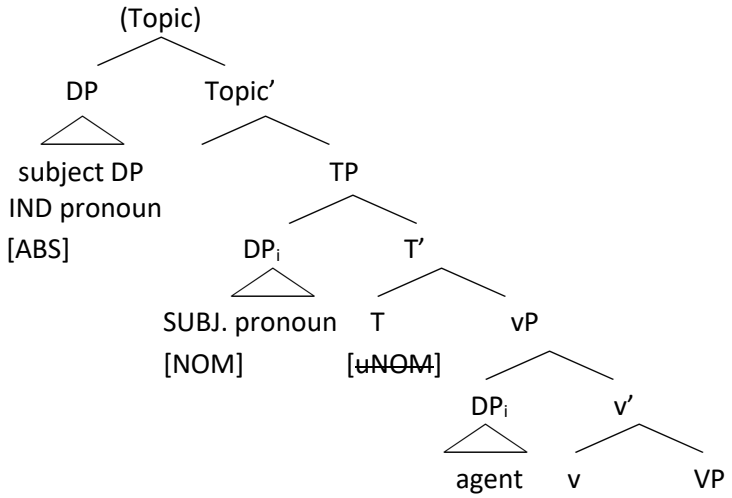
According to Jelinek, the use of the ergative marker puts more emphasis on the external argument and the use of the absolutive marker on the internal argument. The full nominals in Warlpiri sentences are considered by her to be optional adjuncts with mainly a semantic effect rather than a grammatical one. The fact that they are coindexed with pronominals that serve as the actual arguments is the reason why nominals are allowed a free word order. Apparent nonconfigurational languages such as Warlpiri are nevertheless constrained by their grammar to produce a somewhat fixed order that responds to the properties of the language faculty. The binding of pronouns and anaphors as well as control performed by a null PRO subject according to structure-dependent principles are observed (Hale 1983). Therefore 'free word order' does not result from different syntactic properties than other configurational languages.

In Micronesian languages, there are two sets of pronouns that may reference the subject: (i) subject pronouns and (ii) independent pronouns. In the languages of Set 1, they can both co-occur when the subject is topicalized or right-dislocated. However, the subject of the clause (whether an independent pronoun or a full DP) may be omitted. This is what we find in languages such as Warlpiri. Micronesian languages are considered to have an accusative alignment. Yet, the fact that two types of pronouns may reference the subject points to some type of split or at least remnants of a split.

PMc had a set of obligatory transitive subject pro-clitics that occupied the Spec vP position, which is the agent theta role position, and the pronoun checked the inherent ERG case and remained in situ. The

nominal subject (if present) was co-referenced by an article indicating its function as subject of a transitive sentence. These articles are no longer present in modern Micronesian languages. Perhaps they even disappeared before PMc. In POc, and probably in PMc, the nominal arguments followed the verb with the subject being clause final.[83] The loss of the articles indicating the function of the arguments arguably triggered a reinterpretation of the subject pro-clitics as the true subjects of the verb. Moreover, I propose that a change took place such that v started to carry the ACC case feature instead of ERG. This change is also directly related to the appearance of tense markers. If PMc had an ergative alignment, objects of transitive clauses did not check the ACC case but rather the ABS case. With the appearance of tense markers, the subject would now check the NOM case and the object the ACC case. Recall that ACC pronouns are an innovation in Micronesian languages. We must however account for the independent pronouns; if they no longer check the ABS case, then what is their function? We know that they replace the subject DPs and may be topicalized or right-dislocated. A good explanation would be that they check a lexical case as in Warlpiri. Since the use of independent pronouns is obligatory in equational sentences, which are verbless sentences, it would make sense that they do not check a structural case. The following tree illustrates the syntax of transitive clauses of the languages of Set 1:

(127)



The case checked by the subject DP or independent pronoun is not clear. If it is ABS, then it would be checked in Spec VP which is problematic because the object would also check the ACC case of v in this position. Perhaps, these pronouns lost the ability to check case. If we assume instead that they are generated in Spec vP, then it would mean that subject pronouns are agreement markers and not pronouns.

[83] The fact that many Micronesian languages may display a VOS word-order may as well be a remnant of POc.

Song (1994) states that agreement markers cannot serve as referential pronouns. However, the fact that subject DPs may be omitted indicates that these pronouns have a referential function in MRS, KIR, and TRUK which is why he calls them functionally ambiguous agreement markers. Moreover, if the subject pronouns are agreement morphemes, it is not clear why they would cliticize to TP and not vP. To illustrate the problems in analyzing the function of subject pronouns, I will use data from MRS.

3.3.1.2.1 Are subject pronouns agreement markers?

In MRS, the subject pronouns are obligatory, and they must agree in number and person with the overt subject. However, this is not always the case: with unaccusative verbs with sentence-internal subjects, there is no agreement between the subject and the subject pronoun (from Erdland 1914: 198,192):

(128) a. E buromui-j iroj ro.
3SG be.sad-PRES chief DET.PL.H
'The chiefs are sad.'

b. Im e jebjeb-lok mari ko.
and 3.SG bounce-off spear DET.PL.N-H
'And the spears bounced off.'

In those examples, we observe that: (i) the subjects are plural, but the subject pronoun is not and (ii) the verbs are stative, and the translation requires the use of a copula. According to Hale (p.c.), it would be ungrammatical to have a sentence-final subject with an unaccusative verb if there is no agreement between the subject and the subject pronoun. However, sentence-initial subjects are possible, and they do trigger agreement (from Erdland 1914: 186):

(129) ke larrik ro re-ritto-lok jirrik.
when boy DET.PL.H 3PL.-grow-up a.little
'When the boys were grown-up somewhat.'

I conclude, along with Hale (1998), that the subject pronouns in (128) are instances of expletives whose function is to check the EPP feature of T. If this is true, it seems that subject pronouns are not agreement markers. However, the examples in (128-129) were taken from a 1914 grammar. Willson (2008) mentions that her consultants find the lack of agreement in sentences such as (128) ungrammatical. It would seem that a change took place during the last century regarding agreement between sentence-internal subjects

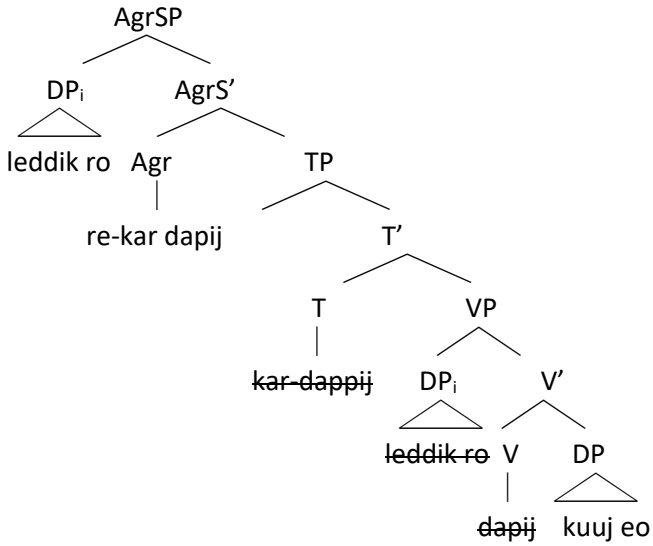
and the subject pronoun. Moreover, the sentence-final position is nowadays available for subjects of unaccusative verbs according to her consultants (from Willson 2008: 110):

(130) Re-kar buromoj ilo bade eo, irooj ro.
3PL-PST be.sad during party DET.PL.N-H chief DET.PL.H
'They were sad during the party, the chiefs.'

According to Hale (1998) the syntax of transitive sentences such as (131) below would be as (132) (from Hale 1998: 346):

(131) Leddik ro re-kar rapij kuuj eo.
girl DET.PL.H 3PL-PST hold cat DET.SG.N-H
'The girls held the cat.'

(132)



In Hale's analysis, the subject moves to the specifier of AgrSP. Moreover, he assumes that the verb moves to T, forming a V+T complex. This complex moves further to the head of AgrS, triggering agreement. However, as Willson (2008) points out, the verb cannot be copied as high as AgrSP since it would predict the wrong word-order for adverbial phrases (from Willson 2008: 141-142):

(133) a. E-ar bar etal.
3SG-PST again go
'She went again.'

b. *E-ar etal bar.
3SG-PST go again

As we can see in (133a-b) the adverb bar can be pre-verbal but not post-verbal. The assertion that the verb can occupy the AgrS position is contradicted by the data. Moreover, Pollock (1989) suggested that only auxiliaries may occupy the AgrS position because they do not assign theta-roles. The verb in (133) is not an auxiliary; it assigns the agent role to the subject argument. The fact that the verb may not be copied to the T position also calls into question the idea that MRS is a pro-drop language, considering that V to T movement is a property of pro-drop languages. The negation particle is also problematic for Hale's analysis (from Bender 1969: 10):

(134) Timoj e-j jab etal nan Laura.
Timos 3SG-PRES NEG go to Laura
'Timos is not going to Laura.'

The verb may not occupy a position higher than the negation particle which means that it is barred from the T position. Considering this, we may assume that V may only move to a position lower than T.[84] Because of the placement of adverbs and negation markers, we know that the verb is not copied to T. The only solution to account for the placement of the subject pronouns in Spec TP is that it moves directly from Spec vP. Therefore, it is not an agreement marker. I conclude that PMc ERG subject pro-clitic was reanalyzed as a subject pronoun generated in Spec vP. Moreover, with the appearance of tense markers, the pronoun had to move to Spec TP to check NOM case. At the same time, v lost its uninterpretable ERG case feature in favor of an ACC case feature. This also triggered the need for a set of ACC pronouns because objects of transitive clauses could no longer check the ABS case indicated by the IND pronouns. However, these pronouns are still used in equational sentences. Thus, there is still a marked difference between subjects of verbal sentences and subjects of equational sentences.

Going back to the function of independent pronouns and subject DPs, I must conclude that they are adjuncts because the subject pronouns are the true subject arguments of the verb. They are generated in Spec vP and move to Spec TP to check NOM case. If this is so, then subject DPs and independent pronouns may be both topicalized and right-dislocated, if they are present at all.

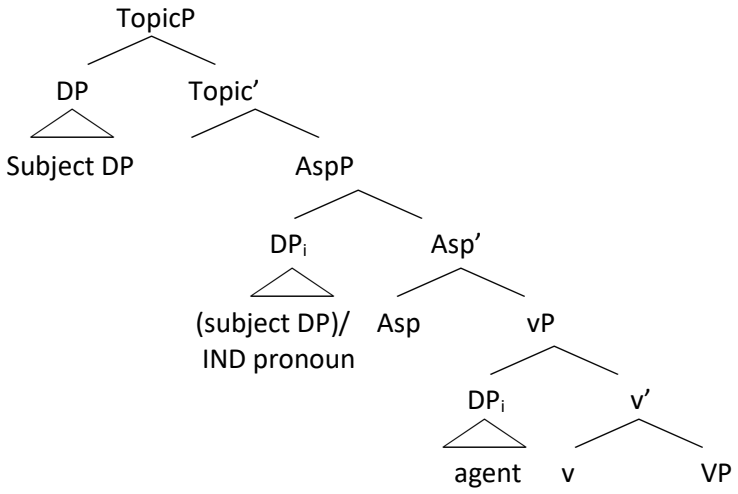
[84] Moreover, the AgrSP hypothesis has been eliminated from the theory and is no longer in use in the Minimalist framework (see Chomsky 2013; 2015). Therefore, I will no longer use it in my descriptions, even though the works cited might have adopted it.

3.3.1.3 Fixed word-order and the lack of obligatory subject pronouns in Set 2

The analysis proposed in the preceding sections cannot account for the languages in Set 2. These languages do not show variation in the position of subjects; they always precede the verb or the aspectual markers. Moreover, they are in complementary distribution with independent pronouns (or subject pronouns in the case of PON). The pronoun and the subject may only appear together when the subject is topicalized. In this case, it is plausible to assume that either the subject DP or the independent pronoun are generated in Spec vP and move to a higher position preceding the verb. If the Subject DP is topicalized, then it is the pronoun that is generated in Spec vP. For the time being, I will propose that the subject or the pronoun checks the ERG case of v.[85] The reason is that aspect markers are not obligatory, and they do not carry a case feature, probably only an EPP feature. Moreover, except for MOK, the languages of Set 2 also have a set of ACC pronouns. Therefore, v carries the same ACC features for both Set 1 and Set 2 languages. This is not contradictory; many languages that show a split-pattern have a v that carries both ERG and ACC case. We must note that MOK and KOS no longer have subject pronouns. These were replaced by independent pronouns, even as subject of transitive clauses. These two languages, being part of Set 2, do not have tense markers. Therefore, the former subject pronouns could not check the NOM case of T. If v acquired an ACC feature, objects of transitive clauses no longer check ABS case. I propose that the independent pronouns were reanalyzed as subject pronouns, regardless of the transitivity of the verb. Therefore, they are used as subjects in both verbal and equational sentences. I assume that the syntax of Set 2 languages is similar to that of POc, except that the subject is no longer sentence-final:

[85] I still have some doubts about this conclusion however since subject pronouns were the reinterpretation of ERG pro-clitics. Another possibility would be to assume that independent pronouns remained verb-internal in aspect-based languages. This would be corroborated by the obligatory VS word-order of intransitive clauses and might also explain the impossibility of V to have a PART case to check. If the subject of a sentence with an incorporated object is VP internal, checking the ABS case of V (represented by the independent pronouns of modern Micronesian languages) then it blocks the possibility of also carrying the PART case. This would explain why aspect-based languages still have object incorporation as opposed to tense-based languages whose subjects always check the NOM case of T.

(135)



In the tree (135), I followed Demirdache & Uribe-Etxebarria (2000) in projecting an AspP instead of a TP. The reasoning is that the relationship between aspectual markers and the verb is not the same as with a TP. With AspP it is the relationship between the assertion time and the event, whereas with a TP, the relationship corresponds to the utterance time. This would also explain why perfective aspect is expressed within the VP with directionals in aspect-based languages, whereas tense-based languages express the perfect aspect within the TP as demonstrated in section 3.2.1.3.3. Moreover, it is not possible to adopt the IP projection proposed by Massam (2002) as languages of Set 2 are not verb first.

The case of PON is interesting because even though it has a set of subject pronouns, these are not obligatory, except when the nominal subject is topicalized. However, PON is an aspect-based language which is not a pro-drop language (as all Micronesian languages) and there is no V to T movement. I cannot claim that the subject pronouns check the NOM case of T, nor that it still checks the ERG case of v. The fact that these pronouns are not obligatory and are in complementary distribution with the nominal subject in non-topicalized sentences seem to indicate that they still function as subject pronouns of transitive verbs. I assume that they occupy the Spec vP position as in the languages of Set 1. PON might be an intermediate step between languages of Set 1 and Set 2. It has not developed a set of tense markers but has not yet lost its set of subject pronouns.

3.3.1.4 Summary

In this section, I compared the languages of Set 1 and Set 2 in terms of variation of the position of subject pronouns with their obligatoriness or lack thereof. I concluded the obligatoriness of subject pronouns in Set 1 is directly related to the variation in subject positions because the subject pronouns are the true

arguments of the verb. They are generated in Spec vP and move to Spec TP to check NOM case. Moreover, subject DPs and independent pronouns are adjuncts to the clause which is why they may be topicalized or right-dislocated. On the other hand, the languages of Set 2 have a fixed SVO word-order because either the subject or the pronoun may be generated in Spec vP. Only when the subject is topicalized is the pronoun obligatory.

3.3.2 Aspectual properties of directionals and object incorporation

Another distinction between the languages of Set 1 and Set 2 is that the latter use directional affixes as markers of aspect, more specifically: the perfective aspect. However, languages of Set 1 do not use directionals in such a way. We saw in section 3.2.1.3.3. that in ergative systems without a TP, grammatical aspect can only be VP internal which is not the case for accusative languages. In accusative languages, both perfect/progressive and perfective/imperfective aspectual contrasts are possible.

Directionals are affixes following the verb directly in languages of Set 1, but they may follow the incorporated object in the languages of Set 2, indicating that the activity denoted by the compound verb is completed.

Compare the following examples of PON (from Hale 1998: 348):

(136) a. I kang-la wini-o.
1SG eat.TR-DIR medicine-DET
'I have taken all that medecine.'

b. I keng-winih-la.
1SG eat.INTR-medecine-DIR.
'I have completed my medecine-taking.'

In (136a) the object is definite, and the directional affix follows the verb directly. However, in (136b) the object is indefinite (bare), it is incorporated into the verb and the directional affix follows the compound verb. Therefore, it is the action as a whole that is completed: this turns the activity into an accomplishment. In PON, the aspectual markers that may precede the verb are: (i) *pahn* = unrealized aspect, and (ii) *kin* = habitual aspect. In section 3.2.1.3.3, I demonstrated that the perfect and the progressive aspects are related to tense and that the perfective and imperfective aspects are expressed within the vP. Since PON and the other languages of Set 2 do not have a TP, aspects such as unrealized and habitual are expressed

in an AspP node because they do not refer to tense per se. In order to convey tense with these aspectual markers, temporal adjuncts such as *last year* must be used.

In languages of Set 1, the tense markers express the past, present and future. If an event is completed, it is not marked within the vP. However, the presence of a definite object will indicate a terminus, whereas the presence of an indefinite object or the lack of object will indicate a lack of terminus. We saw in section 3.1.2 that Micronesian languages are divided into two subsets with respect to the interpretation of bare nominal objects. Languages of Set 1 use a partitive case, whereas languages of Set 2 use object incorporation. Both processes function to resolve the case filter problem caused by identical verbal forms for the intransitive, and the transitive followed by a bare nominal. Both processes also indicate an activity, regardless of tense. In languages of Set 1, the past tense marker will indicate that the action is over. However, such tense markers are not present in languages of Set 2. I propose that that is the precise function of aspectual directional affixes.

In aspect-based languages with object incorporation, I propose that the use of directionals for aspectual properties has the function to add a terminus to an event. Since the object is incorporated into the verb stem and that there are no general markers for past tense, the completeness of an activity is expressed by directional affixes.[86] On the other hand, languages of Set 1 may always express past tense with a general marker which would indicate that an activity expressed with a transitive sentence with a bare object is completed. It is unclear whether directional affixes were used as aspect modifiers in POc. Lynch et al. (2002) briefly mention this issue. In any case, it might be that the aspectual properties of directional affixes predate PMc. It might also be the case that directional affixes of the languages of Set 1 lost their aspectual properties when the verb acquired the partitive case feature.

Another key difference of tense-based languages is that most languages express the perfect and the progressive with the use of the auxiliaries *have* and *be* respectively (Anderson 1977). Micronesian languages do not have these verbs or auxiliaries, the only way to express the durativeness (or lack of terminus) is through reduplication. Moreover, a verbal affix like the directional affixes may be used. These two processes are vP internal. In split-ergative languages with an aspect split, the perfective and the

[86] There are other aspectual affixes as well. For example, PON has the suffix *-ehr* for perfective aspect. The difference between this affix and the use of directionals for aspectual properties is unclear. However, I could not find an example of incorporation using the suffix – *ehr*.

imperfective aspects are commonly used with ERG/ABS, whereas the perfect and progressive are used with NOM/ACC. If PMc was ergative, then it follows that there were no perfect and progressive aspect. The morphological processes of reduplication and affixation were the only way to express these aspects.

3.4 Chapter conclusion

In this chapter, I proposed that PMc had an ergative alignment inherited from POc. It was an aspect-based language which allowed object-incorporation. There were two types of pronouns: (i) ERG for subject of transitive verbs and (ii) ABS for subjects of intransitive verbs and objects of transitive verbs. The ERG pronoun was an obligatory pro-clitic in POc but when the articles representing the function of the arguments were lost, the subjects preceded the verb and/or aspect/mood markers as opposed to following the verb as in POc. From PMc to the Micronesian languages two sets of events occurred:

(i) In some languages, tense-markers appeared. This triggered the reanalysis of the ERG pronoun as an obligatory subject pronoun that moved to the Spec TP position to check the NOM case. Moreover, v lost its ERG case feature and acquired an ACC case feature resulting in the development of a set of ACC pronouns. The former ABS pronouns became independent pronouns that could only be used as adjuncts or as subjects of equational and unaccusative sentences. Because subject pronouns are obligatory, the position of independent pronouns and subject DPs may vary. Finally, the process of object-incorporation was replaced by a lexical PART case feature for bare objects.

(ii) The other languages remained aspect-based and preserved object-incorporation. However, v also lost its ERG case feature which was replaced by an ACC feature. Since no tense markers developed, there was no need to reinterpret the former ERG pronouns as obligatory subject pronouns whose function was to check the NOM case feature. In fact, in two of these languages, subjects may only be replaced by independent pronouns. Since there are no tense markers, directional affixes may be used to indicate the completeness of an event, especially with compound verbs in which the object has been incorporated.

Although I have briefly touched on some theoretical notions of syntax through the first three chapters, I have not properly described the theoretical implications of language change in general and more specifically, what these changes imply within a theory of syntax. Syntactic variation and historical changes will be the topics of the next chapter.

CHAPTER 4

LANGUAGE CHANGE AND LINGUISTIC THEORY

4.1 Introduction

To understand language change and variation, one must first explore theories of linguistics and language variation to situate various syntactic and morphological phenomena within a theoretical frame. In the preceding chapters, I talked about many different morpho-syntactic processes such as object-incorporation, reduplication, word-order, etc. It is customary to expose the theoretical framework one intends to use at the beginning of a dissertation. I decided to finish my dissertation with the introduction of the theoretical framework for two reasons: (i) the first one was that I realized that without the data, which usually come in subsequent chapters, it was not clear why I talked about specific aspects of the theory and not others and (ii) the purpose of my dissertation is two-fold: to describe the historical changes from an ergative alignment in Poc to an accusative alignment in Micronesian languages and to provide an explanation for language change and variation. In this chapter, I will first outline the basics of the theoretical framework within which I work: Generativism. More specifically, I adopt the Minimalist framework. Much research on case assignment, pronominal systems, word order, and agreement is being done within that framework and the theory keeps evolving. My first task will be therefore to describe the basics of Minimalism and what it aims at achieving. I will then outline two theories within Minimalism that explain language change: Economy of features (van Gelderen, 2011; 2023) and Symmetry-Breaking (Di Sciullo, 2011; Di Sciullo & Nicolis, 2012; Di Sciullo & Somesfalean, 2013; Di Sciullo et al., 2020). Then I will further analyze my data in accordance with these theories to provide a more in-depth explanation of language change and variation.

4.1.1 Generativism

The Minimalist Program is a continuation and a refinement of the generativist theory of language. Generativism approaches first emerged in the 1950's and its goal was to explain language acquisition and computation. Since Chomsky's Syntactic Structures (Chomsky, 1957), linguistics is a science that aims at explaining the mechanisms of the human language faculty. Therefore, the focus is on Language[87] (or I-

[87] The use of a capital letter is intentional to separate the concept of Language as a human property and languages as socio-political entities.

Language) and not on specific languages (E-Languages).[88] More precisely, it is the linguistic competence of a speaker that is under observation as opposed to their performance (Chomsky, 1965). These notions of competence vs. performance are parallel to Saussure's *langue* and *parole*. Furthermore, Saussure's *langage* as the universal human faculty to construct languages is the precursor of Chomsky's Universal Grammar (UG), an inherent component of the faculty of language that constrains the list of possible grammatical sentences. These constraints also play a role in what constitutes a potential theory of variation. In fact, as the generative theory evolved, synchronic variation as well as diachronic variation became evidence for the understanding of UG. The primary goal of this dissertation is to examine the locus of variation: what are the specific features responsible for variation and how do they interact with the Language Faculty so that various types of languages may emerge. In the preceding chapters, I compared two types of syntactic alignments, namely, accusative and ergative. I described the various types of features of grammatical categories and how a change in one category could trigger a series of other changes. I outlined the history of proto-languages such as PMP, POc, and PMc and how the latter has evolved into different modern Micronesian languages. My conclusion was that changes in the features of the verb, more specifically the grammatical light v, were both influenced by and in turn resulted in a reanalysis of the grammatical properties of many daughter languages.

4.1.2 Language acquisition

Language is a powerful device specific to humans. It not only serves the purpose of communication but, more importantly, it is the foundation of human thought. Language is an organized system: generative, recursive, and hierarchical (Hauser et al., 2002). Abstract computational mechanisms combine elements to form structures in precedence/dominance relationships. The resulting structures may then be combined further to produce limitless verbal (or signed) expressions.

Children are exposed to linguistic data from as soon as in their mother's womb where they start the acquisition process (Moon et al., 2013). Children learn to recognize the sounds of their native language (phonetic) and how these sounds may interact together (phonology). They learn an extensive list of words that may be broken down into roots, stems, and affixes and how these units may be further combined to form novel words (morphology). These words are then put together to form sentences (syntax). The

[88] More specifically, languages are basically the intersection of properties of many I-Languages. For example, no speaker of English has the same I-Language, but there are enough common properties for English speakers to be mutually understandable.

combination of the units of a language, whether phonemes, morphemes, or syntactic units is strictly constrained. Although children accumulate a list of words (including stems, roots, and affixes) in the form of lexical entries composed of sound and meaning, or as Saussure would call them *signifiant* and *signifié*, language computation does not rely on this list of referents.

The words and affixes that children learn are stored in what is called a lexicon. According to Chomsky (1970: 184) "the lexicon consists of lexical entries, each of which is a system of specified features." When a child learns to speak, they not only associate a series of sounds with a referent (that which is referred to), but also more abstract features such as gender, number, animacy, volition, etc. Languages differ regarding what features may be present in vocabulary items. For example, many languages have a nominal gender-based system such that things arbitrarily belong to a certain gender: Romance languages alternate between feminine and masculine while others like German additionally have a neuter gender. Other languages have a more elaborate class system. For example, Dyirbal has a four-class system divided as follows: (1) animate objects and men, (2) women, water, fire, violence, and exceptional animals, (3) edible fruits and vegetables, and (4) miscellaneous (Dixon, 1972). Moreover, nominals can also be expressed in the form of pronouns and the latter carry person and number features as well as a gender feature. The range of nominal features is quite extensive and the possibility for variation is considerable. Verbs may also express features such as person and number, tense, aspect, and moods. It is these features that are essential to linguistic computation. However, the capacity to use these features to construct sentences is part of the human cognition and thus innate. In generative grammar, this is called Universal Grammar (UG).

4.1.3 Universal grammar

Children learn a language relatively quickly even though the linguistic data pertaining to sentence structure is quite scarce. More precisely, children are not exposed to sufficient negative evidence and cannot therefore rely solely on trial and error during the acquisition process (see Skinner, 1957 for the behaviorist theory of language acquisition). This lack of evidence is referred to as the Poverty of Stimulus (POS) or Plato's problem (Chomsky, 1980). Every human possesses UG and, barring unusual circumstances, will learn to speak at a fairly predictable speed. Although some languages might appear to be more complex or more difficult to learn, it is not the case that language acquisition depends on exterior phenomena related to any particular language but is rather tied to the learning device itself. It was thus hypothesized that a component of the Faculty of Language was responsible for language acquisition. This human property of being capable of acquiring Language is called Universal Grammar (UG) based on the idea that

all humans inherently possess an 'initial state' of grammar. Although proposed quite early in the generative framework, UG has remained one of the hallmarks of the theory. However, our understanding of UG has changed through successive theories that we will explore in subsequent sections. It is important to note that our perception of language variation is dependent on our conception of UG and the principles governing it. As I will show, the development from the Principles & Parameters theory to the precepts of the Minimalist Program changes not only our view of UG but also of language variation.

4.1.4 Principles and parameters

The Government and Binding (GB) theory (Chomsky, 1981) encompassed many aspects of linguistic inquiry. Besides syntactic relations between elements, the fields of language acquisition and variation were also investigated in various works in this framework. The most relevant aspect being Plato's problem: how do children acquire language in such a short time despite being exposed to limited data regarding the structural properties of grammar. The Principles and Parameters (P&P) approach aimed at not only describing, but also explaining how, Language is acquired and why it varies. As the name implies, UG was then understood as possessing two components: principles and parameters from which derived an architectural and derivational complexity.

In the P&P framework, UG comprises a list of invariable principles that are inherent to any language. For example, the Theta Criterion which assigns a thematic role to all arguments in a proposition (Chomsky, 1981). Any predicate has a certain number of thematic roles to assign, whether agent, theme, patient, etc. Every one of these roles must be assigned and every argument must have a role in order for a sentence to be grammatical. It is thus an obligatory constraint on sentence formation. The Case Filter is also a principle: every argument in a sentence must have a grammatical function and these functions are represented either overtly or covertly in the attribution, or more precisely, in the checking of cases (Vergnaud, 2008). In accusative languages, subjects of verbs check the nominative case whereas direct objects check the accusative case. Arguments introduced by prepositions are said to check oblique cases such as dative. Other alignments also exist. For instance, ergative languages have different cases that are checked in conditions different from accusative languages. However, the Case Filter is universal in that any argument in any language must check a case, whether morphologically realized or not. Since principles such as the Theta Criterion or the Case Filter are universal, they cannot be responsible for language variation and are immune to language change.

Parameters on the other hand are not as constrained by UG. They are Principles that are allowed a certain level of variation. Although all languages express the same concepts, they may not do so in an identical fashion. For example, the extended projection principle (EPP) states that all sentences must have a subject. This holds true for active subjects as well as expletives. In English, a subjectless verb such as 'rain' will nevertheless need an expletive to form a grammatical sentence: 'it rains'. Yet, some languages do not express the subjects overtly. Languages with a rich verbal morphology such as Spanish or Italian may avoid entirely the inclusion of subjects in a sentence, regardless of the fact that they are syntactically active or not. There may even be a semantic difference conveyed by the presence of an overt subject vs. its absence. Therefore, the EPP can be expressed in different ways: these are parameters. Parameters are binary alternatives from which the child must chose during acquisition according to the linguistic data they are exposed to, although sometimes the appropriate input is minimal. Nevertheless, it is assumed that, at some point during the acquisition process, the child will select the proper parameter for her native language. This aspect of parameter setting suggests that the two parametrized alternatives are both present in UG until the final choice is made.

4.1.4.1 Variation in the P&P model

Central to the P&P framework is the assumption that variation is a consequence of parameter settings; thus, from each choice results a different grammatical property that is syntactic in nature (Lightfoot, 1991). According to this view, UG would be the locus of variation since parameters belong to UG. However, one cannot ignore the impact of other aspects of the grammar involved in change and variation. For example, we made a parallel between a rich verbal morphology and the absence of an overt subject. If we compare another Romance language, namely French, to Spanish and Italian, we see that, unlike these, French is not a null-subject language, although an earlier form of the language was. One common explanation for this is the loss of final inflections in the verbal paradigms either due to the influence of the Germanic stress (Pope, 1952) or autonomous evolution (Noske, 2007). This means that the loss of features (person and number) expressed by means of inflections on the verb triggered the obligatoriness of the subject in order to express those features overtly. We can see in the last example that phonology (stress) influenced morphology (inflections) prior to syntactic change.[89] As Chomsky (1970: 185) puts it: "a grammar is a tightly organized system; a modification of one part generally involves widespread modifications of other

[89] The same process was demonstrated in 3.1.2: phonological variation from proto-Micronesian to daughter languages triggered a reanalysis of the features of verbs, creating a Case-Filter problem which resulted in syntactic change.

facets." In P&P this would be explained by a parameter change. However, this explanation is predominantly descriptive in nature and does not factor in other components of the grammar such as morphology or phonology. This raises the question of the nature of grammatical diachronic change and, by extension, on the nature of synchronic variation. It seems that the P&P framework is unable to satisfactorily identify the causes of variation and, in fact, merely attempts to describe them. Perhaps a more severe criticism of the P&P model is the lack of constraints in positing new parameters to account for any language's particularities (Hale 2008). In other words, what should have been descriptively simple (parameters) turned out to be more complex than expected. Others have investigated micro parameters: parameters involving only a subclass of functional heads (Biberauer & Roberts, 2012). These micro parameters are language specific, as are nano parameters which describe the features of idiosyncratic lexical items. As we can see, parameters proliferate instead of being reduced to a minimum. Whether internal or external to a specific language, all parameters are alike in that: "the elements subject to it are the same in both kinds of cases, and the features/properties in question are, too" (Kayne, 2006: 291). In other words, parameters are not chosen from a specific binary set present in UG as was assumed previously, but rather differences in features and properties that may be quite exponential. According to Newmeyer (2004) parameters are not sufficient to explain the intricacies of one particular grammar; rules must also be posited. If parameters need language-specific rules, language-specific rules do not need parameters.

The goal of the P&P framework was to minimize the content of UG by postulating a limited number of binary alternatives that would account for the diversity of languages. However, this endeavor turned out to be untenable in many ways. The proliferation of parameters as well as the lack of consensus regarding the actual set of parameters certainly increased the complexity of a framework that claimed to be simple in essence. The simplicity of P&P disregards many other properties of Language, not the least of which is its acquisition (Boeckx, 2011; 2014). If parameters fail to explain acquisition, variation, and by extent the nature of UG, then perhaps one must look at other properties of language to understand variation. In a previous paragraph, we have seen that divergences in the expression of subjecthood in different Romance languages may be a consequence of changes in features expressed overtly or covertly. One of the properties of the Minimalist framework is its focus on features and how these are processed by the Language Faculty. Before we explore the types of features that are processed by the Language Faculty, a brief sketch of the precepts of the Minimalist Program is in order.

4.1.5 The Minimalist Program

A departure from the P&P model, the Minimalist Program (Chomsky 1995; 2000) attempts to further the research beyond descriptive and explanatory adequacy: "asking not only what the properties of Language are, but why they are that way" (Chomsky 2001a: 2). In other words, general properties of organic systems must be considered in our understanding of UG. It is thus subsumed under the biolinguistics umbrella. Under Minimalist theory, there are three general properties (factors) pertaining to the language faculty (Chomsky 2005):

(137) a. Genetic endowment (UG);
b. Experience;
c. Principles not specific to the faculty of language.

4.1.5.1 Genetic endowment

The first factor is UG but this time it is devoid of principles or parameters; it only contains the necessary apparatus to understand concepts and representations. It is the initial state of Language. According to Chomsky (1995:169), UG "must specify the properties of linguistic expressions and of the symbolic representations that enter into them". Therefore, UG is the link between our understanding of the world and the ways in which we can linguistically express it. It is dependent on a single operation that constructs a new object from merging two already existing objects: Merge. With this operation "we instantly have an unbounded system of hierarchically structured expressions" (Chomsky, 2005: 11). There are two instances of Merge: one that combines two separate elements (external merge) and one that combines an element that is part of the other (internal merge). That property of human cognition has presumably more far-reaching consequences than the mere capacity to speak and communicate. It is perhaps the evolutionary Great Leap Forward that permitted abstract thinking and the processing of innovative ideas (Berwick, 2011). In fact, the externalization of Language is subsequent to the internal language of thought despite the fact that humans were capable of producing the sounds of speech over half a million years before Language appeared (Berwick & Chomsky, 2011). In other words, Language is not merely the result of the development of the human's articulatory system but perhaps an evolution that occurred within the human cognition.

4.1.5.2 Experience

The second factor is experience in the form of the primary linguistic data (PLD) or E-language the child is exposed to during the acquisition years (Richards, 2008). An E-language is the body of knowledge a community shares about a certain language and, upon exposition to this E-language, a child will construct her own internal grammar or I-language (Chomsky, 1986). The child is exposed to linguistics expressions in the form of lexical items. Lexical items are composed of a phonetic representation π and a semantic representation λ. These are produced by two independent systems in humans: The Sensory-Motor (SM) system and the Conceptual-Intentional (CI) system respectively. The operation Spell-Out separates π and λ features and sends each type of features to be interpreted in their proper interface: PF and LF respectively. The child is also exposed to a third type of features: formal features ϕ that represent a list of universal concepts such as number, gender, person, tense, aspect, etc. These features can either be inherent (comprised in the definition of a lexical item) or extrinsic. For example, *stallion* and *mare* both have an inherent gender feature whereas *horse* is genderless unless we add the terms *male* or *female* before it. Inherent formal features are said to be weak because they do not trigger any syntactic movement. Therefore, they are covertly interpreted or checked. On the other hand, formal features expressed in the form of inflections may trigger a syntactic movement in order to be interpreted. According to Nunes (1995), ϕ-features are a subpart of π-features that cannot be interpreted at PF, hence the movement. The fact that a particular feature is overt, or covert is language specific.

4.1.5.3 Principles not specific to the Language Faculty

The third factor is concerned with computational efficiency, data processing, and the overall structural architecture of Language (Chomsky 2005). The Language Faculty requires cognitive principles that did not evolve solely for the purpose of grammar acquisition. They just happen to be necessary for the faculty of language the same way our vocal tract is necessary to produce the sounds specific to language externalization. The fact that our articulatory system developed before we had any language to externalize is a good indication of that. One of the principles not necessarily specific to the language faculty is the principle of economy that reduces the computational burden of a derivation. The faculty of language is bound by the Economy of Derivation Principle which states that movement (or internal Merge) may only occur for uninterpretable features to be valued because they cannot be interpreted at the LF interface. These uninterpretable features are formal features located in functional categories. Functional elements do not have semantic and interpretable features. They are probes that need to attract lexical items with the proper interpretable features that will value their own uninterpretable features. Those interpretable

features usually come in the form of inflections but not always. For example, a subject in the form of a referential expression or a proper name will carry the 3rd person feature by default. According to van Gelderen (2004; 2011; 2023), economy principles such as Late Merge (Chomsky 1995) are directly responsible for grammaticalization and language change.

Another property of the human cognition that is a core property of the faculty of language is asymmetry (Kayne, 1994; Chomsky, 2000). Asymmetry is obligatory in order to linearize linguistic expressions. Although morphology is strictly asymmetrical (Di Sciullo 2005a; 2005b), there may be points of symmetry in syntactic relations. For example, there may be two competing positions for the same syntactic elements at the same time: prepositions and postpositions may both occur in a specific language at a certain point in time (Di Sciullo et al., 2020). However, this is never a permanent state; when choosing between two competing syntactic linearization, the less complex will prevail at some point. Symmetry breaking is a complexity-reducing mechanism that can be observed empirically from the diachronic perspective in the development of Indo-European languages (Di Sciullo 2011; Di Sciullo & Nicolis 2012; Di Sciullo & Somesfalean, 2013; 2015; 2023). Although a grammatical novelty occurs quite abruptly, its spreading is gradual (Hopper & Traugott, 1993). This novelty may introduce a point of symmetry in the grammar, and we would speculate at this point that, perhaps, a grammatical novelty will only hold if it offers a reduction in complexity. If this is true, third factors like principles of economy and symmetry breaking certainly play an important role in language change. Symmetry and symmetry-breaking will be explored further as I consider that they were key elements in the breakdown from PMc to the modern Micronesian languages.

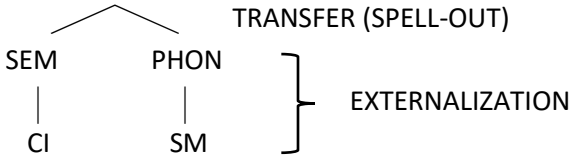
4.1.5.4 Variation in the Minimalist Program

Although parameters are not completely eliminated in Minimalism, they are nevertheless not the de facto explanation for variation.[90] Therefore, the first property of the language faculty, UG, is not the locus of variation. According to Richards (2008: 135) "Factor II is the trigger for variation, with different final states being acquired depending on the linguistic environment to which the child is exposed". Therefore, experience plays its role in the acquisition of the many features that characterize a specific language. According to Chomsky[91] (2001: 2): "Parametric variation[92] is restricted to the lexicon, and insofar as

[90] For an example of a P&P analysis of ergativity, see Sheehan (2017).
[91] This hypothesis was first proposed by Borer (1984). Baker (2008) refers to this as the Borer-Chomsky Conjecture.
[92] Although the term parametric is used, it nevertheless does not equate the parametrization of a principle: the inflectional morphology of a particular language is not part of UG.

syntactic computation is concerned, to a narrow category of morphological properties, primarily inflectional." The inflectional parts of lexical entries express features such as the ϕ-features: person, number, and gender. They may also express Tense-Aspect-Mood (TAM) or Case features. Languages differ in the features they realize morphologically. For example, French verbs are morphologically more complex than English verbs regarding tense or mood. While English uses modals, Standard French does not. This has for consequence the movement of French verbs from V to T (Pollock 1989). However, this movement is absent in English. Thus, the syntax of languages is greatly affected by lexical differences, the latter being acquired through experience or Factor II. The processes of linguistic computation and language variation can be schematized as follows:

(138) MERGE > SYNTACTIC OBJECT > AGREE



The operation MERGE creates a syntactic object (SO) that is dependent on AGREE to be interpreted. According to Chomsky et al. (2019 : 238): "AGREE is asymmetric, relating initially unvalued ϕ-features on a Probe to matching, inherent ϕ-features of a Goal within the Probe's search space." AGREE is part of principles of efficient computation (Di Sciullo, 2015). These relations are mostly found in morphological inflections that are language specific. Once a SO has been constructed, it is interpreted semantically (SEM) in the computational-intentional system (CI) and phonologically (PHON) in the sensori-motor system (SM). The operation TRANSFER sends the SO to the external systems SEM and PHON. The operation Spell-Out is the transfer to the PHON component of the mapping system. The EXTERNALIZATION of the SO is complex as it must translate hierarchical objects into a linear sequence, at least in speech (sign languages permits certain levels of simultaneity). According to Chomsky et al. (2019), externalization of morphophonological properties is the locus of cross-linguistic variation.

4.1.5.5 Diachronic change in the Minimalist Program

From a diachronic perspective, the process is the same "since the computational system itself is cross-linguistically, and diachronically, invariant" (Hale 2008: 153). What this means is that language change occurs through the same process as variation, the difference being that a child may acquire a feature

slightly different from their parent's (or community's) grammars, perhaps through reanalysis of the PLD.[93] The process of reanalysis is the "modification of underlying representations, whether semantic, syntactic, or morphological, and brings about rule change" (Hopper & Traugott 1993: 32). This conforms to the idea outlined in 4.1.5.3 that syntactic change may result from other aspects of the grammar. For example, a change in the null subject parameter is a direct result of morphological 'simplification' of the French verbal inflectional properties. Therefore, diachronic change is also lexical in nature. Sometimes the change affects more than the inflectional part: a lexical entry may change from one lexical category to another, and this will trigger a syntactic change. Consider for example Modern English (ME) modal auxiliaries such as *may, can, must, do* that were at some point main verbs (Closs, 1965; Lightfoot, 1979). The process by which a lexical item becomes a functional one is called grammaticalization (Hopper & Traugott 1993). However, this type of change should also be explainable by the featural properties of morphological items in accordance with the minimalist hypothesis. We must therefore consider that most of these modals, although lexical verbs at some point, behave differently regarding their inflectional paradigm (Lightfoot 1979). They belonged to the present-preterit paradigm that had not only a defective conjugation (no 3rd person inflections) but also different selectional properties: they would only select bare infinitival verbs as their complement (Nagle & Sanders, 1998). According to Roberts & Roussou (2003), bare infinitival verbs had a suffix **-en* that appeared in complementary distribution with the *to* infinitives (each with their own properties that are not relevant to this discussion). When this suffix was lost, the verbs that would select bare infinitivals started to select any verb. This behavior being characteristic of auxiliaries, the new modals were reanalyzed as being directly merged in the functional category T. It is interesting to note that the present-preterit verbs that did not become modals did not survive in ME (van Kemenade, 1992). Thus, the grammaticalization of these verbs was triggered by their inflectional properties. According to van Gelderen (2011:4) there is a hierarchy among features in terms of their economy value: semantic features are not economical, interpretable features are slightly more economical and uninterpretable features are the most economical because they keep the derivation going. This would explain the process of grammaticalization when a lexical item with semantic features becomes a member of a functional category with uninterpretable features to check.

[93] A child does not have direct access to any I-Languages; only to the performance of the community surrounding her. Performance is not always perfect, and this will have an influence on the child's perception of the PLD.

4.1.6 Economy

Economy conditions are necessary to ensure that a derivation is as simple and efficient as possible. This means that a reduced number of operations is necessary for the computational system to produce a perfectly grammatical sentence. Therefore, the least costly operation is always favored. Many economy operations are proposed within the Minimalist framework. The following sections are brief sketches of the principles I find relevant to this dissertation.[94]

4.1.6.1 Minimality

Minimality requires that the least number of operations should be sufficient for a derivation to result in a grammatical sentence. There are two forms of minimality: (1) rigid minimality and (2) relativized minimality. Both these approaches rely on the adjacency of constituents. Given a sequence such as:

(139) … X ... Z …Y…

Rizzi (2001) states that Y cannot be related to X if Z intervenes, and Z shares characteristics associated with X. The structural relations of constituents are constrained by locality conditions such as the Spec/head relation seen earlier. Therefore, Z acts as a barrier between X and Y. The difference between rigid and relativized minimality pertains to the characteristics of X in relation to Z. If Z is a head and X is arbitrary, i.e. no shared properties with Z, then X is a barrier. However, if Z is of the same "type" as X then the chain is not broken, a chain being the movement (or copy) of an element to a different syntactic position. Such movements can be blocked by interfering elements such as wh-islands. The different types to which X and Z may belong for Z not to act as a barrier are as follows (adapted from Chomsky 1995: 81):

(140) a. If X is a head, Z is a head.
b. If X is in an A-position, then Z is a specifier in an A-position.
c. If X is in an A'-position, then Z is a specifier in an A'-position.

Wh-islands are instances of (140c). The Head-Movement Constraint (Travis, 1984) in which a head must move to the next available A-position before reaching a higher A-position. For example, in English, the impossibility to move a V to I constrains the movement from V to C in interrogatives. In this case, Z

[94] I have excluded Last Resort which stipulates that an operation may apply only if the result would be otherwise ungrammatical, as it is no longer considered justified (see Chomsky et al., 2019).

corresponds to I and it blocks the movement to X. This is of course language specific: in French V is required to move to I and thus further movement to C is possible in interrogatives (see Pollock, 1989).

In section 4.1.5.5 we saw that some English verbs such as *can, must, may, and do* have grammaticalized into modals. Since these are now modals they are directly generated in T and thus there is only one movement from T to C in interrogatives. This is not the case for French, as V must move to T and then to C. Considering this, the formation of English interrogatives requires fewer steps than French and is thus more economical. Grammaticalization is fairly common in language change and, according to van Gelderen (2008), the direction of change is always from lexical to grammatical. Moreover, she associates grammaticalization to Late Merge which is another economy principle.

4.1.6.2 Late merge and labelling paradoxes

The basic definition of Late Merge is that if an argument is not relevant to theta-structure, then it should merge later instead of merging earlier and undergo movement. Arguments are by definition lexical (unless they are a whole phrase) and as such only lexical items are affected by Late Merge. According to van Gelderen (2008), the change from lexical to functional category is dependent on Chomsky's (1995) Merge over Move.[95] As seen in the previous section, a lexical V that is merged earlier in the derivation must move to T whereas grammaticalized verbs are merged directly in T. The process can be explained by the loss of features of specific lexical items. This results in another economy principle, i.e. Economy of Features that can be stated as: "Minimize the interpretable features in the derivation" (Gelderen, 2008: 297). For example, the verb *will* which was full in Old English, had the features [volition, expectation, future]. However, in Middle English only the feature [future] remained. This reinterpretation led to the grammaticalized modal *will* as be known nowadays.

The Economy of Features principle applies only to ϕ-features, Case features and EPP. The reduction of features may result in a category change such that the categorial features of a lexical item are reinterpreted as well. Moreover, this affects the timing of Merge since functional items such as auxiliaries are merged later in the derivation. Feature Economy results in diachronic syntactic change but also sheds

[95] Merge over Move may be described as favoring merge of a new element rather than moving an element already present in the structure. However, Motut (2010, and references therein) presents alternative analysis that derive the same output examples without the use of Merge over Move. I will not go further in this discussion, as it is beyond the scope of this dissertation.

light on the labelling paradoxes observed by (Chomsky, 2013). In X-bar theory, syntactic objects project their category such that a phrase has a head, a specifier, and a complement. The head projects its categorial features so that an XP can be a DP, NP, VP, etc. In later minimalist work, the categorial feature of a head is dependant on a labelling algorithm and the latter is dependant on economy principles (Chomsky 2013). Merge applies to two syntactic objects and the labelling algorithm will specify the label of the new syntactic object formed by Merge according to the properties of the element merged. For example, in a syntactic object composed of a head and an XP {H, XP}, the head will automatically project its category. However, when Merge applies to two XPs, there are two possibilities: (i) either modify one of the XPs so that only one head is visible or (ii) both XPs have the same label. The deletion and copy of one XP are a possible solution for (i) because the deleted copy is invisible to the labelling algorithm. Thus, in a copular structure such as the following (from Chomsky 2013: 44):

(141) XP copula {β XP, YP}

The lower XP is part of a discontinuous element and therefore invisible to the labelling algorithm. These constructions, as well as coordinates, indirect questions, and subjects (in spec TP) cannot be labelled on the basis of their categorial features alone. Features that are shared by both heads are also significant in terms of labelling: both the subject and T share the same ϕ-features, and this makes both the XPs involved labelable. Another example is the [+Q] feature shared by C and *wh*-phrases. Therefore, deletion and copy of a syntactic object as well as feature-sharing can resolve labeling problems.

Van Gelderen (2018) proposes that labelling paradoxes are directly responsible for language change. In fact, structures that are not subject to these paradoxes do not result in change. Apart from the syntactic processes already mentioned, she introduces another mechanism to resolve labelling paradoxes: the change from phrase to head such that {XP, YP} turns into the non-problematic {X, YP}. Examples include demonstrative pronoun *that* to complementizer, demonstrative pronoun to article, negative adverb to negation marker, adverb to aspect marker, full pronoun to agreement, etc. This is what van Gelderen (2018) calls the Head Preference Principle (HPP). The HPP can be observed in diachronic change as well as in language acquisition (van Gelderen 2008, 2018) as a mechanism where an XP is reanalyzed as a head over time. This process is slow and both constructions may be encountered at the same time in the speech of individual speakers. In the history of English, the lexical item *whether* used to be a pronoun meaning 'who of the two' appearing in the specifier of VPs. Then it was reanalyzed as a marker of yes-no interrogatives

in a higher position but still as a specifier. It is interesting to note that the use of *whether* as a yes-no marker disappeared in favor of Subject/Aux inversion where there were no labelling problems since the auxiliary was already a head. *Whether* is now analyzed as a complementizer (van Gelderen, 2018).

4.1.7 Applying Economy principles to Micronesian data

We saw in Chapters 1 and 3 that Micronesian languages may be divided into two subtypes, each with their own specific morpho-syntactic processes. Moreover, in Chapter 3, I concluded that each of these processes are interrelated. From PMc to the different Micronesian languages, a series of syntactic changes occurred. In the following sections, I will analyze these changes again, but this time from the perspective of Economy.

4.1.7.1 Tense vs aspect

There are many ways to express temporal relations in Micronesian languages that do not have tense markers. One of those ways is to use expressions of time such as 'last year' or 'tomorrow' to situate the event in time, while the verb form is unmarked for tense. This is shown in the examples of PON in (45) repeated here (from Lee, 1975: 300):

(142) a. Sepe el mas.
Sepe 3SG sick
'Sepe is sick.' or 'Sepe was sick.'

b. Sepe el mas ekweyah.
Sepe 3SG sick yesterday
'Sepe was sick yesterday.'

c. Sepe el mas ingena.
Sepe 3SG sick now
'Sepe is sick now.'

In the case of these expressions of time, it is clear that they are lexical categories with semantic features. According to van Gelderen (2011), semantic features are not economical, interpretable features are more economical and uninterpretable features are the most economical. Expressions of time are adjuncts that do not check any uninterpretable features. They are purely semantic and thus, not very economical. Another way of expressing temporal relations in these languages is to use aspect markers just like in PMc. However, there is a difference between PMc aspect markers and Micronesian languages' aspect markers.

In PMc, temporal relations were expressed with aspect markers that preceded the vP and the subject markers followed aspect markers. It seems that perhaps these aspect markers did not have any grammatical function and were probably more like adverbs. Otherwise, they would have attracted the subject marker in their specifier. In Micronesian languages with these aspectual markers, the subject must precede those aspect markers. I propose that a reanalysis of aspectual markers as functional categories took place. If this is true, they acquired at least an EPP feature that probed for a goal to check its uninterpretable feature. Although I have analyzed these as belonging to an AspP, their actual grammatical category is not clear. In the different Micronesian languages that still use those markers, they are described as pre-verbal auxiliaries, adverbs, and pre-predicates. Moreover, they are described as aspectual adverbs in languages that do have tense markers (see Willson, 2008 for Marshallese). However, when these aspectual adverbs are present, without tense markers, the obligatory subject pronoun of tense-based languages must precede it as illustrated in these examples of MRS (from Willson, 2008: 52):

(143) a. E-kab de iukkure basketbool.
3SG-still play basketball
'He still plays baskeball.'

b. I-kab i-tok nan Majuro.
1SG-just come-toward.speaker to Majuro
'I just came to Majuro.'

We can see in these examples that the continuative aspect marker *kab de* in (143a) and the retrospective aspect marker *kab in* (143b) also attract the obligatory subject pronoun in its specifier. Some aspect markers may also be used in conjunction with tense markers (from Willson, 2008: 52):

(144) a. I-kar ja mona donut.
1SG-PAST PROX.ASP eat.INTR donut
'I just ate donuts.'

b. Leddik eo e-j kijon jako jan mweo.
Girl DET 3SG-PRES FREQ.ASP be.gone from house
'The girl is away from home too much.'

Perhaps some aspect markers are adverbs and others are functional. Either way, it is clear that some aspect markers have uninterpretable features to check in their specifier which is why the obligatory subject pronoun must always precede them. I assume that the difference between tense-based languages and aspect-based languages is the type of uninterpretable features they carry. In tense-based languages, the

subject pronouns always check the NOM case. Therefore, some aspect markers must be generated in T whereas others are not. The latter must be used in conjunction with a tense marker. However, in aspect-based languages, aspect markers are not obligatory; the subject may directly precede the verb. I assume that the case feature in those languages is still carried by *v*.

The grammaticalization of tense markers may have been triggered by the loss of features. In aspect-based languages of Set 2, each aspectual marker has many interpretations. For example, in KOS, *fah* may indicate the future or the willingness of the subject depending on the context. Tense markers on the other hand may not be interpreted in different ways depending on the context. As such, they lost features to finally indicate only present, future, or past.

Languages with no tense markers developed another way to express the past, or at least the completion of an event. They reanalyzed directionals as perfective aspect markers. I assume that this is because they also lost features (when used as aspect markers). When used as directionals, they may have many interpretations. For example, in MOK, *-di* and *-da* means *down* and *up* respectively. However, they can also be used for westward motion (in the direction of the sunset) and eastward motion (in the direction of the sunrise) respectively (as well as many other uses depending on the verb used). Again, their meaning depends on the context. As aspect markers however, they mean that the action has reached completion, i.e. the perfective aspect.

Both instances of grammaticalization result from the Economy of Features principle. Lexical categories were reanalyzed as functional categories. However, I assume that tense markers are more economical than directionals as aspect markers. The reason is that the latter is morphological and as such has interpretable features.[96]

4.1.8 Partitive case vs object incorporation

In languages of Set 1, bare nouns do not incorporate into the verb stem but rather check the PART case, regardless of the meaning of the verb. However, in languages of Set 2, bare nouns are incorporated into the verb stem to create a new meaning: the activity of the verb and its complement like *fish-catching*. (Mithun, 1984) analyzes incorporation in Micronesian languages as a type of lexical compounding that

[96] According to Di Sciullo (2005a; 2005b), affixation is constrained by morphological operations. These operations must be done prior to Spell-Out (see illustration in 138).

describes unitary, institutionalized activities.[97,98] In this sense, they are new items in the lexicon. It is not clear how productive incorporation is in Micronesian languages, but it is safe to assume that there must be restrictions in the type of activities described by these verbal compounds. On the other hand, the checking of PART case is grammatical and does not create new lexical items. I proposed in the preceding chapter that PMc, just like POc, probably incorporated all indefinite objects into the verb stem. Checking of PART case is an innovation specific to languages of Set 1.

When forming a compound verb with incorporation, the features of the verb are purely semantic and interpretable. However, when a bare object checks the uninterpretable PART case feature of the verb, this is more economical. The reason being that it is a generalized principle that does not require reinterpretation of the verb stem. In other words, the checking of uninterpretable features reduces the computational burden of the grammar.[99]

Any syntactic change is brought about by an innovation. However, not every innovation will result in change and if it does, the process is long and there will be a period of time in which both uses may overlap. The question is therefore why has innovation become the norm? To answer this question, it is crucial to understand the mechanism of language acquisition since the PLD is the core basis for change as languages in contact may also give rise to change.

4.1.9 Syntactic change

Utterances to which the child is exposed are what constitute the basis from which a child will construct their grammar. According to Hale (2007: 152):

[97] Mithun remarks that the compounding of Micronesian languages is very similar to that of Polynesian languages. This might reflect a more direct ancestor to both Micronesian and Polynesian languages as indicated in my discussion on the ergative alignment of PMc.

[98] See also Di Sciullo & Williams (1987).

[99] In languages that have object incorporation, it is not clear whether the verb is still a probe if the bare object is incorporated, especially if these are reanalyzed as new lexical items, i.e. intransitive verbs with no objective case to check. Massam (2001) argues that incorporation in Niuean is pseudo-noun incorporation which means that an NP merges with a V to form a VP. Therefore, incorporation does not create a head but a phrase. The difference between Micronesian language's incorporation and Niuean is that all three Micronesian languages which incorporate objects have an obligatory SV word-order for unergative clauses, as opposed to a VS (or more appropriately VOS) word-order for sentences including a pseudo-incorporated noun in Niuean as this word-order results from VP fronting. There is no VP fronting in Micronesian languages.

> The process of getting from this utterance, or from a set of such utterances (the PLD) to a set of underlying representations and an appropriate computational system provides the central task of language acquisition, and the core mechanism of diachronic change. Both of these phenomena result from the interaction between the innate structure of the learner (so-called UG) and the data provided in the PLD.

According to this, it is not enough to stipulate that economy of derivation is the single factor that results in language change. The data provided by the PLD is lexical in essence and this is where the features responsible for syntactic computation are introduced to the language acquirer. However, not every change in lexical items introduces a change in the syntax of a particular language. It depends on which category the lexical item belongs to. It seems that only changes in functional categories may affect the grammar of a particular language (Chomsky, 1981; Borer, 1984). Moreover, grammaticalization also involves functional categories. Let us assume then that each functional category namely C, T, v, and D, carries a bundle of features, yet those features vary from one language to another. We already saw that some features may be weak or strong resulting in overt vs covert movement and that this is language specific. However, there may also be variations such that the functional category T may have the [+NOM] Case to check but other languages may not. For example, ergative languages do not have the [+NOM] Case to check at all in the course of derivation. In a subtype of Micronesian languages, an innovation was the projection of T with EPP, a NOM case, and ϕ-features to check. The question is, how were former aspectual markers reinterpreted as tense markers?

The process of reanalyzing a lexical element as belonging to a different (functional) category is deeply rooted in the PLD the child is exposed to. More specifically, to the list of features pertaining to said category. If there is no auxiliary in the lexicon of a speaker, then it is impossible to include such an auxiliary in the numeration and generate it directly in a T position. It must be that, at some point, the features pertaining to T were introduced into a lexical category which in turn was reanalyzed as a modal or auxiliary. Morphological properties of lexical items and, more importantly, the perception of those properties by the language acquirer are thus very important to investigate language change. Considering that there are as many grammars as there are speakers, the process of acquisition is not the repetition of what the acquirer has ever heard (which is the whole point of the generative endeavor). We must include the perception and the interpretation of the language acquirer when presented with the PLD. The result being the construction of a grammar or I-Language (from Hale, 2007: 10):

> It is clear that parts of this generative system (the I-Language, which we will call the 'grammar') owe their existence to the input data received by the acquirer, but it is equally clear that the relevant aspects of that input data are not the utterances themselves, i.e. , the specific set of sentences, but rather the set of linguistic structures which the acquirer has posited in developing an account of the PLD which formed the basis for his/her grammar.

An acquirer may misinterpret the data with the result that the new interpretation will be part of the acquirer's grammar. However, this reinterpretation in one's grammar is not enough to explain diachronic change. This misinterpretation must spread, either by diffusion (where others adopt the new form in the grammar) or simply by passing it on a new language acquirer such as one's children, for example. Even so, the features that were reinterpreted do not necessarily constitute basis for grammar change. This is where we go back to the features of functional categories as opposed to lexical categories (for example, a different definition for the same lexical item does not result in a grammatical change). We may assume here that a misinterpretation, or more precisely an innovation, may trigger a paradoxical situation. The loss of certain features (as expressed morphologically in inflection) might generate a labeling paradox and, in order to resolve the ambiguity caused by the innovation, economy principles dictate that a grammatical change is in order.[100] It is difficult to pinpoint which part of the data presented to an acquirer will be perceived and further analyzed to construct one's grammar or I-language. It is clear that the PLD comes from many distinct sources and that the grammar built from the analysis of those sources will not result in a grammar identical to any other grammar. Moreover, when presented with two distinct 'ways' of expressing the same concept, an acquirer might somehow choose (or at least favor) the more economical of the two.

In tense-based Micronesian languages, two events seem to have happened simultaneously: (i) the reinterpretation of aspect markers as tense markers and, (ii) the reinterpretation of subject pro-clitics as subject pronouns. In aspect-based languages, the set of subject pro-clitics were lost.[101,102] I will speculate that this loss results from two different interpretations of the subject pro-clitics. Let us assume that at some point in time, children acquiring a certain language were exposed to two different types of clause structure: (i) on the one hand, subject pro-clitics were still obligatory in constructions in which some aspect

[100] Of course, the question of how that innovation spread in the first place is essential, but the answers might have more to do with socio-political issues than purely linguistic ones.
[101] I will leave aside the case of PON as I will discuss it further in a later section on symmetry breaking.
[102] Recall that from PMP to POc, GEN pronouns became subject pro-clitics. I analyzed these as being ERG and the subject pronouns of Micronesian languages are a reinterpretation of those. However, aspect-based languages (except PON) have favored the independent pronouns for subjects and the set of ERG pronouns disappeared.

markers were reanalyzed as obligatory tense-markers and, since the subject pro-clitics were used as referent to subject DPs, the latter was not necessary in discourse, (ii) on the other hand, they were also exposed to structures in which the subject pro-clitic was no longer obligatory with the consequence that either Subject DPs or independent pronouns were obligatory and the aspect markers could be absent from the clause. The two different interpretations of subject pro-clitics created a conflict of interpretation. Add to that that independent pronouns were used in equational sentences as well as some other intransitive type of sentences.[103] Historically speaking, subject pro-clitics descend from an ERG pronoun whereas independent pronouns descend from ABS pronouns. Both could be used for subjects depending on the transitivity of the verb. In POc, independent pronouns were already reanalyzed as referential arguments of the predicate; they could replace the subject DP (Lynch et al., 2002). On the other hand, the subject pro-clitic was not free: it still cliticized to the verb. The children exposed to these structures were faced with two choices, either subject pro-clitics became free, or they could be replaced by the free independent pronouns. In the first instance, the obligatory subject pronouns were reanalyzed as true arguments of the verb. In the second instance however, the subject pronoun was replaced by independent pronouns.

Going back to syntactic change as a result of economy consideration, the question is: which choice is the most economical? Of course, as we know, the reinterpretation of subject pro-clitics and the function of independent pronouns resulted in two types of languages. However, I assume that each choice resulted in a series of syntactic changes devised to produce the most economical output. In the preceding section, I contrasted tense vs aspect and PART case vs incorporation. I concluded that tense markers and PART

[103] For reference, here is the table illustrating which languages use independent pronouns in all types of intransitive clauses:

	UNERGATIVE	UNACCUSATIVE/STATIVE	EQUATIONAL
MRS	SV/VS subject	SV/VS subject	SV/VS independent
KIR	VS subject	VS independent	SV/VS independent
TRUK	SV subject	SV independent	SV/VS independent
PON	SV subject	SV subject	SV independent
MOK	SV independent	SV/VS independent	SV independent
KOS	SV independent	SV/VS independent	SV independent

case checking were the most economical solutions. However, if we consider that these were not accessible to aspect-based languages, I assume that grammaticalization of the former aspectual adverbs as well as the grammaticalization of directionals were the second-best solution.

The speculative hypothesis of the reinterpretation of pronouns and the loss of subject pronouns in aspect-based languages is an illustration of another type of Economy Principle that may account for language change: the Directional Asymmetry Principle as proposed by Di Sciullo (2011). This is the topic of the next section.

4.1.10 Symmetry-breaking

The movement of DPs (or more accurately copy-deletion) is explained by the need to check uninterpretable features in a spec/head relationship with a functional category. However, under certain circumstances, it is not clear which DP must move to check those features. The subject of copular sentences was briefly touched on in 4.1.6.2. It was said that they induce a labeling paradox that must be resolved for the derivation to keep going. Moro (1997) proposes that copular sentences are symmetrical and the movement of one constituent is not only the result of feature checking but is also triggered by symmetry breaking conditions. This is a depart from Kayne's (1994) Linear Correspondence Axiom (LCA) which states that UG only allows asymmetrical configurations. According to Moro's Dynamic Antisymmetry, UG allows symmetrical configuration, but movement makes these configurations asymmetrical before Spell-Out. In fact, in sentences such as (145) the numeration is exactly the same (from Moro 1997: 54):

(145) a. These pictures are the cause of the riot.
b. The cause of the riot is these pictures.

We would expect both constituents to move if we follow the feature checking theory alone. However, this is not the case; once a constituent has moved, it blocks the movement of the other constituent because the NOM Case may only be checked by one constituent. If we analyze these structures as containing an adjunct, we end up with an (XP, XP) structure that poses a labelling problem. Moreover, each XP c-commands the other which is a violation of the LCA. The need for linearization being dependant on PF conditions, symmetrical structures are not possible if we want the derivation to keep going. According to this, asymmetry is a property of the Language Faculty.

Di Sciullo (2011) proposes that asymmetry is a core property of Language but also of biology. From this perspective, linguistic variation, and biological variation both derive from the same external factors. Language variation is not only driven by the features to which an acquirer is exposed, i.e., the need to value and check those features, but also by symmetry-breaking principles. The directionality of change is accounted for by the Directional Asymmetry Principle (DAP) which states that language change goes through the following stages:

(146) fluctuating > directional asymmetry/anti-symmetry > asymmetry

The fluctuating stage indicates a point of symmetry where there is no specific alignment required. In language acquisition, although utterances are always asymmetrical due to PF conditions, there is no favored linearization of the constituents. Then, a directional asymmetry will develop so that the child will always derive constructions with the same linear order. For example, compounds will always be V-N (as in *pull-er wagon*). Then the opposite order will emerge with N-V compounds (wagon *pull-er*) and both will be produced by the same child (the anti-symmetry stage) until finally the grammatical N-V compound is the only possible choice (the asymmetry stage). The directionality of diachronic change is analogous to the directionality of change in acquisition since both are constrained by UG and the PLD (Hale 2007).

Di Sciullo & Nicolis (2011), Di Sciullo and Somesfalean (2015) and Di Sciullo and Somesfalean (2023) provide further evidence of the role of the DAP in the development of several Indo-European languages, as well as in the development of Romanian. These works provide further evidence that the Directional Asymmetry Principle reduces the complexity in language historical development. Once a language reaches the directional asymmetry stage, it is unlikely that it will reverse back to the same fluctuating asymmetry. Their research focuses on Indo-European languages, yet we can extrapolate and predict that the situation is similar elsewhere. In previous chapters, I alluded to the distinction of PON from the two other languages of Set 2. As opposed to these languages, PON still has a set of subject pronouns. The next section will be dedicated to tentatively find an explanation in accordance with the Directional Asymmetry Principle.

4.1.10.1 The case of Pohnpeian

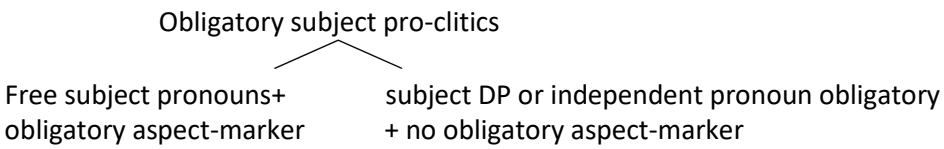
In the preceding chapters, I included PON within the subset of aspect-based languages and it shares most of their morpho-syntactic properties. This is illustrated in table 1.4 repeated below:

Table 1.4 Micronesian languages subgroups

	MRS	KIR	TRUK	PON	MOK	KOS
Fixed SV order				√	√	√
Sets of pronouns for subjects	2	2	2	2	1	1
Obligatory subject pronouns	√	√	√			
General tense markers	√	√	√			
Aspectual properties of directional suffixes				√	√	√
Object incorporation				√	√	√

However, there are also some marked differences between PON on the one hand, and MOK and KOS on the other. PON still possesses a set of subject markers, albeit non-obligatory. I concluded in section 4.1.9 that MOK and KOS lost their set of subject pronouns because there was a period in which two possible interpretations of subject pro-clitics were available.

(147)



I stipulated that speakers of languages of Set 1 chose to generalize the option on the left and some aspect markers became obligatory general tense markers generated in T˚. The obligatory subject pro-clitics became free subject pronouns and could move to Spec TP to check its features. However, speakers of languages of Set 2 discontinued the use of subject pro-clitics altogether and chose to use independent pronouns in complementary distribution with the subject DPs (except in topicalization). Let us assume that this resulted from the fact that independent pronouns were already free from the verb, whereas subject pro-clitics always cliticized to the verb (as the name suggests). Perhaps there was a stage in which the independent pronoun could check the EPP feature of Asp˚ in place of the subject DP because it was free from the verb. This subsumes the idea that when aspect markers became functional categories, the subject of the verb had to check the EPP feature of Asp˚. The choice was whether it was going to be the subject pro-clitic (which in all probability was already the true subject of the verb, checking its features) or the independent pronoun that was free to move.

Let us assume that there was a previous stage in which the grammaticalization of aspectual adverbs was not complete. Therefore, both options were possible: the subject pro-clitic remained in situ because the adverb had no feature to check or, the independent pronoun was used to check the feature of Asp˚. This would be the fluctuating period where both options were possible:

(148) ADVERB + SUBJECT PRO-CLITIC + VERB or SUBJECT + ASPECT MARKER + VERB

Then adverbs were all reanalyzed as independent aspect markers which would be the directional asymmetry stage of SUBJECT + ASPECT MARKER + VERB. However, the choice of both subjects (subject pro-clitic or independent pronoun) was available to check the features of Asp˚ in PON. This would be the anti-symmetry phase. This subsumes the idea that subject pro-clitics were reanalyzed as free pronouns in PON. Finally, only subject pronouns could check the features of Asp˚ which is the asymmetry phase. This concludes the whole cycle. I propose that the evidence for these phases is that PON still has subject pronouns as opposed to MOK and KOS. The reason being that subject pro-clitics might never have been reanalyzed as free pronouns in those languages which is why they do not have a set of subject pronouns in the first place. This might explain another characteristic of PON that distinguishes it from MOK and KOS; the impossibility to have VS word-order for unaccusative/stative clauses. If MOK and KOS reinterpreted the former ABS pronouns of POc as pronouns for all subjects, it might be the case that the unmarked VS order of PMc is still possible for those languages. However, PON can only have SV word-order because the former subject pro-clitics of POc may not be generated lower in the structure as opposed to independent pronouns. Moreover, Rehg (1981) states that subject pronouns behave intonationally as part of the verb phrase. When the subject is a DP, this is not the case.

4.2 Chapter conclusion

In this chapter, I provided an overview of some linguistic theories of language change and variation. I then reanalyzed the data and generalizations regarding word-order and the sets or pronouns in light of some of the Economy Principles proposed in the Minimalist framework. I concluded that many changes that occurred during the history of Micronesian languages were the result of grammaticalization of former lexical items: adverbs of aspect grammaticalized into aspectual markers, then in some languages they became tense markers. Moreover, I compared object incorporation with PART case and concluded that the latter was more economical. The grammaticalization process results from the Economy of Features

proposed by van Gelderen (2008; 2011; 2015). Finally, I analyzed the differences encountered in PON with the other languages of Set 2 and concluded that PON has a set of subject pronouns because the former subject pro-clitics were reanalyzed as such. This is not the case for MOK and KOS in which subject pro-clitics were never reanalyzed as pronouns and thus these languages do not have a set of subject pronouns. This had further consequences on linearization of constituents in intransitive clauses. This chain of event could only be explained by the Directional Asymmetry Principle proposed by Di Sciullo (2011).

CONCLUSION

In this dissertation, I proposed explanations for many morpho-syntactic phenomena of Micronesian languages that point toward an ergative ancestor. The feature that I found most striking at first was the sets of pronouns and why there were two sets for subjects. I have not succeeded in providing a generalized description of independent pronouns, but, in my opinion, the historical changes that may have happened from an ancestor of Micronesian languages to the modern languages illustrated in Chapter 2 provides evidence for a former ergative alignment. Moreover, I attempted to show that a chain of events triggered by the grammaticalization of former adverbs of aspect as well as the reinterpretation of voice and aspect affixes into independent functional categories from PMP to POc and then from POc to PMc gave rise to the characteristics found in modern Micronesian languages. Finally, a reanalysis of the data of Chapter 1 in light of a few Economy Principles proposed within the Minimalist Program resulted in a better understanding of some of the historical changes of Micronesian languages.

Some questions remain unanswered in this dissertation. For example, the status of independent pronouns was not fully explicated. Further comparative research with Oceanic languages outside of the Micronesian family might be necessary to grasp the real function of these pronouns. Moreover, I mentioned in Chapter 2 that Micronesian languages might be closer to Polynesian languages than what is currently proposed in the literature. As many Polynesian languages have an ergative alignment, it would be interesting to make a much more detailed comparison between the two families of languages to reconstruct their historical evolution.

Finally, I have sketched some assumptions about language change and variation within the current Minimalist framework. A detailed description with analyses could have been the topic of a whole dissertation, which was not my intention. However, I believe that the description and analysis of linguistic data, as provided in this dissertation, must be encompassed within a much broader perspective of language change and variation.

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