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The typology and formal semantic of adnominal possession

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CHAPTER 2

Idiosyncratic strategies

2.1 Introduction

In chapter 1, I mentioned that (in)alienability is a problematic notion, primarily because it is used by different authors to refer to various phenomena. Under this notion, distinct possessive morphemes, the obligatory realization of arguments, distinctions in lexical semantics, and different relations between the possessor and the possessed, are all treated on par. In this thesis, I focus on one specific aspect of adnominal possession, differential possessive marking. I will show that differential possessive marking comes with a meaning contrast that needs to be accounted for. I argue that this contrast results from the semantics of the possessive markers.

In this chapter, I argue for a meaning-based distinction of morphosyntactic strategies that mark possession. I introduce the distinction between idiosyncratic and non-idiosyncratic morphosyntactic strategies for expressing possession, and argue that idiosyncratic strategies are semantically marked. The chapter shows how this system works for languages that only make use of two morphosyntactic strategies to mark possession. First, in section 2.1, I introduce the terminology that I will use in the rest of the chapter, including the notion of idiosyncratic strategy. In section 2.2, I discuss flexible morphosyntactic strategies and provide examples of the meaning effect that the alternation of possessive marking can give rise to. I argue that only those relations that are systematically derived from the semantics of the possessed noun can be expressed by means of idiosyncratic marking. In section 2.3, I provide the full analysis of possessive marking as a competition between idiosyncratic and non-idiosyncratic

strategies. Two case studies, from Adyghe and Rapa Nui, show my proposal at work.

2.1.1 Two patterns of distribution

A single language may make use of multiple marking strategies to express adnominal possession. As already mentioned in chapter 1, the interaction between those strategies might be quite complex. Abstracting away from various external factors that might affect the distribution, two patterns can be described, illustrated in (1) and (2) as pattern of distribution 1 (PD1) and pattern of distribution 2 (PD2).

In (1) two nouns from Limbu (Sino-Tibetan) are marked differently; ‘dog’ *go·co·* in (8b) simply combines with the 1sg possessor *a-*, while *cum* ‘friend’ requires a nasal infix. The manifestation of the nasal is not phonologically conditioned. Van Driem (1987: 27) describes this group of nouns as “some nouns, predominantly kinship terms and terms similar in meaning”.

- (1) **PD1** Limbu (van Driem 1987)
- a. *a-<nd>zum* stem: *cum*
my-<LN>friend
 my friend (my glosses)
 - b. *a-go·co·*
my-dog
 my dog

In the Rapa Nui (Austronesian) examples in (2), the possessed noun is the same *karone* ‘necklace’, but the possessive marking differs; (2a) involves the possessive morpheme *o*, while (2b) involves the possessive morpheme *a*.

- (2) **PD2** Rapa Nui (Kieviet 2017: 299-301)
- a. *tō’oku* *karone*
 poss.1sg.O necklace
 ‘my necklace (the one I wear)’
 - b. *tā’aku* *karone*
 poss.1sg.A necklace
 ‘my necklace (the one I am making)’

There are several important differences between these examples. The one that is most relevant for this thesis is the possibility to combine the same possessed noun with various markers. In Limbu, each morpheme is associated with a specific lexical class. In Rapa Nui, the same lexical class can combine with two different possessive morphemes. The crucial difference between the two patterns of distribution is that in the case of Rapa Nui, the alternation between the possessive markers *a* and *o* results in a change in the interpretation. In the case of Limbu, alternation of the marking strategy results in ungrammaticality, as shown in (3).

- (3) Limbu (self-constructed)
- a. *a-cum
my-friend
 - b. *a-<nd>-go-co
my-<LN>-dog

In table 4.1, I schematically show the two patterns of distribution (PD 1 and PD2) that we find in Limbu and Rapa Nui. In Limbu we see two lexical classes (LC₁ and LC₂) with different selectional requirements. In Rapa Nui, the pattern of distribution is different. There are nouns that can appear possessed with both markers, *a* and *o*. In table 2.1, I show this pattern of distribution as a correspondence between two possessive markers and one lexical class (LC₀).

PD1	PD2
Limbu	Rapa Nui
-nd- ⇔ LC ₁	-a/ -o- ⇔ LC ₀
-∅- ⇔ LC ₂	

Table 2.1: Two patterns of distribution.

This thesis focuses on languages that allow for an alternation in the morphological means to mark possession. Thus, I will first deal with PD2 and then in chapter 3 and chapter 4, I return to the distinction between PD1 and PD2; I show, at least for some languages, that this pattern of distribution is **lexically conditioned allomorphy**; there is no evidence that the possessive markers contribute different meanings to the possessive construction. I argue that PD2 is semantically conditioned and propose an analysis for the possessive markers. In order to describe the difference between the two marking strategies found in PD2, I introduce the distinction between **idiosyncratic** and **non-idiosyncratic strategies**. I argue that the idiosyncratic strategy is semantically marked; typically, it involves morphological markedness and distributional restrictions as well. In the following section, I explain my notion of an **idiosyncratic strategy** in detail.

2.1.2 An idiosyncratic strategy: three main factors

In this section, I introduce the notion of **idiosyncratic strategy**. As I explain below, the term **idiosyncratic** refers to the distribution of a given marker that is not predictable for a given noun. I argue for a meaning-based definition of the idiosyncratic strategy. I discuss three main factors involved in adnominal possessive marking: morphological markedness, productivity (distributional restrictions) and semantic markedness, and show in detail how these factors interact with each other. On my definition of an idiosyncratic strategy, semantic markedness is a necessary property, while morphological markedness and pro-

ductivity are typical but not necessary.

Semantic markedness. Let us first define the opposition between idiosyncratic and non-idiosyncratic strategies. Compare the examples from Adyghe in (4). Both possessive constructions involve the possessed noun *šha* ‘head’, but only in (4a) does the relation between the possessor and the possessed involve an interpretation of ‘head’ as the possessor’s body part.

- (4) Adyghe (Gorbunova 2009: 153 - 154)
- a. *s-šha*
1SG-**head**
‘my head’
 - b. *s-jə-šha*
1SG-POSS-**head**
‘my head’ (said by a zoologist about a dog’s head)

I propose that (4a) represents an **idiosyncratic strategy**, because it is semantically restricted. The interpretation of ‘head’ as a body part is a specific instance of a stereotypical part-whole relation. The meaning difference between the two marking strategies will be discussed in detail in section 2.2. The underlying idea is that an idiosyncratic strategy is predetermined to mark a limited set of relations that are systematically derived from the semantics of the possessed noun. This idea corresponds to the intuition that given a possessed noun, the idiosyncratic strategy is the one that marks stereotypical, predictable relations. The example in (4b) represents a **non-idiosyncratic strategy**. The non-idiosyncratic strategy is semantically underspecified. It is compatible with any relation, including those relations that are contextually determined. The term idiosyncratic is chosen to show that the nouns that can select for the semantically marked strategy do not form a coherent semantic class. The term refers to the selectional requirements of nouns, not to the semantic contribution of the possessive marker. The relation between idiosyncratic and non-idiosyncratic strategies is schematically shown in figure 2.1.

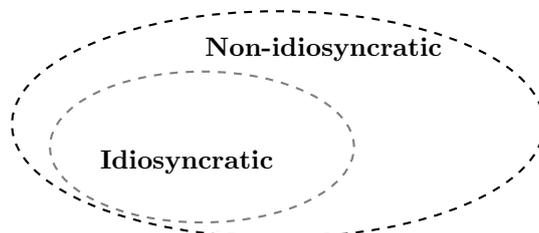


Figure 2.1: Idiosyncratic and non-idiosyncratic marking: asymmetry in relations

In this chapter, I argue that there is a semantic asymmetry between idiosyn-

cratic and non-idiosyncratic strategies to mark possession. This asymmetry concerns the relations which a given strategy can express. There are two factors that interplay with semantic markedness, which I discuss in detail below. Firstly, idiosyncratic strategies typically involve less morphological material than the non-idiosyncratic (morphological markedness). Secondly, semantically marked strategies often show a limited range of application (productivity).

Morphological markedness There often exists an asymmetry between morphosyntactic strategies for expressing possession. One strategy may involve more morphological material than the other. Consider, for instance, the example from Wandala in (5). While in (5a), the 1sg possessive pronoun *rúwá* is juxtaposed to the possessed, the strategy in (5b) involves the 1sg possessive pronoun *rúwá* juxtaposed to the possessed and an additional genitive marker *á*.

- (5) Wandala (Frajzyngier 2012)
- a. əd-rúwá
father-1sg
'my father'
 - b. rv-á-rwá
hand-GEN-1SG
'my hand'

Schematically, this asymmetry is shown in table 2.2. One could say that the marking strategy in (5a) is almost “included” in the marking strategy in (5b); (5b) involves the same morphological material as (5a) in addition to and a the morpheme *á*.

Possessor(=1sg) + Possessed(=father)	\Leftrightarrow	LC ₁
\Updownarrow		
Possessor(=1sg) + Possessed(=hand) + Poss(=á)	\Leftrightarrow	LC ₂

Table 2.2: Morphological markedness

Many typologists, for instance, Nichols (1988), Haiman (1983), Heine (1997) and Haspelmath (2008) point out that inalienable strategies tend to be less morphologically marked than alienable strategies. In other words, if there is a contrast between alienable vs. inalienable possession with respect to the presence of morphological structure, alienable possession is always more morphologically marked. I reformulate this observation in terms of idiosyncratic strategies. In case a language has two or more marking strategies to express possession, it is often the case that the idiosyncratic strategy carries a smaller amount of morphological material than the non-idiosyncratic one.

In the course of this chapter, I discuss in more detail how morphological markedness interacts with other factors involved in possessive marking. I argue

that morphological markedness is a typical, but not a necessary, property of an idiosyncratic strategy. The distinction is primarily driven by meaning and not by the morphological form. Morphological markedness does not always help to identify the idiosyncratic strategy. Consider the Rapa Nui example in (2), which I used to introduce the two patterns of distribution. Morphological markedness does not help to determine which strategy is idiosyncratic among *a* and *o*. An example, similar to Rapa Nui, is shown for Udmurt in (6). The difference between the two strategies in (6a) and (6b) is in the quality of vowel (*-i...* vs *-e...*), not the amount of morphology.

- (6) Udmurt (Edygarova 2010)
- a. *ki-i*, *nel-iz*, *vin-iz*
hand-1sg arrow-3sg younger.brother-3sg
'my hand, his arrow, his younger brother'
 - b. *li-e*, *tuš-ez*, *anaj-ez*
bone-1sg beard-3sg mother-3sg
'my bone, his beard, his mother'

However, morphological markedness provides an important intuition about the relation between the two strategies: the existence of a simpler form to express a certain meaning blocks the use of the more complex form to express the same meaning. This asymmetry is known as the morphological blocking principle. In section 2.3.2, I discuss this intuition in more detail.

Productivity. Another asymmetry in possessive constructions concerns the range of application of a given strategy. As already indicated in section 2.1.1, the range of application of a marking strategy might be restricted by a lexical class. "Productivity" concerns the relation between the size of the lexical class associated with the idiosyncratic strategy and the size of the lexical class associated with the non-idiosyncratic strategy. Typological studies of (in)alienability often mention a "closed class". Compare Nichols (1988: 562): "The nouns that take 'inalienable' possession virtually always form a closed set, often a small one, while those taking 'alienable possession' are an open, hence infinite set".

If this observation is reformulated in terms of idiosyncratic marking, we expect the range of application of an idiosyncratic strategy to be determined by a closed class of nouns. For instance, in Udmurt, there are two classes of nouns: a closed class and an open class. For the closed class, Edygarova (2010) provides a list of 155 nouns that can appear possessed by means of an *-i...*-strategy. Other nouns, as well as new borrowings, appear possessed with *-e...*. However, Edygarova (2010) also shows that at least some members of the idiosyncratic class, such as *jir* 'head' in (9b), can, under certain circumstances, appear possessed by means of a non-idiosyncratic strategy as well. In (7b) 'head' does not denote a body part of the possessor, it denotes the possessor's husband; the morpheme from the series *-e...* is used.

- (7) Udmurt (Edygarova 2010: 124, 125)
- a. **jir-iz**
head-3sg
'her head'
 - b. **zok jir-ez**
big head-3sg
'her big head' (meaning: 'her husband')¹

The relation between the two classes in Udmurt is schematically shown in the second column of table 2.3. I assume that the marking strategy containing *-e...* is underspecified and thus combines with the members of both lexical classes: LC₁/LC₂; this assumption is based on the fact that LC₁ nouns, which can appear possessed with *-i...*, form a closed class with respect to this type of marking.

Limbu	Udmurt, Rapa Nui	Daakaka
<i>-nd-</i> ↔ LC ₁	<i>-i...</i> ↔ LC ₁	LINK/TRANS ↔ LC ₀
<i>-∅-</i> ↔ LC ₂	<i>-e...</i> ↔ LC ₁ /LC ₂	

Table 2.3: Lexical class: gradation of flexibility

Finally, I also expect to find languages in which the majority of nouns are compatible with both marking strategies. In my sample, I was unable to identify a language like this with only two morphosyntactic strategies to express possession. The following description of Polynesian possessive marking by Mulloy and Rapu (1977: 7) suggests that it might be fruitful to search among them: “Neither gender nor noun class of possessor or possession determines the choice of the possessive, but the relationship between the two”.² In chapter 4, I discuss Daakaka (Austronesian) in detail, which makes use of two possessive markers productively; there is no evidence for the existence of a closed class (see also von Prince (2016) and von Prince (2012b))³. The gradation from a “closed class” to relatively productive marking is schematically shown in table 2.3. As I argue for a meaning-based distinction between idiosyncratic and

¹The context provided by Edygarova (2010: 125): “and her big head [her husband] replied to Odot’: “that’s your own fault! When you are in the forest don’t say the things that should not be said.”

²See also Clark (2000: 264): “serious students of Polynesian languages have always perceived that the A/O distinction hinged, not on a Classification of possessed things (like a noun-class system), but on the nature of the relation between possessor and possessed. One unmistakable clue is the fact that minimal pairs in which the same possessed is related to the possessor by either A or O, with a concomitant difference of meaning, are by no means difficult to find.” Initially I assumed, following the description in Mosel and Hovdhaugen (1992), that an example of productive possessive marking is found in Samoan. However, Vera Hohaus p.c. has reported that her fieldwork did not confirm this productivity.

³The reason I discuss Daakaka only in chapter 4 is that Daakaka also has a class of syntactically relational nouns

non-idiosyncratic strategies, I show that “closed class” is an extreme case of an idiosyncratic strategy; heavy restrictions on the distribution are a typical but not a necessary property of an idiosyncratic strategy.

In the course of the chapter, I show that it is impossible to predict from the noun whether it will be a member of the idiosyncratic lexical class or not. However, the set of nouns that end up in the idiosyncratic class is not arbitrary. For instance, as observed in many studies, the idiosyncratic class often includes kinship terms and body parts. There is a weak link between this class of nouns and those nouns that are traditionally described as relational, which I discuss in more detail in section 2.2.2.

In the next section, I discuss the interplay between the productivity of the marking strategy and the role of the possessive marker in the semantic composition of a strategy.

2.1.3 Possessive marking: meaning and distribution

In this section, I discuss the distribution and the semantic contribution of the possessive markers. In section 2.1.2, I mentioned that there is a cline from the lexical specification of a marker to its productive application. This cline can be described as a gradation of flexibility. Thus, for a group of languages, the alternation of possessive marking is impossible. In some languages, marking strategies are quite productive; thus, most nouns can appear with either of them. In between, there are many languages in which at least some nouns can appear possessed with both marking strategies.

In order to refer to this gradation of flexibility, I will speak about *fixed* and *flexible* strategies. “Fixed” would mean that a marking strategy is fixed with respect to a certain lexical class of nouns. A “fixed” possessive strategy is indissociable from its lexical class due to its lexical specifications. As an example, we can consider the Limbu example in (8), repeated from (1). Limbu has two morphosyntactic strategies to express possession; both strategies are fixed.

- (8) Limbu (van Driem 1987)
- a. a-<nd>zum stem: *cum*
 my-<LN>friend
 my friend
 - b. a-go·co·
 my-dog
 my dog

I will speak about “flexible” strategy if there are indications that this strategy can be used to mark possession for multiple lexical classes. An example from Udmurt in (9) shows two marking strategies. The *-i . . .*-type possessive marking in (9a) is only compatible with a closed class of nouns; the *-e . . .*-type possessive marking in (9b) is compatible with an open class of nouns, as well as with some

nouns from the closed class, like ‘head’. I will call such a marking strategy that corresponds to the open class “flexible”. Thus, Udmurt is a language with a flexible strategy.

- (9) Udmurt (Edygarova 2010: 124, 125), repeated from (7)
- a. **jir-iz**
head-3sg
‘her head’
 - b. **zok jir-ez**
big head-3sg
‘her big head’ (meaning: ‘her husband’)

The focus of this chapter are languages that make use of two morphosyntactic strategies to express possession. I will sometimes call such systems “binary”. The languages under discussion are listed in table 2.4. However, some of them (Kayardild, Mandarin, Hungarian and Hebrew) I will only discuss in some detail in chapter 5. The table also presents a summary of the terminology and the corresponding distinctions. As one can see, there are far fewer languages with two fixed strategies than languages with a flexible strategy.⁴

fixed strategies	flexible strategy
Poss ₁ ⇔ LC ₁	Poss ₁ ⇔ LC ₁
Poss ₂ ⇔ LC ₂	Poss ₂ ⇔ LC ₁ /LC ₂
Nubian, Limbu, Tehit, Tauya, Moskona	Adyghe, Ewe, Lele, Udmurt, Wandala, Maltese, Hungarian Tlingit, Tera, Tawala, Toqabaqita, Ngiyambaa, Hebrew, Mandarin, Q’eqchi, Samoan, Tzutujil, Rapa Nui, Mongsen Ao, Kayardild

Table 2.4: Fixed and flexible strategies; an overview

Now that “fixed” and “flexible” marking strategies are defined, we can turn to the meaning contribution of the possessive markers. A possessive construction consists of a possessor (either nominal or pronominal), a possessed noun and possibly some morphological material marking possession. An analysis should be able to show how the meaning of the whole possessive phrase is determined by the meanings of the parts. In (10), I schematically show a possessive construction with a flexible strategy. As can be seen in the schema, (10a) and (10b) receive different interpretations. Both the possessor and the

⁴In the corresponding chapter of WALS, Nichols and Bickel (2013b) list 94 languages with two “possessive classes”. At first sight, two “possessive classes” correspond to what I call two “fixed strategies”. However, it turns out that Nichols and Bickel’s (2013b) definition of “possessive class” is much broader: it is not contingent on the shape of morphological markers. For example, if a language has a class of nouns that require the possessor to be expressed in a certain environment, Nichols and Bickel (2013b) classify this language as having two “possessive classes”; consider Wembawemba, Ossetic, etc.

possessed are kept constant; the only variable is the possessive marker, which is $Poss_1$ in one case and $Poss_2$ in the other. The difference in interpretation can be attributed to the semantics of the possessive marker.

- (10) a. Possessor+Possessed+**Poss**₁ = Interpretation₁
 b. Possessor+Possessed+**Poss**₂ = Interpretation₂
 The difference in the resulting interpretation comes from the difference in the possessive markers

In case possessive markers are in complementary distribution, as we see, for instance, in languages with two fixed strategies, there is no direct evidence that $Poss_1$ has a different meaning from $Poss_2$. It is a non-trivial task to evaluate the semantic contribution of the possessive markers, as one can only use indirect evidence to locate various meaning parts. It represents an equation with two variables. The possessor is kept constant, while both the possessed noun and the possessive marker alternate. Hypothetically, the source of difference in the interpretation of the whole can either be the possessed noun: $[[Possessed_1]] \neq [[Possessed_2]]$, or the possessive marker $Poss_1 \neq Poss_2$. It might also be that both variables contribute to the difference in the resulting interpretation: $[[Possessed_1]] \neq [[Possessed_2]]$ and $[[Poss_1]] \neq [[Poss_2]]$.

- (11) a. Possessor+**Possessed**₁+**Poss**₁ = Interpretation₁
 b. Possessor+**Possessed**₂+**Poss**₂ = Interpretation₂

In chapter 3 and chapter 4, I return to the two possible scenarios behind (11). There is a possibility that the two markers are different in shape, but not in their meaning contribution, which makes them lexically conditioned allomorphs of the same morpheme. This configuration is shown in the scheme in (12). One should think of the resulting interpretation of the two possessive constructions as being essentially similar (the same type of possessive relation).

- (12) a. Possessor+**Possessed**₁+**Poss**_{allomorph1} = Interpretation_{type1}
 b. Possessor+**Possessed**₂+**Poss**_{allomorph2} = Interpretation_{type1}
 Any difference in the resulting interpretation comes from the possessed nouns

If the possessive marker stays constant, represented as **Poss** in (13), but the resulting interpretations are very different, then the source of this difference is the possessed noun. I will talk about this configuration in more detail in chapter 4 when we deal with Movima, Slave and Koyukon.

- (13) a. Possessor+**Possessed**₁+**Poss** = Interpretation_{type1}
 b. Possessor+**Possessed**₂+**Poss** = Interpretation_{type2}

This thesis deals primarily with flexible possessive marking, as shown in (10). In chapter 3 and chapter 4, I will return to cases like (12) and (13) when I discuss languages with multiple morphological markers to express possession.

An overview of languages discussed in chapter 3 and chapter 4 is provided in table 2.5.

Fixed strategies only	Flexible strategies (at least one)
Amele, Wauja, Baure, Toba, Aguaruna	Bororo, Chontal Mayan, Hidatsa, Kayardild, Koyukon, Mussau, Movima, Saliba, Tariana, Tolai, Yaitepec Chatino, Yucatec Mayan, Bardi, Blackfoot, Daaakaka, Guajiro, Maricopa, Nelemwa, Paamese, Panare, Yine (Piro), Slave, Tanacross

Table 2.5: Beyond binary systems; languages with multiple morphological means to express possession

In the following section, I discuss the meaning-based distinction between idiosyncratic and non-idiosyncratic strategies. I introduce the interpretative contrast between the two strategies and discuss the relations that idiosyncratic marking can denote.

2.2 Idiosyncratically marked relations

In this section, I elaborate on the meaning-based distinction between idiosyncratic and non-idiosyncratic possessive marking. In section 2.2.1, I discuss examples that show that alternations between idiosyncratic and non-idiosyncratic marking give rise to a meaning effect. Roughly, given the semantics of the possessed noun P, the idiosyncratic construction is used to mark some specific P-based relation, while the non-idiosyncratic one is used to mark other, less specific relations. In section 2.2.2, I argue that the P-based relation is a stereotypical one. It has to be derived systematically from the lexical semantics of the possessed noun. I discuss the possibilities of lexical decomposition of the possessed nouns and suggest that the most salient semantic features are relevant for stereotypical relation. Finally, section 2.2.3 is a discussion of methodological problems that one encounters while trying to study the semantics of possession typologically.

2.2.1 The meaning effect

In case the idiosyncratic marking is flexible, the possessive markers are dissociable from the members of the idiosyncratic class. Such alternations usually give rise to meaning effects, schematically shown in (14), repeated from (10). The substitution of an idiosyncratic marker (Poss_1) with a non-idiosyncratic one (Poss_2) results in a change in interpretation of the whole possessive construction (Interpretation_1 vs. Interpretation_2).

- (14) a. Possessor+Possessed+**Poss**₁ = Interpretation₁
 b. Possessor+Possessed+**Poss**₂ = Interpretation₂

To start, I will look at languages with two marking strategies: the idiosyncratic and the non-idiosyncratic one, such as Adyghe (Northwest Caucasian), Wandala (Chadic), Maltese (Afro-Asiatic), etc. The minimal pair from Adyghe in (15) highlights the contrast between a body-part relation between the speaker and his head and an ownership relation between the speaker (a zoologist) and an animal's head.

- (15) Adyghe (Gorbunova 2009: 153 - 154)
- a. s-**šha**
 1SG-**head**
 'my head'
- b. s-jə-**šha**
 1SG-POSS-**head**
 'my head' (said by a zoologist about a dog's head)

In (15a), the possessed (the speaker's head) is inherently connected to the possessor (the speaker). In (15b), the ownership relation between the possessor (the speaker) and the possessed (a dog's head) is determined by the context. Gorbunova (2009) notes a further remark by a native speaker consultant. When asked whether (15a) would be felicitous to describe a relation between a dog's head and a zoologist, the consultant said that this would only be felicitous if the dog's head were a body part of the possessor: "He attached the dog's head instead of his own?"

The ownership relation is a frequent interpretation in case idiosyncratic marking is substituted by non-idiosyncratic marking. However, non-idiosyncratic marking can be used to mark other relations as well. Consider another example that involves a body part, 'blood', in (16). The idiosyncratic marking, in (16a) is used to refer to a body-part relation between 'blood' and its possessor. The use of non-idiosyncratic marking in (16b) describes an ancestor relation between 'blood' and its possessor; the possessor (he) does not own blood that flows in the speaker's veins, nor does he have any control over it. The possessor is connected to the blood by being the speaker's ancestor. Thus the use of non-idiosyncratic marking can give rise to non-ownership as well as non-body-part interpretations.

- (16) Adyghe (Gorbunova 2009)
- a. \emptyset -əλ
 3SG-**blood**
 'his blood' (example found online)
- b. se a-š \emptyset -je-λ s-xe-λ
 1SG that-ERG 3SG-POSS-**blood** 1sg-LOC-LIE
 'his blood flows in my veins (lit. lies in me)'

A similar contrast is sometimes observed with kinship terms. While the idiosyncratic marking is used to highlight the most specific relation with respect to the lexical meaning of the noun (the actual kinship relation), the non-idiosyncratic marking can receive a variety of other, non-kinship interpretations. For instance, in Wandala (17a) the idiosyncratic marking on the word *ə̀d* is compatible with a ‘father’ relation, while the non-idiosyncratic marking on the same noun receives the interpretation ‘superior, boss’.⁵

- (17) Wandala (Frajzyngier 2012)
- a. **ə̀d**-rùwà
male.superior-1sg
my father
 - b. **ə̀dd**-á-rwà
male.superior-gen-1sg
my boss, my superior

Another pair of examples that involve a kinship term is shown for Maltese in (18). The idiosyncratic marking with the possessed noun ‘children’ in (18a) is interpreted as a stereotypical relation (family), even though the parents in this example are non-human (stars). The non-idiosyncratic marking in (18b) is employed to describe a different kind of relation, the material out of which the children are made.

- (18) Maltese (Stolz et al. 2008: 86)
- a. **Ulied** il-Kwiekeb
child.PL DET-star.PL
‘Children of (born by) the stars’
 - b. **Ulied** ta’ l-Azzar
child.PL of DET-steel
‘Children (made) of steel’

Lichtenberk (2008: 395) provides an example of a similar meaning effect in Toqabaqita. The possessed noun is ‘name’. In (19a), the speaker uses idiosyncratic marking to refer to his/her own name. In (19b), the speaker uses a non-idiosyncratic construction to refer to a namesake, someone with the same name. Thus while saying ‘my name’ in (19b), the speaker refers to a different relation than in (19a); namely, a name identical to mine.⁶

- (19) Toqabaqita (Lichtenberk 2008: 395)
- a. **Thata**-ku tha Maeli
name-1SG PERSMKR Maeli
‘My name is Maeli.’

⁵Further discussion of this example can be found in section 2.2.3.

⁶Compare it to the speaker pointing towards a car in traffic: “our car”; to show that the car is identical to the one the speaker has.

- b. **Thata** nau
 name 1SG
 ‘My namesake.’

Adyghe, Wandala, Maltese and Toqabaqita make use of two marking strategies to mark possession. As can be seen from the examples above, the idiosyncratic strategy requires less morphological material than the non-idiosyncratic one. At first sight, it might seem somewhat surprising that a special relation like body part requires less morphological marking than other possessive relations which represent, so to speak, the more general case. However, this asymmetry is quite common. In section 2.1.2, I introduced this asymmetry as the criterion: morphological markedness. In case there is a difference in the amount of morphological marking, the idiosyncratic strategy is typically the less marked.

Below, I present some examples to show that the same meaning effect can be found beyond morphological markedness. Semantic markedness does not correspond to morphological markedness one to one. Consider the meaning effect in the Udmurt example in (20). In (20a) the relation between the possessor and ‘tail’ is body part. In (20b), a fairy-tale example, the relation between the possessor (speaker-goat) and ‘tail’ (baby-goat) is actually kinship. As already discussed for Udmurt in 2.1.2, the distinction between the two marking strategies is not in the amount of the morphological marking, but in the quality of the vowel *i* vs. *e*. Despite the lack of contrast with respect to the amount of morphological marking, the semantic contrast discussed above is present.

(20) Udmurt (Edygarova 2010: 119-125)

- a. **biž-iz**
 tale-3sg
 ‘his tail’
- b. kuz’ **biž-e**
 long tail-1sg
 ‘(you), my long tail’

Typically, the idiosyncratic strategy is restricted in its range of application. Both in Adyghe and Wandala, the range of application of the idiosyncratic strategy is restricted to a small group of nouns. In Maltese, the use of idiosyncratic marking is somewhat more productive; see Stolz et al. (2008: 86), but nevertheless, it is much more restricted than the use of non-idiosyncratic marking. In principle, the meaning effect does not have to be limited to a closed class of nouns. As I mentioned in section 2.1.2, we also expect to find it in languages that make use of possessive marking productively. Anticipating my later discussion in chapter 4, I show such an example from Daakaka in (35).

(21) Daakaka (von Prince 2016)

- a. **bura=ne** vyanten en=te
 blood=TRANS person DEM=MED
 ‘this person’s blood’

- b. **bura** \emptyset -e vyanten en=te
 blood CL2-LINK person DEM=MED
 ‘this person’s (animal) blood’

In (35), the contrast is between a body-part relation with ‘blood’ in (37a) and an ownership relation with blood in (37b). As discussed in detail in von Prince (2016) and von Prince (2012b), both marking strategies shown in (37a) and (37b) are used productively in Daakaka. Neither of them corresponds to a closed class of nouns.

In this section, I provided several examples to show that the alternation of possessive marking can give rise to a meaning effect. The meaning effect can be described as a change in the relation between the possessor and the possessed. Idiosyncratic marking seems to be used to mark specific relations, such as body part, kinship, inherent part, etc. The non-idiosyncratic marking marks a whole variety of relations that are less specific: ownership, social superiority, relation of origin, abstract relations, etc. Typically, the idiosyncratic strategy is less morphologically marked and has a more limited distribution than the non-idiosyncratic one. However, the meaning effect can be found beyond morphological markedness and restricted distribution. In the following section, 2.2.2, I will argue that in the case of idiosyncratic marking, possessive relations are systematically derived from the semantics of the possessed noun. I assume that this process has its roots in lexical semantics of the possessed nouns. In order to account for this derivation, I will examine the members of the idiosyncratic class in more detail. The final analysis will be proposed in section 2.3.

2.2.2 Deriving the relation from the possessed noun

In section 2.2.1, I made the following observation: idiosyncratic marking is employed to encode specific possessive relations. An important question is how these specific relations come to be and what the crucial difference is between them and other less specific relations. The problem of how to derive such relations systematically is relevant for any account of possessive marking. In this section, I show that there is a weak link between idiosyncratic nouns and prototypical relational nouns. Importantly, an idiosyncratic class is usually not semantically homogenous. It is not possible to predict for a given noun if it will receive idiosyncratic marking or not. As I will discuss in section 2.3.2, the possibility to select for the idiosyncratic marking results from the interplay of the morphosyntactic properties and the semantic properties of a class of nouns. In this section, however, I will only be concerned with the semantic side of the question.

As I discussed in chapter 1, it has been observed in numerous studies that some relations within possessive constructions appear to have a privileged status. Barker (1995) uses the example in (22) to show a striking contrast between a part-whole relation and its inverse (whole-to-part). While (22a) is immediately interpreted as part-whole, (22b) requires very strong contextual support.

- (22) (Barker 1995: 2)
- a. the table's leg
 - b. *the leg's table

Parts of wholes, including body parts, and kinship terms are prototypical representatives of relational nouns (see Barker 1995). Relational nouns are assumed to denote relations, while sortal nouns denote sets. What is called a relational noun heavily depends on the theory. In fact, some theories allow almost any sortal noun to have a relational reading as well. See, for instance, Löbner (2011). Note, however, that this flexibility does not help us to account for the idiosyncratic classes of nouns cross-linguistically, as it doesn't provide any independent criteria to distinguish a sortal noun from a relational one. There is no independent test to make sure that a noun such as 'ring' is relational in Blackfoot but sortal, for instance, in Adyghe. In general, 'relational noun' represents a syntacto-semantic criterion. A relational noun, in contrast to a sortal noun, has further argument(s) in addition to the referential argument (Löbner 2011): 'father' always entails another individual that is a child. In cross-linguistic studies, good candidates for relational nouns are nouns that require that the possessor be realized within the same nominal phrase (obligatorily possessed nouns) and not appear "unpossessed" without additional morphological modifications (see, for instance, Löbner 2011). Those nouns are syntactically relational.

If we consider obligatorily possession a reliable criterion to determine the class of relational nouns cross-linguistically, we can immediately state that it only partially overlaps with idiosyncratic marking. For languages that only make use of two strategies to express possession, consider table 2.6, a slightly modified version of table 2.4. In table 2.6, YES indicates that in the given language nouns that receive idiosyncratic marking are also obligatorily possessed. These nouns can't form a noun phrase without an overtly expressed possessor; one can think of them as bound roots that require an overtly expressed possessor or corresponding person-number inflection.⁷ For instance, in Amele (Trans-New Guinea), more than 100 nouns can't form a noun phrase without a clitic that encodes person and number of the possessor (Roberts 1987, 2015). Thus, a noun *hoh* can be used to refer to 'back', but a noun stem **gogodo* 'back' can only appear with a person-number marker of a corresponding possessor, as in *gogdo-h* 'his back' or *gogodo-mi* 'my back' (Roberts 1987: 382).⁸

⁷As I discuss in more detail in chapter 4, the exact mechanisms that allow a noun to form a nominal phrase might vary from language to language.

⁸For Yine (Piro), I found examples of some nouns without an overtly marked possessor but with distributive marker. See *meçi* 'feather' below.

- (i) kl̩ meçi-kaka p-hanika sosi
 what+SGM feather.of-DISTR 2-carry brother-in-law
 'What (kinds of) feathers did you bring, brother-in-law?' (Hanson 2010)

The Yine noun *meçi* 'feather-of' is supposed to be obligatorily possessed. However, examples like that above where such nouns don't seem to have an overtly expressed possessor make the status of obligatorily possessed nouns questionable.

2 fixed strategies	1 fixed 1 flexible strategy
Poss ₁ ⇔ LC ₁	Poss ₁ ⇔ LC ₁
Poss ₂ ⇔ LC ₂	Poss ₂ ⇔ LC ₁ /LC ₂
Limbu – NO	Adyghe – NO
Tehit – PRT ⁹	Lele – PRT
Tauya – YES	Udmurt – NO
Moskona - YES	Wandala – NO
Nubian – YES	Tlingit – YES
	Tawala – NO
	Toqabaqita – NO
	Tera – NO
	Hungarian – NO
	Ngiyambaa – NO(?)
	Yine - YES(?)
	Samoan – NO
	Rapa Nui – NO
	Hebrew – NO
	Mandarin – NO
	Q’eqchi – PRT
	Tzutujil – PRT
	Maltese – NO
	Kayardild – NO
	Ewe – NO

Table 2.6: Fixed and flexible strategies; an overview with obligatorily possessed nouns

As can be seen in table 2.6, the obligatorily possessed nouns do not correspond one to one with the idiosyncratic noun class in every language. NO indicates that in the given language, nouns that receive idiosyncratic marking can constitute a nominal phrase without an overtly expressed possessor. For instance, in Toqabaqita, *qaba* ‘hand’ belongs to the idiosyncratic class; the corresponding possessive marking is shown in (23a). However, it can also form a nominal phrase without an overtly expressed possessor, as shown in (23b).

(23) Toqabaqita (Lichtenberk 2008: 399-400)

- a. **qaba**-na
hand-3SG.PERS
‘his hand’
- b. **qaba** suukwaqi-a
hand be.strong-DVN

⁹In Tehit, according to Flassy and Stockhof (1979: 74), the use of the possessor prefix is phonologically conditioned.

‘strong arm’

Finally, for several languages in table 2.6, I used a PRT (partially) notation. The grammars of these languages show that there is no one-to-one correspondence between possessive marking and obligatory expression of the possessor. For example, in Tzutujil, some of the nouns that take idiosyncratic marking, have to take an additional suffix, *-aaj* (*-ijj* or *-eej*), if they appear unpossessed. Other nouns from the idiosyncratic class don’t undergo any morphological modifications in order to appear unpossessed. Compare the examples with ‘louse’ in (24a) and ‘tooth’ in (24b).¹⁰

- (24) Tzutujil (Dayley 1985: 143-144)
- a. uk’ w’-uk
louse 1sg-louse
‘louse’ ‘my louse’
 - b. eey-**aa**j w’-eey
tooth-abs 1sg-tooth
‘tooth’ ‘my tooth’

Not every noun that is prototypically relational becomes a member of an idiosyncratic class. For example, all kinship terms are expected to be “systematically relational” (Barker 1995), as they always denote relations between individuals. Indeed, kinship terms appear in the grammatical descriptions quite frequently. Usually, however, the class of kinship terms is divided across multiple marking strategies. For instance, the grammar of Wandala (Frajzyngier 2012) informs us that the idiosyncratic strategy is only used for some kinship terms, like ‘father’, ‘father-in-law’ or ‘son-in-law’ and social terms like ‘buddy’. However, kinship terms like ‘husband’ or ‘wife’ can only appear possessed with the genitive particle *-á-* (non-idiosyncratic strategy). Compare the nouns ‘friend’ and ‘wife’ in (25).¹¹

- (25) Wandala (Frajzyngier 2012)
- a. làkàt ñàrà
fellow 3SG
‘his buddy’
 - b. mùks-á-rà
woman-GEN-3SG
‘his wife’

¹⁰I return to the examples from Mayan languages in chapter 3.

¹¹The noun ‘buddy’ *làkàt* appears with the non-idiosyncratic marker *à* if the possessor is third-person plural:

- (i) làkàt-á-trè
fellow-GEN-3PL
‘their buddy’

As it turns out, it is not necessary for a noun to be prototypically relational in order to receive idiosyncratic marking. Consider the example from Toqabaqita in (26). The noun *wane* ‘people’ takes idiosyncratic marking, even though it does not denote a relation; it is not a kinship term. In contrast, Toqabaqita nouns like *ruana* ‘trading partner, friend’ appear with non-idiosyncratic marking even though they denote relations.

- (26) Toqabaqita (Lichtenberk 2008)
- | | | |
|----|-------------------------------------|----------|
| a. | wane-na | Malaqita |
| | person-3.PERS | Malaita |
| | ‘the people of Malaita’ | |
| b. | ruana | nau |
| | friend/trading.partner | 1SG |
| | ‘my friend’ or ‘my trading partner’ | |

As another example, consider Blackfoot in (27).¹² Gruber (2013) shows that nouns like ‘ring’ and ‘bracelet’, which one could expect to be sortal, pattern differently with respect to possessive marking. While ‘ring’ is in the idiosyncratic class, ‘bracelet’ is not. Similarly, ‘horse’ is marked as possessed idiosyncratically, but another domestic animal, ‘cow’, is not. From the perspective of an English speaker, this distribution is surprising. In English, neither ‘horse’ nor ‘ring’ are relational and there is no significant difference between those nouns and ‘bracelet’ and ‘cow’ with respect to relationality.

- (27) Blackfoot (Gruber 2013)
- | | | | |
|----|--|--------------------------|------------------|
| a. | n’-ota’sa | n-is’apiikitsoohsa’tsisa | n’-ooma |
| | 1-horse | 1-ring | 1-husband |
| | ‘my horse’ ‘my ring’ ‘my husband’ | | |
| b. | nit-’a’apotskinaama | nit-ohp’o’nna | nit-’o’otoyoomi |
| | 1-cow | 1-bracelet | 1-brother-in-law |
| | ‘my cow’ ‘my bracelet’ ‘my brother in law’ | | |

In many languages, nouns that one would expect to be sortal receive idiosyncratic marking. In general, we observe three possible configurations of prototypically relational nouns with respect to an idiosyncratic class.

Type 1: the *idiosyncratic* class is a proper subset of relational nouns.

In Wandala, Lele and some other languages, the realm of application of the idiosyncratic strategy is restricted by a class of nouns which one would expect to be relational. In Wandala the class includes some kinship terms. In Lele, the class includes kinship terms, body parts, relational nouns like ‘remnants’ and spatial concepts like ‘behind’ that probably describe relations. Thus, the *idiosyncratic* class in these languages can be described as a proper subset of

¹²Blackfoot has more than two morphological means to mark possession; it is discussed, among other languages, in chapter 4.

relational nouns.

Type 2: relational nouns form a considerable part/the majority of the *idiosyncratic* class. In Blackfoot, the idiosyncratic class includes kinship terms like ‘husband’, body parts like ‘hand’, parts of wholes like ‘branch’ and ‘leaf’, etc. It also includes sortal nouns like ‘ring’ and ‘horse’, already mentioned above. We often find languages in which a subset of relational nouns forms a large part of the *idiosyncratic* class, but with some sortal nouns appearing with the *idiosyncratic* marking as well. Consider for instance, Tawala (Austronesian) which I discuss in more detail below. The idiosyncratic class in Tawala, next to prototypically relational nouns like kinship terms and body parts, includes nouns like ‘fruit’, ‘egg’ and ‘garden’, ‘book’, ‘person’ and ‘money’ which are not prototypically relational. By contrast, one might expect that nouns like ‘desire’, ‘thought’, ‘custom’ and ‘life’ would be relational in Tawala. Each of these nouns entails the existence of another entity. For instance, in order for something to be considered a ‘desire’, there must be someone who ‘desires’. However, these nouns don’t appear with idiosyncratic marking in Tawala (Ezard 1997).

Type 3: productive marking. Relational nouns do not form the majority of the *idiosyncratic* class. This configuration is expected to be found when possessive marking is relatively productive. This means that the majority of nouns in the language are compatible with both morphosyntactic strategies used to mark possession. I discuss an example of such a language in chapter 4 when I discuss possessive marking in Daakaka.

Thus, it is **neither necessary nor sufficient** for a noun to be prototypically relational in order to receive idiosyncratic marking. We only observe a loose correspondence between morphological marking and relationality. An idiosyncratic class can consist both of nouns traditionally classified as relational and nouns traditionally classified as sortal.¹³ This distribution suggests that *both relational and sortal nouns come with similar properties that allow for the identification of a relation*. The intuition is that provided a possessed noun P, idiosyncratic marking is employed to express some stereotypical P-based relation between the possessor and the possessed. Both the speaker and hearer are able to identify stereotypical relations without any help from the context, at least for nouns that belong to the idiosyncratic class. It should be possible for a native speaker of a given language to derive such a relation from the semantics of the possessed noun in a systematic way. Such a relation should be closely connected to the lexical semantics of the possessed noun. Below, I provide a definition of a stereotypical relation.

In lexical semantics, a distinction is made between the intension and the extension of a noun. The intension is the information that the language conveys. An intensional approach to meaning correlates words with some kinds of mental

¹³In chapter 4, I return to syntactically relational nouns and show that they can also play a role in determining possessive marking in a given language.

representations. An extensional approach to meaning correlates expressions in language with aspects of the world. Knowing the meaning of the word is usually understood as knowing the intension of this word (see, for instance, Cruse 2004). It seems plausible that a stereotypical possessive relation follows from the intension of a given noun. A stereotypical relation must be closely connected with the word meaning available to the speaker.

How much a speaker actually knows about word meanings is a non-trivial philosophical question. The speaker might be able to use the word without knowing what it means exactly. In his famous paper, Putnam (1973) claims that he does not know the difference between an elm and a beech tree. In terms of lexical semantics, this means that he doesn't have access to the extensions of these words. In the presence of an elm, Putnam would have been unable to determine the truth-value of the sentence, *This is an elm*. Nevertheless, Putnam (1973) claims that the extension of *elm* in his idiolect is the same as the extension of *elm* in another speaker's idiolect. How is this possible? Erk (2016) points out that in the described scenario Putnam does know at least something about elms and beech trees; he knows some of their properties. For instance, he knows that both an elm and a beech tree are trees. Knowing properties of the word such that these properties apply to all extensions of the word allows the speaker to use the word successfully in various contexts. Following this logic, a word meaning can be presented as a large collection of salient properties (conditions or features), such as form, function, purpose, etc. Jackendoff (1983) divides these features into **necessary** and **typical**. In the elm example above, [tree] is a necessary feature of both *elm* and *beech tree*. A necessary feature is fulfilled by every extension of a given noun. Every *elm* or *beech tree* is a tree. Typical features might be salient, for instance, [can-fly] is a typical feature of *bird*. However, [can-fly] is not a necessary feature of *bird*, as it does not apply to all extensions of this word. There are kinds of birds that can't fly, such as ostriches. An individual bird with a damaged wing is still a *bird* even though it can't fly.

Returning to the question of how to derive a stereotypical relation from the lexical meaning of a noun, we can suggest that such a relation should be derived from the set of features available to the speaker. A following question would be whether a stereotypical relation for a given noun is connected to **typical** features (like [can-fly] for *bird*) or **necessary** features (like [tree] for *elm*). Putnam (1973) points out that with respect to some words, the linguistic labor within a community might be divided. Not every member of the community is expected to have the same knowledge. For instance, *gold* is important in our community for multiple reasons. Nevertheless, only few people actually know what gold is and how to tell gold from a different metal. These "experts" know the necessary features of *gold* that the other members of the community don't know. Nevertheless, the whole community can talk about gold, buy and sell gold, and wear golden jewelry.

I claim that the distinction between **typical** and **necessary** features is not crucial for deriving a stereotypical relation; what matters most is that given

features be **salient** in the given culture. In order to show why this is the case, I will make use of a very simplified version of lexical decomposition, breaking down the words meaning into simpler semantic components. In principle, in order to access this process one would need to access the lexical space of a given language. This would hardly be possible with the understudied languages in the sample, but we can make predictions about what kind of lexical features, hypothetically, might be relevant to deriving possessive relations.

Let's first consider some examples of the nouns that belong to the idiosyncratic class in Tawala (Austronesian). The idiosyncratic class in Tawala includes nouns like *tano* 'garden', *gali* 'fence', *buka* 'book', etc. I hypothesize that idiosyncratic marking in Tawala corresponds to the stereotypical relation for a given noun, while the non-idiosyncratic marking can correspond to any other relation. Following this hypothesis, we expect the contrast in possessive marking to highlight the contrast between the stereotypical relation and the rest.

For example, for the noun *tano* 'garden', in (43), we can see a contrast between two possessive relations. If the possessor refers to a plant, the idiosyncratic marking is used. If the possessor is a human, the marking is non-idiosyncratic. This example suggests that the stereotypical relation between the possessor and the garden is based on the lexical feature [content=plant], but not, for instance, on the lexical feature [produced by].

- (28) Tawala (Ezard 1997: 151)
- a. woida **tano**-na
yam garden-3sg
'yam garden'
 - b. keduluma a **tano**
woman 3sg garden
'woman's garden'

In (29), the idiosyncratic strategy is used to mark the relation between the owner and *gali* 'fence'. The non-idiosyncratic strategy is used to refer to a relation with between an animal a fence is meant to keep in place and the fence. This contrast suggests that *tano* and *gali* are conceptualized differently in Tawala. For *tano* 'garden', the feature that gives rise to the stereotypical relation is its [content=plant]; for 'fence' *gali* it is [produced by] but not [content=animal]. Note that at least in our culture both 'fence' and 'garden' are necessarily created by someone. Thus, from the European perspective one would expect [produced by] to be a necessary features of 'garden' or 'fence' because it applies to every extension.

- (29) Tawala (Ezard 1997: 152)
- a. tam gali-m
you fence-2sg
'your fence (can mean 'things belonging to you')

- b. poo banei-na a gali
 pig big-3sg 3sg fence
 ‘the big pig’s fence’

The example in (30) again shows a contrast between the feature [content=language] and the feature [produced by]. This time, the possessed noun is *buka* ‘book’. Here, it might be that both features are necessary. Any book is necessarily produced by someone; one would expect [produced by] to be a necessary feature. However, the author of the book receives non-idiosyncratic marking, as shown in (30b). But any book also has some content, so the feature [content=language] that determines the idiosyncratic possessive marking in (30a) is probably also necessary.

- (30) Tawala (Ezard 1997: 300)
 a. pona Tawala buka-na
 language Tawala book-3sg
 ‘a Tawala(n) book’
 b. u buka
 my book
 ‘my book (I wrote it)’

A feature [purpose/use] seems to be relevant for nouns like ‘medicine/magic’, ‘work’ and ‘money’, as shown by the idiosyncratic marking in (31). In (31a), the idiosyncratic strategy marks the one who benefits from the magic. In (31b), the one who benefits from the work is idiosyncratically marked. By contrast, in (31c), the one who does the work is marked non-idiosyncratically. As I discussed above, my expectation is that [produced by] is a necessary feature for ‘work’. Work simply can’t take place without someone who does it. However, this feature does not seem to be relevant for deriving the stereotypical relation in Tawala.

- (31) Tawala (Ezard 1997: 103,151)
 a. wawine mulamula-na
 female medicine-3sg
 ‘his magic for (attracting females)’ (they gave my friend magic for attracting females)
 b. bada bagibagi-na
 man work-3sg
 ‘the man’s work’ (=work done for the man)
 c. bada a bagibagi
 man his work
 ‘the man’s work’ (=work done by the man)

I provide some more examples of the members of the idiosyncratic class in Tawala in table 2.7. Table 2.7 is meant to show which features of a given noun correspond to idiosyncratic marking and thus to the stereotypical relation.

In line with the discussion above, I divide the features into **necessary** and **typical**. With bold, I mark those features that end up being relevant for the stereotypical relation. Note that I define salient features of nouns in such a way that they correspond to relations between sets: [part-whole], [produced-by], etc. The aim of the table 2.7 is to show that within the idiosyncratic class, both nouns traditionally classified as relational and nouns traditionally classified as sortal share some meaning component. For instance, nouns like ‘fruit’ probably share a [part-whole] feature with body-part nouns like ‘tail’ or nouns referring to parts of a whole like ‘trunk’. Several nouns seem to share a feature like [content]: ‘book’, ‘garden’, ‘preaching’. Nouns like ‘fence’ or ‘egg’ seem to share a feature [produced by]. Even a prototypically sortal noun like ‘person’ seems to share a [part-whole] feature with prototypically relational nouns like body parts. Compare the example in (3), in which the relation between a person and a village the person is part of is marked idiosyncratically.

- (32) Tawala (Ezard 1997: 98)
 meyagi **lawa**-hi
 village person-3pl
 ‘people of the village’

noun	necessary feature	typical feature
child	kinship	
...		
tail	part-whole	
blood	part-whole	
trunk	part-whole	
fruit	part-whole	result-of
...		
egg	produced-by	edible
...		
preaching	content	produced-by
work	produced-by	purpose/use
garden	content = plant	produced-by
fence	produced-by	purpose/use=animal
book	content	
	produced-by	
person		part-whole = village
medicine		purpose
money		purpose/use

Table 2.7: Idiosyncratic class in Tawala, based on Ezard (1997)

Of course, as I discuss in much more detail in section 2.2.3, there is a serious methodological problem with this representation. The main challenge

is translatability; I don't have access to information on how the speakers of the languages I studied conceptualize the world around them; therefore, I don't know whether or not the nouns in the given languages actually possess these features. The representations are thus largely hypothetical. Nevertheless, the representations such as those in table 2.7 are helpful in illustrating what an idiosyncratic class might look like and what the differences might be between various languages in this respect. One might argue that the necessary features in Tawala are different from what we expect in European cultures. Artifacts like 'book' or things like 'garden' can't exist without being produced, but this might be different in the Tawala conceptualisation of the world. However, with the examples provided so far I don't want to commit to the claim that the stereotypical relation is based on the necessary feature of a given noun. I define the stereotypical relation as based on the most salient feature of the possessed noun. This creates an expectation that non-idiosyncratic morphology will be employed to mark some other relations, such that they are not derived from the salient features.

The notion of stereotypical that I am using is tied to a specific culture. In my definition, derivation of a stereotypical P-based possessive relation from a possessed noun P, relates to conceptualization of the world by the speakers of a given language. A stereotypical relation conforms most to default cultural expectations. A relation is stereotypical if it is conceptualised as such in the mental space of a speaker of a given language. Below I show that languages differ in the way they conceptualise different relations. Note that my take on what is stereotypical is different, for instance, from the approach to stereotypes in Levinson (2000). For Levinson (2000: 115), stereotypes are "connotations associated with meanings, but not part of them". My notion of stereotypical relation is tied to a word's meaning, to its intension. The similarity between both approaches to stereotypicality is that a stereotype doesn't have to be strictly based on the reality or statistical tendency. Stereotypes are not objective; they are culture specific relations, available to speakers of a given language. Thus, we can talk about "absent-minded professors" as stereotypes even though it is not necessarily the case in reality that most or all professors are absent-minded. Similarly, one could think of a culture in which an ostrich would be a stereotypical bird, even though an ostrich, in contrast to most birds, cannot fly and thus is not a good representative of birds, statistically speaking.

In order to show the culture-specific nature of the stereotypical relation, we can compare the idiosyncratic class in Tawala with the idiosyncratic class in another language. I chose an example from Hidatsa (Siouan), one of the languages from chapter 3.¹⁴ As one can quickly observe, in Hidatsa, the idiosyncratic class includes a large number of artifacts, such as 'arrow' and 'kettle'. As these nouns imply possession by a human, I expect that they have a feature [use/purpose] in their lexical semantics. It is probably the necessary feature shared by all

¹⁴In chapter 3 and 4, I explain in detail the idiosyncratic class in languages that have more than two morphological means of marking possession.

extensions of these nouns. Artifacts are not created without a purpose, even if they can exist on their own, without being actually used by people. The same applies to clothing and food. Thus, at least one feature [use/purpose] is shared by a large group of nouns in Hidatsa. Two other groups of the idiosyncratic nouns in Hidatsa consist of body parts and kinship terms. For these nouns, it is likely that the stereotypical relation is derived from their necessary features, [part-of] for body parts and [kinship] for nouns. It is not clear whether prototypically relational nouns in Hidatsa share relevant features with prototypically sortal nouns. For body parts and nouns like ‘pants’, ‘earrings’ and ‘eyeglasses’, this feature might be [located=body]. For more examples from Hidatsa, see table 2.8.

noun	necessary feature	necessary feature	typical feature
friend	[kinship]		
father	[kinship]		
...			
wing	[part-of]	[located=body]	
teeth	[part-of]	[located=body]	
head	[part-of]	[located=body]	
...			
food	[purpose = human consumption]		
pants	[purpose = wear]		[located=body]
earrings	[purpose = wear]		[located=body]
arrow	[purpose = hunting]		
kettle	[purpose = cooking]		
gun	[purpose = hunting]		
house	[purpose = living]		
eyeglasses	[purpose = wear]		[located=body]

Table 2.8: Idiosyncratic class in Hidatsa, based on Park (2012)

As the stereotypical relation is tied to cultural knowledge of the speakers, it is important to see that languages can pattern differently with respect to the difference in relations that they highlight. An interesting contrast concerns the relation between the possessor and its body parts. In some languages, a

body part receives idiosyncratic marking only if it still functions as a body part of the possessor. Once it is severed, even if the possessor is unchanged, the non-idiosyncratic marking has to be used. For instance, in Maltese (8) ‘Basil’s head’ receives non-idiosyncratic marking if the head is detached from Basil.

- (33) Maltese (Fabri 1993: 162)
- a. ras Basilju
head Basil
‘Basil’s head’
 - b. ir-ras ta’ Basilju
DF-head of Basil
‘Basil’s head (detached)’

Crippen (2010: 270) makes a similar observation for Tlingit. In both examples (34a) and (34b), the bear is the possessor of the head. However, only in (34a) does the head still function as the body part of the bear.

- (34) Tlingit (Crippen 2010: 270)
- a. xoots shá
brown.bear head
‘head of a (living) brown bear’
 - b. xoots shá-yi
brown.bear head-poss
‘severed head of a brown bear’

To emphasize this difference, I will make use of an example from chapter 4. Haude (2006) explicitly mentions that idiosyncratic marking in Movima can be used to mark the relation with body parts, either detached or not. Compare (35) below with (34) above.

- (35) Movima (Haude 2006)
- ba<kwa~>kwa=a
head<RED~>=n
‘its head (also when detached)’

Thus, the stereotypical relation between a possessor and its body part is different in Maltese and Tlingit on the one hand, and in Movima on the other. The way the stereotypical relation is defined, one would expect this difference to follow from the lexical semantics of body parts. For example, one could think of a salient feature for body parts like <[located-on]> that restricts stereotypical relations to non-detached body parts. This feature would be used to derive the stereotypical relation in Maltese and Tlingit, but not in Movima. The feature [located-on=body] also unites body parts and items of clothing in Hidatsa, as shown in table 2.8. I take the examples with the noun ‘head’ in (8) and (34) to show that the stereotypical relation derived from the possessed noun can be different in different cultures even if the intensions of the noun appear to be

very similar.

To conclude this section, I want to point out that the improvised semantic features I am describing are very much reminiscent of qualia roles in Vikner and Jensen’s (2002) work (see also Pustejovsky 1996). Indeed, [used-by] can be seen as a representative of the *telic role*, which deals with purpose and functions; [part-whole] naturally falls under the *constitutive* role. The feature [produced-by] (‘chicken egg’) would be representative of the *agentive* qualia role. Based on these qualia roles, one could reformulate the notion of stereotypical relation. For a given noun, the stereotypical relation would be derived with the help of a certain qualia role. The exact qualia roles that are relevant for the derivation would have to be culture specific. One would have to specify them for every noun in the same way I showed above with salient features. There is no particular reason not to use qualia roles in this study. I decided to follow a more descriptive approach simply listing the salient features because it makes the connection to the data a bit more transparent. I wouldn’t know, for instance, how to refer to the contrast between detached body parts and body parts connected to their possessor in terms of qualia structure.

I believe that the culture-specific notion of stereotypical relation can also explain the famous implicational hierarchy of “inalienable possession” shown in (36); this hierarchy was proposed by Nichols (1988). If reformulated in terms of idiosyncratic marking, this hierarchy shows that the most common members of the idiosyncratic class are body parts and/or kinship terms. It seems to me that this kind of overlap between different languages is not unexpected. While stereotypical relations derived from “culturally basic possessed items” will vary from language to language as I showed for Tavala and Movima above, the stereotypical relations derived from nouns that denote body parts or kinship terms are much more predictable. Thus, body parts commonly give rise to part-whole relations, unless in the given culture, the specific body part doesn’t have a more salient feature like [purpose/use=food] or [purpose/use=material]. For instance, body parts that often give rise to non-part-whole relations are ‘meat’, ‘bone’ and ‘skin’.

- (36) Nichols (1988): “semantic membership of the ‘inalienable’ (closed) class”
1. Kin terms **and/or** body parts
 2. Part-whole **and/or** spatial relations
 3. Culturally basic possessed items

In this section, I discussed the relations that correspond to idiosyncratic marking. I argue that these are culture-specific stereotypical relations. Given a possessed noun, it should be possible to derive such relations systematically. I tried to model this process with the help of salient lexical features. I also showed a weak link between idiosyncratic nouns and nouns traditionally described as relational. As both relational and sortal nouns often appear together within the idiosyncratic class, it is likely that they have some salient features in common. In the next section, I will discuss some methodological problems that my

analysis encounters.

2.2.3 Methodological problems

This section addresses some methodological problems that my cross-linguistic study of meaning runs into. The more general methodological problems related to data collection and the lack of negative evidence are discussed in chapter 1. Here, I only mention potential homonymy or polysemy, the role of methodology in the studies of lexical semantics studies and the danger of using vacuous argumentation in the semantic discussion.

Homonymy and Polysemy. The question of which relations can be systematically derived from the intension of a noun touches upon the question of polysemy. In linguistic descriptions, authors often observe that the presence of a certain possessive marker “disambiguates” the interpretation of a noun. For instance, Lichtenberk (2008) shows for Toqabaqita that the same noun *gona* can denote ‘heart’ or a species of tree, *Burckella*. The fruit of this tree is said to resemble a heart. As shown in (37), the possessive marking differs for the two uses of *gona*.¹⁵ The organ is marked idiosyncratically, while the natural object receives non-idiosyncratic marking.

- (37) Toqabaqita (Lichtenberk 2008)
- a. gona-ku
heart-1SG.PERS
‘my heart’
 - b. gona nau
Burckella.spp 1SG
‘my Burckella tree’

Similar observations are made for many languages; for instance, Overall (2007: 207) mentions that in Aguaruna, distinct possessive marking helps to disambiguate between two very different readings: a body part and a natural object. The examples he provides involve the nouns *duka*, which has two readings: ‘leaf’ and ‘labia’, and *tsuntsu*, which can mean either ‘snail’ or ‘vulva of an animal’. According to Overall (2007: 207), the speakers use inflection as in (38a) for the body part reading and a separate pronoun as in (38b) when they talk about leaves and snails, as shown in (38).

- (38) Aguaruna (Overall 2007: 207)
- a. duka-hu
labia-1SG
‘my labia’

¹⁵Lichtenberk (2008) provides another example of this kind with the noun *keekene* ‘breadfruit (tree and fruit)’ or ‘stomach’ (Stomachs are said to look like breadfruit fruit.).

- b. duka mi-nau
leaf 1SG-POSS
'my leaf'

I believe that such examples are instances of systematic polysemy. Systematic polysemy can be modelled in different ways; on some accounts, systematically polysemous lexical items, in contrast to homonymous ones, can have multiple interpretations simultaneously. Kemperson (1980) provides such an example for the noun *book* in (39). A book has a physical representation as well as a representation through its content. Sentences like (39) show that the speaker can access these properties at the same time and that they are not mutually exclusive.

- (39) My book is three hundred pages long and quite incomprehensible.
(Kemperson 1980: 9)

The examples in (37) and (38) are different because the context and the possessive marking clearly disambiguate between different readings of the possessed noun. It is unlikely that the speakers of Toqabaqita would consider one entity a heart and a tree simultaneously. However, these examples are on the border between polysemy and monosemy. Pure homonymy seems unlikely as the interpretations are related to each other. It might be instructive to see how the idiosyncratic and non-idiosyncratic marking is used in such examples, in particular how the “stereotypical” interpretations can be derived. Unfortunately, there are too few data to draw conclusions, but I discuss a few examples below.

Consider the examples from Lele in (40). In both constructions, the possessed noun is *kùb*. The only formal difference between (40a) and (40b) is in the shape of the possessive marker. However, the interpretation differs; (40a) refers to her mouth, and (40b) to her language. Thus, *kùb* is interpreted either as ‘mouth’ or as ‘language’. Note that a similar contrast can be observed in English with the noun *tongue*: *She ran her tongue around her lips.* vs. *The French feel passionately about their native tongue.*

- (40) Lele (Frajzyngier 2001: 70)
- a. kùb-rò
mouth-3sg.f
'her mouth'
- b. kùb kò-rò
mouth DET.GEN-3sg.f
'her language'

In case all the lexical features of *kùb* are available to the speaker at the same time, it is probably a conjunction consisting of [part-whole = body], [function = speaking], [similar across community members]. The feature [part-whole = body] is probably the most salient one; the idiosyncratic relation body part is derived from it. The example from Wandala in (41) is somewhat different.

Frajzyngier (2012) points out that substitution of possessive marking on the noun *ə́d* ‘father’ gives rise to the interpretation ‘my boss’, as shown in (41).

- (41) Wandala (Frajzyngier 2012: 132)
- a. **ə́d**-rùwà
male.superior-1sg
‘my father’
 - b. **ə́dd**-á-rwà
male.superior-gen-1sg
‘my boss, my superior’¹⁶

In English, ‘father’ and ‘boss’ represent very distinct meanings. However, it is not uncommon cross-linguistically for the same nouns that refer to parents to also refer to hierarchically superior individuals. For example, Coupe (2007: 272) describes a similar meaning flexibility for the word ‘mother’ in Mongsen Ao (Asian). The noun ‘mother’, according to Coupe (2007), does not only describe a relation between two individuals; it can also describe a set of individuals who are ‘principal’ or ‘major’. Coupe (2007: 272) points out that in the languages of East Asia, South-East Asia and beyond, the noun ‘mother’ is often a lexical source for an augmentative morpheme, while ‘child’ is a source for a diminutive. I believe that the noun ‘father’ in Wandala can similarly describe a set of ‘superior’, ‘principal’ or ‘major’ individuals. It is likely to be a cultural criterion. My hypothesis would be that *ə́d* in Wandala has a general meaning ‘male-superior’.

An interesting question then would be how the ‘father’ interpretation in (41a) comes about. The idiosyncratic marking gives rise to a kinship/family relation. How is this relation derived from ‘male-superior’ if it doesn’t come with a necessary [family] feature? One possibility would be that [family] is a typical feature and due to its high salience, the idiosyncratic marking gives rise to the ‘father’ interpretation. The two examples in (40) and (41) differ with respect to the direction of entailment. Using a language, or being able to talk, entails, so to say (having) ‘a mouth’. A ‘father superior’ entails a more general ‘male superior’. The father can be seen as a hierarchically superior figure in the smallest possible social unit, i.e. the family. In the Lele example, the more general meaning corresponds to idiosyncratic marking; in Wandala, a more specific meaning corresponds to idiosyncratic marking.

The two meanings can be represented as an ordered set, where the first member (the hyponym) entails the second one (family-superior, superior). Note that we can have a similar ordering for the two readings of *finger* in English. ⟨not-thumb-finger, finger⟩. *Thumb* is a kind of finger, but *finger* is normally not used to denote *thumb*. As Kemperson (1980: 16) points out, this is a common pattern if there is a general term, like *finger* and a narrowly specified

¹⁶The same contrast is observed with the noun ‘oldest brother’; it can be used to describe a superior as well (Frajzyngier 2012: 132): *mál-rùwà* ‘my oldest brother’ *mál-á-rwà* ‘my superior’ (*màlé* ‘old’).

lexical item that covers a sub-part part of the same lexical field, like *thumb*.¹⁷ Levinson (2000: 102) suggests that “Diachronically, implicated autohyponymy leads to systematic polysemy”. Although I don’t have this information, it is quite plausible that there is a narrowly-specified noun in Wandala to refer to ‘boss’ as superior at work. Then *ə̀d* has a broad male-superior reading and a narrowly-specified family-related one.

Examples like ‘male-superior’ in Wandala can be described as *autohyponymy*; a word has a general sense and a contextually restricted sense that denotes a subvariety of the general sense. Some other examples resemble what Cruse (2004: 109) calls *automeronymy*. In those cases, one reading denotes a sub-part of what the general reading denotes. Consider the Movima example in (42). The same noun *bo:sa* can be used to refer to an arm or to a sleeve. On someone wearing clothes, a sleeve can be perceived as a sub-part of an arm. However, we can’t know for sure if this is indeed a systematic connection for Movima speakers. As I already mentioned, we don’t have access to their lexical space.

- (42) Movima (Haude 2006: 242)
- a. as-∅ bo:sa
 ART.n-1sg arm
 ‘my arm’
 - b. as-∅ bosa:-neɬ
 ART.n-1sg arm-neɬ
 ‘my sleeve’

Examples like (38) and (37) are probably instances of *metaphor*. One of the uses of a noun is figurative; it is based on resemblance. For example, in (43) ‘fruit’ is interpreted as a part of a plant or as the result of human actions.

- (43) Tawala (Ezard 1997: 151)
- a. mayau **gou**-na
 yam garden-3sg
 ‘tree’s fruit’
 - b. lawa a **gou**
 person 3sg fruit
 ‘a person’s responsibility/fault’

The aim of this section was to show that polysemy interacts with idiosyncratic marking in intriguing ways. The limitations of available data make it impossible to describe any clear tendencies, but it might be an interesting question for future research. For now, I can only say that polysemy presents a methodological problem. One has to be critical with various instances of marking alternations; it is important to make sure that the lexical meaning of the possessed noun stays the same. Unfortunately, in many cases it is almost impossible to prove.

¹⁷Another famous example is ‘dog’. *Dog* can be used to denote ‘male dog’, in contrast to *bitch*. Thus, *bitch* is narrowly-specified compared to *dog*.

Methodology and study of semantic features. Depending on the methodology one uses, one might reveal different types of information about the lexical space of the speakers. Semantic features play a major role in the most prominent theories of concept categorization. Because of this, there are many attempts to derive semantic features empirically. Some lists of features collected experimentally have been made freely available, for instance, McRae et al. (2005) for English. I checked to what extent the features derived for the English nouns match the features I suggest for Tawala and Hidatsa. Neither body parts nor kinship terms are represented in McRae et al.'s (2005) list, but there are many artifacts such as *fence*, *book*, *pants*, *kettle* or *gun*. Functionality or purpose of an artifact seems to play an important role for English speakers. For instance, for *fence* McRae et al. (2005) list [used-for-keeping-out-intruders] and [used-for-privacy]; for *pants* [worn-by-men], [worn-by-women], [worn-for-covering-legs], etc. Note that 'fence' in Tawala (29b) seemed to have a function of keeping someone inside (the big pig), but in general functionality seems to be relevant cross-linguistically. Interestingly, *book* is more salient for English speakers through its material representation. The list of features contains its parts [has-a-hard-cover] and functions [used-by-reading], [used-for-learning], but there are no features highlighting the content, as we saw in Tawala (30a). *House* has functional features as well; a house is [used-for-living-in] and [used-for-shelter]. In general, a striking fact about feature production is that speakers eagerly list parts of an object, such as [has-a-roof], [has-doors], [has-windows] for *house*. However, the speakers never mention that the object itself can be a part of a whole. For example, the list of features for *door* includes: [has-a-handle], [has-a-knob], [has-a-lock], [has-hinges], [is-rectangular], [made-of-metal], [made-of-wood]. However, there is no feature like [part-of-a-house]. It is commonly assumed that in English possessive constructions, part-whole relations play an important role (see Barker and Dowty 1992); it might be that this feature is not very salient for *door*, but in general, we would expect it to be salient for many nouns. The explanation of why [part-whole] does not appear among the salient features during the feature-production task might be in the methodology. McRae et al. (2005: 549) points out that speakers are biased towards information that distinguishes between similar concepts. Thus [part-whole] might be not considered distinctive between *door* and other door-like concepts.

The danger of circularity My hypothesis is that stereotypical relations should be systematically derived from the lexical semantics of the possessed nouns. There is a danger of circularity in this kind of study. I discuss the relations between the possessor and the possessed that are expressed by means of idiosyncratic marking. Although I argue that those are stereotypical relations, I don't have an underlying theory of what stereotypical relations are. The differences in the morphological marking serve as my primary cues for the possible meaning differences between two possessive constructions. Following the differ-

ence in the morphological marking, I try to make judgments about the nature of the meaning differences. As I don't have access to the lexical space of the speakers, I can't know whether the meaning differences I propose correspond to their intuitions. Except for the morphology, there is little independent evidence that the differences are there.

In order to study lexical semantics one would need to access the lexical space of the speakers. Given the dimensions of a typological study, it is impossible to conduct extensive fieldwork on all the languages in the sample. I can only rely on the secondary sources and the lists of nouns provided there. As a result, my theory is tied to lexical semantics, but the lexical semantics of understudied languages is difficult to access. I can't prove my theory without information on the lexical space of the languages. I can't say for sure what the exact representation of 'honey' or 'arrow' is in a given language.

2.3 Idiosyncratic strategies: an analysis

In this section, I propose an analysis for idiosyncratic marking of adnominal possession. I first develop it for languages that only employ two strategies to mark possession. In chapters 3 and 4, I show how it can be extended to more complex systems of possessive marking. On my account, the two marking strategies are in competition. In section 2.3.1, I sketch a blocking principle that regulates this competition. I propose that the principle should be formulated in pragmatic terms as an instance of a general pragmatic principle: *Maximize presupposition* (Heim 1991). In section 2.3.2, I discuss other components of my analysis. Based on this discussion and on the principle *Maximize presupposition*, I develop a pragmatic account of possessive marking. In section 2.3.3, I demonstrate the analysis at work with the help of a case study from Adyghe.

2.3.1 Competition between two lexical items

In this section, I show that the relation between two morphosyntactic strategies to mark possession can be presented in the form of a competition. In this competition, the use of a less specific strategy is blocked by the availability of the more specified one. I propose that this blocking principle is an instance of a general pragmatic principle, known as *Maximize presupposition* (Heim 1991).

A blocking principle. In section 2.2, I discussed the meaning effect which results from the substitution of possessive markers in a given language. I argued that the idiosyncratic strategy is used to express stereotypical relations between the possessor and the possessed; the relations expressed by non-idiosyncratic marking are more general and less predictable. I proposed that stereotypical relations should be derived systematically from the lexical semantics of the possessed nouns.

In the system I develop, there is a mapping between certain relations and certain structures. In some languages, one observes a clear between the idiosyncratic and the non-idiosyncratic strategies with respect to the amount of morphological marking. For instance, in Adyghe and Wandala we see that the idiosyncratic possessive construction is expressed by juxtaposition of the possessed and the possessor, without any additional morphology. In other languages, for instance in Udmurt, the contrast between two morphosyntactic strategies is not in the amount of morphological marking, but in the exact nature of the markers. Schematically we can represent these two patterns as shown in table 2.9.¹⁸

	Type1 Adyghe, Wandala. . .	Type 2 Bardi, Udmurt, Rapa Nui. . . Daakaka
Idiosyncratic	Poss-ed \emptyset_{Poss1} Poss-or	Poss-ed Poss1 Poss-or
Non-idiosyncratic	Poss-ed Poss2 Poss-or	Poss-ed Poss2 Poss-or

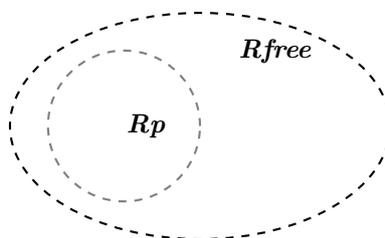
Table 2.9: The complexity of the morphological marking

In order to model the mapping between the relations and the possessive marking, I introduce two variables over relations: Rp and $Rfree$. Rp is a variable which ranges over a set of stereotypical relations. As described in section 2.2.2, a stereotypical relation Rp is systematically derived from the most salient lexical feature of the possessed noun P. $Rfree$ is a variable which can have other, arbitrary relations as its value. Note that under this definition of the variables, their possible values (relations between the possessor and the possessed) stand in a subset relation, as shown in figure 2.2. These variables are very similar to R and R_i introduced in Partee (1983/1997) for *inherent* and *free* relations. A variable that ranges over relations is commonly assumed in the analysis of possessive constructions. See, for instance, R for *extrinsic possession* in Barker (1995). The approaches differ with respect to how the relation is contributed into the structure. I return to this question in section 2.3.2.

We can now model the correspondence between the semantics involved in the strategy and the morphological marking. The idiosyncratic marker is only compatible with Rp relations; it can never be used to express other, arbitrary $Rfree$ -relations. The non-idiosyncratic marker is compatible with $Rfree$ relations, which means that it is compatible with any relation whatsoever, including the Rp relations.

First, let's consider languages from the first column of table 2.9. They are labelled Type 1. I will return to languages of Type 2 later. In Type 1 languages, like Adyghe, Wandala and Maltese, in order to express $Rfree$, additional mor-

¹⁸For more complex morphological patterns, see the discussion of multiple formal exponents of one strategy in chapter 4.

Figure 2.2: The values of R_p and R_{free}

phological material is required. The first column of table 2.9 schematically shows that the non-idiosyncratic marking involves an additional morpheme, labeled Poss2. For the idiosyncratic class of nouns, it is possible to express R_p without additional morphology. In Type 1 languages, the idiosyncratic strategy involves a smaller amount of morphological marking than the non-idiosyncratic one. The non-idiosyncratic marking is compatible with any relation whatsoever, including R_p relations. However, the existence of the “simple” idiosyncratic strategy to express the stereotypical relations blocks the use of the non-idiosyncratic strategy in order to express the same relation. The non-idiosyncratic strategy, which involves additional affixation, is only used if there is a meaning contrast between the two forms; thus, it is used for R_{free} relations different from R_p .¹⁹

This asymmetry between the idiosyncratic and the non-idiosyncratic strategies resembles instances of blocking that have been described for inflectional as well as for derivational morphology. For instance, Aronoff (1976: 43) showed that existence of a simple lexical item can block the derivation of an affixal lexical item otherwise synonymous with it. In derivational morphology, there are often several derivational routes competing with each other. As discussed in Kiparsky (1982) and Levinson (2000), while multiple nouns can be derived from the same verb, they always pick up different intensions and extensions. For instance, the verb *to cook* is a source of the noun *cook*, meaning the one who cooks. The existence of this form does not allow the noun *cooker* to receive the same extension. Instead, *cooker* is interpreted as ‘thing that cooks’. As Levinson (2000: 139) points out, the simpler, unmarked formation usually picks up “the stereotypical extension, often narrowed in the typical way”. There is

¹⁹This is a simplification of the facts. In some cases, non-idiosyncratic possessive marking is compatible with stereotypical relations. For example, in Maltese, for a subclass of kinship terms both types of marking are available. Fabri (1993) points out that alternation of possessive marking on kinship terms does not give rise to the meaning effect discussed above. There are various reasons why the non-idiosyncratic strategy might be used in order to express a stereotypical relation. For instance, as discussed in Stolz et al. (2008), the distribution of possessive marking in Maltese is not solely determined by the relation between the possessor and the possessed. In chapter 5, I will discuss more cases in which possessive marking is the result of an interplay of multiple factors.

thus a division of labor in word formation such that simpler formations receive stereotypical meanings while the more complex ones receive more specialized meanings.

The general idea of blocking, as formulated by Aronoff (1976: 43) is “the nonoccurrence of one form due to the simple existence of another”. The gist of the idea of blocking or the so-called *Elsewhere Principle*, according to Kiparsky (1973: 94) goes back as far as Panini’s grammar: “A rule which is given [in reference to a particular case or particular cases to which or to all of which] another [rule] cannot but apply [or in other words, which all already fall under some other rule] supersedes the latter”.

For the languages of Type 1 in table 2.9, one can formulate the following generalization about possessive making (first approximation).

- (44) The use of a marking strategy that involves an additional Poss1 affix to express a stereotypical relation *Rp* is blocked if there is a marking strategy that can express the relation *Rp* without an additional morpheme.

The blocking principle in (44) represents the gist of the analysis that I will pursue. However, I want my analysis to be general enough to be applicable to both Type 1 and Type 2 languages in table 2.9. In Type 2 languages, the contrast between the two marking strategies is not in the amount of morphological marking, but in the exact form of the possessive marker. Thus, the account to be developed should not depend strictly on the amount of morphological marking. Furthermore, in my account I want to be able to incorporate the semantics of idiosyncratic and non-idiosyncratic strategies as discussed in section 2.2.2. The blocking principle as sketched above, can be seen as a special case of the very general pragmatic principle *Maximize Presupposition*, which I discuss in the next section.

Maximize presupposition. In semantics and pragmatics, the general observation is that if there is competition between two lexical items, one with a specific meaning and one underspecified, the choice of the underspecified lexical item gives rise to an inference that the more specific meaning does not hold. An example of an informal discussion can be found, for instance, in von Stechow and Matthewson (2008) for Japanese. At first sight, Japanese seems to lack a counterpart of the English word ‘water’. Although Japanese has two words, *mizu* and *yu* which can be used to talk about water; *yu* is specified as meaning ‘hot water’. The word *mizu* is usually used to refer to cold water; for instance, it is unnatural if combined with the adjective ‘hot’. According to von Stechow and Matthewson (2008), the neutral word for ‘water’ is *mizu*. Von Stechow & Matthewson (2008) argue that ‘cold’ is not a part of the meaning of the word *mizu*. The two lexical items look approximately like this: {*yu* ‘hot water’, *mizu* ‘water’} The reason *mizu* is normally not used to refer to hot water is pragmatic. There is a specific lexical item *yu* available to refer to hot water. If the

speaker chooses to use the underspecified lexical item *mizu*, an inference arises that *yu* is not applicable; that the property ‘hot’ does not hold. Note that this discussion is a semantic interpretation of the Elsewhere Principle; the existence of the more specific lexical item ends up “blocking” the less specific one. The pragmatic reasoning relies on the Gricean maxims (Grice 1975). The maxim in (45) makes a speaker select the most informative assertion possible.

- (45) Make your contribution the most informative one of those you believe to be true.

In order to determine which assertions compete with respect to their informativeness it is assumed that some lexical items have sets of alternatives, such as, for instance, {some, all} and {or, and}. If the assertion is true with *all*, it will also be true with its alternative *some*. In a context in which both lexical items are applicable, using *all* is more informative. If the speaker utters a sentence with *some*, as in (46), an implicature arises that the speaker does not believe the more informative alternative with *all*.

- (46) The Philharmonic played some of Beethoven’s symphonies. (Sauerland 2008)

However, the difference between the two assertions does not always amount to their informativeness. A very famous example is the use of the determiners *a* and *the*, as discussed in Heim (1991). Heim (1991) takes definiteness (existence and uniqueness) to be the presupposition, not the lexical meaning of *the*. The presupposition is separated from the truth-conditional contribution of a word; it should be seen as a condition on usage. If a word triggers a presupposition, the lexical entry of such a word consists of two parts: the truth-conditional contribution and the content of the presupposition. The conditions on the use of *the* are thus existence and uniqueness. The determiner *the* can only be used if those conditions are satisfied. The determiner *a* is not assumed to have any presuppositional component. There doesn’t seem to be anything that prevents *a* from being used under the same conditions as *the*. The two utterances should be equally informative with respect to their asserted, truth-functional content. Heim (1991) shows, however, that if *a* is used instead of *the* as in (47), some differences in interpretation arise.

- (47) #I interviewed a father of the victim. (Heim 1991)

If we consider a sentence like (47), we observe that the use of *a* instead of *the* gives rise to an inference that the victim has multiple fathers, the so-called non-singularity effect. Fathers are usually assumed to be unique; the non-singularity effect makes the utterance in (47) sound odd. An important property of the non-singularity meaning effect is that it is not always present when the indefinite *a* is used. For instance, in (48), there is no inference that there are other 20 ft. long catfish available in the area.

(48) Robert caught a 20 ft. long catfish. (Heim 1991)

Heim (1991) argued that it is competition between the definite and the indefinite determiner that gives rise to a meaning inference that the victim in (47) has multiple fathers. The non-singularity meaning effect with the use of *a* only arises in a context in which the conditions on the use of *the* are satisfied. In (48), the uniqueness condition on the use of *the* is not satisfied; thus the non-singularity effect does not arise with the use of *a*. As definiteness is assumed to be part of the presupposition, Heim (1991) suggested a modified version of the Gricean maxim, in (49).

(49) Make your contribution presuppose as much as possible!

This principle *Maximize presupposition* tells the speaker to choose the expression with the strongest presupposition possible. Once the conditions on the use of *the* are satisfied, the speaker has no choice but to use *the*. An indefinite is weaker because it lacks the conditions on usage associated with the definite determiner. If it is part of the common ground that people have unique fathers; the speaker should choose the definite determiner, as the definite determiner has a stronger presupposition than the indefinite one and this presupposition (uniqueness) is compatible with the common ground. The non-singularity meaning effect that comes with the use of the indefinite determiner resembles the uniqueness presupposition of the definite one. This kind of effect is sometimes described as *antipresupposition* (Percus 2006).

As I will argue below, *Maximize presupposition* can help us to successfully account for the choice of possessive marking as well. To my knowledge, it has not been applied to possessive constructions before.

2.3.2 The components of the analysis

In section 2.3.1, I proposed that the relation between two morphosyntactic strategies expressing possession, the idiosyncratic and the non-idiosyncratic one, should be seen as a competition between two lexical items. I proposed to account for this competition as an instance of a general pragmatic principle known as *Maximize Presupposition*. In this section, I finalize this proposal. First, I discuss all the components of the analysis, such as the nature of the idiosyncratic noun class, the underlying syntactic structure of the possessive constructions and the corresponding lexical entries. Then, I show how these components and the *Maximize Presupposition* principle interact with each other in my account of possessive marking.

Idiosyncratic nouns as a morphosyntactic class. First, as already mentioned in section 2.2.2, it is impossible to determine which nouns are excluded from the idiosyncratic class on semantic grounds. Despite an expectation that differential possessive marking might reveal the class of relational nouns cross-linguistically, one only finds a loose correspondence between morphology and

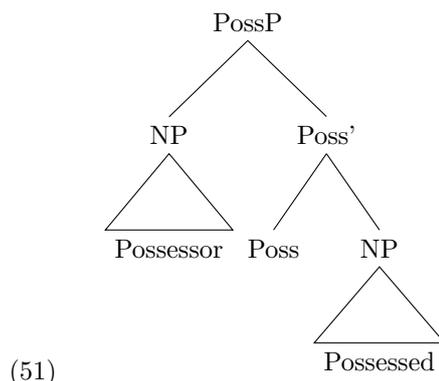
the lexical meaning of a noun. Membership in the idiosyncratic class should be seen as a **morphosyntactic property** of nouns, not a semantic property. A noun *P* is a member of the idiosyncratic class if it can select for the idiosyncratic marking. This morphosyntactic property might change for some nouns over time. While some nouns retain the idiosyncratic marking, other nouns, through the course of language development, can no longer select for this strategy. This diachronic change is described in detail, for instance, for Adyghe. According to Kumachov (1971) and Kumachov (1989), Adyghe has acquired its idiosyncratic class of nouns as a result of historical development. The idiosyncratic (short) possessive prefixes can be traced back to the West-Caucasian proto-language. The non-idiosyncratic markers containing *-j* are an innovation of Adygh languages (Kumachov 1971). Kumachov (1989) shows that the use of the idiosyncratic marking is shrinking, while the newer forms are overgeneralized for most possessive constructions. Gorbunova (2009: 149) points out that, in the case of Adyghe, we are looking at the “remains” of a once productive system. Given that morphological marking undergoes such developments, it is not surprising that not only semantics, but also factors like frequency determine the membership in the idiosyncratic class. The distribution of the marker seems to be partially affected by morphophonemic similarities between nouns. Thus, in the discussion of the parts of plants, Gorbunova (2009: 149) argues that words like ‘leaves’ receive the idiosyncratic possessive marking because morphophonemically they resemble nouns denoting body parts. For instance, the word for ‘root’ resembles the word for ‘foot’ and ends up being in the same class on the basis of morphophonemic similarities. In (50), a tree is talking about its branches and its roots. Here, the roots are marked for possession idiosyncratically by *s-*, but the branches are marked with *s-j-*.

- (50) **s-jə-qwətame-xe-r** **ž’əbʁə-m ze-p-je-č’ə-ʁe-x.**
 1SG-POSS-branch-PL-ABS wind-ERG REC-LOC-3SG-break-PST-PL
s-λapse-xe-r **s’tə-ʁe-x.**
 1SG-root-PL-ABS freeze-PST-PL
 ‘My branches are broken by the wind. My roots are frozen.’
 (Adyghe, Gorbunova 2009: 157)

Similar discussions of diachronic processes can be found, for instance for Bardi (Bowern 2012), Toqabaqita (Lichtenberk 2008) and many other languages. Even though there is a link between relational nouns and idiosyncratically marked nouns, it is impossible to predict on the basis of the noun which marking it will require. Idiosyncratic nouns do not form a coherent semantic class.

Underlying syntactic structure. For my analysis, I assume a very underspecified structure of adnominal possessive constructions, shown in (51); see also Karvovskaya and Schoorlemmer (2017). As I mention in chapter 1 my syntactic structures are primarily type-driven. The literature (Barker 1995, Myler 2014, Dékány 2011, etc.) seems to agree that, at least for sortal nouns, the

possessor is introduced by a functional head. I label this functional head Poss, following Myler (2014), among others. PossP appears right above the NP in the functional sequence.



In some studies (Partee and Borschev 2003; Storto 2003), it is assumed that PossP first combines with the possessor. This is done in order to account for the fact that the possessor is often morphologically marked, while the possessed is not. Compare, for example genitive *'s* in *John's book* and *It is John's*. However, I follow Barker (1995) in assuming that the morpheme that attaches to the possessor, like the genitive *'s* does not have to be the direct representation of the semantic element Poss. For Barker (1995), the genitive *'s* is “just a syntactic marker”. The morphemes one sees on the surface could be instances of agreement triggered by the presence of the actual Poss. In a similar way, the plural morphology on nouns is often assumed to be agreement with an abstract head, just like number marking on verbs, see for instance Sauerland (2003).

Lexical entries. I assume that both the idiosyncratic and the non-idiosyncratic class have one-place predicates of the general type $\langle e, t \rangle$ as their members. Uniform treatment of nouns in possessive constructions has been proposed, for instance in Hellan (1980); see also Peters and Westerståhl (2013). Thus, I assume the same lexical entries for ‘hand’, a hypothetical member of the idiosyncratic class and for ‘bottle’, a hypothetical member of the non-idiosyncratic class as shown in (52). On my account, nouns are assumed to have uniform semantics independently of their membership in the idiosyncratic class. I assume a unified treatment of nouns as one-place predicates.

- (52) a. $\lambda x. hand(x)$
 b. $\lambda x. bottle(x)$

This step is not uncontroversial in the semantics of possessive constructions. As I discussed in chapter 1 and in section 2.2.2, in the semantics of possessives,

an important distinction is usually drawn between sortal and relational nouns. While sortal nouns like ‘bottle’ are assumed to be one-place predicates and describe sets of entities, relational nouns are usually assumed to be two-place predicates that describe relations between two entities. On many accounts, ‘hand’ is treated as a relational noun that describes a hand relation between an individual and the individual’s hand, type $\langle e \langle e, t \rangle \rangle$, as is done, for instance in Barker (1995) or Partee and Borschev (2003). However, Peters and Westerstahl (2013: 754) explicitly argue against the two-place treatment of relational nouns in possessive constructions. In section 2.2.2, I showed that there is no one-to-one match between obligatorily possessed nouns and nouns that appear possessed with idiosyncratic marking; there is only a partial overlap between those categories. I also showed that being a prototypically relational noun is neither a sufficient nor a necessary criterion for a noun to become a member of an idiosyncratic class. Therefore, I assume uniform lexical entries for nouns, as shown in (52).

As I assume a uniform semantics for the nouns, the meaning differences between strategies, as described in section 2.1.3, have to come from the differences in possessive marking. For now, there are two cases to be distinguished; the corresponding lexical for the possessive morphemes are shown in (53). The morpheme involved in the idiosyncratic strategy is presented in (53a) and is labeled *MaxSpec*, which stands for *maximally specific*. The lexical entry for the morpheme involved in non-idiosyncratic strategy is in (53b) under the name *MinSpec* (*minimally specific*).

- (53) a. $\llbracket \text{MaxSpec}_i \rrbracket^g = \lambda P \lambda x \lambda y. g(i)(x, y) \& P(y)$ defined iff $g(i)$ is a stereotypical P-based relation
 b. $\llbracket \text{MinSpec}_i \rrbracket^g = \lambda P \lambda x \lambda y. g(i)(x, y) \& P(y)$ where $g(i)$ is a relation

Both lexical entries involve a variable over two-place relations. The value of this variable is supplied by the context. The proposed variable over relations is very similar to R_i introduced in Partee (1983/1997) and to R in Barker (1995).²⁰ The use of the index i in (53) captures the intuition that the relation between the possessor and the possessed, encoded by the possessive marker, is sometimes subject to constraints. However, it is not hard-wired in the lexical entry of the possessive marker. In the case of the idiosyncratic strategy, the exact relation depends on the possessed noun. The range of the assignment function g is restricted by the presupposition to stereotypical relations derivable from the intension of the possessed noun. In a similar way, restrictions on personal pronouns are formulated in the form of presuppositions in Büring (2005: 28). In the case of the non-idiosyncratic strategy, the range of the assignment function g is not restricted.

²⁰Barker (2008) points out that it is not uncontroversial to assume a variable that ranges over relations, not over individuals. There have been proposals against variables higher than type $\langle e \rangle$; see, for instance, Martí (2003) and Landman (2006). However, in the literature on possessive constructions, the traditional treatment is to introduce relation between the possessor and the possessed as a variable.

Another way of spelling out this intuition would be to say that *MaxSpec* and *MinSpec* have internal structure. In (54) I provide a preview to how I will implement the analysis of idiosyncratic and non-idiosyncratic strategies in chapter 3. As I will discuss later, the extra structure within possessive markers will be motivated by the insights from possessive modifiers. On this analysis, for instance, *MaxSpec*, in (54a), consists of a possessive marker, *PossSpec*, and a covert variable over relations *Rp*.

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

The possessive marker *PossSpec* only expresses possession; the relation is provided by the variable. The difference between the two interpretive strategies amounts to a difference in the relational pro-form: *Rp* in one case and *Rfree* in the other. The covert *R*-variable is similar to the empty *C*-variable restricting the alternative set of focus-sensitive particles (Rooth 1992: 79) or variables restricting the adverbs of quantification von Stechow (1994).

In section 2.2.2, I argued that stereotypical relations should be the stereotypical relation given the lexical semantics of the possessed noun, *P*. As I explain in detail in section 2.2.2, this means that this relation is derived from the most salient features of the possessed noun, *P*. The presupposition that comes with the idiosyncratic strategy should constrain the relations it is compatible with to those that follow from the intension of the possessed noun. In case of a non-idiosyncratic strategy, in (53b) the range of the assignment function *g* is totally unrestricted.

For example, let's consider the Tawala noun *tano* 'garden'; its two possessive constructions with it are repeated in (55). In (55) the possessor is *woida* 'yam' that grows in the garden. The idiosyncratic marker for *tano* is thus only compatible with a [content] - based relation. I suggest that the stereotypical relation for *tano* is [content = plants], as shown in (55c). In case the intended relation is different from the stereotypical one, as we see with ownership/creation in (55), the non-idiosyncratic strategy is used.

- (55) Tawala (Ezard 1997: 151) repeated from (43)
- a. woida **tano**-na
yam garden-3sg
'yam's garden'
- b. keduluma a **tano**
woman 3sg garden
'woman's garden'
- c. $\llbracket \text{MaxSpec}_i \rrbracket^g(\llbracket \text{tano} \rrbracket) = \lambda x \lambda y . R_{\text{content}}(x,y) \& \text{garden}(y)$

In figure 2.3, it is visualized that *MinSpec* can express exactly the same relations as *MaxSpec*. In principle, there is no relation that can be expressed by

MinSpec but cannot be expressed by *MaxSpec*. One could say that *MinSpec* is the general case, while *MaxSpec* is the specific one.

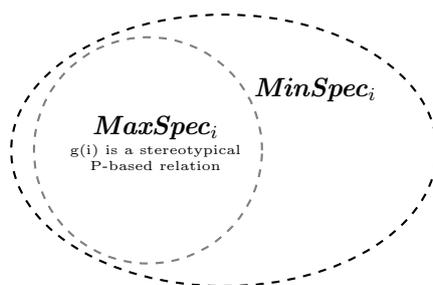


Figure 2.3: Relations encoded by *MaxSpec* and *MinSpec*

According to the lexical entries that I provide in (53), *MaxSpec*, the idiosyncratic marker, is specified for a stereotypical relation. By contrast, the non-idiosyncratic strategy *MinSpec* is underspecified. *MinSpec* is compatible with any relation whatsoever, either lexically or contextually determined. *MaxSpec* thus has a stronger presupposition than *MinSpec*. Thus the choice between *MaxSpec* and *MinSpec* is a choice of a stronger or weaker (no) presupposition. If the conditions on the use of *MaxSpec* are satisfied, the speaker is obliged to use this marker by the principle *Maximize Presupposition*. If the speaker uses *MinSpec* with the same noun, the hearer can infer that the conditions were not satisfied; the stereotypical relation $g(n)$, normally covered by *MaxSpec* does not hold. The hearer can determine the relation between the possessor and the possessed from the context. The relation provided by *MaxSpec* is never contextually determined; it can be seen as an instruction to the hearer: don't search in the context for the relation between the possessor and the possessed, use the stereotypical relation for the provided possessed.

Idiosyncratic strategy as semantically marked. Finally, I can provide a definition of an idiosyncratic strategy that is neither contingent on the amount of the morphological marking nor on the restricted lexical class. The range of application of an idiosyncratic strategy is restricted by the relations it can express. The condition on use of an idiosyncratic strategy is that the relation between the possessor and the possessed be the stereotypical relation. Based on the definition developed in section 2.2.2, the stereotypical relation for a given noun is systematically derived from the most salient feature of this noun.

- (56) The idiosyncratic possessive marker for a noun P presupposes that a relation, $g(i)$, between the possessor and the possessed is a stereotypical relation given the possessed noun, P.

The idiosyncratic strategy is semantically restricted; it is only compatible with

those relations that follow from the intension of the possessed noun. The idiosyncratic possessive relation is never determined by the context. Usually, the idiosyncratic strategies are in competition with semantically unrestricted, underspecified non-idiosyncratic strategies.

The proposed analysis of an idiosyncratic strategy as semantically marked makes one clear prediction. The non-idiosyncratic strategy should show interpretational flexibility; it should be compatible with various relations. As a hypothetical example, let's consider the two possessive constructions with 'blood' in Adyghe. The example in (57) is repeated from (16). As I discussed above, the idiosyncratic strategy in (57a) corresponds to a body-part relation between the possessor and blood. The prediction I make is that the non-idiosyncratic strategy in (57b) should be compatible with various relations. In the provided example, the relation between the possessor and 'blood' is something abstract, like 'ancestor'. If my prediction is correct, it should be possible to use (57b) to express other relations as well. As a hypothetical context, one could think of blood of an animal being in the possession of the possessor. Unfortunately, I am unable to test this prediction.

- (57) Adyghe (Gorbunova 2009)
- a. \emptyset -əλ
 3SG-**blood**
 'his blood' (example found online)
- b. se a-š \emptyset -je-λ s-xe-λ
 1SG that-ERG 3SG-POSS-**blood** 1SG-LOC-lie
 'his blood flows in my veins (lit. lies in me)'

I was able to obtain some data that points in this direction for Blackfoot²¹. In Blackfoot, an idiosyncratic strategy involves a short prefix, while the non-idiosyncratic strategy involves a long prefix and sometimes an additional suffix *-m*. Most nouns that denote animals appear possessed with the long prefix. The prediction is that such possessive constructions allow interpretative flexibility with respect to the relation between the possessor and the animal. This prediction seems to be borne out. Heather Bliss (p.c.) provides an example where the relation between the possessor and the possessed animal is 'pet'. Heather Bliss noted that the speakers preferred to use a relative clause 'that I took' when referring to pet relations with animals. I assume that the speakers preferred the relative clause because it allowed them to disambiguate between the multiple possible interpretations. Other interpretations are, thus, available. In (58b), the context is rabbit hunting, so the relation between the rabbit and the possessor is probably 'game'. Finally, with the noun 'horse' the long prefix can be used to refer to a betting relation, but it does not involve an interpretation as pet.

²¹More can be found on Blackfoot in chapter 4

- (58) a. om-wa nit-omitaa-m-wa a-yissksimaa
 DEM-PROX 1-dog-POSS-PROX IMPF-transport.load.AI
 nit-it-omaa-o'to-a-hp-yi
 1-LOC-yet-take.TA-DIR-CN-INAN
 'Lit: That dog of mine that I took hauled things' (Bliss, p.c.)
pet
- b. sa-inakoyiim-wa om-wa nit-aaattsistaa-m-wa
 NEG-appear.AI-PROX DEM-PROX 1-rabbit-POSS-PROX
 'My rabbit disappeared.' (lit: 'My rabbit did not appear') (Bliss
 2013: 230)
game
- c. om-wa nit-ponokaomitaa-m-wa a-yaak-ikiiki-wa
 DEM-PROX 1-horse-PROX IMPF-FUT-win.AI-PROX
 'My horse is going to win.' Context: I am at the racetrack and I've
 bet on a horse (that I do not own) (Bliss 2013: 191)
bet

For Mongsen Ao (Sino-Tibetan), Coupe (2007) notes a contrast between the use of the non-idiosyncratic strategy with body parts and with artifacts. The use of the non-idiosyncratic strategy with a body part is commonly translated as the body part being detached from its original possessor. This difference in interpretation is shown by the minimal pair in (59). The non-idiosyncratic strategy involves an additional suffix *-əɪ*. With artifacts, the use of the non-idiosyncratic strategy is often interpreted as the artifact being used not exclusively by the possessor, but by an associated group of people. This meaning effect is shown by the minimal pair in (60).

- (59) Mongsen Ao (Coupe 2007: 253)
- a. a-miʔ khóʔ
 A-person hand
 'person's hand'
- b. muwa-páʔ-əɪ khát
 Moaba-M-ANOM hand'
 'Moaba's hand' (war trophy)
- (60) Mongsen Ao (Coupe 2007: 254-255)
- a. tusi-páʔ nuk
 Toshiba-M machete
 'Toshiba's (personal) machete'
- b. tusi-páʔ-əɪ nuk
 Toshiba-M-ANOM machete
 'Toshiba's (family's/gang's) machete'

The examples from Mongsen Ao suggest that there is a lot of freedom in how the non-idiosyncratic strategy can be interpreted. If the stereotypical relation between the possessor and an artifact is exclusive use by one person, the non-

idiosyncratic strategy can be used for a relation of group possession, as we see in (60b).

The definition of an idiosyncratic strategy based on semantic markedness is applicable to various languages. It is no longer contingent on the amount of morphological marking; the distinction between the two strategies is meaning based. As the definition of the idiosyncratic strategy is not directly bound to the amount of morphological marking, it can also be applied to the languages of Type 2 in the second column of table 2.9, such as Bardi, Udmurt and Rapa Nui.

In the following section, I provide two case studies to show in more detail how the proposed system can be applied to language data. The language in the first case study is Adyghe. As discussed above, the idiosyncratic class in Adyghe is lexically restricted and the idiosyncratic marking involves a smaller amount of morphology. The second case study shows how the proposed analysis can be applied to Samoan, which has two productive marking strategies of equal structural complexity.

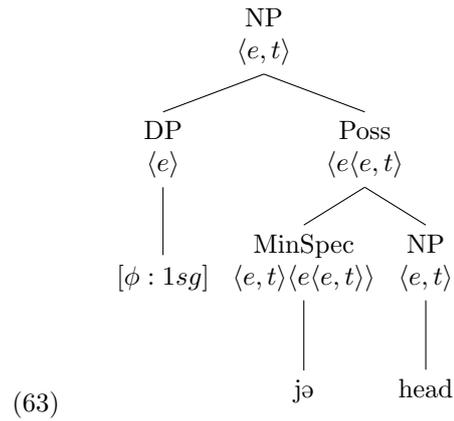
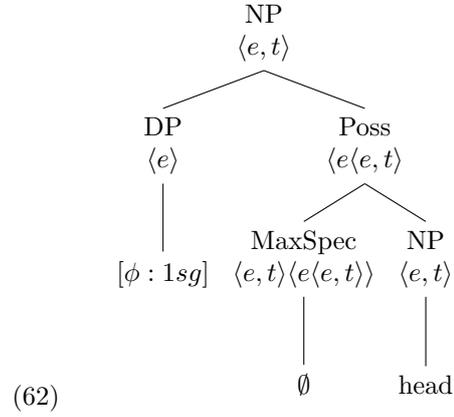
2.3.3 Case studies

In this section, I show my analysis at work with help of two case studies. One case study examines Adyghe, the other, Rapa Nui. The two languages represent two different types, illustrated in table 2.9. Adyghe shows a contrast in the amount of morphological marking between idiosyncratic and non-idiosyncratic strategies. In Rapa Nui, the contrast between idiosyncratic and non-idiosyncratic strategies is not in the amount of morphological marking but in the markers themselves.

Adyghe To demonstrate my proposal at work, I will use an example from Adyghe in (2), repeated from (15). This is a minimal pair with the noun ‘head’.

- (61) Adyghe (Gorbunova 2009: 153-154)
- a. s-šha
1SG-head
‘my head’
 - b. s-jə-šha
1SG-POSS-head
‘my head’ (said zoologist about a dog’s head)

As I specified in section 2.3.2, I assume that the members of the idiosyncratic class can select for an idiosyncratic possessive strategy due to their morphosyntactic properties. Nouns from the non-idiosyncratic class do not have this option. For both possessive constructions, I assume the general structures in (62) and (63). The exact match between the morphosyntax and semantics of possessive constructions in Adyghe is a subject to further research. The abstract representations I assume will be enough to illustrate the proposal.



The derivations for the two possessive constructions are provided in (64) and (65).

- (64)
- $\llbracket \text{MaxSpec}_i \rrbracket^g(\llbracket \hat{s}ha \rrbracket) = \lambda P \lambda x \lambda y. g(i)(x, y) \& P(y)(\lambda z. head(z))$ defined iff $g(i)$ is a stereotypical P-based relation
 - $\lambda x \lambda y. g(1)(x, y) \& head(y)$
 - $\llbracket \text{MaxSpec}_i \rrbracket^g(\llbracket \hat{s}ha \rrbracket)(s) = \lambda x \lambda y. R_{body-part}(x, y) \& head(y)(s) = \lambda y. R_{body-part}(s, y) \& head(y)$

As spelled out in (64), the notation for *MaxSpec* first applies to the predicate *head*. The result is a conjunct consisting of two parts: a set of heads and a set of pairs such that there is a ‘head’-based stereotypical relation between the members of these pairs. Given the lexical semantics of the possessed noun *sha* ‘head’ in Adyghe, $g(i)$ is the stereotypical relation. As I discuss in section 2.2.2, it is derived from the most salient feature of the possessed noun. I will

assume that this relation in Adyghe is body part. This notation applies to the individual denoted by the speaker, notated s . The resulting conjunction is a set of heads in a body-part relation with the speaker; type $\langle e, t \rangle$. In principle, this conjunction should combine with a determiner to yield a generalized quantifier type of denotation. In Adyghe, determiners are not obligatorily realized as a part of noun phrases. If no determiner is overtly realized, a null determiner might be postulated, as is done in Barker (1995). I leave the exact semantic analysis of Adyghe noun phrases for further investigation. For now, my goal is to show how the stereotypical possessive relation is established. It is sufficient to know that the difference between idiosyncratic and non-idiosyncratic marking is not connected to the presence of a determiner.

- (65) a. $[[\text{MinSpec}_i]^g(\llbracket \text{sha} \rrbracket)] = \lambda P \lambda x \lambda y. g(i)(x, y) \& P(y)(\lambda z. \text{head}(z))$
 b. $\lambda x \lambda y. g(2)(x, y) \& \text{head}(y) = \lambda x \lambda y. R_{\text{own}}(x, y) \& \text{head}(y)$
 c. $[[\text{MinSpec}_i]^g(\llbracket \text{sha} \rrbracket)](s) = \lambda x \lambda y. R_{\text{own}}(x, y) \& \text{head}(y)(s) = \lambda y. R_{\text{own}}(s, y) \& \text{head}(y)$

The derivation in (65) is very similar to the derivation in (64). The only important difference is that there are no restrictions on the relation between the possessor and the possessed; it can either be derived from ‘head’, or the hearer can derive $g(i)$ from the context.

Applying *MinSpec* to the predicate *head* and the individual denoted by the speaker we arrive at a set of heads in some (underspecified) relation with the speaker. In both cases, the possessive construction asserts that the speaker stands in some relation with a head. The idiosyncratic possessive construction with *MaxSpec* involves a presupposition that the relation between the possessor and the possessed follows from the intension of the possessed. The non-idiosyncratic possessive construction does not have this specification; the relation between the speaker and the head can be contextually determined. If the speaker does not employ *MaxSpec*, but uses *MinSpec* instead, the hearer can infer that the intended relation is not the idiosyncratic one; in this particular case, it is not body part. This meaning effect is due to the pragmatic principle Maximize presupposition. The speaker is expected to use the marker with the strongest presupposition. The use of *MinSpec* comes with an inference that the presuppositional requirements are not satisfied; the speaker has some reason not to choose the marker with the strongest presupposition. In the example from Adyghe, the hearer assumes the relation to be like ownership; the head of a dog is the speaker’s possession.

Rapa Nui and Samoan In the rest of the section, I show how the proposed pragmatic account can be extended to Rapa Nui (Austronesian). Possessive marking in Rapa Nui involves one of the two morphemes *a-* or *o-*. The availability of these two markers is a feature shared by most Polynesian languages (see Clark 2000). As I show below, we also find these markers in Samoan. As can be seen from the minimal pair in (66), repeated from (2), there is no ob-

vicious difference between the two marking strategies with respect to structural complexity.

- (66) Rapa Nui (Kieviet 2017: 299-301)
- a. **tō'oku** karone
poss.1sg.O necklace
'my necklace (the one I wear)
 - b. **tā'aku** karone
poss.1sg.A necklace
'my necklace (the one I am making)'

According to Kieviet (2017: 295), the choice of the possessive marker in Rapa Nui depends on the relation between the possessor and the possessed. "The choice between *a*- or *o*-possession, then, is not an inherent property of the noun; it is determined by the relation between the possessor and the possessee, not by the nature of the possessee as such. If many nouns are always '*a*-possessed or *o*-possessed, this is because they always stand in the same relationship to the possessor." Due to the limited examples with minimal pairs, it is not easy to point out which marker is idiosyncratic in Rapa Nui. In what follows, I argue that the *o*- strategy is the idiosyncratic one as it seems to encode stereotypical relations. I first discuss the examples to explain my reasoning for doing this and then I move to the analysis.

Most kinship terms appear with the marker *o*- when possessed. Compare the examples with 'uncle' and 'mother' in (67a). However, some kinship terms and social relations appear with *a*-. The corresponding examples with 'wife' and 'child' are provided in (67b).

- (67) Rapa Nui (Kieviet 2017: 296-297)
- a. **tō'oku** pāpātio/māmā
poss.1sg.O uncle/mother
'my uncle/mother'
 - b. **tā'aku** vi'e/poki
poss.1sg.A wife/child
'my wife/child'

The marker *o*- is also frequent with body-parts and parts of wholes, as well as objects like clothes that belong to the personal domain of the possessor. The corresponding examples are provided in (68).

- (68) Rapa Nui (Kieviet 2017: 300-302)
- a. **tō'oku** hakari
poss.1sg.O body
'my body'
 - b. **tō'na** raupā
poss.3sg.O leaves
'its leaves (of a tree)'

- c. **tō'na** hi'o
 poss.3sg.O glasses
 'her glasses'

All together, the examples in (67a) and (68) seem to indicate that *o-* is used when the relation between the possessor and the possessed can be easily derived from the semantics of the possessed noun. This description corresponds to the description of a stereotypical relation as developed in section 2.2.2. By contrast, *a-* is commonly used to express more abstract relations, such as that with a plant in (69).

- (69) **tā'na** hauhau
 poss.3sg.A hauhau.tree
 'his hauhau tree' (Kieviet 2017: 299)

Kieviet (2017: 295) shows that alternation of the possessive marking can give rise to a meaning effect that can be described as a change in the relation. In (70) (original example from Englert 1978), the relation between the possessor and the clothes she wears is marked with *a-*, while the more abstract relation between the possessor and the clothes entrusted to her is marked with *o-*.

- (70) Rapa Nui (Kieviet 2017: 295)
- a. He to'o **tō'na** **kahu** mo tata
 NTR take poss.3sg.O clothes for wash
 'She took her clothes to wash' (the clothes she wears)
- b. He to'o **tā'na** **kahu** mo tata
 NTR take poss.3sg.A clothes for wash
 'She took her clothes to wash' (the clothes that were given to her as a laundress)

Compare also the example with *karone* 'necklace' in (66). The marker *o-* is used when the possessor is wearing the necklace, but the marker *a-* has to be used if the possessor is an author/creator of the necklace. With a noun like *mā'mari* 'egg', which can be seen as naturally produced by birds, the marking is different. Kieviet (2017: 306) claims that *mā'mari* 'egg' is marked for possession by *o-* if the relation between the possessor and the egg is production; for instance, the possessor is a hen. If the possession is marked with *a-*, the relation can be, for instance, food (the actual minimal pairs are not provided).

On the basis of these examples and the discussion, I propose that the marker *o-* in Rapa Nui corresponds to the idiosyncratic strategy *MaxSpec*. Due to its presuppositional requirements, the marker *o-* can only express stereotypical relations, which are systematically derived from the lexical meaning of the possessed noun. For nouns like 'necklace' or 'clothes', for instance, such a relation could be [function]. I assume that only some nouns combine with *o-* due to their selectional requirements. For instance, this marking is unavailable for 'wife' or 'child' in (67b). The lexical entry for the *o-* strategy will be exactly the same

as *MaxSpec*, discussed above, see (71).

$$(71) \quad \llbracket o- \rrbracket^g = \llbracket \text{MaxSpec}_i \rrbracket^g = \lambda P \lambda x \lambda y . g(i)(x, y) \& P(y) \text{ defined iff } g(i) \text{ is a stereotypical } P\text{-based relation}$$

The *a*-strategy has the completely underspecified semantics of *MinSpec*. It comes with a relation $g(i)$ between the possessor and the possessed; this relation can be derived from the properties of the possessed noun or from the context.

$$(72) \quad \llbracket a- \rrbracket^g = \llbracket \text{MinSpec}_i \rrbracket^g = \lambda P \lambda x \lambda y . g(i)(x, y) \& P(y) \text{ where } g(i) \text{ is a relation}$$

The principle *Maximize presupposition* (Heim 1991) tells the speaker to use the strongest presupposition possible; thus, marker *o*- should always be chosen if the stereotypical relation holds. If the speaker chooses the *a*-strategy with a noun that normally selects the *o*-strategy, the hearer can infer that the relation described by *o*- does not hold. For instance, in the example with *karone* ‘necklace’ in (66), the speaker would use the morpheme *o*- to mark the function relation. If the speaker uses the morpheme *a*-, this alternation can be interpreted by the hearer as a change in relations; the hearer will use the context to figure out which relation is intended. For instance, the relation might be creation of the necklace, as in (66b). The prediction this analysis makes is that *a*-, in principle, is compatible with any relation whatsoever. This prediction implies that *a*- is more productive than *o*-; while only some nouns can appear possessed with the marker *o*-, all nouns should be able to appear possessed with *a*- if the context is adjusted accordingly. However, I don’t have access to Rapa Nui data to test this prediction. Kieviet (2017: 296) shows that possessive marking can alternate for nouns like *vārua* ‘dream’ or *makupuna* ‘grandchild’, but there is no explanation of whether this alternation is connected with a meaning effect. Compare the examples in (73).

- (73) Rapa Nui (Kieviet 2017: 296)
- a. **tō’na** makupuna
poss.3sg.O grandchild
‘his grandchild’
 - b. **tā’na** ŋā makupuna
poss.3sg.A pl grandchild
‘her grandchildren’

As Rapa Nui is structurally very similar to Samoan, I want to briefly introduce some Samoan data as well. From the description in Mosel and Hovdhaugen (1992: 289), one gets the impression that Samoan has a very similar semantic opposition between the two possessive markers *o* and *a* to that of Rapa Nui. Mosel and Hovdhaugen (1992: 289) provide examples in which alternations of the two possessive markers *o* and *a* give rise to meaning effects.²² If these

²²Vera Hohaus (p.c.) has tested some of these examples in the field and reports that

examples are correct, the analysis suggested for Rapa Nui could be extended to the Samoan data as well.

The alternation between *o* and *a* is shown in (74). In (74a) the possessor inhabits the house, which one can expect to be a stereotypical relation provided by the noun ‘house’; the marker is *o*-. In (74b), the possessor is the creator of the house, and the possessive marker is *a*-.

(74) Samoan (Mosel and Hovdhaugen 1992: 282)

- a. le fale **o** Lafai
 ART house POSS Lafai
 ‘Lafai’s house (the one he lives in)’
- b. le fale **a** Lafai
 ART house POSS Lafai
 ‘Lafai’s house (the one he has built)’

An example from Churchward (1951), shown in (75), shows a similar contrast between various relations for the possessed noun *lenu’u* ‘town’. In (75a), *o* is used for the ‘live-in’ relation; in (75b), *a* is used for a contextual ‘pastor of’ relation between the possessor and the town.

(75) Samoan (Churchward 1951: 26)

- a. ’o lenu’u **o** Ioane
 PRES town poss Ioane
 ‘the town to which Ioane belongs’
- b. ’o lenu’u **a** Ioane
 PRES town poss Ioane
 ‘the town of which Ioane is a pastor’

Mosel and Hovdhaugen (1992: 282) claim that in general *a* refers to relations “initiated and controlled” by the possessor. By contrast, *o* “signifies that the relationship of the two related entities is understood as naturally or socially given. . . or that the possessor referent is considered as constituting some inherent part or characteristic of the possessor”. Translated into my framework, it can be interpreted as *o* being compatible with stereotypical relations between

the marking strategies do not seem to be flexible. It was not possible to alternate possessive marking despite the context manipulation. The reason for the difference in the data is unclear. It might be that Samoan has undergone some language change since 1992, when Mosel and Hovdhaugen (1992: 282) published their grammar. A minimal pair that could be reproduced involves the noun ‘picture’.

(i) Samoan (elicited by Vera Hohaus, October 2017)

- a. O le ata **o** Sina
 This ART picture POSS Sina
 This is a picture of Sina (Sina is depicted in it)
- b. O le ata **a** Sina
 This ART picture POSS Sina
 This is Sina’s picture (Sina is its owner)

the possessor and the possessed. For example, in (76a), the possessed noun is *lanu* ‘color’. It is likely that the relation ‘property’ is a stereotypical relation derived from this noun; thus, it is not unexpected that the marker *o* is used. By contrast, (76b) refers to a non-stereotypical relation with the color; the color is such that the possessor is able to see it, and the marker is *a*.

- (76) Samoan (Mosel and Hovdhaugen 1992: 284)
- a. le **lanu o** le ta'avale
 art color poss.O str car
 ‘the color of the car’
- b. l=**a**=na **lanu**
 art=poss.A=3sg color
 ‘his color (about a blind man: his color is only darkness)’

Based on the Samoan examples in Mosel and Hovdhaugen (1992: 284), one could propose that the same analysis as for Rapa Nui applies. The possessive marker *o* corresponds to a relation, systematically derived from the lexical entry of the possessed noun. In contrast, no generalizations are possible about the relation that corresponds to *a*. This relation is not restricted; it can be acquired from the context, as in (75b) or (76b). Depending on the context, the relation expressed by *a* can be interpreted as ‘construct’, ‘be pastor of’, ‘be able to see’, etc. Those interpretations are connected to the lexical meaning of the possessed nouns, but they are less systematic than the relations associated with the strategy *o*.

To summarize, in this section, I proposed that there is a semantic opposition between an idiosyncratic and a non-idiosyncratic strategy to mark possession. I argue that one can account for the competition between the two strategies with the help of the pragmatic principle *Maximize Presupposition* (Heim 1991). I showed how the proposed account can be applied to languages like Adyghe and Rapa Nui. In the next section, I conclude this chapter.

2.4 Conclusion

In this chapter, I introduced my general approach to possessive marking, focussing on languages that use distinct morphosyntactic means to mark adnominal possession. The underlying idea is that possessive markers differ with respect to relations they can convey. I argued that there is a meaning-based distinction between idiosyncratic and non-idiosyncratic strategies to mark possession. I showed that an idiosyncratic strategy typically involves less morphological material and is typically restricted in its range of application. Only a limited class of nouns can select for an idiosyncratic strategy. I argued that these two criteria are not necessary for identifying the idiosyncratic class and introduced the main criterion that I will rely on: semantic markedness.

An idiosyncratic strategy is argued to involve a presuppositional restriction

on the relations it can express. The relation is stereotypical given the semantics of the possessed noun. My definition of a stereotypical relation is that it is derived from the most salient feature of the possessed noun in the given language. In contrast, a non-idiosyncratic strategy is not restricted with respect to the relations it can express. It allows for a variety of interpretations and, crucially, it allows the relation to be derived from the context. Thus, for possessive constructions with the same noun that receive different interpretations, I locate the source of the different interpretations in the possessive marker itself.

The empirical part of the chapter is based on languages that make use only of only two morphological means to mark possession. I model the choice between the two strategies as a pragmatic competition. If the presuppositional requirements of the idiosyncratic strategy are satisfied, the speaker is forced to use the idiosyncratic strategy by the way of the *Maximize Presupposition* principle. If the speaker chooses a non-idiosyncratic strategy, the hearer can infer that the stereotypical relation between the possessor and the possessed does not hold. I show this system at work with the help of two case studies of Adyghe and Rapa Nui.

The question that remains unanswered so far is that of how applicable this system is to languages that make use of more than two morphological means to mark possession. In chapter 3, I will discuss how the proposed analysis can be extended beyond binary systems of possessive marking.

