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Alienability as control: The case of Daakaka

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Abstract

The alienability distinction has long been recognized as one of the major factors driving differential marking of possession across languages. But opinions are divided on its exact nature. I will bring evidence from the Oceanic language Daakaka to support the hypotheses that the alienability distinction is not a lexical property of nouns but a property of possessive relations: speakers can choose between different constructions depending on the relation between the possessor and the possessed that they wish to express. Secondly, lexically non-relational nouns can be transitivized to express inalienable relations. And thirdly, the basic semantic notion behind alienable possession is control.

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Abbreviations : ART, article; 1, first person; 2, second person; 3, third person; ACC, accusative; ATT, attributive linker; CL1/2/3, possessive classifiers; COP, copula; DU, dual; DECL, declarative; DEF, definite; DEM, demonstrative; DET, determiner; EX, exclusive; GEN, genitive; INS, instrumental; LINK, possessive linker; MED, medial distance; MOD, modal; NEC, necessity; NOM, nominalizer; PAST, past; PC, paucal; PL, plural; POSS, possessive; POT, potential; PROX, proximate; REAL, realis; REDUP, reduplication; REL, relator; SG, singular; TRANS, transitivizer

Keywords: Possession; Alienability; Oceanic languages; Relationality; Transitivity

1. Introduction

A possessive structure such as the English genitive may receive a vast variety of different interpretations, depending on the possessor noun phrase, the possessum noun phrase and the context. But most if not all of these different relations can be categorized as being either alienable or inalienable. The former type includes ownership, as in the most prominent reading of *Mary's car*. The latter type, includes kinship and part-whole relations such as *Mary's mother* or *Mary's head*. The difference between the two relations has often been described in terms of temporal permanence, inherence and control:

- inalienable relations tend to be permanent, alienable ones tend to vary over time;
- inalienable relations tend to express lexically inherent properties, while alienable ones are more arbitrary;
- alienable relations tend to involve control by the possessor over the possessum, while inalienable relations are characterized by a lack of control.

The intuition that alienable and inalienable relations are fundamentally different is also backed up by the fact that they are often expressed by different structures cross-linguistically.

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However, linguists have been divided over how to approach this alienability distinction. The first major question I will address in this paper is whether it is a lexical feature of nouns or a productively applied feature of possessive relations. Like a wide variety of other languages, Daakaka produces minimal pairs such as the following, which show that the alienability distinction is in part independent from lexical properties, in the sense that the same lexical noun can express both types of relations. The speaker is free to choose whether a possessive relation is to be interpreted as alienable or inalienable:

- (1) a. bura=ne vyanten en=te
 blood=TRANS person DEM=MED
 ‘this person’s blood’ (body part reading)
- b. bura Ø-e vyanten en=te
 blood CL2-LINK person DEM=MED
 ‘this person’s (animal) blood’ (ownership reading)

Still, such examples are in principle compatible with two different derivational analyses: (1) could either involve the detransitivization of a lexically relational noun or the transitivity of a lexically non-relational noun. In the former situation, there would be no need for a global definition of the alienability distinction. The difference between alienable and inalienable relations would then be determined exclusively by how its meaning is derived: a lexically determined relation would be, by definition, an inalienable relation. An alienable relation would be any relation determined by a different process. While this line of analysis may in fact be viable for some languages, I will show that for the Oceanic language Daakaka, a different scenario is far more plausible. The morpho-syntactic paradigm of nominal subclasses strongly suggests that lexically non-relational nouns can be transitivity to express inalienable possession.

If this analysis is correct, it implies that there is a semantic basis to the alienability distinction that productively applies to different structures and can be exhaustively defined. The question is then, exactly what the semantic difference between alienable and inalienable relations could be. I will argue that, in the case of Daakaka, the best hypothesis is that alienable relations are control relations, such that the possessor has control over the possessed; whereas inalienable relations are characterized by a lack of control. Not only is this hypothesis compatible with all the attested examples, it also accounts for the fact that only animate possessors are allowed in a structure expressing alienable possession.

This language-specific finding also has implications for our understanding of the alienability distinction more generally. According to Nichols (1988:568), a cross-linguistically valid definition of the distinction between alienable and inalienable possession is not possible. Chappell and McGregor (1996b) take the more optimistic stance that given sufficient background knowledge about the cultural and pragmatic context, predictions about the classification of specific relations should be possible. They suggest that only those relations that are conceptualized in a given culture as particularly close will be classified as inalienable. However, both accounts, as well as most of the literature on the alienability distinction, have focused on the difference between lexically relational and non-relational nouns. But lexically encoded information is bound to include unpredictable and idiosyncratic features. For example, in some languages, clothes and personal belongings pattern with prototypically inalienable relations, while in other they pattern with alienable ones Chappell and McGregor (1996b). Such cross-linguistic differences may well reflect culture-specific preferences and ideas. They do however not necessarily reflect a difference in how possessive relations are conceptualized; instead, they may be only an indication of how frequently certain terms co-occur with possessor expressions (compare Haspelmath, 2008) – and this frequency may also vary from one language to the next (compare Section 3.3 for elaboration). By shifting our focus away from lexical properties and toward productively formed structures, we may find new ways to assess the semantics of alienability cross-linguistically.

In the following section, I will give an overview of the literature on the alienability distinction cross-linguistically and work out the main empirical questions of this paper. In section 3, I will discuss the system of nominal possession in Daakaka and argue that the best analysis of it implies that non-relational nouns can be transitivity to express inalienable possession. In section 4, I will review three different hypotheses about how to productively derive the alienability distinction in Daakaka. I will argue that the best account equates alienability with control.

2. Background

2.1. Language and methodology

Daakaka is an Oceanic language of Vanuatu belonging to the Remote Oceanic languages of North and Central Vanuatu. It is spoken by about one thousand speakers in the western part of the island Ambrym.

The empirical basis of this paper is a natural language corpus of around 60,000 tokens collected in fieldwork by von Prince between 2009 and 2012, supplemented by elicitations. Examples from the corpus are marked by a reference to the corresponding text and sentence number.

The elicitations cited in this text were performed with a single male speaker from the village of Emyotungan, in his early twenties, who speaks Daakaka as a first language and Bislama and English as second and third languages. Most of them were not designed to answer specific hypotheses about the alienability distinction, but were part of a standard battery of tests applied to the majority of nouns that occurred in the corpus to determine their behavior in possessive structures. Most of the prompts were hypothetical structures in Daakaka that were to be judged for their acceptability by the consultant. In some cases, translations from Bislama were also used as prompts.

Example (38) was elicited specifically to test whether the producer relation was available for linker genitives. Example (39-a) was part of a translation-based elicitation to fill some gaps in the corpus (in this case, concerning measure phrases).

2.2. The alienability distinction cross-linguistically

We know that in many languages, the class of nouns is divided into lexically relational nouns that require a possessor noun phrase and non-relational nouns that may occur without possessors.¹ This formal difference is widely agreed to correspond to a semantic difference between the argument structures of different nouns. While the noun *car* is a one-place predicate denoting the set of cars, *mother* is a two-place predicate denoting a relation between two individuals. Accordingly, the relation between a relational head noun and its possessor argument is determined by its lexical definition. The relation between a non-relational head noun and its possessor, by contrast, has to be determined by other processes and may vary with context.

This idea can be found in early works such as Behaghel (1923), who talks about *absolute* and *relative* nouns, and has been adopted by the majority of scholars in the field, including Partee (1997), Barker and Dowty (1993), Barker (1995), Lehmann (2003), Partee and Borschev (2003), Vikner and Jensen (2002) and Heller (2002). Similar ideas are also shared widely in the syntactic side of the debate (see Alexiadou, 2003:70 and references therein). The question is now whether the alienability distinction is effectively the distinction between relational and non-relational nouns or not. Koptjevskaja-Tamm (2006:767) states explicitly that alienability is a lexical property of nouns rather than a property of relations:

'Typically, inalienables form a closed set, which normally includes body-part terms and/or kin terms; what is at stake here, thus, is a lexical rather than a semantic classification.'

Authors that subscribe to this view typically collapse the alienability distinction into the lexical divide between relational and non-relational nouns by talking about 'alienable nouns' and 'inalienable nouns', as can also be seen in Nichols (1988), Heine (1997) and Haspelmath (2008). But this approach was contested as early as the 1980s. As Seiler (1983:12) puts it:

'It is still customary in grammars to speak of "inalienable nouns" vs. "alienable nouns" as if the difference could be reduced to that between two distinct classes of the lexicon. U. Mosel (1980) rightly criticizes grammarians of Austronesian languages for doing just that. As a matter of fact, many of [sic] these nouns occur both in "inalienable" and in "alienable" constructions; consequently, the difference must be described in terms of constructions in which these nouns enter.'

Examples that illustrate this point come from a wide variety of languages, especially from both sides of the Pacific Rim. A small collection of examples from the literature is given below:

- (2) a. in bak'-el
POSS.1SG flesh-REL
'my flesh (of my body)'
b. in bak
POSS.1SG flesh
'my flesh (which I possess)' (Yucatec Maya, Lehmann E95 in 2003:80)
- (3) a. bi-ci 'his (own) head'
b. bi-ʔi-ci 'his head (from someone else's shoulder)'
(Chiricahua Apache, from Haiman, 1983:794, originally from Hojjer (1946:75))
- (4) a. bi-be 'her breastmilk'
b. be-'a-be 'her (store-bought) milk' (Navajo, citet in Bickel and Nichols, 2013, originally from Young and Morgan, 1987)

¹ It appears that in languages that morpho-syntactically differentiate between relational and non-relational nouns, possessor arguments cannot be left implicit. Note that Daakaka is a pro-drop language, so that arguments of transitive verbs do not have to be expressed, but the possessor argument of a transitive noun always has to have some morphological exponent.

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- (5) a. *záca* 'his horn' (e. g. a stag's own horn)
b. *k'ahácani* 'his horn' (Acoma, e.g. a horn belonging to a person; Bickel and Nichols, 2013, originally from Miller, 1965)
- (6) a. *kánkarra ngáyabba*
meat my
'my meat (for eating)'
b. *nga-kánkarra*
my-meat
'my flesh (part of my body)' (Ndjébbana, from McKay, 1996)
- (7) a. *be-leł*
3S-skin
'his/her/its skin, hide, pelt'
b. *be-leł-e'*
3S-skin-POS
'his/her belt'² (Athabaskan, from Thompson, 1996:663)
- (8) a. *a katigu* 'my liver' (inalienable possession)
b. *agu kat* 'my liver that I am going to eat' (alienable possession) (Patpatar, citet in Chappell and McGregor, 1996a:1, originally from Peekel, 1909:18)

In the semantics literature, the fact that the alienability distinction is in part independent from lexical relationality has been discussed quite widely, including discussions in Löbner (1985), Partee and Borschev (2003), and Vikner and Jensen (2002). For example, Partee and Borschev (2003) write that a phrase such as *portrait of John's* may receive both an argument reading (e.g. a portrait painted by John) and a modifier reading (e.g. a portrait John owns).

But, as noted above, these minimal pairs and different readings are still compatible with the idea that, essentially, the alienability distinction is a lexical phenomenon: it is conceivable that all such cases involve the detransitivization of a lexically relational noun, which would then be able to enter into a structure associated with alienable possession; inalienable relations would then be relations that are lexically specified, all productively derived relations would be alienable. In the context of English, this type of approach has been explored for example in Barker (1995) and Partee and Borschev (2003).

A different possibility is that the relevant examples involve the transitivization of a lexically non-relational noun. One explicit account of this type of process was explored in detail in Jensen and Vikner (2003). Which of these two scenarios is the more plausible depends crucially on the particular nominal classes and possessive morphology of each individual language. In the following sections, I will argue that in Daakaka, it is far more plausible to assume that non-relational nouns are transitivized than the other way round. I will then review different proposals concerning the semantic basis of this transitivization process.

3. Nominal possession in Daakaka

3.1. Nominal subclasses

The most important facts about nominal possession in Daakaka are described in von Prince (2015) and von Prince (2012). I will therefore focus on those points that will be crucial for later discussion. The most important point to take away from this section is that uninflected transitive nouns differ very systematically from intransitive nouns, even though they lack conspicuous morphological marking.

The lexical class of nouns is subdivided into three main groups:

1. Intransitive, non-relational nouns such as *atuwo* 'basket' and *tan* 'earth'. They cannot be followed by a possessor expression without interfering morphology. They make up the bulk of all nouns.
2. Transitive inflected nouns such as *bat-* 'head of' or *onon-* 'shadow of'. They always indicate their possessor by a person-number inflection. A subsequent noun phrase may further specify a third-person possessor:

² In the text, *-e'* is described as the *alienable possessive suffix*.

- (9) bat-en (vyanten en=tak)
head.of-3SG.POSS person DEM=PROX
'her (this person's) head'

3. Transitive uninflected nouns such as *ye* 'leaf of' or *bwee* 'shell of'. They need to be followed by a nominal expression indicating their possessor. The resulting structures superficially resemble nominal compounds in other languages, but we will see below that they are not.

- (10) ye vis
leaf.of banana
'banana leaf' (sto37:063)

The majority of inflected nouns refers to external body parts and kinship relations. Many other languages with such a nominal class allow for detransitivization, such as for example Acoma (Bickel and Nichols, 2013). By contrast, inflected nouns in Daakaka cannot be detransitized. It is possible to express the notion of a body part generically, without a specific possessor as in (*human*) *hair never stops growing*: the canonical way to do this is to use the first person plural inclusive form as in *vy-ur* 'our hair'.

There are suppletive uninflected counterparts to most inflected nouns. Uninflected, intransitive nouns referring to body parts such as *kor* 'head', which corresponds to the lexeme *bat-* in (9), are however highly restricted to very specific environments. One of the few environments where *kor* can occur are exocentric nominal idioms such as *kor yasyas* 'willfulness' (lit. 'strong head'). These uninflected body-part terms cannot be used to simply refer to a body part with a generic possessor (compare von Prince, in prep).

Intransitive kinship terms such as *naana* 'mother' or *bivian* 'same-sex sibling' behave mostly like other intransitive nouns, but are in some ways peculiar, as discussed in Section 3.3.

The class of uninflected transitive nouns deserves a more thorough treatment here, since this type of noun is much less well-known cross-linguistically, and phrases consisting of a transitive noun and its argument may easily be mistaken for compounds. In fact, the typological survey by Bickel and Nichols (2013) equates the term *obligatorily possessed noun* with nouns that are obligatorily inflected for person and number of their possessor argument:

'In many languages with head-marked possession (see Chapter 24) some nouns obligatorily require possessive inflection and cannot be used alone. [...] These are often called bound nouns; here we use the more cumbersome but more precise term *obligatorily possessed nouns*.'

The Daakaka data show very clearly, however, that nouns can be obligatorily possessed (i.e. transitive) without being inflected.

The class of uninflected transitive nouns is morphologically less conspicuous than the class of inflected nouns and therefore easier to overlook. There is however a battery of very systematic differences between uninflected transitive nouns and intransitive nouns in terms of their morpho-syntactic behavior. Transitive nouns always come with a possessor argument. One way to express this argument is to place a corresponding noun phrase directly after the transitive noun, without interfering morphology. Intransitive nouns, by contrast, cannot simply be followed by or combined with another noun or noun phrase, even if it is plausible that it should express an inalienable possessor. In the following example, I contrast the transitive nouns *amu x* 'beard of *x*, fringes of *x*' and *beke x* 'branch of *x*' with the intransitive nouns *vityop* 'roof' and *yes* 'smoke'. The following two examples show that the former pair can be followed directly by another noun, while the latter pair cannot:

- (11) a. na=m esi [amu lebekuu]
1SG=REAL see beard.of palmtree
'I see the fringes of the palmtree'
b. ... beke lewotop
branch.of breadfruit.tree
'... the branch of the breadfruit tree'
- (12) a. *na=m esi vityop em
1SG=REAL see roof house
intended: 'I see the roof of the house'
b. *... yes apyang
smoke fire
intended: '... the smoke of the fire'

For transitive nouns, the possessor argument is obligatory. Intransitive nouns, by contrast, are fine without any further modification:

- (13) a. *na=m esi amu
1SG=REAL see beard
intended: 'I see (the) fringes'
b. *... beke
branch
intended: '... the branch'
- (14) a. na=m esi vityop
1SG=REAL see roof
'I see the roof'
b. ... yes
smoke
'... (the) smoke'

Phrases such as *amu lebekuu* in Example (11) look a lot like compounds in other languages, but they are not. Chappell and McGregor (1989) discuss the difference between structures expressing inalienable possession by juxtaposing two noun phrases with cases of nominal compounds.³ They conclude that the main diagnostic to differentiate between the two is the use of pronominal possessors: pronouns are fine as possessors in cases where inalienable possessors are indicated by a juxtaposed noun phrase, but they are excluded from compounds. Possessors of transitive nouns in Daakaka may indeed be expressed pronominally. Since most uninflected transitive nouns refer to parts of plants or animals, the most frequent type of possessor are non-human. Definite non-human possessors are then expressed by the suffix *-sye* or its allomorph *-tye*. These suffixes cannot be added to intransitive nouns:

- (15) a. na=m esi amu-sye
1SG=REAL see beard-3POSS
'I see its fringes'
b. ... beke-sye
branch-3POSS
'... its branch'
- (16) a. *vityop-sye
roof-3POSS
intended: 'its roof'
b. *yes-sye
smoke-3POSS
intended: 'its smoke'

A definite human possessor is expressed by a regular full pronoun:

- (17) bwee nge
shell.of 3SG
'his cocoon'⁴ (sto25:15)

Again, an intransitive noun such as *vityop* 'roof' may under no circumstances simply be followed by a pronoun.

I may add to this that pronouns as such may in fact occur in nominal compounds such as *me-time*, or German *Ich-Bezogenheit* (me-aboutness) 'self-centeredness' or *Wir-Gefühl* (we-feeling) 'spirit of solidarity'. But crucially in these cases, the pronoun loses its referential properties: its person and number features do not indicate the possessor of the head noun: when I say *you should get some me-time*, I mean to say that you should take some time that is all about yourself, not about me. When I talk about your *Ich-Bezogenheit*, I am saying that you are too much concerned with yourself, not with me.

³ In a rather unfortunate choice of terminology, they refer to determinative noun-noun compounds as cases of nominal classification. Generally, the term nominal classification is associated with lexical noun classes and not with the morpho-syntactic process of nominal composition.

⁴ This example comes from a story about a young man who sleeps in a cocoon like an insect.

Table 1
The basic structure of linker genitives.

Possessor NP	Classifier	Linker	Possessum NP
...	<i>m</i> -		...
	∅-	<i>e</i>	
	<i>s</i> -	<i>an</i>	

Furthermore, the possessor of a transitive noun may be expressed by a complex noun phrase, as shown in (18). The same is generally not possible for compounds.

- (18) gili [s-ar pun=an]
end.of CL3-1PL.IN tell=NOM
'the end of our story' (sto10:28)

Let me add one final observation that is non-conclusive and requires more systematic typological research, but could still be relevant: in languages that allow for noun-noun compounds, this process is typically not restricted to a lexical subclass of nouns. By contrast, only 92 of 877 recorded Daakaka nouns are transitive and thus can – and must – be followed directly by a possessor noun phrase.⁵

Intransitive nouns can of course still participate in possessive structures, but they form more complex possessive phrases than transitive nouns. I will review these structures in the following section.

3.2. Productive possessive structures

There are two productive ways to form a possessive structure, linker genitives and structures involving the clitic =(a)ne.

In a linker genitive, the possessed noun phrase is followed by one of the two linking morphemes which is prefixed by one of the three possessive classifiers, followed by the possessor noun phrase. This structure is summarized in Table 1.

The three classifiers are lexically determined by the head noun (Franjeh and von Prince, 2011). They are loosely associated with certain semantic domains, namely liquids and houses in the case of the *m*- classifier; and plants, animals and food items in the case of the ∅- classifier. The *s*- classifier is not associated with specific semantic domains. Similar classifier systems can be found in many Oceanic languages (compare Lynch et al., 2002), although in many of them, the classifiers are determined by the relation between possessor and possessed rather than lexical properties of the possessum noun (Lichtenberk, 1983, 2009a).⁶

The two linkers differ in terms of the possessors they occur with: roughly speaking, the *e* linker occurs with definite individual possessors; *an* occurs with indefinite, generic and plural possessors. Two examples are given in (19) (for a more detailed discussion, see von Prince, 2015):

- (19) a. em m-e yaapu
house CL1-LINK(SG) big.man
'a church' (lit. 'a house of God') (rep04:010)
b. vilye s-an vi
place CL3-LINK(PL) white.man
'the West' (lit. 'the place of the white men') (rep02:030)

Possessors of linker genitives can also be expressed pronominally. In this case, the classifier prefixes to the possessive pronoun. In contrast to full noun phrases, pronominal possessors precede the possessed noun. Compare (20) to (19-a):

- (20) m-ok em
CL1-1SG.POSS house
'my house' (rep04:029)

⁵ Then again, forming possessive structures by juxtaposition of noun phrases is not always restricted to a specific nominal class. For example, in Edo all lexical nouns can participate in this process (Perpetual Usenbo, p. c.).

⁶ Palmer and Brown (2007) argue that the possessive classifiers are in fact possessed nouns and the heads of the possessive structure. This view is apparently shared by Bickel and Nichols (2013), who refer to possessive classifiers in Paamese as *possessive nouns*. However, Lichtenberk (2009b) convincingly argues against the analysis by Palmer and Brown (2007).

In order to add an inalienable possessor to an intransitive noun, it is necessary to use the clitic *=(a)ne*.

- (21) a. na=m esi vityop=ane em
1SG=REAL see roof=TRANS house
'I see the roof of the house'
b. ... yes=ane apyang
smoke=TRANS fire
intended: '... the smoke of the fire'

Transitive nouns, by contrast, cannot combine with *=(a)ne*.

- (22) a. *amu=ane lebekuu
beard.of=TRANS palmtree
intended: 'the fringes of the palmtree'
b. *beke=ane lewotop
branch.of=TRANS breadfruit.tree
intended: '... the branch of the breadfruit tree'

Like transitive nouns, structures with *=(a)ne* can often be translated as compounds into English. But structurally, they are clearly distinct from compounds. Possessors of phrases with *=(a)ne* can also be expressed pronominally: human possessors are expressed by a personal pronoun; definite non-human possessors are referred to by the clitic *an*, which replaces *=(a)ne*. This is illustrated in (23):

- (23) a. elingling=ane kinyemsi
offspring=TRANS 1PC.EX
'our offspring' (sto37:002)
b. lasup=an mwe kyes
soup=DEF REAL sweet
'its soup [made of this fish] is tasty' (exp07:083)

It is not the case that the two productive structures are exclusively available to lexically intransitive nouns. Linker genitives in particular may also involve inflected and uninflected transitive nouns. They have then two possessors, one given by their possessor argument and one introduced by the linker *or*, more typically, the corresponding possessive pronoun:

- (24) a. Ø-ok ebya-on (tyu)
CL2-1SG.POSS wing.of-3SG.POSS (chicken)
'my (chicken) wing'
b. s-am sini ye wep
CL3-2SG.POSS thorn.of leaf.of pandanus
'the thorns of your pandanus leaves' (lit. 'your pandanus leaf thorns') (sto13:050)

3.3. Correspondences between form and meaning

Now that we have reviewed the main facts about the Daakaka possessive system, let us return to the minimal pair in (1), repeated below:

- (1) a. bura=ne vyanten en=te
blood=TRANS person DEM=MED
'this person's blood' (body part reading)
b. bura Ø-e vyanten en=te
blood CL2-LINK person DEM=MED
'this person's (animal) blood' (ownership reading)

Note that the difference in interpretation between these two structures is absolute. In contrast to many other languages including English, where different possessive structures may express the same relation, the distinction in (1) is entirely unambiguous: (1-a) can only refer to the blood once coursing through the possessor's veins; (1-b) can only refer to some animal blood that the possessor owns. (1-a) expresses a relation that is prototypical for what we think of as inalienable. (1-b),

by contrast represents a prototypically alienable relation. I therefore suggest that the minimal pair in (1) really instantiates the distinction that we are after when we talk about alienability: it is a contrast between two productively formed structures with very clear, very strict correspondences between form and meaning.⁷

The very existence of a minimal pair such as this shows that the alienability distinction is not simply the distinction between lexically relational and non-relational nouns, since the same lexical noun can express both types of relations. The question remains, however, whether this contrast is produced by the transitivization of a lexically non-relational noun or by the detransitivization of a lexically relational noun. In this section, I will argue that the best account of the Daakaka nominal system entails that the noun *bura* 'blood' in (1) and other terms for internal organs are lexically non-relational, even though speakers of English may find this conclusion rather counterintuitive.

The hypothesis is that, in Daakaka, there is a very close correspondence between syntactic transitivity and semantic relationality: generally speaking, syntactically transitive nouns are semantically relational and semantically relational nouns are syntactically transitive. Since *bura* 'blood' is syntactically intransitive by all the tests developed in the previous sections, it follows that it is semantically non-relational. There is only one complication to this straightforward picture.

This complication comes from intransitive kinship terms. Most kinship terms in Daakaka can be expressed both by an inflected noun and by an intransitive noun. For example, the notion of *mother* can be expressed by the inflected noun *yas-* 'mother of' and by the intransitive noun *naana*; the notion of 'father' can be referred to by the inflected noun *timy-* 'father of' and the intransitive term *taata*; a child can be referred to by the inflected term *nat-* 'child of' and by the intransitive term *temeli*, and so on. An inflected example is given below:

- (25) yas-en Steven
mother-3S.POSS Steven
'Steven's mother'

Von Prince (2012) argues that intransitive kinship terms such as *naana* 'mother' are exceptional among intransitive nouns in that they are still lexically relational. This would mean that the lexical semantic structure of a noun is partially independent from its syntactic argument structure: a lexeme that is semantically a two-place predicate can still be syntactically intransitive.

For von Prince (2012:165), the main indication to support this claim was that it is impossible to cliticize kinship terms with *=(a)ne*:

- (26) naana s-e/ *=ne temeli en=te
mother CL3-LINK =TRANS child DEM=MED
'the mother of this child'

This restriction would follow from the assumptions (1) that *=(a)ne* only takes non-relational nouns as arguments and (2) that intransitive kinship terms are lexically relational. The first assumption is well supported by the facts. On the one hand, we have seen above that transitive nouns such as *beke* 'branch', which are certainly lexically relational, cannot combine with *=(a)ne*. On the other hand, while it is not always trivial to determine whether a given noun may be notionally or lexically relational, the majority of nouns that combine with *=(a)ne* have nothing to do with prototypical relational concepts. Examples include nouns that refer to animals, objects such as houses and even the term *vyanten* 'person':

- (27) basée=ne eng
bird=TRANS wind
'hawk' (lit. 'bird of the wind') (exp01:048)

- (28) em=ane temyap=an
house=TRANS pray=NOM
'house of worship, church' (con02:056)

- (29) vyanten=ane vilye Aneityum
person=TRANS place Aneityum
'someone from Aneityum' (sto44:047)

⁷ The two types of expressions can refer to the exact same entity: for example, the transitivized phrase *bura=ne barar* 'a pig's (inalienable) blood' could refer to the exact same substance as the phrase *bura* *∅-e* *Byakmelip* 'Byakmelip's (alienable) blood', in a situation where Byakmelip slaughtered his own pig.

The second assumption is backed up by the fact that intransitive kinship terms such as *naana* generally do establish a relation between two individuals. Most of the time, they come with explicit possessors expressed by pronouns or linker genitives as in example (26). In other cases, they are used to address a relative of the speaker, as in (30):

- (30) naana, nye na=m dimyane ka na=p mas vyan etes
mother, 1SG 1SG=REAL want MOD 1SG=POT NEC go to.the.sea
'mother, I absolutely want to go to the sea' (sto23:009)

In fact, the main *raison d'être* for intransitive kinship terms may be to address one's relatives, since transitive kinship terms cannot be used to do this. Symmetrical terms such as *bivian* 'sister (of a female ego), brother (of a male ego), friend' also work as predicates as in (31):

- (31) meerin nya ye mw=i bivian na mu vu ten
long.ago 3DU 3DU REAL=COP friend ATT REAL be.good very
'Long ago, they were very good friends'⁸ (sto06:029)

In sum, the intransitive kinship terms constitute a very neat and tidy exception to the one-to-one correspondence between lexical relationality and syntactic transitivity. They form a semantically well-defined group. Most of them have an inflected counterpart. And they differ morpho-syntactically from other intransitive nouns in that they cannot combine with the clitic *=(a)ne*. This clitic can then be analyzed as thoroughly consistent in the choice of its arguments: it can take any non-relational noun as its argument, but no non-relational nouns.

By contrast, if we were to assume that terms for internal organs such as *bura* 'blood' are also lexically relational despite their intransitivity, the emerging picture would be completely erratic. The term *bura* 'blood' is morpho-syntactically mostly indistinguishable from a wide variety of other intransitive nouns such as *baséé* 'bird', *em* 'house', *vyanten* 'person' and *webung* 'day': their basic syntactic distribution is the same, as are the morphological processes that may apply. There is no reason at all to suggest that all these terms are lexically relational. We therefore have a choice between two analyses. The first analysis implies a system of three neat and tidy groups of nouns – (1) the lexically transitive and relational nouns, (2) the lexically intransitive and non-relational nouns, and (3) the lexically intransitive, but relational kinship terms. The second analysis would imply a total of four groups: the second group containing lexically intransitive nouns would have to be split into (intransitive) relational nouns, including body parts, and (intransitive) non-relational nouns. These two groups would be indistinguishable in terms of their morphosyntactic behavior. Furthermore, the intransitive relational nouns that do not refer to kinship relations would differ from the intransitive relational kinship terms in that only the former can be transitivized.

Finally, if *bura* 'blood' were relational, the behavior of *=(a)ne* would also be entirely arbitrary: it would apply to some relational nouns (denoting internal organs), but not to others (denoting kinship terms), in addition to all non-relational nouns. It would be necessary to assume that its function in combination with non-relational nouns fundamentally differs from that with relational nouns.

The best way to make sense of the data is therefore to assume that terms such as *bura* 'blood' are lexically non-relational, just as all other intransitive nouns that can combine with *=(a)ne*; and that *=(a)ne* transitivizes lexically non-relational nouns. For the remainder of this article, I will refer to noun phrases cliticized by *=(a)ne* as transitivized noun phrases.

Speakers of English may still feel reluctant to accept that terms denoting internal organs should be lexically non-relational. I would therefore like to briefly elaborate on two considerations that might support the plausibility of my assumptions. Firstly, it should not generally surprise that languages differ in how they lexicalize certain notions. In the domain of the mass/count distinction, for example, there are well-established cross-linguistic differences – *hair* is denoted by a mass noun in English, but by a count noun in Italian, for example (also compare Grimm, 2012).⁹

Secondly, whether or not a certain notion is lexicalized as transitive or intransitive is a function of how frequently it occurs with a possessor (Haspelmath, 2008). Since this frequency may vary with culture-specific practices, lexical properties may also be subject to culturally conditioned variation. Thus, in a Western setting, when one talks about someone's heart or bones while they are still intact and inside their possessor, one does so primarily in a medical context,

⁸ Literally, the term *bivian* refers to same-sex siblings, same-sex offspring by the father's brothers and the mother's sisters and a wide variety of other relatives of the same generation (the Ambrym kinship system is notoriously complex, see von Prince, 2015). This meaning is often extended to mean *peer* or *friend*.

⁹ I thank one anonymous reviewer for this insight.

or in a metaphorical way. But the traditional discourse on medical conditions is very different in Vanuatu and the metaphorical meanings associated with internal organs in the West do also not apply in this region of the world.

On the other hand, the only dead organs we usually encounter detached from their deceased possessor are animal organs. In these cases, it may not seem crucial exactly who the animal was that they belonged to or even which kind of animal it was. So while the organ's origin is certainly still one of its relevant properties, it may not be prominent enough in most contexts to lexically require specification. In other words, when we encounter and talk about internal organs in Vanuatu, we will often do so without referring to their possessor. With external body-parts such as heads and arms, by contrast, the inalienable possessor will typically be present, recognizable and highly relevant.

Note that this does not necessarily mean that the relation between an internal organ and its possessor is usually different from an external organ and its possessor. If the speaker wishes to specify the inalienable possessor of an internal body part, she can easily do so and the relation expressed will be no different from the relation between an external part and its obligatory inalienable possessor. It only means that, with internal parts, a speaker can choose not to specify a possessor at all, or to indicate only an alienable possessor.

Of course, these considerations are at this point pure conjecture. The conundrum behind them, however, is very concrete: in Daakaka, terms referring to external body parts, excrements and hair are transitive, most of them inflected. Terms that refer to internal body parts, by contrast, are intransitive. This suggests that we are not dealing with individual terms that are randomly intransitive despite being lexically relational. There is a very systematic difference in how internal and external body part terms work in the language. Any approach to the lexical relationality in the language should be able to account for that.

Before we conclude this section, I would like to address one more topic. My analysis so far predicts that lexically non-relational nouns may be transitivized to express an inalienable relation to their possessor. This means not only that inalienable relations may be expressed by lexically non-relational nouns; it also opens up the possibility that not all lexically encoded relations are necessarily inalienable. One remaining question is therefore: can a semantically relational noun express an alienable possessive relation? The answer to this question will depend on the exact definition of alienability, which we have not yet tackled. For the time being, let us take a look at some of the relational nouns that do not denote prototypically inalienable relations.

As in many languages with a lexical division between transitive and intransitive nouns, not all transitive nouns in Daakaka fit into one of the prototypical categories such as part-whole or kinship relations. Among them are the inflected nouns *suku-* 'things of, possessions of' and *mily-* 'place of, position of' and their uninflected transitive counterparts *suku x* and *mili x*.

The uninflected terms *suku x* and *mili x* generally only take non-human, often abstract, possessors. They conform relatively well to our expectations about inalienable possession. The former is involved in expressions such as *suku gyēs=an* (things.of work=NOM) 'tools'. There is an inherent relation between a tool and the work it is designed to perform, and the possessor ('work') does not itself exert control over a tool. It therefore appears that the relation between possessor and possessed is inherent, permanent and not a control-relation. Similar considerations apply to *mili x*. It forms phrases such as *mili en=an* (place.of eat=NOM) 'place of eating, dining room' and *mili plen* (place.of airplane) 'airfield'. By contrast, the inflected terms *suku-* and *mily-* are mostly restricted to human possessors, and they are much less likely candidates for inalienable possession. The term *suku-* may refer to any material possession, including clothes, furniture, dishes, baskets and so on. *Mily-* may refer to the metaphorical position of its possessor within a certain social structure, similar to the English term *position*. Do these terms express inalienable relations, just as presumably most other inflected nouns? At the face of it, the relation expressed by *suku-* corresponds to the prototype for alienable relations instead, namely ownership and control. There is usually no inherent relation between me and my possessions and they can change their possessor without changing their denotation. There appears to be nothing permanent or inherent about them. Similarly with *mily-*, the position of a bursar within the church, for example, may be held by a succession of different people without any contradiction. We will see in Section 4.5 that whether these lexemes express alienable or inalienable relations depends on the specific definition of alienability.

Concluding this section, we have seen that the alienability distinction may apply productively to lexically non-relational nouns. This means that we should be able to define it in a way that applies to all such productively formed expressions, which will be the task of the following section.

4. The semantics of alienability

4.1. Overview

In this section, I will review three different hypotheses about the semantic basis behind the alienability distinction in Daakaka. According to the first hypothesis, when a non-relational noun is transitivized, the relation between possessor and possessed is derived from the lexically stored *qualia* roles of the possessum noun. This approach was developed by

Jensen and Vikner (2003) in the context of data from English. The second hypothesis was developed by von Prince (2012). It is based on the widespread intuition that inalienable possession is permanent while alienable possession may be subject to change over time. However, we will see that both accounts run into problems with significant parts of the data.

Instead, the most plausible account of the empirical observations equates alienable possession with control. One crucial piece of evidence in favor of this third hypothesis has to do with possessor animacy: only animate possessors are allowed in linker genitives, the structure associated with alienable possession. Animacy is intimately linked with the notion of control, because most researchers agree that control requires a high degree of agency, and agentivity in turn usually presupposes animacy. This observation is therefore not only compatible with the control hypothesis, it would in fact follow from it. I will briefly explore the role of possessor animacy in the following section before discussing the different hypotheses.

4.2. The role of possessors

One crucial clue to the semantics of alienability comes from possessors. As we have seen, minimal pairs such as (1) and (3) show that different possessive constructions may be used for the same possessum and the same possessor noun phrase, depending on the relation between them. But when we look more closely at the Daakaka data, it appears that such minimal pairs are restricted to certain types of possessors. Possessors with non-human and non-animal referents are almost entirely restricted to transitivized structures.¹⁰ To the extent that animal possessors occur in linker genitives at all, they only take the *-an* linker, except when they are anthropomorphic as in (32-b):

- (32) a. biyep s-an barar
pen CL3-LINK pig
'pig pen' (exp15:042)
- b. e-kaa~kaa s-e boyep
INS-REDUP~wear CL3-LINK pheasant.dove
'the pheasant dove's clothes' (sto04:040)

The only attested examples where the possessor in a linker genitive does not refer to a human or animal are the following:

- (33) a. gyes=an s-an lewovya mu puo
work=NOM CL3-LINK ironwood.tree REAL be.many
'the ironwood tree has many duties' (lit. 'the tasks of the ironwood tree are many') (exp15:051)
- b. seli s-an trak
way CL3-LINK car
'road' (lit. 'the trail of the cars') (con01:112)

There is a certain regularity even behind these exceptions: (33-a) involves a deverbal head noun, derived from *gyes* 'work'; possessors of deverbal nouns formed with the suffix *-an* are always introduced by a linker and generally correspond to the subject of the verbal root. And as soon as even an immobile object such as a tree has duties to perform and work to do, we will attribute to it quite a high degree of agency. As for (33-b), this phrase follows the same pattern as similar expressions, for example *seli s-an goyor* 'ant trail'. It does not require a big metaphorical leap to conceptualize cars as some kind of animal that creates its own trail, especially on an island without fortified roads. And there is evidence from English that other machines – in particular computers – are often attributed properties of animate entities (Rosenbach, 2008; Dabrowska, 1998). So, these exceptions rather prove the rule that, generally speaking, possessors of linker genitives refer to highly animate participants. Possessors with a low degree of animacy are generally restricted to transitivizations.

The possessive system of Samoan presents a very similar situation. As in many Oceanic languages of Polynesia, there are two possessive markers, *a* and *o*. The *a* marker expresses a control relation between possessor and possessum, while relation expressed the *o* marker is characterized by a lack of control. As would be expected, most possessors in a structure marked by *a* refer to human beings. Mosel and Hovdhaugen (1992:283) say that inanimate possessors of *a*-marked structures either involve personification, as in (34), or a metonymic extension from a place or institution to its people, as in (35):

¹⁰ Possessors that refer to plants mostly occur in combination with a transitive, uninflected noun such as *ye* 'leaf of'. Most of those uninflected, intransitive nouns refer to plant parts.

- (34) le laau pese a le pasi
ART instrument sing POSS ART bus
'the cassette recorder/ radio of the bus' (Moana 83:25)
- (35) le lauspika a le Maketi fou
ART loudspeaker POSS ART Market New
'the loudspeaker of the New Market'

The main question this section leaves us with is this: how should we interpret the interaction between possessor animacy and alienability? What does it mean that inanimate possessors can only occur with the type of structure that is associated with inalienable possession in human possessors? I consider two main possibilities here:

Hypothesis 1. The alienability distinction is not expressed with possessors of low animacy. Only highly animate possessors need to be considered when we investigate its semantic basis. The fact that inanimate possessors are associated with transitivized structures rather than linker genitives or a different structure is merely accidental;

Or:

Hypothesis 2. The meaning of alienability is incompatible with inanimate possessors. This is why inanimate possessors only occur in transitivized structures.

The second hypothesis is the stronger and simpler one, it would significantly restrict the number of theories compatible with our research objective. For convenience, I will refer to the first hypothesis as the **weak animacy hypothesis** and to the second hypothesis as the **strong animacy hypothesis**. If we can find a definition of alienability that is compatible with the strong animacy hypothesis, that would be preferable to a solution that only complies with the weak animacy hypothesis. In the following sections, I will discuss three approaches that could derive the alienability distinction in Daakaka. Among them, only the control approach accounts for the difference in possessor animacy.

4.3. Inalienable possession as qualia-determined possession

While much of the literature relating to the alienability distinction focuses on the divide between lexically relational and non-relational nouns, some approaches are designed specifically to deal with different possessive relations of the same lexical head noun. In English, it seems quite clear that a noun such as *picture* is not relational in the way that *nose* or *mother* are. It is much more common to use the term *picture* without reference to a possessor than to use the latter two terms, as in *I saw a beautiful picture in the museum, there are some nice pictures in the waiting room*.

But there are phrases such as *John's picture*, which may refer to a picture that shows John (content relation) or a picture he owns (control relation), among other things; and the content relation seems much more inalienable than the control relation. But why? What is the crucial difference between the two? One basic intuition is that the content relation differs from the control relation because it is much more intimately linked to the basic, inherent properties of a picture. Pictures, by definition, have something they depict – even though modern art may of course sometimes stretch this definition to its limits. In this sense, the content of a picture is one of its inherent properties. Having an owner, by contrast, is neither a necessary nor a sufficient property for being a picture.

This intuition has been captured most explicitly and clearly by Jensen and Vikner (2003). They suggest that, when we are dealing with lexically non-relational nouns, what differentiates inalienable from alienable relations in English genitives is that the former are determined by the qualia structure of the head noun, while the latter are either the control relation or more arbitrary relations determined by the context. In other words, we have three ways to derive a possessive relation of a non-relational noun: (1) by qualia structure (2) by the lexical meaning of genitive 's, which is control, and (3) by pragmatic context. Only the first type of relation is inalienable, the other two are alienable.

Qualia roles are thought to be part of the lexical information stored for each lexeme in the framework developed by Pustejovsky (1991) and Pustejovsky (1995), along with information on argument structure, type structure and event structure. The qualia structure encodes world knowledge about the physical properties of an object, its composition, purpose and its creator. For example, the qualia structure of the entry for *novel* should contain the information that it is an artifact and has an author, among other things. Pustejovsky (1991) proposes the following qualia structure for the entry of *novel*.¹¹

¹¹ T is a transition event.

```

novel(*x*)
  Constitutive: narrative(*x*)
  Form: book(*x*), disk(*x*)
  Telic: read (T,y,*x*)
  Agentive: artifact(*x*), write(T,z,*x*)

```

According to [Jensen and Vikner \(2003\)](#) we should expect that an inalienable possessor of *novel* as in *(the) children's novel* may refer either to the authors or to the intended readers of the novel.

Does the same approach work for Daakaka? For some of the data, it seems to offer an attractive account. Certainly, internal organs such as *bosi* 'bone' are part of a body and this part-whole relation could be part of their lexical qualia structure. If we look at some of the other transitivized nouns with human possessors in the corpus, we find more confirmation that this approach may be optimal:

- (36) a. syetantan=ane nye
grave=TRANS 1S
'my grave' (sto09:010)
- b. ur=ane vyanten
louse=TRANS person
'human louse' (exp08:110)

Accommodating a corpse is certainly one of the inherent telic properties of a grave; having a host is an essential property of a parasite such as a louse and might perhaps be seen as its purpose. We may expect to find these roles in the qualia structure of the corresponding nouns.

However, not all transitivized structures appear to conform to this pattern. Abstract possessors in particular typically have quite arbitrary and vague relations to their possessed nouns, despite the fact that they are always introduced by transitivization, the structure associated with inalienable possession. Consider the following examples:

- (37) a. vis=ane tes
bow=TRANS sea
'harpoon' (lit. 'bow of the sea') (exp07:295)
- b. mees=ane vilye yen too
food=TRANS place in garden
'food from the field, crops' (exp19:026)
- c. mees=ane padó=an
food=TRANS fish=NOM
'food for fishing' (rep03:014)

In these cases, it is not even clear exactly how we should label the relation between the head noun and the possessor. In (37-a), the possessor describes the operating area of the weapon; in (37-b), the possessor refers to the place of origin of the food; in (37-c), the possessor denotes the activity during which the food is meant to be eaten. Surely *activity during which it is to be eaten* is not a qualia role of the lexical entry for *food*? A lexical entry for *mees* 'food' that would provide qualia roles to the possessors in (37-b) and (37-c) would have to look something like this:

```

mees (*x*) 'food'
  :
  Telic: eat (T,y,*x*, e), where e is the event during which x is
  meant to be eaten;
  Agentive: ..., harvest(T,y,*x*, l), where l is the location at
  which the harvesting event takes place;

```

Extra arguments such as *e* and *l* above are not part of the original qualia proposal. Unless we assume a wildly more complex theory of qualia roles than envisioned by [Jensen and Vikner \(2003\)](#), we can safely assume that the relations expressed in (37) are not determined by qualia.

So the qualia approach is not compatible with the strong animacy hypothesis. Can we save it by abandoning the strong hypothesis and content ourselves with the weak animacy hypothesis? This would mean that the qualia approach only has

to work for human possessors. Even then, however, we run into difficulties. In particular, the producer relation that is also the focus of the paper by Jensen and Vikner (2003) appears to contradict the predictions made by the qualia approach. According to Jensen and Vikner (2003), the producer role is included in the qualia structure of nouns denoting artifacts. For example, the qualia structure for *car* should include the agentive category of a manufacturer.

If inalienable relations are relations determined by qualia structure and if transitivized nouns are the Daakaka way of expressing inalienable relations, then we should expect that the producer relation is expressed by a transitivized noun. But this is not the case. Human possessors of artifacts are generally introduced by linker genitives, independent of whether they own the artifact or created it:

- (38) atuwo s-e Baeluk
basket CL3-LINK Baeluk
'Baeluk's basket' (a basket made by Baeluk; a basket owned by Baeluk)

Moreover, the producer interpretation of such phrases is quite prominent, which corresponds to the fact that many objects of everyday life are still produced by hand on Ambrym, including houses, furniture and containers.

4.4. Temporal relativity

The second approach I will review is the one by von Prince (2012). The suggestion here is that alienable relations are more specific than inalienable relations: while inalienable relations are purely determined by context, alienable relations are specified to be at least potentially temporary. They are defined as relations between two individuals and a period of time.

Inalienable relations do not include a temporal argument and are therefore interpreted as permanent. This approach thus acknowledges the widespread intuition that inalienable possession is a permanent kind of relation. And it does a good job for most of the data, not only for the quite obvious internal-body-part cases, but also for more abstract notions.

However, there are transitivized noun phrases that do not obviously express a permanent relation to their possessor argument. Consider the following examples:

- (39) a. atuwo=ne raes swa
basket=TRANS raes one
'a bag of rice'
b. theme=ane webung en=te
theme=TRANS day DET=MED
'the theme of this day' (rep16:007)

In (39-a), the head noun serves as a unit of measurement for its possessor. But arguably the same bag could be used to measure out something else, for example sweet potatoes, sugar or flour. The possessor can change while the denotation of the possessed noun remains constant. Contrast this with a phrase like *my father*, with a kinship interpretation: the denotation of the word *father* cannot remain constant when the possessor changes. *My father* cannot refer to the same person as *your father*, unless you and I are siblings.

Example (39-b) comes from a text about Women's Day in Vanuatu. The theme of this day was about health and well-being. The same issues could also have served as the theme of a different event instead, for example for Children's Day. They could cease to be associated with the Women's day without really changing their content. If we take this as evidence that transitivized noun phrases do not necessarily express a permanent relation, we have to concede that the temporal-relativity approach is not compatible with our strong animacy hypothesis.¹²

Can we still save it by going with the weak animacy hypothesis though? That is to say, do all linker genitives express relations that may be subject to change over time? While this appears to be the case for the vast majority of linker genitives, there are in fact counterexamples. As with the account by Jensen and Vikner (2003), the decisive piece of evidence comes from the producer relation.¹³

¹² This argument rests on the following assumption: if the relation between possessor and possessed is permanent, this means that a change of the possessor necessarily implies a change in the denotation of the possessed. This certainly captures a basic intuition about kinship and body-part terms, but theoretically, it is also possible to conceptualize the permanence of a relation differently. For example, in the abstract, the relation between a bag and a certain quantity of rice can be thought to be permanent, even if the same concrete bag is used to measure something else.

¹³ I thank Neil Myler for alerting me to this.

As described in the previous section, producers of artifacts are introduced by linker genitives, not as arguments of transitivized nouns – see Example (38). But the relation between an artifact and its producer is completely permanent. Even if you give away the basket that you made, or, for that matter, the article that you wrote, you are still its creator. You cannot change the producer of an artifact after the fact. An additional potential problem discussed by von Prince (2012) comes from intransitive kinship nouns. As we saw in Section 3.3, possessors of intransitive kinship terms such as *naana* ‘mother’ are always introduced by linker genitives, the structure associated with alienable possession. But the relations expressed by those phrases are not subject to change over time, but permanent kinship relations. They do not discernibly differ from their inflected counterparts in terms of the relations they expressed. Von Prince argued that this observation does still not falsify her account because the definition of the linker did not exclude the possibility that the duration of a relation would be permanent. It only predicted that this would be the exception, rather than the rule.

4.5. Control

We have seen that two plausible candidate theories fail to account for our observations. One other plausible approach to the problem is that alienable relations are control relations – inalienable relations would simply be all non-control relations. Not only has control often been named as one of the basic meanings of alienable possession (see discussion below), it would also be highly compatible with our strong animacy hypothesis: only highly animate, agentive referents can have control over an object. More generally speaking, no transitivized structure appears to express a control relation. We do not run into problems with examples such as (37) and (39) because they involve inanimate possessors. And the examples that we get with human possessors are also clearly non-control relations – consider for example the relation between a corpse and her grave, or the relation between a human host and his parasites (compare examples in (36-b)). Among the nouns that occur in transitivized phrases with human possessors in the corpus, the only lexeme that may in fact look like a candidate for a control relation is *emyarmyar* ‘token of so.’s memory’ in the following phrase:

- (40) e-myar~myar=ane nye
 INS-REDUP~look=TRANS 1S
 ‘a token of my memory’ (sto17:037)

When I give you a ring to remember me by, do I not have some control over that ring, at least while I give it to you? The context in which this phrase was used, however, is a story where a dying woman promises her husband that a plant will grow on the earth under which she will be buried. The expression *emyarmyar* refers to this plant – so at least in this context, we are again not dealing with a control relation.¹⁴ We also do not run into any trouble with the problematic producer cases. When you produce an artifact, you most certainly have control over it. Conversely, if we learn that someone controls an artifact, we may infer that she may have gained that control by producing the artifact. So the producer interpretation of corresponding noun phrases would involve a pragmatic inference rather than a semantic specification. One problem for the control-based account, however, are the intransitive kinship terms that already proved to trouble von Prince (2012). Intransitive kinship terms such as *naana* ‘mother’ cannot be transitivized; they can occur in linker genitives and the relation they then express is definitely not a control relation, but a regular kinship relation. So in order to comply with the control approach, we would need to assume that the linker morpheme has a split definition, depending on the semantic type of its arguments. If its possessum argument is a two-place predicate, the linker morpheme would then not change or modify the relation expressed by this predicate. If it is a one-place predicate, the linker morpheme would express a control relation. Apart from that, however, the control approach appears to be compatible with all the data we have at hand. Given that intransitive kinship terms probably pose more or less of a problem to most possible solutions to our puzzle, that would be a pretty good record. So my suggestion for the meaning of the two structures under discussion is that linker genitives establish a control relation between two individuals. Transitivizations establish a relation between two entities that is mainly to be determined by context. The paradigmatic contrast to linker genitives induces the implicature that this relation is not control.

The argument that, in Daakaka, alienability means in fact control, provides a new perspective on the alienability distinction cross-linguistically. While traditionally, the discourse on alienable and inalienable possession has concentrated on lexically encoded differences, a focus on productively applied processes would allow us to abstract

¹⁴ The assumption here is that the woman cannot make the tree grow, but is reporting a vision of what will happen in the future without her explicit intervention. As one reviewer pointed out, it is possible that, instead, she has the ability to transform herself into the plant after her death, in which case her relation to the plant could be interpreted as a control relation. I do at this point not have access to enough evidence to settle this question. For the time being, it shall suffice to say that all the evidence I have is compatible with the generalization that transitivized structures express non-control relations.

from the idiosyncrasies of lexicalized information and look for a systematic semantic basis of the distinction: in those languages that also mark this distinction unambiguously and productively, can it also be traced back to control or are different categories more relevant?

The answer to this question presupposes a far more rigorous definition of control than I can qualify in this context. For the purposes of this paper, I have worked with some basic intuitions about what control entails: most importantly, a possessor who has control over her possession should be able to manipulate it and to abandon it or transfer ownership. But it is not clear whether this particular type of control is a primitive notion that we may expect to find universally. An initial appreciation of the literature suggests that this is not the case. As Heine (1997:3) writes:

‘Control is said to involve the ability of the possessor to manipulate the possessee; the question is whether manipulation includes the possibility of discontinuing ownership or not. The phrase *my head* implies control in the former but not in the latter sense: I can manipulate my head in various ways but I cannot normally terminate ownership of it. Accordingly, while some authors argue that body-part possession does not involve control (Chappell and McGregor, 1996b), others say it does (cf. Lynch, 1973:6; Brugman, 1988:229)’

A notion of control that implies the ability to manipulate a possession, but not to transfer ownership, is also invoked by Ameka (1996) to explain why Ewe body-part expressions pattern with alienable rather than inalienable possession. Yet another notion of control is said to determine the choice between two possessive structures in Hawaiian. The following brief description is based on Lichtenberk (1983) and Wilson (1980). Like many other Polynesian languages, Hawaiian has two relational possessive classifiers, one *O classifier* and one *A classifier*, named for the vowels that represent them. The *A classifier* signals that the possessor controls his possession, while the *O classifier* signals a non-control relation:

- (41) a. k-o-na ki'i
 ART-CLASS-his picture
 ‘his picture (he is depicted in it)’
 b. k-ā-na ki'i
 ART-CLASS-his picture
 ‘his picture (he painted it)’ (Lichtenberk, 1983:163; CLASS=CL)

However, it appears that the notion of control that determines the choice between the two classifiers crucially depends on whether the relation between possessor and possessed is initiated by the possessor. Thus, in the following two examples, the *O classifier* is used to refer to the relation between the chief and his subjects: the chief may have control over his subjects in Hawaiian culture, but he cannot initiate this relation and his role as chief. By contrast, the *A classifier* is used in the context of someone’s descendants. The possessor may not be able to control his offspring, especially after his death, but he is the one who has initiated the relation by bringing them into the world:

- (42) a. nā kānaka o ke ali'i
 ART people CLASS ART chief
 ‘the people of the chief’
 b. nā mamo a ka mea make
 ART descendant CLASS ART thing dead
 ‘the descendants of the deceased’

Apparently, the same factor determines the choice of the *O classifier* in the case of body-part expressions such as (43): a possessor may have control over her hands in the sense that she can move and manipulate them, but she does not initiate her relation to them:

- (43) k-o-na lima
 ART-CLASS-his hand
 ‘his hand’

So control is said to determine the choice between possessive structures both in Ewe and Hawaiian. In Ewe, however, a possessor has control over her body-parts but not over her relatives; while in Hawaiian, possessors do not control their body-parts, but do control their descendants. This means that even if we focus on productive differentiation between alienable and inalienable structures, and even if these differences can always be defined in terms of control, we may still not be able to predict how a language classifies specific relations without a thorough understanding of the cultural background.

Before we conclude this section, let us briefly come back to one consideration that came up at the end of Section 3.3. I have argued that the alienability distinction is at least in part independent from the distinction between lexically relational and non-relational nouns because not all expressions of inalienable possession involve relational nouns. The remaining question is whether the reverse is also true. That is, do we find relational nouns that express alienable rather than inalienable relations?

As likely test cases, I suggested the terms *suku*- ‘possessions of’ and *mily*- ‘position of’. According to the approach by Jensen and Vikner (2003), they would express inalienable possession, since the relation they express is lexically determined: they are lexically transitive nouns, so their lexical entries should contain explicit information about the relation between possessor and possessed. According to Jensen and Vikner (2003), lexically encoded possessive relations always are inalienable.

According to the temporal-relativity view, they would denote alienable relations, because their possessors could change over time: I can give my possessions away to someone else, and the position I hold within a social structure, for example, could be passed on to others.

Now, under the control-based approach, whether they denote alienable or inalienable relations depends on their exact lexical definitions. In contrast to Jensen and Vikner (2003), the alienability distinction is here independent from whether a possessive relation is lexically specified or productively derived. If their lexical entries establish a relation of control, then they qualify as alienable concepts; if the relation they express is somewhat different or more specific, they fall under the category of inalienable relations.

5. Summary

The rich possessive system of Daakaka helps us to differentiate between different hypotheses about the alienability distinction. We have seen conclusive evidence that lexical relationality is not the same thing as inalienability. And I have shown that the best account of the Daakaka possessive system entails that non-relational nouns can be transitivized to express inalienable relations. Among several plausible hypotheses about how to derive the productive differentiation between alienable and inalienable relations, the most successful one equates alienability with control. While this is primarily a language-specific finding, it is possible that in other languages too, a productively derived alienability distinction is based on the notion of control. However, a preliminary appreciation of the literature suggests that the notion of control itself is not an invariable linguistic primitive but subject to considerable variation cross-linguistically.

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