The typology and formal semantic of adnominal possession

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CHAPTER 3

Extending the proposal: possessive modifiers

3.1 Introduction

In the previous chapter, I discussed languages that have two main morphological means to express possession. For these languages, I argued that we see competition between two possessive markers. While one marker has a specific meaning, the other is underspecified. I describe such systems as the opposition between an **idiosyncratic** and a **non-idiosyncratic** strategy. In this chapter, as well as in chapter 4, I discuss languages that have multiple morphological means to express possession. At first sight, these systems of encoding possession are more complex that those discussed in chapter 2. However, on the basis of several case-studies, I show that the system I proposed in chapter 2 can be successfully extended to some of the languages that have multiple morphological means to express possession. The focus of this chapter are languages with **possessive modifiers**, better known from the typological literature as "possessive classifiers". I explain my choice of terminology below.

In section 3.1, I introduce the notion of possessive modifiers that I will use in the rest of the chapter. This section is a general discussion of how a system of adnominal possession might look beyond binary oppositions. In section 3.2, I discuss the first type of languages with possessive modifiers. I call this type uniform as it doesn't involve an opposition between idiosyncratic and non-idiosyncratic strategies. In section 3.3, I discuss the second type of languages, those that make use of possessive modifiers and also show an opposition between idiosyncratic and non-idiosyncratic strategies.

3.1.1 The proposal: a brief summary

As the basis of this chapter is the analysis developed in chapter 2, I first provide a brief summary. In chapter 2, I introduced a **meaning-based** distinction between marking strategies to express possession. For a number of languages, I argued that the choice of a marking strategy was semantically conditioned. The distinction was to be made between idiosyncratic and non-idiosyncratic strategies. I proposed that the idiosyncratic strategy is semantically marked; it is only compatible with those relations that are systematically derived from the semantics of the possessed noun. These cases have to be distinguished, for instance, from lexically conditioned allomorphy, where the choice of the marker does not contribute to a meaning difference between various possessive constructions[1].

The preliminary lexical entries for the two strategies are provided in (2). The idiosyncratic strategy involving the semantics of *MaxSpec* is shown in (1a); it has a presuppositional requirement on the range of the assignment function g. In this case, the assignment function g is restricted to output stereotypical relations as values for *g(i)*. As I discuss in chapter 2, for a given possessed noun P a stereotypical relation can be derived from a salient lexical feature of *P*. The non-idiosyncratic strategy involving the semantics *MinSpec* is shown in (1b). It is compatible with any relation whatsoever. There are no restrictions on the assignment function.

(1) a. $[\![\text{MaxSpec}_i]\!]^g = \lambda P \lambda x \lambda y.\text{g(i)(x,y)\&P(y)}$ g(i) defined iff g(i) is a stereotypical P-based relation

b. $[\![\text{MinSpec}_i]\!]^g = \lambda P \lambda x \lambda y.$ g(i)(x,y) &P(y) where g(i) is a relation

The idiosyncratic strategy and the non-idiosyncratic strategy are in pragmatic competition. If the speaker chooses the non-idiosyncratic strategy for a noun that normally selects for the idiosyncratic marker, the hearer can infer that the relation typically expressed by the idiosyncratic marker does not hold. The intended relation can then be derived from the context. The range of application of the idiosyncratic strategy is determined by the selectional requirements of the possessed nouns. Typically, an idiosyncratic strategy requires less morphological material than the non-idiosyncratic strategy. Typically, an idiosyncratic strategy has a very restricted range of application; it is only available for a closed class of nouns (the idiosyncratic class). However, morphological markedness and restricted range of application are not the necessary property of an idiosyncratic strategy.

After the discussion of the **meaning-based** binary distinctions in the formal marking of possessive constructions in chapter 2, a natural question would be whether the semantic opposition between idiosyncratic and non-idiosyncratic marking has to be binary. Are more fine-grained systems possible? As I show

[1]See chapter 4 for further discussion of lexically conditioned allomorphy and multiple formal markers of possession.

below, systems that I discuss in this chapter are, in a way, more fine-grained. In order to avoid confusion between meaning and form of morphological elements, I will use the term **marking strategies**, as introduced in chapter 1, to refer to various morphosyntactic means a language might have to encode possession. In the rest of the section, I discuss a **marking strategy** commonly known under the name of "possessive classifier".

In section 3.1.2, I start by providing the general discussion of "possessive classifier", as can be found, for instance, in Aikhenvald (2000) or Grinevald (2000). I show that there is a problem with this term; it is very general and does not tell much about the meaning contribution of the lexical item in question. As a more concrete object of study, I define a special instance of what is commonly called a "possessive classifier" that involves a meaning-based distinction. I call this lexical item a "possessive modifier". In the rest of the chapter, I provide a general analysis for those languages that make use of possessive modifiers. I show that the system introduced in chapter 2 can be successfully extended to these languages. In particular, I discuss two ways in which the semantic opposition between the idiosyncratic and non-idiosyncratic strategies can come around in these languages.

3.1.2 Possessive classifiers; a general overview

Many grammars use the term "possessive classifier", even though there doesn't seem to be a consensus on what exactly the term means. One approach to possessive classifiers is purely structural. Such an approach to possessive classification can be found, for instance, in Grinevald (2000: 66). According to her, a classifier is a noun-like element; the mediation of such elements is necessary in some languages to express possession for a class of nouns: "This classifier system selects a limited set of nouns of the language for classification: they are nouns that appear to have high cultural significance and constitute a class akin to "alienable nouns" to be determined for each language". An example of such a noun-like classifier is shown for Baure in (2). In (2a), the possessor clitic *ni* '1sg' attaches directly to the possessed noun *hačkis* 'glasses'. By contrast, in (2b), the possessor clitic *ni* '1sg' attaches to the possessive classifier 'domestic animal', while the possessed noun 'dog' does not receive any specific marking. The whole complex is understood as describing possession of a dog, something like 'my pet-dog'.

(2) Baure (Danielsen 2007)

a. **ni**=hačkis
1SG=glasses
'my glasses'

b. **ni-per** kove'
1SG=dom.animal dog
'my dog'

This definition of a possessive classifier is broad enough to capture certain possessive constructions from the perspective of the structure. However, it does not help to distinguish between various lexical items that fall under the notion of "possessive classifiers" based on their semantic contribution. A semantic typology of classifiers is suggested, for instance, in Aikhenvald (2000: 125). Aikhenvald distinguishes three types of possessive classifiers based on their semantic contribution.

- (1) Categorizing the possessor
- (2) Categorizing the semantic nature of a relation between the possessee and the possessor
- (3) Categorizing the possessed noun

Not everybody agrees that the three types of morphemes described by Aikhenvald (2000) should be labelled "classifiers". For example, Passer (2016: 31) argues that only the morphemes in (3) should be considered true classifiers. The reason for treating the morphemes of type (3) differently is that these morphemes are similar to the markers of noun classes (or even gender). As formulated by Aikhenvald (2000: 125), the morphemes of type (3) are lexically predetermined by the possessed noun: "The choice of classifiers in possessive constructions can be determined by the nature of the referent of the possessed noun in terms of its animacy, shape, form, etc.". A discussion along these lines can be found, for instance, in Lynch (1974: 90). Lynch (1974) points out that there is a difference between classification based on the lexical features of the possessed noun and classification based on the type of possession (the relation between the possessor and the possessed); while the first is what we know from gender systems, the second is special for possessive constructions.[2]

As an example of type (3) classifiers, we can consider classifiers in Daakaka. Von Prince (2012b) and Franjieh and von Prince (2011) discuss in detail that the system of possessive classifiers in Daakaka (as well as in the closely related languages, Dalkalaen and North Ambrym) differs significantly from the system of possessive classifiers in many other Oceanic languages. In Daakaka, the choice of the classifier is solely determined by the possessed noun, not by the relation between the possessor and the possessed[3], as commonly happens in Austronesian languages. There are only three classifiers in Daakaka, *m-*, ∅- and *s-*, which are all shown in (3).

(3) Daakaka (von Prince 2012b)

a. em **m**-e Buwu
house CL1-LINK Buwu

[2]It is not uncommon to use a term different from "classification"; Crowley (1996: 388), for instance, uses the term "possessive constituents"; Palmer (2008: 137) uses the term "indirect marker".

[3]"The phrase 'my dog' will always be expressed as ∅-*ok kuli*, using the edible classifier, whether I have any intention to eat my dog or not" (von Prince 2012b)

'Buwu's house'

b. ∅-ok kuli
CL2-LINK.1POSS dog
'my dog'

c. atuwo **s**-e Baeluk
basket CL3-LINK Baeluk
'Baeluk's basket'

The three lexical items *m-*, ∅- and *s-* are in complementary distribution. The choice of the classifier in Daakaka is fully determined by the possessed noun. As the classifiers are in complementary distribution, it is impossible to argue that they contribute different meaning to the semantics of the possessive construction. Therefore, the classifiers in Daakaka, and classifiers of type (3) in general, are best analyzed as three allomorphs of a single strategy; see the schematic representation in table 3.1. In table 3.1, the correspondence between a classifier and a noun is schematically shown as a correspondence between a possessive marker (Poss) and a lexical class (LC). I discuss the Daakaka data in more detail in chapter 4 and show that the classifiers are allomorphs of the non-idiosyncratic strategy.

Classifier	Poss → lexical class correspondence
m-	$\text{Poss}_1 \rightarrow \text{LC}_1$ (house, ...)
∅-	$\text{Poss}_2 \rightarrow \text{LC}_2$ (dog, ...)
s-	$\text{Poss}_3 \rightarrow \text{LC}_3$ (basket, ...)

Table 3.1: Possessive classifiers in Daakaka: lexically determined allomorphy.

While examples such as Daakaka are clear, I want to point out that the classification of semantic contribution proposed by Aikhenvald (2000) is not always easy to apply. The distinction between the classifiers of type (2) and (3) is not a straightforward one. As we see in more detail below, most classifiers simultaneously convey some information about the relation between the possessor and the possessed as well as some information about the possessed item. The two types of information are simply contingent on each other. The relations between the possessor and the possessed logically depend on the nature of the possessed object, such as [+/-animate], [+/-edible], [+/-liquid] etc. Consider, for instance, the examples from Panare (Venezuelan Cariban) in (4a) and (4b). The possessed noun in both cases is 'manioc' *uto'*. The relation between the possessor and the possessed, the manioc, is different in the two examples. In (4a), the not-yet-prepared manioc is probably owned by the possessor. In (4b) the prepared manioc is determined to be the possessor's food. The possessive classifier changes in the two constructions; in (4a), the possessive classifier is *uto'* 'manioc'. In (4b), the possessive classifier is *u* 'soft food'.

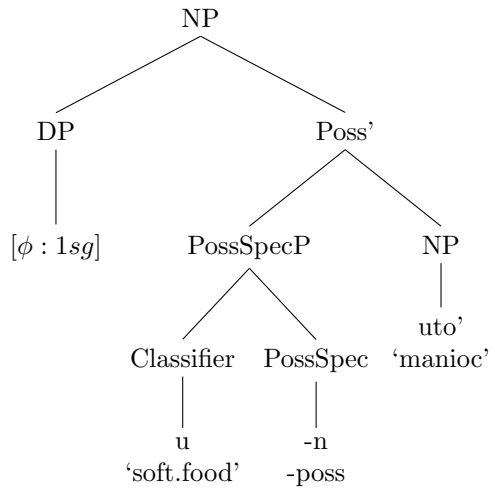
(4) Panare (Payne and Payne 2013: 82-84)

a. yu **wúto**-n uto'
1sg 1sg.cl.manioc-poss manioc
'my manioc (not yet prepared)'
b. **y-u**-n uto'
1sg-cl.soft.food-poss manioc
'my manioc (prepared for eating)'

On the one hand, the classifier in (4) contributes information about the relation between the possessor and 'manioc'. But on the other hand, in both examples (4a) and (4b), the possessive classifier also contributes some information about the possessed noun. The consistency of the manioc is different; in (4a), the manioc is uncooked and hard; in (4b), the manioc has a soft consistency and is edible. Aikhenvald (2000: 127) herself says about Panare that "classifiers characterize the possessed noun in terms of its shape, structure and consistency". This description gives the impression that Panare should be classified as type (3) in Aikhenvald's (2000) terms. As I explain below, I treat Panare differently.

The examples from Panare in (4) are also important because they provide insights into the structure of a possessive construction that involves a classifier. In (4), one can see that the classifier first combines with the possessive morpheme *-n*. Only then does the classifier phrase combine with the possessed noun *uto'* 'manioc'. The underspecified syntactic structure I assume for possessive classifiers is shown in (5).

(5) Possessive classifiers in Panare (4b)



In order to achieve terminological clarity, the next section, I introduce my own notion: "possessive modifier", which I use in order to distinguish the possessive constructions that are relevant for this chapter.

3.1.3 Possessive modifiers: a special case of possessive classifiers

The focus of this thesis is a meaning-based distinction between marking strategies; therefore, it is important to distinguish various possessive classifiers with respect to their meaning contribution. The distinction I want to make is between lexically predetermined possessive classifiers (Daakaka) and "flexible" possessive modifiers (Panare). As I discuss in more detail below, this distinction is reminiscent of the distinction between flexible marking strategies and lexically determined allomorphy, as discussed in chapter 2.

As I discussed above, in Daakaka, the use of the possessive classifier is fully predetermined by the lexical class of the noun. Variation of the classifier for the same possessed noun is not possible. A different example was shown for the classifiers in Panare, in (4). In both Panare examples, (4a) and (4b), the possessed noun is *uto'* 'manioc'. However, there is flexibility with respect to the choice of the possessive classifier. Alternation between the two possessive classifiers *uto'* and *u* gives rise to a meaning effect, which can be described as a change in the relation between the possessor and the possessed. In (4a), the possessed is not considered the food of the possessor, while in (4b), the food relation is made explicit. In this chapter, I focus on lexical items such as those seen in Panare. From now on, I refer to them as "possessive modifiers".

In order to illustrate the contrast between lexically predetermined possessive classifiers and possessive modifiers further, we can compare the classifier constructions in two languages: Baure (Arawak) and Chontal (Mayan). From a purely structural perspective, the examples from the two languages are very similar. The relevant examples are shown in (6) and (7). Baure example (6a), repeated from (2), illustrates a possessive construction with the noun 'glasses' *hačkis* which does not require a classifier. The possessor *ni=* attaches to the possessed noun directly. In (6b), a possessive construction with the noun 'dog' *kove'* is shown. This noun, in order to appear as the possessed, requires the mediation of the classifier *per* meaning 'domestic animal'.

(6) Baure (Danielsen 2007), repeated from (2)

a. **ni**=hačkis
1SG=glasses
'my glasses'

b. **ni-per** kove'
1SG=dom.animal dog
'my dog'

In (7a), a Chontal possessive construction with the noun *uč* 'fox' is shown. The possessor *u* combines with the possessed noun directly. In (7b), the same noun *uč* 'fox' appears as the possessed through mediation of the possessive modifier *paʔ*, which means 'something edible', 'food'.

(7) Chontal (Knowles 1984: 195)

a. **ʔu** [ʔah uč]
A3 MG fox
'?his (domestic) fox'[4]
b. **ʔa paʔ** [ʔah uč]
A2 edible MG fox
'your fox for eating'

The difference between the two examples I want to highlight is that in Baure, the use of a possessive classifier is predetermined by the lexical class of the possessed noun. It is not possible to express possession of *kove'* 'dog' with the structure in (6a): **ni=kove'*. According to Danielsen (2007), there is only one possibility to express possession of a domestic animal, such as *kove'* 'dog' in (6b). The possessive classifier *per* 'domestic animal' has to be used. The speakers never use other marking strategies to talk about domestic animals.[5] According to the description and as confirmed in my personal discussion with Swintha Danielsen, the distinction between the marking strategy without a classifier, as in (6a), and the morphological strategy with a classifier, as in (6b), is not determined by the relation between the possessor and the possessed; it is fully predetermined by the lexical class. "...for domesticate animals, there is no other option...A speaker may vary, but rather not" (Swintha Danielsen, p.c.) By contrast, in Chontal (Mayan), as I discuss in section 3.3, the use of the possessive modifier *paʔ* 'edible/food' does not seem to be predetermined by the noun class. The possessed noun, *učʼ* 'fox' is the same, both in (7a) and (7b). Only the choice of the marking strategy differs. The whole possessive construction in both cases is understood as describing a relation with a fox, a pet relation in (7a) and a food relation in (7b). The two Chontal examples in (7) show that alternation of the marking strategy for the same possessed noun is possible.

In case the use of a possessive classifier is fixed, as we see in Baure in (6) or Daakaka in (3), there is no evidence that the presence of the classifier involves an additional meaning component. Similarly to the two pattern of distribution introduced for possessive marking in chapter 2, we can consider two patterns of distribution for possessive classifiers. Compare the schematic representation in (8). PD1 is lexically determined. The choice of the possessive classifier is predetermined by the lexical class of the possessed noun. There is no alternation possible. Any change in the interpretation cannot be attributed to the presence of a classifier.

(8) PD1 - **lexically predetermined possessive classifiers**
a. $\text{Possessor}+\text{Possessed}_1+\text{Poss}_{classifier1} = \text{Interpretation}_{type1}$

[4]The question mark in Knowles (1984: 195) indicates that foxes are usually not kept as domestic animals. Thus, the interpretation is strange. However, the example is not ungrammatical.

[5]Similar restrictions on the range of application of a possessive modifier have been described for other Arawak languages as well.

b. Possessor+Possessed$_2$+Poss$_{classifier2}$ = Interpretation$_{type1}$
Any difference in the resulting interpretation comes from the possessed nouns

By contrast, from the examples from Panare in (4) and Chontal in (7) one can conclude that there is a meaning-based distinction between various marking strategies. The meaning difference in the resulting possessive construction can be attributed to the presence and the choice of the possessive modifier. The schematic representation is shown in (9). PD2 is flexible; the possessor and the possessed stay unchanged, while the interpretation of the whole construction changes with the (presence) of a certain possessive modifier. Importantly, the expectation is that 'my fox for eating' in the Chontal example in (7b) should never mean 'my fox for eating that became my pet', where the relation between the possessor and the possessed ('fox') is determined by the context.

(9) PD2 - **possessive modifiers**

a. Possessor + Possessed + classifier$_1$ = Interpretation$_1$
b. Possessor + Possessed + classifier$_2$ = Interpretation$_2$
c. Possessor + Possessed + $\emptyset_{classifier}$ = Interpretation$_3$

The distinction between lexically predetermined classifiers and **possessive modifiers** is also shown in table 3.2.

possessive classifier - determined by a lexical class	**possessive modifier** - determined by the relation between the possessor and the possessed
$Poss_1 \rightarrow LC_1$ $Poss_2 \rightarrow LC_2$	$Poss_1/Poss_2/\ldots Poss_n \rightarrow LC_1$
Daakaka Baure ...	Panare Mussau Saliba ...

Table 3.2: Lexically predetermined elements vs possessive modifiers

In the second row of the table, in the first column, I schematically show that a possessive classifier ($Poss_1/Poss_2$) is predetermined by a lexical class (LC_1/LC_2). By contrast, in the second column, I show that the choice of the possessive modifier ($Poss_1$) is not lexically predetermined. It is visualized as a correspondence between multiple possessive modifiers ($Poss_1/Poss_2/\ldots Poss_n$) and nouns from one lexical class (LC_1).

As the focus of this thesis is the semantic contribution of the possessive markers, this chapter deals primarily with possessive modifiers (languages from the second column of table 3.2). Above, I defined possessive modifiers as a spe-

cial case of possessive classifiers. Most languages that I discuss in this chapter have multiple possessive modifiers that can alternate. Depending on the relation between the possessor and the possessed, the speaker can use one modifier or the other. In the rest of the chapter, I show that the split between idiosyncratic and non-idiosyncratic strategies that I discussed in chapter 2 is also found in languages that make use of possessive modifiers.

3.1.4 Possessive modifiers and possible systems of possessive marking

In this chapter, I show how the analysis of the idiosyncratic and non-idiosyncratic strategies that I proposed in chapter 2 can be extended to languages that make use of possessive modifiers. I start with a general discussion of how the semantic opposition between idiosyncratic and non-idiosyncratic strategies introduced in chapter 2 can possibly be mapped on languages that make use of possessive modifiers.

In section 3.1.1, I asked a very general question about possessive marking. Do systems that involve a semantic opposition between idiosyncratic and non-idiosyncratic strategies have to be binary? Are more fine-grained systems possible? We can hypothesize what such systems might look like. First of all, we expect more fine-grained systems to have more than just two marking strategies to express possession. A follow-up question is whether a language can have multiple idiosyncratic or multiple non-idiosyncratic strategies to express possession. In order to answer this question, we need to return to the distinction between two patterns of distribution with respect to possessive classifiers, PD1 and PD2, shown above in (8) and (9). In general, I described PD1 as the choice between marking strategies that is predetermined by the lexical class of the possessed noun. PD1 is comparable to lexically conditioned allomorphy. I described PD2 as a meaning-based distinction between marking strategies. PD2 is a pattern of distribution such that there is a correspondence between the possessive markers and the different relations expressed.

If we think about the semantic opposition between idiosyncratic and non-idiosyncratic strategies, it is easy to imagine multiple marking strategies that follow PD1. In such a system, there are multiple marking strategies that correspond either to the idiosyncratic or the non-idiosyncratic strategy, and their distribution is predetermined by the lexical class of the possessed noun. In fact, we are dealing with lexically conditioned allomorphy of either the idiosyncratic or the non-idiosyncratic strategy. I discuss systems like this in more detail in chapter 4.

If we consider PD2, it is difficult to think of a language with multiple non-idiosyncratic strategies that follow such a pattern of distribution. In chapter 2, I argued that non-idiosyncratic strategies have the underspecified semantics of MinSpec, as in (10). This means that non-idiosyncratic marking can correspond to any relation between the possessor and the possessed whatsoever. By contrast, PD2 requires the presence of meaning differences that can be attributed

to the possessive markers.

(10) $[\![\text{MinSpec}_i]\!]^g = \lambda P \lambda x \lambda y.$ g(i)(x,y) &P(y) where g(i) is a relation

It is unlikely that there exists a language with multiple non-idiosyncratic markers such that they are, on the one hand, completely underspecified, and that they have, on the other hand, different meanings with respect to one other. However, we can easily imagine multiple idiosyncratic markers that follow PD2. A hypothetical example of such a distribution is shown in (11). Both markers Poss_1 and Poss_2 are idiosyncratic. Poss_1, if combined with a possessed noun with a salient lexical feature [kinship], will yield a kinship relation. Poss_2, if combined with a possessed noun with a salient lexical feature [part-whole], will yield a part-whole relation. In addition, both markers presumably have selectional restrictions on the possessed nouns with which they can combine.

(11) a. $\text{Poss}_1 = \ldots$ iff R_P1 is derived from the [kinship] feature of P, undefined otherwise
b. $\text{Poss}_2 = \ldots$ iff R_P2 is derived from [part-whole] feature of P, undefined otherwise

If a language has multiple idiosyncratic strategies as in (11), one would expect that they correspond to multiple marking strategies. As I discuss in this chapter, languages with possessive modifiers bring us relatively close to the system shown in (11). The difference between possessive modifiers and the schematic description in (11) is how the possessive relation is computed. In the system described in chapter 2, the relations that an idiosyncratic marker can express are restricted by a presupposition. As I show in detail below, in the case of a possessive modifier, the relation does not come about as a part of the presupposition of the possessive marker. The relation is explicated by a special lexical element, the possessive modifier. Thus, possession is established in a compositional way; languages that make use of possessive modifiers don't coin possessive markers for every relation. Possessive modifiers compositionally provide information on relevant meaning domains.

In chapter 2, I provided distinct lexical entries for the possessive morphemes, *MaxSpec* and *MinSpec*. The data from the languages that make use of possessive modifiers seem to show that possessive markers involve more structure than first meets the eye. One way to incorporate the relation provided by the possessive modifier is to assume a uniform lexical entry for possessive markers. I will call it *PossSpec*. The lexical entry for *PossSpec* is shown in (12).

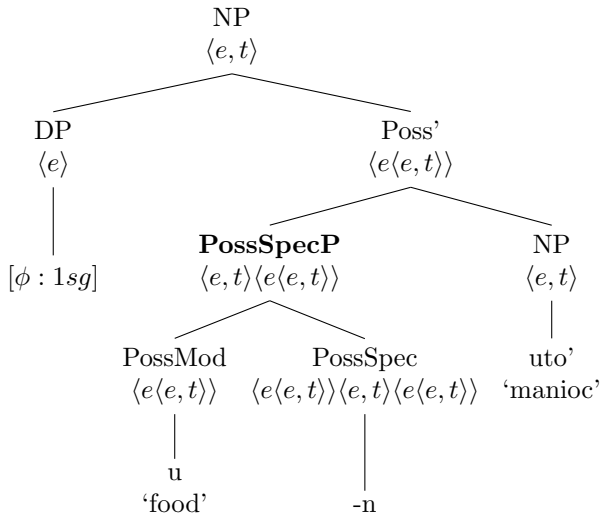
(12) $[\![\text{PossSpec}]\!] = \lambda R \lambda P \lambda x \lambda y. R(x, y) \& P(y)$

The possessive marker *PossSpec* takes as its argument a relation, R. This relation can be provided explicitly by the possessive modifier. A lexical entry for an arbitrary possessive modifier that provides a food relation is shown in (13).

(13) $[\![\text{modifier}_{food}]\!] = \lambda x \lambda y.$ R_{food}(x, y)

If PossSpec in (12) is applied to the modifier in (13), the resulting semantic object has the same type as *MaxSpec* or *MinSpec* in chapter 2. The structure is shown in (14). As an example, I use the Panare possessive construction in (4b).

(14) $[\![\text{PossSpec}]\!]([\![\text{modifier}_{food}]\!]) = \lambda P \lambda x \lambda y . R_{food}(x, y) \& P(y)$



The structure in (14) brings us to a unified analysis for possessive constructions with and without possessive modifiers. Such a unified analysis of possessive markers will always involve a relational variable. This relational variable can be provided explicitly by the modifier, as shown in (14). If there is no possessive modifier, as in those languages discussed in chapter 2, the *R*-argument slot is filled by an empty relational pro-form. The empty R-variable of the possessive marker is similar to the empty C-variable restricting the alternative set of focus-sensitive particles (Rooth 1992: 79) or variables restricting adverbs of quantification in von Fintel (1994). The corresponding lexical entries are shown in (15).

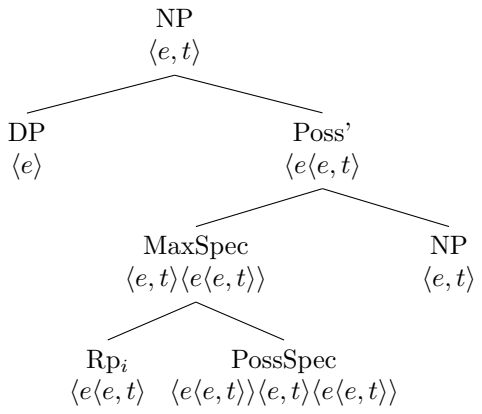
(15) a. $[\![\text{MaxSpec}_i]\!]^g = [\![\text{PossSpec Rp}_i]\!]^g = \lambda P \lambda x \lambda y . g(i)(\text{x,y}) \& \text{P(y)}$ defined iff g(i) is a stereotypical P-based relation

b. $[\![\text{MinSpec}_i]\!]^g = [\![\text{PossSpec Rfree}_i]\!]^g = \lambda P \lambda x \lambda y . g(i)(\text{x,y}) \& \text{P(y)}$ where g(i) is a relation

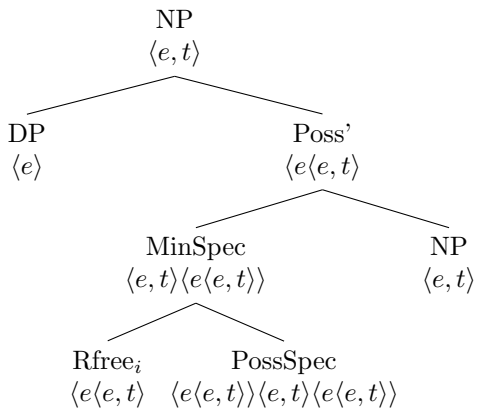
In the case of idiosyncratic possessive marking, the relational pro-form is Rp_i; it carries a presupposition that restricts the range of the assignment function g to stereotypical relations provided by the possessed noun P. In the case of non-idiosyncratic possessive marking, the relational pro-form is $Rfree_i$ and there are

no restrictions on the assignment function. The corresponding structures are shown in (16) and (17) respectively.

(16) $[\![\text{PossSpec Rp}_i]\!]$



(17) $[\![\text{PossSpec Rfree}_i]\!]$



The advantage of the unified analysis of possessive construction sketched in (12) and (15) involves only one lexical entry for a possessive marker, *PossSpec*. The R-argument slot is either filled overtly by a possessive modifier, or it is filled by a covert variable over a relation. The value for the covert variable can be systematically derived from the possessed noun or it can be provided by the context.

As I explain in more detail below, I divide languages that make use of possessive modifiers into two groups, depending on how the possessive modi-

fiers correspond to the distinction between idiosyncratic and non-idiosyncratic strategies. As I showed above, languages that make use of possessive modifiers have multiple marking strategies to express possession. Importantly, the availability of multiple marking strategies does not yet mean that there is a semantic opposition between idiosyncratic and non-idiosyncratic strategies, as discussed in chapter 2. The typology of possessive modifiers that I propose in this chapter depends on the presence of this semantic opposition.

Languages that I discuss in section 3.2 don't show a semantic opposition between idiosyncratic and non-idiosyncratic strategies; they have multiple modifiers, but only one strategy to mark possession. The possessive marker attaches either directly to the possessed noun or to the possessive modifier, but the possessive marker itself is always the same. Interestingly, as I show below, in the case of uniform marking strategies to express possession, the modifiers themselves might resemble variables over relations. As a parallel to a semantic opposition between an idiosyncratic and a non-idiosyncratic strategy, I show pragmatic competition between two possessive modifiers in Saliba and Tolai. While one modifier seems to be restricted to the relations derived from the possessed noun, the other allows more freedom with respect to the relation it can express. Thus, the semantic opposition seen in chapter 2 might be reflected even in languages with uniform marking strategies to express possession. The second type of languages, discussed in section 3.3, in addition to possessive modifiers, shows a semantic opposition between idiosyncratic and non-idiosyncratic strategies; they appear to be in competition. For this group of languages, three logical options are available. As I show in section 3.3.1, the possessive modifiers can pattern together with idiosyncratic marking. The two other logical options are that the possessive modifiers pattern with non-idiosycnratic marking or that they correspond to a distinct morphosyntactic strategy. I was unable to find languages of these two types; they are not represented in my sample. Therefore, I present these types as hypothetical in section 3.3.2, and I discuss in more detail why such languages may be rare.

3.2 Uniform marking strategies with possessive modifiers

In this section, I discuss languages that don't show an opposition between idiosyncratic and non-idiosyncratic strategies in terms of marking. Within a single language, some nouns appear possessed directly and some always require a modifier; however, the formal marking is always the same. Because of the absence of the opposition, I call this marking "uniform". The languages under discussion are Panare, Bororo, Mussau, Paamse, Saliba and Tolai. In section 3.2.1, I introduce the system of uniform marking strategies. I propose an analysis for possessive modifiers as overt realizations of a possessive relation. In section 3.2.2, I show that possessive modifiers can correspond to concrete rela-

tions (like 'food'), as well as to relatively abstract relations which are difficult to define. In section 3.2.3, I show for Saliba and Tolai that possessive modifiers may resemble variables over relations. This resemblance between modifiers and variables over relations can be seen as a parallel between the languages that make use of possessive modifiers and the languages discussed in chapter 2. It appears that in some languages, the covert variable over relations proposed in chapter 2 can be spelled out as a distinct morpheme.

3.2.1 Specific relations

In this section, I introduce the system composed of what I call uniform marking strategies. I begin the discussion with the examples from Panare and Bororo. As indicated by the title of the section, in these examples, the modifiers seem to correspond to maximally specific relations such as 'food', 'drink' or 'instrument'. In this section, I propose a general analysis for the languages that make use of possessive modifiers and mark adnominal possession in a uniform way. I analyze possessive modifiers as overt realizations of possessive relations.

Panare. As an example of a system that involves only one kind of possessive marker, consider Panare (Venezuelan Cariban) in (18). In Panare, a small class of nouns combines with a possessor directly, as shown for 'nose' in (18a). Most nouns in the language have to appear with a possessive modifier. Payne and Payne (2013) list 21 possessive modifiers (classifiers) for Panare. Above, I discussed a minimal pair with the possessed noun 'manioc' in (4). Another example with the possessive modifier *úku* 'liquid' is shown in (18b).

(18) Panare (Payne and Payne 2013: 74-82)

a. y-ewa-n
1sg-nose-POSS
'my nose'

b. y-úku-n wanë
1SG-CL.liquid-POSS honey
'my honey'

As I discuss in more detail below, the examples in (18) show that there is no opposition with respect to the shape of the possessive marker in Panare. Both direct possession in (18a) and modification in (18b) involve the same possessor person-number prefix and the morpheme *-n*[6]. In (18a), *-n* attaches to the possessed noun *ewa* 'nose'; in (18b), *-n* attaches to the possessive modifier, *úku* 'liquid'.

The system of marking strategies in Panare is schematically depicted in table 3.3. Poss is the abbreviation for a marking strategy, while LC stands

[6]Payne and Payne (2013: 74) mention that there are two allomorphs of *-n*, but their distribution is lexically predetermined

for lexical class. Many nouns (LC_2) can't combine with the non-idiosyncratic strategy due directly to their selectional requirements.

Possessive marker	Correspondence: possessive marking/lexical class
-n	Poss→ LC_1
u-n	modifier$_1$ + Poss → $LC_{1/2}$
...	
uto-n	modifier$_{21}$ + Poss → $LC_{1/2}$

Table 3.3: Possessive modifiers in Panare

Bororo. Bororo (Borôroan) is a language with a very similar system to the one shown in 3.3. In Bororo, the set of possessive modifiers is limited; however, they seem to have very specific meanings. According to the description in Nonato (2008), Bororo has four possessive modifiers: *-ke*, *-aku*, *-imo*, and *-o*. The modifier *-ke* is used to mark possession of food, *-aku* of domestic animals, *-imo* of ornaments/decorations and *-o* of ownership. Compare the two relations with 'fish', as expressed in (19a) and (19b).

(19) Bororo (Nonato 2008: 61-63)

a. ta **ke** karo
2P food fish
'your fish (to eat)'

b. in **agu** karo
1S pet fish
'my domestic fish'

c. ik eno
1S nose
'my nose'

A group of nouns in Bororo can appear possessed directly, as shown for 'nose' in (19c); see also Crowell (1979: 214-217). Similarly to what we see in Pananre, the marking strategy to express possession in Bororo is uniform; it involves juxtaposition of the possessor and the possessed; *ik* and *in* are allomorphs of the same 1st person pronoun. The only difference between the direct possession construction in (19c) and constructions in (19a) and (19b) is the presence of the possessive modifier.

On the way to an analysis. I assume that in languages like Panare and Bororo, the possessive marker does not contribute to the difference in meaning. It is not the locus of semantic opposition, as we saw, for instance, in chapter

2. The possessive marker has a uniform meaning both in direct possession constructions, as in (19c) and in possessive constructions that involve a modifier, as in (19a) or (19b). Given the semantics in (20), the possessive marker *PossSpec* is compatible with any relation whatsoever.

(20) $[\![\text{PossSpec}]\!] = \lambda R \lambda P \lambda x \lambda y.\text{R(x,y)\&P(y)}$

The difference in relation between the possessor and the possessed can be expressed with the help of a modifier. The presence of the possessive modifier provides an additional meaning component that allows the overt expression of some relations, such as 'food' in (21).

(21) Panare (Payne and Payne 2013)

y-**u**-n uto'
1sg-food-poss manioc
'my manioc (for eating)'

However, there is no principled difference between the marking strategy that involves direct possession and the marking strategy that involves a modifier. The constraints on the use of direct possession seem to be selectional requirements of nouns; they are not semantically motivated. At least, no semantic generalization can explain why 'nose' or 'manioc' can appear possessed directly, but 'honey' or 'shirt', for instance, can't.

For the possessive modifier, I assume that it introduces the corresponding possessive relation overtly, as shown in (22a). In this case, the R-argument of the possessive marker in (24) can be fed in directly, as shown in (21).

(22) a. $[\![\text{modifier}_{food}]\!] = \lambda x \lambda y.\ \text{R}_{food}\text{(x,y)}$
b. $[\![\text{PossSpec}]\!]([\![\text{modifier}_{food}]\!]) = \lambda P \lambda x \lambda y.\ \text{P(y)} \ \&\ \text{R}_{food}\text{(x,y)}$

The question to the systems with uniform possessive marker is what happens in the case that there is no possessive modifier present. As I showed above, both in Panare in Bororo there is a class of nouns that can appear possessed directly, such as 'nose' in (23).

(23) Panare (Payne and Payne 2013)

y-ewa-n
1sg-nose-poss
'my nose'

In the analysis I outlined above, the R-argument of the possessive marker is then filled by a covert variable over relations. The value for the variable is assigned by the context - by assignment function *g*. There are two logical options: either the range of the assignment function is totally unrestricted, or else it is restricted to stereotypical P-based relations.

If we follow the first option, it will mean that the possessive marker in this type of languages always gives rise to a free relation, as shown in (24). The

relational variable *Rfree* in (24) can be filled from the context. In principle, it can take any value.

(24) $[\![\text{PossSpec Rfree}_i]\!]^g = \lambda P \lambda x \lambda y . g(i)(\text{x,y})\&\text{P(y)}$ where g(i) is a relation.

Note that in this analysis the simple use of the possessive marker *-n* along with the possessed noun 'manioc' should be compatible with the interpretation 'food' as well. One might wonder why the speaker in example (21) uses the possessive modifier instead of marking 'manioc' as possessed. As already discussed in chapter 2, we commonly observe that the use of different forms to express the same meaning is blocked. The existence of a more specific lexical item blocks the speaker from using the underspecified one. Thus, in chapter 2 I showed that the availability of an idiosyncratic marker to express a certain relation blocks the use of the non-idiosyncratic marker to express the same meaning. By contrast, the co-existence of multiple forms is usually motivated by a difference in the interpretation. The prediction for a system that involves possessive modifiers is that those relations that can be expressed overtly (with help of corresponding modifiers), will always be expressed by means of a modifier and not by means a possessive marker.

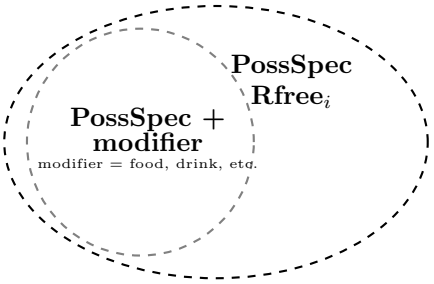


Figure 3.1: Possessive modifiers and uniform markers

The prediction is that the use of the underspecified strategy to express possession of 'manioc' in (21) is blocked by the existence of the corresponding possessive modifier *u* 'food'. This modifier is the most specific way to mark the relation in question. Direct possession is a more general form semantically, and its use for the same meaning is blocked. Another prediction is that if the relation between the possessor and a possessed noun like *uto'* 'manioc' in (21) cannot be encoded by any of the available modifiers, it should be possible to mark possession on 'manioc' directly. Unfortunately, I was unable to test whether or not this is the case.

Another possible analysis for the languages with uniform marking is to assume that direct marking of possession always involves a restriction on the range of possible assignment, as shown in (25).

(25) $[\![\text{PossSpec Rp}_i]\!]^g = \lambda P \lambda x \lambda y.g(i)(\text{x,y})\&\text{P(y)}$ de- fined iff g(i) is a stereotypical P-based relation

Intuitively, this analysis is appealing because direct marking of possession in languages that make use of possessive modifiers superficially resembles idiosyncratic strategies, discussed in chapter 2. The class of nouns that can appear marked as possessed is a closed class, LC_1 in table 3.3; the amount of morphological material involved in the case of direct marking of possession is smaller than the amount of the morphological material involved in the construction involving the possessive modifier. This analysis predicts that the range of interpretations available for the direct marking of possession is limited. For instance, for 'my nose' in (23), one would expect that ad-hoc interpretations under which the nose is not the possessor's body part are unavailable. An interesting question is, which relation is the stereotypical one for the possessed noun 'manioc'? If this relation is possession of not-yet-prepared manioc, as the example in (26) suggests, then it is unclear why the presence of the possessive modifier 'manioc' is required.

(26) Panare (Payne and Payne 2013)

yu	**wúto**-n	uto'
1sg	1sg.cl.manioc-poss	manioc

'my manioc (not yet prepared)'

The general question regarding the systems like the one in Panare is how contextually determined interpretations can be expressed. Even if we assume free interpretation for the direct possession constructions, the question remains as to how ad-hoc relations can be expressed for the nouns from LC_2, which don't combine with the possessive marker directly; see table 3.3. It might be that there are too many modifiers available in Panare; Payne and Payne (2013) list 21 modifiers. If the system of possessive modifiers is productive, it could be that the language can express any relation between the possessor and the possessed by means of a modifier. One might notice that possessive modifiers are very much directed towards animate possessors. Possessive modifiers we have seen so far seem to presuppose that the possessor is human. This is not surprising from a cross-linguistic perspective, as human possessors are the most stereotypical ones. Similarly to agents in the verbal domain that show volitional involvement in the event, human possessors, in contrast to other possessors, can be volitionally involved in the possessive relations. A natural question would be how the relations between inanimate entities are expressed. I return to this question in section 3.2.2, when I discuss the expression of possession in Paamese.

In the following section, I show that in some languages possessive modifiers are somewhat underspecified with respect to the relations they can express. This underspecification suggests that at least in some languages the possessive modifiers themselves can function as variables over relations.

3.2.2 Underspecified relations

In section 3.2.1, I proposed a general analysis for the languages of type 1. The possessive modifiers we had considered so far seemed to correspond to maximally specific relations between a possessor and the possessed, such as 'liquid' in Panare example (18). In this section, I show that a single possessive modifier can correspond to multiple relations. The fact that a single possessive modifier might give rise to a number of interpretations has been discussed in the literature on Oceanic languages, for example in Lynch (1974: 92). Special attention has been payed to those interpretations under which the possessor is being acted on by the possessed; as discussed in detail in Palmer (2008) these interpretations are often compatible with the possessive modifier being "used prototypically to mark items intended for consumption".

Below, I show examples of multiple relations corresponding to a single possessive modifier for two languages, Mussau and Paamese. For the system of expressing possession that I develop in this chapter, these examples show that at least some possessive modifiers function as variables over relations, not just overt realizations of concrete relations. This is a parallel between underspecified possessive modifiers and underspecified possessive markers, as discussed in chapter 2. In section 3.2.3, I make this parallel more precise, as I argue that some possessive modifiers should be seen as variables over relations. This section also sheds some light on how relations between inanimate entities can be expressed.

Mussau. I have limited data from Mussau, but there is at least one possessive modifier in this language that corresponds to a range of relations. As discussed in Brownie and Brownie (2007) and Ross (2002), the possessive modifier *ane* in Mussau, which is normally used for food, can be used for some non-food relations as well. Altogether, Brownie and Brownie (2007) list 14 possessive modifiers for Mussau.

Compare the examples in (27a) and (27b). In (27a), the relation between the possessor '1sg' and the possessed *paolo* 'chicken' is food. In (27b), the relation between the possessor '3sg' and the possessed *kapa* 'metal' is part-whole or material. The possessive modifier *ane-* is the same in both examples.

(27) Mussau (Brownie and Brownie 2007: 78,82)

a. ane-ghi paolo ateva
PCL-1sP chicken SG:I
'my chicken (to eat)'

b. anna tuku kapa ateva
PCL:3sP piece metal SG:I
'this piece of metal'

In (28), a minimal pair from Mussau with the possessed noun *ai* 'tree/stick' is shown. In (28a), the relation between the possessor '1sg' and the possessed *ai*

'stick' is probably ownership. The possessive modifier used in this example is identical to the possessed noun; it is *ai* 'tree'.[7] In (28b), the possessor ,'1sg', and the possessed, *ai* 'stick', is the same as in (28a). The difference is the use of the possessive modifier *ane-*. This is the same possessive modifier as in (27a) and (27b). However, in (28b), the relation between the possessor and the possessed is not 'food'; the stick is not meant to be eaten. In (28b), the possessor can be described as target or an undergoer; he is being hit by the 'stick'. Ross (2002: 157) calls this relation between the possessor and the stick "cause of suffering".

(28) Mussau (Ross 2002: 157)

a. ai-qi ai
PCL-1sg tree
'my (tall) tree'

b. ane-qi ai etea
PCL-1sg tree SG:II
'the stick that hit me'

Thus, in Mussau, at least one possessive modifier, *ane-*, is compatible with various relations, including 'food', 'target' and 'part-whole'.

Paamese. In Paamese (Austronesian), there are only four possessive modifiers. Compared to Panare, discussed in section 3.2.1, and to Mussau, discussed above, Paamese shows a limited set of possessive modifiers. Only a small number of nouns can appear possessed directly, as shown in (29a). Most nouns require the presence of a modifier, as can be seen in (29b) – (29e). According to Crowley (1982), possessive modifiers are nouns; at least it can be easily shown from which nouns they are derived. Roughly, they can be translated as 'instrument' *ono-*, 'drink' *mo-*, 'possession by traditional law' *so-* and 'determined to be eaten' *aa-*.

(29) Paamese (Crowley 1982: 210-215)

a. vatu-k
head-1sg
'my head'

b. vakili **ona**-k
canoe poss.man-1sg
'my canoe'

c. anii **ma**-ku
green.coconut poss.pot-1sg
'my green coconut (to drink)'

d. aut **sa**-ku
place poss.leg-1sg
'my place (according to the law)'

[7] See a similar example with 'manioc' in Panare example in (4a)

e. auhu **aa**-ku
yam poss.ed-1sg
'my yams (to eat, probably cooked)'

Other examples from Paamese show that the correspondence between the possessive modifier and the relation it expresses might not be as straightforward as one would expect. For example, according to Crowley (1982), the relation between the possessor and 'sore' is usually expressed by a 'manipulate' modifier, *ona*, as in (30a). Interestingly, if the sore is somehow characteristic of the possessor, for instance, very large, it is possessed with an 'edible' modifier *aa*, as shown in (30b).[8].

(30) Paamese (Crowley 1982: 215-217)
a. manu **ona**-ku
sore poss.man-1sg
'my sore'
b. manu **aa**-ku
sore poss.part-1sg
'my (unusually large or numerous) sore(s)'

Examples like (29e) and (30) show that the range of relations expressed by a single possessive modifier *ona* or *aa* go beyond 'manipulative' or 'edible' relations. Similarly, the possessive modifier *mo*, shown in (29c), can be used to express two types of relations, a consumption relation between a drink and its possessor and a somewhat abstract 'intimate' or 'domestic' relation. Compare the examples in (31a) and (31b), both of them involving the possessive modifier *mo*.[9].

(31) Paamese (Crowley 1982: 212-213)
a. oai **ma**-ku
water poss.pot-1sg
'my water (to drink)'
b. ai-sinu **ma**-ku
inst.dress poss.dom-1sg
'my clothes'

Thus, in Paamese, we see that at least some possessive modifiers can be underspecified with respect to the relations they can express. One modifier can correspond to multiple relations. Below I discuss similar examples of semantically non-transparent possessive modifiers in Mussau. The main point of this section is to show the transition between possessive modifiers that have very

[8]Crowley (1982) uses two different glosses for the possessive modifier *aa*, to show that it can mark two types of relations between the possessor and the possessed: 'edible' and 'particularising'.

[9]Crowley (1982) uses two different glosses for the possessive modifier *mo* to highlight its polysemy.

specific meanings, as discussed in section 3.2.1, and possessive modifiers that resemble variables over relations, which will be discussed in section 3.2.3 . The modifiers I discuss for Paamese and Mussau are in between; these languages have multiple possessive modifiers, some corresponding to concrete relations, but some being compatible with multiple relations.

A final piece of data from Paamese concerns inanimate possessors. As I mentioned earlier, while possessive modifiers are oriented towards animate possessors[10], Paamese has a productive way to express possession between two nouns by means of a preposition, *ten*. Most relations between inanimate entities can be expressed in this way, as show in (32a). Some nouns in Paamese are bound stems; they can't form an NP on their own and necessarily appear as parts of a compound. For instance, *aroe* 'handle' in (32b) can never appear on its own.

(32) Paamese (Crowley 1991: 22, 28)

a. metareh ten eim
door of house
'door of house'

b. aroe-teai
handle-axe
'axe handle'

Thus, in Paamese the pronominal system of adnominal possession is specified to express relations between animate possessors and their possessed. In contrast, possession between two nouns is commonly used to refer to relations between inanimate entities, such as 'part-whole' in (32a) and (32b). I believe that this opposition between nominal and pronominal possession can be found in many languages that employ possessive modifiers, as discussed above.

The examples from Paamese and Mussau suggest that the semantics of some possessive modifiers is underspecified in such a way that they are compatible with various relations. These possessive modifiers resemble the possessive morphemes discussed in chapter 2; such morpheme do not correspond to concrete

[10]Palmer (2008: 128) points out that if a language has a possessive modifier that can be used to express multiple relations, this modifier can also be used to express relations between inanimate possessors and the possessed. Compare the minimal pair from Standard Fijian (cited from Palmer 2008: 128) in (i). In (ia), the possessor is animate and the person-number marker attaches to the morpheme *no*; in (ib), the possessor is inanimate and the possessive modifier *ke*, glossed as 'food', is used.

(i) Standard Fijian (Schütz 1985: 459-460), cited from Palmer (2008: 128)

a. no-na yaga
GENP-3SFP usefulness
'his/her usefulness'

b. ke-na yaga
FOOD-3SFP usefulness
'its usefulness'

Examples with inanimate possessors in Tolai will be discussed in section 3.2.3.

relations, but involve a variable that ranges over several relations. This observation is important because it provides additional motivation for the internal structure of *MaxSpec* and *MinSpec* as proposed in section 3.1.4, repeated (33).

(33) a. $[\![\text{MaxSpec}_i]\!]^g = [\![\text{PossSpec Rp}_i]\!] = \lambda P \lambda x \lambda y.g(i)(\text{x,y})\&\text{P(y)}$ defined iff g(i) is a stereotypical P-based relation
b. $[\![\text{MinSpec}_i]\!]^g = [\![\text{PossSpec Rfree}_i]\!] = \lambda P \lambda x \lambda y.g(i)(\text{x,y})\&\text{P(y)}$ where g(i) is a relation

The idea would be that in some languages the R-variables are spelled out as distinct morphemes, possessive modifiers. In section 3.2.3, I discuss this analysis of possessive modifiers as variables ranging over relations in more detail for Saliba and Tolai.

3.2.3 Possessive modifier as a variable over relations

In this section, I discuss languages that only make use of two possessive modifiers (Saliba and Tolai, both Austronesian).[11] Note that in the course of the chapter we have moved from languages with a maximal set of modifiers like Panare to languages with a very limited set of modifiers, like Saliba and Tolai. In section 3.2.1 and section 3.2.2, I showed that there is a gradation between possessive modifiers that express very specific relations like 'soft food' or 'drink' in Panare and Bororo and possessive modifiers that correspond to more abstract, underspecified relations, 'food/ characteristic property of the possessor' in Paamese or Mussau. I argue that Saliba and Tolai present extreme cases of such underspecification. In contrast to what we see in Panare and Bororo, possessive modifiers in Saliba and Tolai are used to refer not to a concrete relation, but to a range of relations. As I show below, one of the possessive modifiers in both languages resembles the idiosyncratic strategy from chapter 2. It is used to refer to lexically predetermined stereotypical relations such as function or purpose. The second possessive modifier is compatible with relations of ownership and control. It is clearly oriented towards a human possessor. I take this to mean that possessive modifiers in Saliba and Tolai function almost like the relational variables discussed in chapter 2. Some confirming evidence comes from the discussion of diachronic language development in Mosel (1984). Mosel (1984) shows that a grammaticalization process is taking place in modern Tolai that is changing this possessive modifier into a productive possessive marker. This development seems to indicate that a system involving possessive modifiers can transform over the time into a system involving idiosyncratic and non-idiosyncratic possessive markers as discussed in chapter 2.

Saliba. According to Mosel (1994), there are two possessive modifiers in Saliba (Austronesian), *yo-* and *ka-*. As shown in (34), some nouns in Saliba, for

[11] Saliba and Tolai should not be seen as exceptional cases. Systems with only two possessive modifiers are often found among Oceanic languages.

instance 'egg', can appear with three different marking strategies. In (34a) the person-number clitic attaches directly to the possessed noun *pou* 'egg'. In (34c) and (34b), the person-number clitic attaches to an additional morpheme, the possessive modifier *yo-* or *ka-*.

(34) Saliba (Mosel 1994: 24)

a. pou-na
egg-3.SG
'her egg (hen's)'

b. **ka**-na pou
POSS-3.SG egg
'his/her egg (the one he/she is going to eat)'

c. **yo**-na pou
POSS-3.SG egg
'his/her egg (he/she owns it, sells on the market, etc.)'

Mosel (1994) points out that the choice of the possessive construction corresponds to a difference in interpretation. Thus, attachment of the possessor clitic in (34a) will result in the interpretation of a producer relation between the possessor (hen) and an egg. The modifier *ka-* in (34b) is used if the possessed (the egg) is somehow predetermined for the possessor (for instance, as food). The modifier *yo-* in (34c) is used to describe an ownership relation between the possessor and the possessed.

In table 3.4, I show the three marking strategies in Saliba. I assume that the (covert) possessive morpheme in Saliba -$\emptyset_{Poss}$ is underspecified; it is compatible with any relation whatsoever. Morphosyntactic selectional requirements do not allow some nouns to appear possessed directly in Saliba, similarly to what we saw for other languages in this section.

Marking strategy	Correspondence: marking/lexical class
-$\emptyset_{Poss}$-*na*	Poss $\rightarrow$ LC_1
ka-$\emptyset_{Poss}$-*na*	modifier$_{ka}$ + Poss $\rightarrow$ $LC_{1/2}$
yo-$\emptyset_{Poss}$-*na*	modifier$_{yo}$ + Poss $\rightarrow$ $LC_{1/2}$

Table 3.4: Marking strategies in Saliba

A logical question about the system depicted in table 3.4 is what kind of relations the possessive modifiers *ka-* and *yo-* correspond to. It turns out to be a non-trivial task to provide an exact description of those relations. In contrast to the Panare and Bororo examples we saw above, *ka-* and *yo-* do not have concrete meanings like 'food' or 'drink'. They correspond to a range of interpretations.

The relations that correspond to the possessive modifier *ka-* can be described as purpose, determination or area of application. They also include various

properties, such as appearance (35a), habit (35b), illness, food, clothes and even the weather the possessor is exposed to, such as 'rain' in (35d).

(35) Saliba (Mosel 1994: 22-25)

a. **ka**-na kao
ka-3.SG appearance
'his appearance'

b. aoao-wa **ka**-na paisoa
crow-DET POSS-3.SG habbit
'the habit of the crow'

c. **ka**-na siga
POSS-3.SG boundary
'its boundary (of a garden)'

d. aoao-wa **ka**-na nabu
crow-det POSS-3.SG rain
'crow's rain (the rain the crow was exposed to)'

These examples suggest that the possessive modifier *ka-* is compatible with lexically predetermined relations that are systematically derived from the semantics of the possessed nouns. It appears that the possessive modifier *ka-* has a meaning close to the one proposed for the idiosyncratic possessive strategy in chapter 2.

By contrast, the possessive modifier *yo-* is commonly used to encode a relation of ownership between the possessor and the possessed, as we saw in (34c). Compare the examples with *tautau* 'photo' in (36). In (36a), direct possession is used to express a relation between a photograph and the one depicted in it. In contrast, the use of *yo-* in (36b) is interpreted as an ownership relation between the possessor and the photograph.

(36) Saliba (Mosel 1994: 24)

a. tautau-gu
photo-1.SG
'my photo (photo depicting me)'

b. **yo**-gu tautau
POSS-1.SG photo
'my photo (photo I own)'

One example of the competition between *yo-* and *ka-* is provided in (37). In (37a), the noun 'gift' can be interpreted as intended for the possessor; (37b) receives the interpretation 'the gift I give away'.

(37) Saliba (Mosel 1994: 24)

a. ka-gu kainaoya
POSS-1.SG gift
'my gift (that I receive)'

b. yo-gu kainaoya
POSS-1.SG gift
'my gift (that I give away)'

In general, *yo-* seems to be used for those relations that can be initiated or finished by the possessor, such as the relation between the possessor and the village in (38a).

(38) Saliba (Mosel 1994: 22)
a. hevali-wa **yo**-na magai
young.man-DET POSS-3.SG village
'young man's village'

Thus, while *ka-* is used to encode relations like purpose that are probably closely connected to the semantics of the possessed noun, *yo-* seems to function like an 'elsewhere case' oriented towards animate possessors. There is a parallel between the system of possessive marking discussed in chapter 2 and the system of possessive marking in Saliba. In chapter 2, I proposed that the semantics of possessive constructions involves a covert variable over relations. It appears that in Saliba, the relational pro-forms are overtly spelled out as morphemes, *ka-* and *yo-*.

There are two possible ways to analyze the system in Saliba. One way is to attribute the direct possessive construction the semantics of a non-idiosyncratic strategy, as proposed in section 3.2.1 for Panare. In this analysis, the possessive morpheme -$\emptyset_{Poss}$ with the semantics of *PossSpec* takes a contextually determined relation R_{free} as its argument. There are no restrictions on the relations compatible with *Rfree*. The possessive modifiers *ka-* and *yo-* are overt realizations of two relational pro-forms *Rp1* and *Rp2*. *yo-* and *ka-* range over relations systematically derived from the possessed noun. In (39), I model how the pragmatic competition could work, for instance in the case of 'egg' in (34). In (42), the covert possessive marker PossSpec takes an implicit relational variable *Rfree* as its argument. There are no restrictions on the relations compatible with *Rfree*. In (39b), the possessive modifier *ka-* contributes a stereotypical relation derived from the possessed noun; *ka-* can be seen as an overt spell-out of the relational pro-form *Rp1*. In the case of 'egg', this relation is 'food'. In (39c), the possessive modifier *yo-* contributes a relation of ownership with an animate possessor; *yo-* can be seen as an overt spell-out of the relational pro-form *Rp2*. As the possessive modifier *yo-* in (39c) is specified for human possessors, the speaker will not use the direct possessive construction in (42) to express the relation of ownership or control. For other relations, especially relations with non-human possessors such as the producer relation in 'chicken egg', the speaker will use a direct possessive construction.

(39) a. $[\![\text{pou-na}]\!] = [\![\text{PossSpec Rfree}_i]\!]^g([\![\text{egg}]\!])(\text{j}) =$
$= \lambda P \lambda x \lambda y.g(1)(x,y) \& P(y)([\![\text{egg}]\!])(\text{j}) =$
$= \lambda y.R_{produce}(j,y) \& egg(y)$

b. $[\![$ **ka**-na pou$]\!]$ = $[\![$PossSpec$]\!]([\![$ka$]\!]^g)([\![$egg$]\!])$(j) =
= $\lambda R \lambda P \lambda x \lambda y.R(x,y)\&P(y)(\lambda x.\lambda y.R_{food}(x,y))(\lambda x.egg(x))(j) =$
$\lambda y.R_{food}(j,y)\&egg(y)$

c. $[\![$ **yo**-na pou$]\!]$ = $[\![$PossSpec$]\!]([\![$yo$]\!]^g)([\![$egg$]\!])$(j) =
= $\lambda R \lambda P \lambda x \lambda y.R(x,y)\&P(y)(\lambda x.\lambda y.R_{own}(x,y))(\lambda x.egg(x))(j) =$
$\lambda y.R_{own}(j,y)\&egg(y)$

An important test for this analysis is the availability of contextually determined interpretations. If the system of possessive marking in Saliba is indeed as shown in (39), the prediction is that (34a), for instance, can have more interpretations than just 'chicken-produced egg'. The following examples from Mosel (1994) seem to show that relations expressed by the direct possessive construction are quite diverse. The direct possessive construction can be used, among others, to describe a relation between a container and its content and with quantifier-like nouns like 'whole'. Compare (34a), (40a) and (40b).

(40) Saliba (Mosel 1994: 24-25)

a. waila kaputi-na
water cup-3.SG
'a cup of water'

b. maydai maudoi-na
day whole-3.SG
'the whole day ("wholeness" of the day)'

However, these examples are not sufficient to show that the direct possessive construction is really compatible with contextually determined interpretations. According to the analysis in (39), the reason we only find some relations expressed by means of direct attachment of the clitic is the availability of the two possessive modifiers *ka* and *yo* to mark some relations overtly. Pragmatic blocking prevents the use of the underspecified marker to express the same meaning. If direct marking of possession as in (42) does not allow for vagueness in interpretation, it would be an argument against the covert free relational variable.

Somewhat problematic examples for this analysis come from kinship terms in Saliba. As it turns out, the kinship terms are distributed among the three possessive constructions, as shown in (41). Thus, some kinship terms appear in the direct possessive construction, some require the possessive modifier *ka-* and some require the possessive modifier *yo-*. If *yo-* has specific semantics expressing 'ownership, control', an example like (41c) is unexpected because an uncle relation should not be in the control of the possessor.

(41) Saliba (Mosel 1994)

a. sia-na
mother-3.SG
'his/her mother'

b. **ka**-gu bogao
POSS-1.SG family
'my family'
c. **yo**-gu badalendia
POSS-1.SG uncle
'my uncle'

An alternative analysis of possession marking in Saliba is to analyze direct marking of possession as involving a covert variable over relations with restrictions on the possible assignment *Rp1*. This means that the relation between 'egg' and 'hen' is systematically derived from the semantics of the possessed noun *pou* 'egg'.

(42) $[\![\text{pou-na}]\!] = [\![\text{PossSpec Rp1}_i]\!]^g([\![\text{egg}]\!])(\text{j}) =$
$= \lambda y.R_{produce}(j, y)\&egg(y)$

The possessive modifier *ka* will be a spell-out of the variable *Rp2* that ranges over relations systematically derived from the semantics of the possessed noun, as shown in (43a). The possessive modifier *yo* will be an overt relational proform *Rfree*, as shown in (43b). This analysis is attractive because it provides additional motivation for the internal structure of *MaxSpec* and *MinSpec* as proposed in chapter 2. It allows us to model the choice of the possessive modifier in Saliba in the same way as the competition between idiosyncratic and non-idiosyncratic strategies in chapter 2.

(43) a. $[\![\text{ka}]\!]^g = [\![\text{Rp2}_i]\!]^g = \lambda P\lambda x\lambda y.g(i)(\text{x,y})\&\text{P(y)}$ defined iff g(i) is a P-based relation
b. $[\![\text{yo}]\!]^g = [\![\text{Rfree}_i]\!]^g = \lambda P\lambda x\lambda y.g(i)(\text{x,y})\&\text{P(y)}$ where g(i) is a relation

On this account, the possessive modifiers *ka-* and *yo-* are in the same kind of competition as *MaxSpec* and *MinSpec* in chapter 2. If the speaker chooses the modifier *yo* for a noun like *pou* 'egg', the hearer can infer that the relation between the egg and its possessor does not hold normally expressed by *ka* does not hold. This would be a parallel between the languages discussed in chapter 2 and the languages that make use of possessive modifiers. The examples like (41), in which kinship terms are split across three marking strategies, seem to show that the distribution of the possessive modifiers is partially determined by selectional requirements of the possessed noun. While some nouns, like *sia* 'mother' select for direct marking, other nouns like *bogao* 'family' can select for *ka*. Some nouns, for instance, *badalendia* 'uncle' can only select for *yo*.

The analysis on which the possessive modifier *yo* correspond to a free variable over relations and the possessive modifier *ka* corresponds to a restricted variable over relations makes the analysis of Saliba parallel to chapter 2. It also highlights the similarity between Saliba and another Oceanic language Daakaka which I discuss in section 4.3.2, chapter 4. As I discuss in chapter 4, the opposition between somewhat abstract relations and ownership/control

relations is very prominent in Daakaka's system of adnominal possession. Looking ahead, I can show that the idiosyncratic strategy (transitiviser morpheme in Daakaka (44)) covers a similar set of relations as the marker *ka-* in Saliba. It appears that relations like 'area of operation' and 'purpose/determination' are very prominent in Oceanic cultures. Lynch (1974) and Palmer (2008) describe these relations under general notion of "passive possession".

(44) Daakaka

a. vis=ane tes
bow=TRANS sea
'harpoon' (lit. 'bow of the sea')

b. mees=ane padó=an
food=TRANS fish=NOM
'food for fishing'

As I explained above, the test case in order to decide between the two possible analyses is the availability of contextually determined relations either for direct marking of possession or for the constructions that involve the possessive modifier *yo*. Somewhat indirect evidence in favour of analyzing *yo* as an overt realization of the free variable comes from the diachronic data from Tolai, as discussed below. Mosel (1984) shows that in Tolai, a language that makes use of two possessive modifiers, similarly to Saliba, one of the possessive modifiers has broadened its range of application with time, becoming more and more productive. This development could be expected for the non-idiosyncratic strategy.

Tolai. Marking strategies in traditional Tolai are somewhat similar to what we find in Saliba. Mosel (1984: 48) mentions that modern Tolai has undergone a number of innovations; I will discuss them below. Similarly to Saliba, Tolai has three strategies to express possession: direct attachment of the possessor clitic to the possessed and two possessive modifiers, *a-* and *ka-*. As I couldn't find an example of a single noun that can appear possessed with the three strategies, I can only provide minimal pairs, but no triples. In (45), I show two possessive constructions with the noun 'egg': direct attachment of the possessor clitic in (45a) and use of the possessive modifier *a-* in (45b).

(45) Tolai (Mosel 1984: 45)

a. ra kiau=i=diat
ART egg=(poss)=their
'their (ant's) eggs'

b. r**a**=mamur kiau
POSS.CLFR=your egg
'your eggs (to eat)'

In (46), I show two possessive constructions with the noun *vudu* 'banana'; in (46a), the possessive modifier is *a-* and in (46b), the possessive modifier is *ka-*.

(46) Tolai (Mosel 1984: 37)

a. **a**=na vudu
POSS.CLFR=his banana
'his banana' (determined for him, not necessarily owned by him)

b. **kau**=gu vudu
POSS.CLFR=my banana
'my banana' (ownership: "Who is eating MY banana?")

Note that in (46a) the relation between the possessor and the banana is determination, probably derived from the lexical feature [food]. In (46b), the possessor is interpreted as the owner of the banana. The possessive modifier *a-* can also describe a relation between a weapon and its victim and emotions of which the possessor is the object. Compare the pair in (47). In (47a), the possessive modifier *a-* (*ra-*) is used to refer to a relation between a club and its victim (the pig its meant to hit); in (47b) the possessive modifier is *ka-* is used to refer to an ownership relation between the possessor and the spear.

(47) Tolai (Mosel 1984: 38)

a. ma dir rapu ia ma **ra**=na ram
and they hit it with POSS.CLFR=its club
'and they hit it (the pig) with its club'

b. ma dia ga mar **ka**=dia rumu
and they TA decorated POSS.CLFR=their spear
'and they decorated their spear'

It appears that the two possessive modifiers in Tolai cover a similar range of relations as possessive modifiers in Saliba. While *a-* is compatible with lexically predetermined relations derived from the lexical semantics of the possessed noun, *ka-* is compatible with relations of ownership. Mosel (1984: 35-37) points out that the choice of *ka-* is often interpreted as the possessor having control over the relation with the possessed; it might be ownership, as (45b); it might be authorship (a name given by me) or the choice to live somewhere (my village). For instance, in (48a), the relation between the possessor and the name is such that the possessor has control over it. In (48b), the direct attachment of the possessor clitic to *iang* 'name' is shown.

(48) Tolai (Mosel 1984: 35-44)

a. **ka**u=gu iang
POSS.CLFR=my name
'my name (given by me)'

b. a iang=i=gu
art name-(poss)=my
'my name'

According to Mosel (1984: 34-37), in traditional Tolai, the possessor in *ka-* constructions is always animate. The possessive modifier *a-* is often used to

mark possession of body parts and kinship terms. With inanimate possessors, the relation between the possessor and the possessed can be one of function, as show in (49) for 'nail' and 'key'.

(49) Tolai (Mosel 1984: 38)

a. a ot e ra bok
art nail POSS.CLFR+POSS.M art box
'a nail for (nailing) the box'

b. a ki e ra pal
art key POSS.CLFR+POSS.M art house
'a key for (unlocking) the house'

The examples from traditional Tolai resemble the examples in Saliba and can probably be analyzed in the same way. The examples from Tolai are interesting because they seem to provide some insights into a historical development of marking strategies. Mosel (1984: 46) points out that the system of traditional Tolai has undergone considerable changes; in modern Tolai, the distribution of the possessive modifiers is different from the system described above. The major difference, according to Mosel (1984: 46), is that in modern Tolai, the possessive modifier *ka-* has broadened its range of applications. The modifier *ka-* seems to be becoming a productive marker of possession. For instance, English loanwords usually appear possessed with the possessive modifier *ka-*, independently of their semantics; compare (50).

(50) Tolai (Mosel 1984: 48)

a. **kau**=gu cousin
POSS.CLFR=my cousin
'my cousin'

b. a provincial minister **ka**-i education
dem provincial minister POSS.CLFR-poss.m education
'a provincial minister of education'

According to Mosel (1984: 48), another change in the distribution of *ka* is that it is used with inanimate possessors, like 'stone' in (51).

(51) Tolai (Mosel 1984: 49)

a mamat **ka**-i ra vat
art weight POSS.CLFR-poss.m art stone
'the weight of the stone'

It appears that that the possessive modifier *ka-* in modern Tolai is on the path of grammaticalization to becoming an underspecified possessive marker. The plausible analysis then is to attribute *ka-* the semantics of a relational variable without presuppositional restrictions. In (52a), I analyze *ka-* as an overt realization of a free relational variable.

(52) a. **kau**=gu vudu
POSS.CLFR=my banana
'my banana (ownership: "Who is eating MY banana?")'
b. $[\![\text{ka}]\!]^g = [\![\text{Rfree}_i]\!]^g = \lambda P \lambda x \lambda y.g(i)(\text{x,y})\&\text{P(y)}$ where g(i) is a relation

The possessive modifier *a-* in (53) corresponds to those relations that are systematically derived from the possessed noun and thus resembles the idiosyncratic strategy from chapter 2.

(53) a. **a**=na vudu
POSS.CLFR=his banana
'his banana (determined for him, not necessarily owned by him)'
b. $[\![\text{a}]\!]^g = [\![\text{Rp2}_i]\!]^g = \lambda P \lambda x \lambda y.g(i)(\text{x,y})\&\text{P(y)}$ defined iff g(i) is a P-based relation
c. $[\![\text{PossSpec}]\!]([\![\text{a}]\!]^g)([\![banana]\!]) = \lambda x \lambda y.banana(y)\&R_{food}(x,y)$

The analysis I propose for Tolai is schematically shown in table 3.5.

Marking strategy	Interpretive strategy	Semantic composition	Relation
$\emptyset_{Poss}$	Idiosyncratic_1	$\text{PossSpec(Rp1}_i\text{)}$ *Rp1* is an empty pro-form	stereotypical P-based relation
$\emptyset_{Poss}$+ *a*	Idiosyncratic_2	$\text{PossSpec(Rp2}_i\text{)}$ *Rp2* is spelled-out as *a*	P-based relation (derived from a different feature than *Rp1*)
$\emptyset_{Poss}$ + *ka*	Non-idiosyncratic	$\text{PossSpec(Rfree}_i\text{)}$ *Rfree* is spelled-out as *ka*	contextually provided relation

Table 3.5: Marking strategies in Tolai

It might be that the system of adnominal possession in Rapa Nui discussed in chapter 2 is the next stage of such development; the direct possessive construction disappears and the two possessive modifiers occur in semantic opposition as an idiosyncratic and a non-idiosyncratic strategy to mark possession. An interesting empirical question is what will become of direct attachment of the possessor as in (45a) and how this strategy will participate in the pragmatic competition.

3.2.4 Conclusion

In this section, I discussed languages that make use of possessive modifiers. The languages under discussion were Panare, Bororo, Paamese, Mussau, Saliba and

Tolai.[12]

I grouped these languages under the label of uniform marking strategies. By uniform, I mean that there is no semantic opposition between idiosyncratic and non-idiosyncratic strategies as discussed in chapter 2. However, the selectional requirements of various nouns within one language differ. While some nouns can appear possessed directly, most require the mediation of a possessive modifier.

I proposed a general analysis for this group of languages as involving a uniform possessive marker *PossSpec* that takes a relation as its argument. For the possessive modifiers, I proposed that the possessive modifiers are overt realizations of the relations between the possessor and the possessed. In addition, I discussed a gradation between possessive modifiers that correspond to specific relations and modifiers that correspond to more abstract underspecifed relations. On the basis of Saliba and Tolai examples, I argued that in some languages variables that range over relations can be spelled out overtly as distinct morphemes. In this sense, Saliba and Tolai resemble languages with the (non)idiosyncratic split, as discussed in chapter 2. It is plausible that over time, possessive modifiers might develop into possessive markers, so that the semantics of such markers would involve variables over relations.

3.3 Combining (non)-idiosyncratic marking and modifiers

In this section, I discuss a different type of system from that in section 3.2. The languages in this group show semantic opposition between idiosyncratic and non-idiosyncratic strategies. Next to this opposition, the languages have a system of possessive modifiers. Thus, this group of languages shows features of both the systems discussed in chapter 2 and the systems discussed in section 3.2.

[12]There is one language that resembles type 1 structurally, but I did not include it in the discussion. Tariana (Arawak) has a rich system of possessive classifiers, as described in Aikhenvald (2003: 133-137) and Aikhenvald (2000: 131-132). However, it is not quite clear from the description whether they function in the same way as modifiers in the other languages described in this section. The morphemes in Tariana seem to classify the possessed noun, but not the relation between the possessor and the possessed. As shown in (i), the classifier morpheme provides information about the category of objects to which the possessed belongs (house, round thing). In both cases, according to Aikhenvald (2003), the possessed noun can even be omitted, as it is recoverable from the context.

(i) Tariana (Aikhenvald 2003: 134)

a. nu-ya-dapana (panisi)
lsg-POSS-CL:HOUSE (home)
'my home'

b. nu-ya-da (nhuwi-da)
lsg-POSS-CL:ROUND (head-CL:ROUND)
'my head (lit. my round one)'

Therefore, I did not include Tariana in the discussion of type 1 languages.

Theoretically, there are three options for possessive modifiers. They could either form a subclass of idiosyncratic possessive marking or they could pattern with non-idiosyncratic possessive marking. The third option is that possessive modifiers not pattern with either of the strategies. Only the first option is empirically supported by the data in my sample. In section 3.3.1, I discuss several languages in which possessive modifiers present a subpart of the idiosyncratic strategy. These languages are Chontal (Mayan), Yucatec (Mayan), Nêlêmwa, and Hidatsa. I was unable to find convincing examples of the second logical type, possessive modifiers that pattern with non-idiosyncratic marking; however, in section 3.3.2 I discuss some potential candidates for this type. The third logical type, possessive modifiers that do not pattern with either idiosyncratic or non-idiosyncratic strategies, was not attested either. It remains a question for further research whether this interaction between possessive modifiers and the idiosyncratic strategy are systematic or if they should be seen as a coincidence resulting from the limitations of my data sampling.

3.3.1 Possessive modifiers as part of idiosyncratic marking

In this section, I discuss marking strategies in Chontal, Yucatec, Nêlêmwa and Hidatsa. Because possession in Mayan languages is described in detail, I first discuss possessive modifiers in two Mayan languages, Yucatec and Chontal. I show my analysis at work through the example of Yucatec Mayan. Then I show that we find similar systems in Chontal, Hidatsa (Siouan) and Nêlêmwa (Austronesian).

As I mentioned above, languages in this section not only make use of possessive modifiers, but also show semantic opposition between idiosyncratic and non-idiosyncratic strategies. Morphologically, possessive modifiers pattern together with the idiosyncratic strategy. As I show below, this results in the broadening of the idiosyncratic domain. The idiosyncratic marking becomes compatible not only with those relations that are systematically derived from the salient features of the possessed nouns, as we saw in chapter 2, but also with those relations that can be overtly expressed by the possessive modifiers. As a result, the non-idiosyncratic domain shrinks. As we see, for instance, in Yucatec, non-idiosyncratic marking is used primarily for inanimate possessors.

Yucatec. [13] There are two main marking strategies in Yucatec. One involves juxtaposition of the possessor and the possessed, and the other involves an additional suffix, *-il/-el* (Lehmann 2002: 49). Alternation of the marking strategy

[13]The proposed analysis for Yucatec and Chontal is extremely simplified. In the studies of Mayan languages, an important role is attributed to syntactically relational nouns (the obligatorily possessed nouns). As the focus of this section are possessive modifiers, I do not take this contrast into account. However, see my remarks about a possible alternative analysis of Mayan in the footnotes to section 3.3.2.

gives rise to a meaning effect, as shown in in (54). In (54a), the relation between the possessor and *xba'y* 'bag' is ownership, and in (54b), the relation is 'determined-for/container'.

(54) Yucatec (Lehmann 2002)
a. in xba'y
poss.1sg bag
'my bag'
b. u xba'y-**il**
poss.3 bag-REL
'its (for clothes) bag'

This asymmetry between the two strategies, the one without an overt morpheme and the one with the suffix *-il/-el*, resembles morphological markedness discussed in chapter 2. I analyzed the juxtaposition in (54a) as an idiosyncratic strategy involving a covert possessive morpheme -$\emptyset_{Poss}$. The suffix *-il/-el* in (54b) is analyzed as a non-idiosyncratic morpheme. The strategies are schematically shown in (55). Below, I elaborate in more detail on the relations that the two strategies can express.

(55) a. 1sg-[bag-$\emptyset_{Poss}$]
b. 1sg-[bag-[$\emptyset_{Poss}$-**il/-el**]]

The idiosyncratic strategy in Yucatec is quite productive. It is used to express possession with various nouns, including some body parts, kinship terms, and parts of wholes, as shown in (56). Some nouns that make use of this strategy are obligatorily possessed, while some can appear on their own.[14]

(56) Yucatec (Lehmann 2002)
a. in tàatah
poss.1sg father
'my father'
b. in chi'
poss.1sg mouth
'my mouth'
c. in k'áat
poss.1sg wish
'my wish'
d. in xba'y
poss.1sg bag
'my bag'

[14]In the studies of Mayan languages, such as (Lehmann 2002), an important role is attributed to the obligatorily possessed nouns, as syntactically relational. However, I do not discuss relational nouns in this chapter. The role of relational nouns in possessive marking will be discussed in detail in chapter 4.

e. u ba's-o'b
poss.3sg suitcase-PL
'his/their suitcase(es)'

The idiosyncratically marked possessor in Yucatec does not have to be animate, as show in (57) for parts of wholes.

(57) Yucatec (Lehmann 2002: 84,61)
a. u y-òokom
poss.3 0-pillar
'its (house) pillar'
b. u y-ìits
poss.3 0-resin
'its (tree) resin'

Not every noun in Yucatec can appear possessed with idiosyncratic marking. For instance, the word 'house', according to Lehmann (2002), always appears possessed with the additional suffix *-il*; see more examples of such nouns in (58). I interpret this observation as showing that some nouns cannot select for the idiosyncratic strategy due to their morphosyntactic specifications. This is an assumption I make throughout the thesis for those nouns that cannot combine with idiosyncratic possessive marking.

(58) Yucatec (Lehmann 2002: 59, 61,70)
a. in nah-*(il)
1POSS.1.SG house-rel
'my house'
b. u ha'-*(il)
poss.3 water-rel
'its (ice) water'
c. u y-àak'-*(il)
poss.3 0-liana
'its (house) liana'

The general lexical entry for the possessive marker I assume for Yucatec is the same *PossSpec* as in section 3.1.1. It is repeated in (59).

(59) $[\![\text{PossSpec}]\!] = \lambda R \lambda P \lambda x \lambda y.\text{R(x,y)\&P(y)}$

As Yucatec has semantic opposition between idiosyncratic and non-idiosyncratic strategies, there are three possibilities for filling the R-argument of the possessive marker. If the R-argument of *PossSpec* is not provided overtly, it is filled by an empty relational proform *Rp* or *Rfree*. The values of the relational proform are determined by the assignment function *g*. For the covert possessive morpheme $\emptyset_{Poss}$, I assume the same lexical entry as *MaxSpec*. This is the idiosyncratic strategy in which the values of the relational proform *Rp* are re-

stricted by a presupposition. The relation has to be derived from the possessed noun P.

(60) $[\![\emptyset_{Poss}]\!] = [\![\text{PossSpec Rp}_i]\!]^g = \lambda P \lambda x \lambda y.g(i)(x,y)\&P(y)$ defined iff g(i) is a stereotypical P-based relation

For the suffix *-il/-el*, I assume that the possible values of the relational proform *Rfree* are not restricted; (61) shows a lexical entry for *MinSpec*.

(61) $[\![\emptyset_{Poss}\text{-il/-el}]\!] = [\![\text{PossSpec Rfree}_i]\!]^g = \lambda P \lambda x \lambda y.g(i)(x,y)\&P(y)$ where g(i) is a relation

The corresponding derivations for the minimal pair with the possessed noun *xba'y* 'bag' in (54) are shown in (62). In (62a), I assume that the P-based relation for the noun *xba'y* 'bag' is 'own'. In (62b), the relation between *xba'y* 'bag' and the speaker (the possessor) can be derived from the context.

(62) a. $[\![\text{in xba'y-}\emptyset_{Poss}]\!] = [\![\emptyset_{Poss}]\!]([\![\text{xba'y}]\!])(\text{s}) =$
$\lambda P \lambda x \lambda y.\text{g(i)}_n\text{(x,y)}\&\text{P(y)}\ ([\![\text{xba'y}]\!])(\text{s}) =$
$\lambda x \lambda y$ bag'(y) $\&R_{own}(x,y)$

b. $[\![\text{in xba'y-}\mathbf{il}]\!] = [\![\emptyset_{Poss}\text{-il/-el}]\!]([\![\text{xba'y}]\!])(\text{s}) =$
$\lambda P \lambda x \lambda y.$ g(i)(x,y) $\&$P(y)$([\![$xba'y$]\!])(s) =$
$\lambda x \lambda y$ bag'(y)$\&R_{free}(x,y)$

The third possibility for filling the R-argument of the possessive marker in (59) is doing it overtly; the relation is then directly provided by a possessive modifier. It is not quite clear how many possessive modifiers Yucatec has; therefore, for the discussion, I will concentrate on the following three: *wo'ch* 'food', *àalak'* 'domestic animal' and *man* 'bought thing' (see Lehmann 2002: 66). As for the possessive modifier, I assume that it provides a relation for the R-argument of the possessive morpheme:

(63) $[\![\text{wo'ch}]\!] = \lambda x \lambda y R_{food}(x,y)$

As can be seen in the examples below, a possessive modifier can overwrite the stereotypical relation that would normally be derived by the idiosyncratic possessive marker. Compare the examples with the noun 'egg' in (64). The stereotypical relation for the noun 'egg' encoded by juxtaposition is creation, as in (64a). Therefore, as Lehmann (2002) points out, the use of the 1st person singular pronoun is only felicitous if the speaker is a hen; such a construction uttered by a human is considered funny. In order to express an ownership relation with an egg, the possessive modifier *wo'ch* 'food' can be used, as shown in (64b).

(64) Yucatec

a. u he'
poss.3 egg

'its egg' (the possessor is a hen)

b. in **wo'ch** he'
POSS.1.SG food egg
'my (food) egg'

If *PossSpec* combines with the possessive modifier, the R-argument is filled overtly, as shown in (65). Thus in my analysis, both *PossSpec* and *MaxSpec* correspond to a covert possessive morpheme, $\emptyset_{Poss}$. In one case, the R-argument is provided overtly; in the other case, it is filled by an empty relational proform *Rp*. The possible values of Rp are restricted by a presupposiiton.

(65) $[\![\emptyset_{PossSpec}]\!]([\![\text{wo'ch}]\!]) = \lambda P \lambda x \lambda y P(y) \& R_{food}(x, y)$

The full system of adnominal possession in Yucatec is schematically shown in table 3.6. The stereotypical relations are expressed by a covert possessive morpheme $\emptyset_{Poss}$; the combination of $\emptyset_{Poss}$ with a possessive modifier gives rise to specific relations like 'food' or 'domestic animal' encoded by the modifier. The suffix *-il* marks contextually determined free relations.

Marking strategy	Interpretive strategy	Semantic composition	Relation
$\emptyset_{Poss}$	Idiosyncratic	PossSpec(Rp_i)	stereotypical P-based relation
$\emptyset_{Poss}$+ *wo'ch*		PossSpec(R_{food})	food relation
$\emptyset_{Poss}$ + *àalak*		PossSpec($\text{R}_{dom.}$)	domestic animal relation
$\emptyset_{Poss}$ + *man*		PossSpec(R_{buy})	purchase relation
...			
$\emptyset_{Poss}$ + -il/-el	Non-idiosyncratic	PossSpec(Rfree_i)	contextually provided relation

Table 3.6: Marking strategies in Yucatec

In the system shown in table 3.6, idiosyncratic marking and non-idiosyncratic marking illustrate an interesting relationship. Yucatec has a rich system of possessive modifiers (food, domestic animals, things bought, etc.). Morphologically, these modifiers pattern with the idiosyncratic possessive marking. As the result, the idiosyncratic possessive marking covers a larger meaning space than what we saw in various languages in chapter 2. By contrast, the meaning space of the non-idiosyncratic marking in Yucatec is quite narrow. As there are morphological means to express various relations overtly, the semantic domain of underspecified non-idiosyncratic marking shrinks. As the result of this shrinking, the most prominent interpretations of the suffix *-il* involve relations with

inanimate possessors, shown, for instance, in (54b).

Below, I provide some examples of the relations that can be expressed by means of non-idiosyncratic marking. In (54b), I showed that the suffix *-il* can express relations like location. A similar example is shown in (66). In (66a), the relation between the possessor and the possessed *ùuk'* 'louse' is parasite-on. The possessor is an animate entity that suffers from the parasite. This relation is probably derived by the use of the idiosyncratic marking with the possessed noun *ùuk'*. In (66b), the relation between the possessor and the louse is different. The possessor *ho'l* 'head' is inanimate. It is probably not a sufferer of the parasite, but an exact location of the parasite on the sufferer's body (the child's head is the location of the lice). Therefore, the non-idiosyncratic marking is used for this relation.

(66) Yucatec

a. u y-ùuk'
poss.3 0-louse
'his (child's) lice'

b. [u y-ùuk'-**il**] u ho'l le pàal-o'
poss.3 0-lice poss.3 head def child-D2
'its lice, the lice of that child's head'

In (67), the contrast is between ownership and a part-whole relation. In (67a), the idiosyncratic marking is used to mark an ownership relation between an animate possessor and water. In (67b), the non-idiosyncratic marking is used to mark a relation between the sea and its water.

(67) Yucatec

a. in **w-o'ch** ha'
poss.1sg 0-CL.food water
'my water'

b. u ha'-**il** k'a'náab
poss.3 water-rel sea
'water of the sea'

In (68), a hierarchical relation between two humans is contrasted with an ownership relation. The idiosyncratic marking in (68a) derives the subordination relation from the possessed noun *yùum*, 'lord'. In (68b), however, the possessor is not a human, but a horse. Thus, the non-idiosyncratic marking is used for this relation between an animal possessor and its master.

(68) Yucatec

a. in yùum
poss.1sg master
'my lord'

b. u yùum-**il** le tsíimn-e'
poss.3 master-REL DEF horse-D3

'the owner of the horse'

In chapter 2, I already mentioned that what counts as a stereotypical relation is culture specific and might vary from language to language. It appears that nouns like 'meat', 'blood', 'skin' and 'bone' might pattern in various ways cross-linguistically, depending on which feature is the more salient one: [body part] or [material]. In Yucatec, as in other Mayan languages, the idiosyncratic marking seems to favour the [material] feature. In (69), the idiosyncratic strategy is used to express ownership; in (69b), the non-idiosyncratic marking receives a body-part interpretation.

(69) Yucatec

a. in bak'
poss.1sg flesh
'my meat' (which I possess)

b. in bak'-**el**
poss.1sg flesh-rel
'my flesh' (of my body)

The examples in (66), (67), (68) and (69) show that there is some diversity with respect to the relations that the non-idiosyncratic marking (*-il*) can express. At the same time, the range of these relations is not as broad as we saw, for instance, in chapter 2. To a large extent they are limited to relations with inanimate possessors, such as location or part-whole. I argue that the reason for this shrinking of the semantic domain of the non-idiosyncratic marking lies in the availability of the rich system of possessive modifiers. The possessive modifiers that pattern with the idiosyncratic marking allow for a large number of relations to be expressed overtly. This broadening of the idiosyncratic domain especially concerns those relations that involve animate possessors.

In a way, the system of possessive marking in Yucatec is very close to a system with multiple idiosyncratic markers shown schematically in (3) in section 3.1.4. The scheme is repeated in (70). If a language has multiple idiosyncratic strategies, one would expect that differences in relations expressed come from the markers. The relations should be constrained by the presuppositional restrictions of the markers.

(70) a. $\text{Poss}_1 = \ldots$ iff R_P is derived from the [kinship] feature of P, undefined otherwise

b. $\text{Poss}_2 = \ldots$ iff R_P is derived from [part-whole] feature of P, undefined otherwise

However, in Yucatec possessive modifier constructions, the differences in the relations come neither from the possessive markers nor from the possessed nouns. They are established compositionally. Instead of using multiple markers with various forms, Yucatec makes use of one idiosyncratic possessive marker and several possessive modifiers. The difference in the relation is thus expressed

overtly.

To summarize, in my analysis, adnominal possession in Yucatec involves semantic opposition between an idiosyncratic and non-idiosyncratic strategy. In addition, Yucatec has possessive modifiers which pattern with idiosyncratic marking. Because of the availability of the possessive modifiers, the idiosyncratic component in Yucatec can express various relations with fine-grained distinctions. As the result, there is a narrow range of meanings left for the non-idiosyncratic suffix *-il*. It is mostly used for location and part-whole relations. The possessor is commonly inanimate.

Chontal. The system of adnominal possession in Chontal (Mayan) seems to be very similar to what we find in Yucatec. As the available description of Chontal is much more limited than the description of Yucatec, I provide only a brief sketch below. For Chontal, Knowles (1984) mentions two morphosyntactic strategies to express possession, illustrated in (71). In (71a) we see juxtaposition of a possessive pronoun and the possessed noun; in (71b) there is an additional suffix, *-i(l)* (*-a(l)* or *-e(l)*), which attaches to the possessed noun. While in (71a), the relation between the possessor and the bed is probably derived from the lexical semantics of the possessed noun *č'en*, in (71a), the relation between the possessor 'corn' and the possessed noun 'bed' is more abstract. It is probably contextually determined.

(71) Chontal (Knowles 1984: 196-197)

a. kä č'en
A1 bed
'my bed'

b. [ʔu č'en-**a**] ʔišim
A3 bed-REL corn
'a bed (platform) for corn'

In addition, Knowles (1984) mentions the classifier *paʔ*, which I will call a possessive modifier. Consider the two examples with the noun 'fox' in (72). In (72a), there is a pet relation between the possessor and the possessed. In (72b), the relation between the possessor and the possessed is game, meant to be eaten. The construction in (72) involves the possessive modifier *paʔ* 'edible'. Note that (72) involves exactly the same morphology as the construction in (71a). The noun 'fox' is juxtaposed to the possessive pronoun, and there is no additional suffix *-i(l)*, either on the possessive modifier, or on the possessed noun 'fox'.

(72) Chontal (Knowles 1984: 195)

a. ʔu ʔah uč
A3 MG fox
'?his (domestic) fox'[15]

[15]Knowles (1984: 195) note that using a possessive construction as in (72a) in case of 'fox'

b. ʔa **paʔ** ʔah uč
A2 edible MG fox
'your fox for eating'

According to Knowles (1984: 195), the default interpretation derived for an animal in a possessive construction is a pet relation. The reason is probably the salient [animate] feature of the possessed noun. I hypothesise, that in Chontal the idiosyncratic strategy would derive a 'pet' relation from the [spirit] or [animate] feature of a noun denoting an animal. The minimal pair in (72) shows that in order to express a different relation than pet, a possessive modifier like *paʔ* can be used. As Chontal has an overt lexical item to mark edible relations, one would expect those relations not be expressed by means of non-idiosyncratic marking, as in (71b).

The system of adnominal possession in Chontal is summarized in table 3.7. It is very similar to the system that discussed above for Yucatec.

Marking strategy	Interpretive strategy	Semantic composition	Relation
$\emptyset_{Poss}$	Idiosyncratic	PossSpec(Rp_i)	stereotypical P-based relation
$\emptyset_{Poss}$ + **paʔ**		PossSpec(R_{food})	food relation
$\emptyset_{Poss}$ + *-i(l)/-a(l)/-e(l)*	Non-idiosyncratic	PossSpec(Rfree_i)	contextually provided relation

Table 3.7: Marking strategies in Chontal

Yucatec and Chontal are not the only languages in which possessive modifiers pattern with the idiosyncratic strategy. Below, I show that we find the same system of adnominal possession in Hidatsa and Nêlêmwa.

Hidatsa (Siouan). Marking strategies in Hidatsa resemble what we saw in Chontal Mayan; there is one possessive modifier specified to mark relations with food. There are two main strategies to mark possession, shown in (73a) and (73b). The strategy in (73a) involves a short form of the possessor prefix *m-/mii-*; the strategy in (73b) involves the long form *mada-*, which can probably be decomposed further. The only possessive modifier is *e'*, as shown in (73c); it is used to express a relation with food.

(73) Hidatsa (Park 2012: 339)
a. **mii**-sîba
1POS-intestine
'my intestine (inside my body)'

is somewhat strange, because 'fox' is usually undomesticated animal.

b. **mada**-sîba
1POS-intestie 'my intestine (that I am holding in my hand)'
c. **m-e'**-sîba
1POS-food-intestine
'my intestine / my sausage (that I am eating)'

According to Park (2012: 339), the possessive modifier *e'* 'food' seen in (73c) has been grammaticalized from the lexical verb *é* 'to own something'. As a possessed noun it means 'food'; compare (74). In order to mark *e'* 'food' as possessed, the short form of the possessor prefix is used, same as in (73a).

(74) Hidatsa (Park 2012: 344)
a. **m**-é'
1POS-food
'my food'
b. ∅-é
3POS-food
'his food'

The marking strategies in (73a) and (73c) are identical; they involve juxtaposition of the short possessor prefix and the possessed noun or the possessive modifier *e'* 'food'. In (73b), instead of the short prefix *m-/mii-*, the long form *mada-* is used to express possession. I assume that (73a) is an example of the idiosyncratic strategy, while (73b) is an example of the non-idiosyncratic one. Thus the strategy used to mark possession of food in (74) patterns with the idiosyncratic strategy. In Hidatsa, similarly to the languages discussed above, the idiosyncratic strategy involves a covert possessive morpheme, $\emptyset_{Poss}$-. As far as the non-idiosyncratic strategy is concerned, the possessive morpheme is probably a part of the long prefix *mada-*. I don't have enough data about the exact decomposition. The system of adnominal possession that I assume for Hidatsa is shown in table 3.8.

Marking strategy	Interpretive strategy	Semantic composition	Relation
$\emptyset_{Poss}$	Idiosyncratic	PossSpec(Rp_i)	stereotypical P-based relation
$\emptyset_{Poss}$ + é'		PossSpec(R_{food})	food relation
$\emptyset_{Poss}$ . . . *da-* (long form of the possessor prefix)	Non-idiosyncratic	PossSpec(Rfree_i)	contextually provided relation

Table 3.8: Marking strategies in Hidatsa

As there are not so many examples of alternations of marking strategies in

Hidatsa, it is difficult to say anything about the meaning of non-idiosyncratic marking. The prediction is that it won't be used to express relations with food, but it should be used productively for various relations between the possessor and the possessed, determined by the context.

Nêlêmwa. As shown in (75), in Nêlêmwa (Austronesian), there is competition between two marking strategies. One involves direct affixation of the possessor, as shown for *fwâhuk* 'tale, story' in (75a). The other involves an additional linker morpheme to express possession, as shown in (75b).[16]

(75) Nêlêmwa (Bril 2013: 81)
   a. fwâhuxa-**ny**
      story-1sg
      'my story' (of what I am)'
   b. fwâhuux-**i na**
      story-link 1sg
      'my story (that I know)'

[16]The presentation of the system of possessive marking is an oversimplification. Bril (2013) also mentions a construct state construction to express possession, as shown for *baex* 'bag' in (ia). The minimal pair in (i) shows semantic opposition between the construct state and the linker variant in (ib).

(i) Nêlêmwa (Bril 2013: 79)
   a. baex-a shuka
      bag-CONST sugar
      'a bag of sugar'
   b. baex-**i** na
      bag-LINK 1sg
      'my bag'

From the description provided in (Bril 2013), it is not quite clear whether the construct state and the juxtaposition construction in (75a) are in complementary distribution. I assume that it is the case and take the two strategies to be lexically determined allomorphs of each other; allomorphy is discussed in more detail in chapter 4. If the semantic contribution of the two strategies is not the same, Nêlêmwa might be a language with two idiosyncratic strategies with two different presuppositions, as discussed in section 3.1.4.

For the use of construct state and a possessive modifier, Bril (2013) shows the minimal pair in (ii). The same noun *miit* 'meat' receives two types of marking. In (iia), the relation between the possessor and the possessed is part-whole, while in (iib), the relation between the possessor and the possessed is food. According to my analysis of Nêlêmwa, the relation in (iia) is a stereotypical relation based on the semantics of the possessed noun 'meat'; in (iib), the relation is overtly provided by the possessive modifier *khoo* 'food'.

(ii) Nêlêmwa (Bril 2013: 79)
   a. **miir**-a puaxa
      meat-CONST pork
      'pork meat'
   b. khoo-ny **miit**
      food-1sg meat
      'my meat'

In addition, Nêlêmwa has 10 possessive modifiers which pertain to such domains as food, drinks, plants, baskets, animals, and weapons. Possessive modifiers can mark the relation between the possessor and the possessed overtly. Compare the example with the possessive modifiers *hoo* 'food' in (76a) and *kêâ* 'drink' and (76b).

(76) Nêlêmwa (Bril 2013: 67-78)

a. **hoo-ny** nok
food-1sg fish
'my fish (to eat)'

b. **kêâ-ny** wi
drink-1sg water
'my (drinking) water'

I assume that direct affixation of the possessor, as shown in (75a), corresponds to an idiosyncratic strategy. By contrast, the construction with a linker variant in (75b) corresponds to non-idiosyncratic marking. The possessive modifiers morphologically pattern with the idiosyncratic strategy, as shown in (76). Unfortunately, the data I have on Nêlêmwa does not include minimal pairs in which the same noun would appear possessed by a linker as well as in a possessive modifier construction. The prediction is that a linker construction with a noun like 'fish' or 'water' in (76) will give rise to a contextually provided relation, such that it cannot be expressed by one of the ten available modifiers. Although I can't test this prediction with Nêlêmwa, the expectation is that the linker is not used to express those relations that can be marked overtly by a possessive modifier. Thus, we don't expect to find the linker marking relations between the possessor and food. The system of adnominal possession I assume for Nêlêmwa is schematically shown in table 3.9.

Marking strategy	Interpretive strategy	Semantic composition	Relation
$\emptyset_{Poss}$	Idiosyncratic	PossSpec(Rp_i)	stereotypical P-based relation
$\emptyset_{Poss}$ + mod_1 ... $\emptyset_{Poss}$ + mod_{10}		PossSpec(R_{food}) ... PossSpec(R_{drink})	food relation ... drink relation
$\emptyset_{Poss}$+-*i* (linker)	Non-idiosyncratic	PossSpec(Rfree_i)	contextually provided relation

Table 3.9: Marking strategies in Nêlêmwa

Concluding remarks. In this section, I discussed languages that make use of possessive modifiers but also have semantic opposition between idiosyncratic

and non-idiosyncratic marking. In the four languages I discussed, the possessive modifiers pattern together with non-idiosyncratic marking. As the most detailed description I had available was for Yucatec Mayan, I discussed adnominal possession in Yucatec Mayan in most detail and provided an analysis for it. The examples from other languages seem to correspond to this analysis. However, in most cases, the data are scarce and more detailed studies are needed.

In section 3.2.3, where I discussed languages with uniform marking strategies, I showed for Saliba and Tolai that some possessive modifiers resemble variables over relations. In this section, I was unable to show any similar examples for possessive modifiers that pattern with the idiosyncratic strategy. The possessive modifiers discussed so far correspond to specific relations such as 'food', 'drink', etc. A logical question to ask is whether the reason that I was unable to provide other examples lies in my sampling. There may be a deeper reason for that as well. The fact that possessive modifiers discussed above pattern with the idiosyncratic strategy morphologically gives rise to the expectation that there are some systematic interactions between PossSpec and MaxSpec. The way the idiosyncratic strategy MaxSpec is defined, it contributes a stereotypical relation which is derived given the semantics of the possessed noun. One would expect the same principle to apply to possessive modifiers if they pattern with the idiosyncratic strategy morphologically. Underspecified, variable-like modifiers compatible with multiple relations are less expected.

3.3.2 Some residual cases

In section 3.2, I discussed languages that make use of single morphosyntactic strategy to encode possession; there is no semantic opposition between idiosyncratic and non-idiosyncratic marking. In section 3.3.1, I discussed languages of another type; these languages have semantic opposition between idiosyncratic and non-idiosyncratic strategies and make use of possessive modifiers as well. These modifiers are marked as idiosyncratically possessed nouns. A logical question would be whether there is a third group of languages, which make use of the non-idiosyncratic strategy when possessive modifiers are involved. Such a hypothetical system of possessive modifiers is shown in table 3.10.

We can compare this system, for instance, with the one I propose for Nêlêmwa in table 3.9. While in Nêlêmwa possessive modifiers morphologically pattern with idiosyncratic marking, table 3.10 presents a system in which possessive modifiers pattern with non-idiosyncratic marking.

So far, I have not encountered a system like this, although purely on structural grounds we see a marking pattern that resembles this system in a few languages.

For instance, a system that superficially looks like what is depicted in table 3.10 can be found in Maricopa (Hokan). As described in Gordon (1986), some Maricopa nouns are only marked for possession by juxtaposition with the possessor, while some nouns require an additional prefix, *-ny*. Compare the two

Marking strategy	Interpretive strategy	Semantic composition	Relation
Marker_1	Idiosyncratic	$\text{PossSpec}(\text{Rp}_i)$	stereotypical P-based relation
Marker_2+ mod_1	Non-idiosyncratic	$\text{PossSpec}(\text{R}_1)$	relation provided by modifier_1
Marker_2+ mod_2		$\text{PossSpec}(\text{R}_2)$	relation provided by modifier_2
Marker_2+ mod_3		$\text{PossSpec}(\text{R}_3)$	relation provided by modifier_3
Marker_2		$\text{PossSpec}(\text{Rfree}_i)$	contextually provided relation

Table 3.10: A hypothetical possessive modifier language

examples in (77) and in (78).

(77) Maricopa (Gordon 1986: 30-31)
   a. '-iishaaly
      1-hand
      'my hand'
   b. '-haav
      1-shirt
      'my shirt'

(78) Maricopa (Gordon 1986: 32)
   a. '-**ny**-va
      1-poss-house
      'my house'
   b. m-**ny**-kwr'ak
      2-poss-old.man
      'your husband'

There are two possessive modifiers in Maricopa. One, *hat* 'dog' is specified to relations with domestic animals, the other; *wish* is underspecified, it can be used to describe possession of any noun, especially those that can't appear possessed directly. Both possessive modifiers are marked with *-ny* as shown in (79).

(79) Maricopa (Gordon 1986: 33)

a. qwaqt '-**ny-hat**
horse 1-poss-dog
'my horse'
b. kwnho '-**ny-wish**
knife 1-poss-do
'your knife'[17]

Purely structurally, we have the system of encoding possession shown in table 3.10. Unfortunately, I don't have data to check the semantic contributions of the marking strategies. Gordon (1986) provides an example of the noun 'money' being possessed by means of the three strategies, as shown in (80). However, there is no discussion of the meaning differences between (80a), (80b) and (80c). If *wish* in (80c) is a possessive modifier like those discussed in this chapter, the prediction would be that there is pragmatic competition between the three strategies. One would expect that the same relations are not being expressed by distinct marking strategies. For instance, (80a) could be used to refer to money as one's 'salary' or 'price', while (80b) and (80c) would refer to money in someone's possession. However, I can't test any of those predictions.

(80) Maricopa (Gordon 1986: 33-34)
a. '-**shiyaal**
1-money
'my money'
b. '-ny-**shiyaal**
1-poss-money
'my money'
c. **shiyaal** m-ny-wish
money 1-poss-do
'my money'

A logical question to ask is why systems in which possessive modifiers pattern with non-idiosyncratic marking are rare. Is it a coincidence that my database does not include those languages or is there some deeper reason behind it? It seems to me that such systems are expected to be rare. The reason I think so is that the languages in question already make a distinction between idiosyncratic and non-idiosyncratic marking. The idiosyncratic marking corresponds to a set of stereotypical relations that are systematically derived from the lexical semantics of the possessed noun. The non-idiosyncratic marking, by contrast, is compatible with any relations whatsoever, including contextually provided relations. As I discussed above, the contribution of a possessive modifier is to make the relation between the possessor and the possessed explicit. It would be surprising if a language would make use of the non-idiosyncratic marker for this purpose.

[17]Gordon (1986: 34-35) treats *nywish* as one lexical item; it is a nominalized form of the verb 'to do'. Historically, it clearly includes the same prefix *ny-*.

In all of the languages seen in section 3.3.1, possessive modifiers are oriented towards human possessors. The relations they mark are usually very concrete, such as relations with domestic animals, relations with food, etc. Such concrete relations are expected to be found with idiosyncratic marking. By contrast, non-idiosyncratic marking is expected to be underspecified so that the relations between the possessor and the possessed can be derived from the context. Thus, if a language has semantic opposition between idiosyncratic and non-idiosyncratic strategies, possessive modifiers that pattern together with non-idiosyncratic marking are less expected than possessive modifiers that pattern with idiosyncratic marking.[18]

Another hypothetical system of possessive marking is shown in table 3.11. In this system, there are three distinct markers of possession; each of them corresponds to a distinct strategy: the idiosyncratic one, the non-idiosyncratic one and the one involving a possessive modifier respectively. Thus, the possessive modifier neither patterns with the idiosyncratic strategy nor with the non-idiosyncratic one.

Again, this kind of system remains unattested in my sample. Purely on structural grounds, a system that is somewhat close to what is shown in table 3.11 can be seen in Daakaka (Austronesian); see (3), repeated in (81). As I argue in chapter 4, the classifiers in Daaakaka are only compatible with the non-idiosyncratic strategy (linker). The three examples in (81) are instances of non-idiosyncratic marking.

(81) Daakaka (von Prince 2012b)

a. ∅-ok kuli
CL2-LINK.1POSS dog
'my dog'

b. em **m**-e Buwu
house CL1-LINK Buwu
'Buwu's house'

c. atuwo **s**-e Baeluk
basket CL3-LINK Baeluk
'Baeluk's basket'

In (82), I show the same noun (*atuwo* 'basket') as in (81c) with idiosyncratic marking *=ne*.

[18] There is a way to look at possessive marking in Mayan, such that possessive modifiers would correspond to non-idiosyncratic marking. This analysis would be similar to the one I propose for Movima in chapter 4. The main idea is to divide nouns into two classes, syntactically relational nouns that combine with the possessor directly and sortal nouns that combine with the possessor through mediation of a covert morpheme $\emptyset_{Possfree}$. The semantic opposition between the idiosyncratic and the non-idiosyncratic strategies would only involve the morpheme -$\emptyset_{Possfree}$ and the suffix *-il/el*. In addition, one would have to postulate a covert morpheme -$\emptyset_{PossSpec}$ that combines with a possessive modifier. More data is needed in order to see which morpheme in this case corresponds to a stereotypical relation and which corresponds to a free one. I leave this possible analysis as a question for further research.

Marking strategy	Interpretive strategy	Semantic composition	Relation
Marker_1	Idiosyncratic	$\text{PossSpec}(\text{Rp}_i)$	stereotypical P-based relation
Marker_2+ mod_1		$\text{PossSpec}(\text{R}_1)$	relation provided by modifier_1
Marker_2+ mod_2		$\text{PossSpec}(\text{R}_2)$	relation provided by modifier_2
Marker_2+ mod_3		$\text{PossSpec}(\text{R}_3)$	relation provided by modifier_3
Marker_3	Non-idiosyncratic	$\text{PossSpec}(\text{Rfree}_i)$	contextually provided relation

Table 3.11: Hypothetical possessive modifier language with three types of marking

(82) Daakaka (von Prince 2012a: 137)

atuwo=ne deli es swa
basket=TRANS egg black.ant one
'one bag of rice' (lit. 'a basket of eggs of the black ant')

However, there are two important differences between the system of possessive marking in Daakaka and the system depicted in table 3.11. First, I already showed in section 3.1.2 that the choice of possessive classifiers in Daakaka is lexically conditioned; the form of the classifier is exclusively determined by the class of the possessed noun and not by the relation between the possessor and the possessed. A noun can only appear possessed with one classifier; thus, for *atuwo* 'basket' it will always be *s-*. This is not what one expects for the system of possessive modifiers. If possessive modifiers mark the relation between the possessor and the possessed overtly, they should allow for alternations. Second, and most importantly, the non-idiosyncratic strategy in Daakaka always involves one of the three classifiers shown in (81). Thus, morphologically the classifier is not opposed to the non-idiosyncratic strategy; it is included in it.

Due to the lack of data I have to leave the question about systematic interactions between possessive modifiers and (non)-idiosyncratic strategies for future research.

3.3.3 Conclusion

In the first part of this section, I discussed several languages that show semantic opposition between idiosyncratic and non-idiosyncratic strategies, similar to what we saw in chapter 2. Next to this opposition, the languages have a system of possessive modifiers. These languages were Chontal, Yucatec, Nêlêmwa and Hidatsa.[19] I showed that in these languages the possessive modifiers pattern with the idiosyncratic strategy. In this case, a system with multiple possessive modifiers resembles a system with multiple idiosyncratic markers. However, this system is compositional: the relation between the possessor and the possessed is overtly expressed by a modifier; it is not a presupposition of a possessive marker. For Yucatec, I showed that due to the presence of the possessive modifiers, the idiosyncratic strategy can encode various fine-grained distinctions. This broadening of the idiosyncratic domain results in the narrowing of the range of application of the non-idiosyncratic strategy. For instance, the relations encoded by non-idiosyncratic marking are mostly those that involve inanimate possessors.

In the second part of the section, I discussed some residual cases. If a language that makes use of possessive modifiers shows semantic opposition between idiosyncratic and non-idiosyncratic strategies, there is a logical option that possessive modifiers pattern together the non-idiosyncratic strategy. However, I was unable to provide examples of such languages. I hypothesized that this is not a coincidence. On the one hand, the non-idiosyncratic marking is expected to be underspecified semantically and compatible with any relations whatsoever. On the other hand, the possessive modifiers are expected to ex-

[19]There is one language in the database that resembles this type structurally, Toba (Guaicuruan), as shown in (i). However, I did not include it in the discussion due to the insufficient data available. From the perspective of morphological markedness, there is a clear contrast between the marking strategies in (ia) and (ic). The marking strategy in (ic) involves an additional morpheme, *-n-*. The possessive modifier *lo* in (ib) does not take this morpheme. One could hypothesise that (ia) and (ib) are instances of idiosyncratic marking.

(i) Toba (Mesineo 2003: 129-138)

a. ya-teʔe
1sg-mother
'my mother'

b. ha-na i-lo wa:ka
fem-D 1pos-Clg cow
'my cow'

c. i-n-adoʔo
1pos-al-sombrero
'my sombrero'

However, Mesineo (2003) does not provide any examples of alternations. There is no evidence that the distinction between the three types of marking is not lexically predetermined allomorphy, similar to what we see in Baure. As the main principle behind the classification I propose is the meaning difference between marking strategies, one needs more data to determine whether Toba should be grouped with the type 2 languages or not. Alternations of marking strategies and possessive modifiers allow the meaning-based diagnostics of an idiosyncratic strategy.

press overtly various fine-grained relations such as 'food', 'instrument', etc. These two properties seem to be contradictory. Therefore, it is not surprising that we don't find possessive modifiers of the second type.

3.4 Conclusion

In this chapter, I showed how the analysis of idiosyncratic and non-idiosyncratic strategies that I proposed in chapter 2 can be extended to languages with more complex systems of marking strategies. In particular, I looked at languages that make use of so-called "possessive classifiers". I discussed some problems with this terminology. For instance, I showed that the choice of the lexical item called "possessive classifier" can be lexically predetermined for a given possessed noun, but it might also depend on the relation between the possessor and the possessed. Only in the second case are we are dealing with a meaning-based distinction. Following this discussion, I suggested looking in more detail at those "possessive classifiers" that allow alternations depending on the meaning of the possessive construction. I assigned the label "possessive modifiers" to them.

In order to extend the account proposed in chapter 2 to the languages that make use of possessive modifiers, I propose that possessive morphemes *MaxSpec* and *MinSpec* introduced in chapter 2 have internal structure. I proposed a uniform lexical entry for a possessive marker as shown in (83a). The *R*-argument slot of the possessive marker can be filled by an empty relational pro-form. The value for *R* is assigned by the context, by assignment function *g*. In the case of *MinSpec* *g*'s range is unrestricted; in the case of f *MaxSpec* it is restircted to certain prototypical relations derivable from the meaning of the possessed noun.

(83) a. $[\![\text{PossSpec}]\!] = \lambda R \lambda P \lambda x \lambda y \text{R(x,y) \&P(y)}$
b. $[\![\text{MaxSpec}_i]\!]^g = [\![\text{PossSpec Rp}_i]\!] = \lambda P \lambda x \lambda y . g(i)\text{(x,y)\&P(y)}$ defined iff g(i) is a stereotypical P-based relation
c. $[\![\text{MinSpec}_i]\!]^g = [\![\text{PossSpec Rfree}_i]\!] = \lambda P \lambda x \lambda y . g(i)\text{(x,y)\&P(y)}$ where g(i) is a relation

In case there is an overt possessive modifier, it provides the relevant relation directly:

(84) $[\![\text{PossSpec}]\!]([\![\text{modifier}_{food}]\!]) = \lambda P \lambda x \lambda y .\ \text{P(y) \& R}_{food}\text{(x,y)}$

Languages that make use of possessive modifiers can be divided into two groups. Languages in the first group do not show a distinction in possessive marking. Despite the presence of possessive modifiers, the marking strategy in these languages is uniform. The possessive modifiers receive the same morphological marking as other nouns. The languages that were attributed to this group are Panare, Bororo, Mussau, Paamese, Saliba and Tolai. I showed that some

possessive modifiers correspond to specific relations, while some function more like variables over multiple relations. Thus, although the marking strategy is uniform, one might be able to see a reflection of the semantic opposition between idiosyncratic and non-idiosyncratic marking, similar to the one discussed in chapter 2. The data from Saliba and Tolai provide support for the analysis of *MaxSpec* and *MinSpec* as involving a covert variable over relations, as proposed in section 3.1.4. As examples from Tolai suggest, it is plausible that such possessive modifiers develop into possessive markers like the ones analyzed in chapter 2.

Languages in the second group display a distinction between idiosyncratic and non-idiosyncratic strategies. I discussed languages in which possessive modifiers morphologically pattern together with the idiosyncratic strategy. The languages in this group were Yucatec, Chontal, Nêlêmwa and Hidatsa. The examples I was able to find show that possessive modifiers in these languages correspond to specific relations. This correspondence is not unexpected given that idiosyncratic possessive marking is supposed to be specific; it derives stereotypical possessive relations from the salient features of the possessed nouns. I was unable to find languages in which possessive modifiers pattern with non-idiosyncratic marking. In my sample, there were also no languages in which possessive modifiers would require distinct morphology and pattern neither with the idiosyncratic nor with the non-idiosyncratic strategy.

As a concluding remark, one can note that the pragmatic competition described in chapter 2 can be seen in languages that make use of possessive modifiers in two ways. In languages that have a uniform marking strategy, pragmatic blocking can take place if there is a specific modifier to express a relation. Then, the underspecified marking strategy which is compatible with any relation whatsoever will be blocked for the same relation. In languages that show semantic opposition between idiosyncratic and non-idiosyncratic strategies, pragmatic competition leads to the narrowing of the non-idiosyncratic strategy. As there are possessive modifiers to express various fine-grained relations and those modifiers pattern with the idiosyncratic strategy, the range of application of the non-idiosyncratic strategy becomes restricted.

In the next chapter, I discuss other languages that make use of multiple marking strategies to express possession. In contrast to the languages discussed in this chapter, they do not make use of possessive modifiers. However, they have morphologically rich systems of possessive marking. I show how the system I proposed in chapter 2 can be extended to languages like Daakaka, Movima, Slave and Koyukon.