Classifying Nouns vs. Classifying Relations: A case study from Ambrym

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1. INTRODUCTION

The subject languages of this talk are three closely related vernaculars of North and West Ambrym, which go by the names Daa kaka, Dal kalaen and North Ambrym (from here on DA, DL and NA). The languages are spoken in the western and northern part of the volcanic island of Ambrym in the Melanesian country Vanuatu, by between one and three thousand speakers each. All the data come from the authors' own fieldwork from 2009 through 2011. As in most other Oceanic languages, there is a number of classifying morphemes which combine with possessive articles, as shown in the following example from DA:

(1)	(a)	m- an	em	(b)	s-an	gyes-an
		DRINK.CLF-3S.POSS	house		${\tt GEN.CLF-3s.poss}$	work-NM
		`his/ her house' ³			`her/ his work'	

However, contrary to a well established generalization about Oceanic languages (cf. Lichtenberk, 1983, 1985; Palmer and Brown, 2007), we will show that in the languages under consideration, the choice of the classifier does not depend on the nature of the particular relation between possessor and possessed, but rather on a combination of lexical and semantic features of the possessed noun itself. Nouns from all noun classes can enter into possessive constructions with possessive articles or linker morphemes. These articles combine with one of several possessive classifiers as shown in example (1) above.⁴

As shown in table 1, each classifier can be assigned a label based on the most prominent semantic domain it is associated with. Note however that these labels are purely mnenonic. In the following sections, we will discuss the principles that determine the choice of a classifier in detail.

³ Abbrevations used in glosses: drink.clf - drink classifier, food.clf - food classifier, gen.clf - general classifier, 3s - third person singular, 1s - first person singular, poss - possessive, nm - Nominalizer

⁴ There are three noun classes in each language – inflected, transitive/ linked and intransitive/ unlinked. Contrary to a widespread assumption, we consider the system of direct possession with inflected and transitive nouns to be independent from the association between a noun an a possessive classifier, because it is possible for a noun to be simultaneously have a direct and an indirect possessor, but not two indirect possessors.

	Liquids	Food	Baskets	Fire	General	
North Ambrym	ma-	<i>a</i> -	to- bo-		mwena-	
Dal kalaen	ma-	<i>a</i> -	ato-	abyo-	<i>S</i> -	
Daa kaka	<i>m</i> -	Ø-	S-			

Table1The classifier systems of the dierent languages

2. NOMINAL VS. RELATIONAL CLASSIFICATION

The grammatical function of possessive classifiers in Oceanic languages has been a major issue of dispute throughout the last few decades. In early descriptive accounts of Oceanic languages, the classifiers have often been cited as indicators of a noun class or gender system. We will refer to this view as the **lexicon-based** account of possessive classification: The choice of classifier depends entirely on the lexically specified possessive class of a noun.

This view was overturned during the seventies and eighties of the last century (Lynch, 1973; Pawley, 1973; Lichtenberk, 1983, 1985): The new take on Oceanic possessive classifiers was that they do not signal agreement with lexical or semantic properties of the possessed noun itself, but rather express the specific relation between the possessed noun and the possessor in a given situation. For example, when talking about someone's fish, the choice of classifier will rely on whether the possessor keeps it as a pet or intends to eat it in languages like Ulithian (Lichtenberk, 1983: 159).

This strategy of classification will be referred to as **relation-based** approach.In contrast to previous discussions of Oceanic classifier systems, we contend that there is a third logical option to how the choice of a possessive classifier is determined, in addition to a relation-based strategy and a lexicon-based strategy: Even if a noun is not lexically associated with aparticular classifier, the speaker can still classify the noun, based on its semantic and formal properties, instead of classifying its relation to the possessor.

We will argue that, in the languages under consideration, two basic mechanisms determine the choice of a classifier: On the one hand, a noun's possessive class is lexically determined for part of the vocabulary. On the other hand, some nouns might not have a fixed lexical entry specifying their possessive class. When faced with the task to find a suitable classifier for these nouns, speakers will look for semantic and formal similarities between the noun at hand and other nouns, for which there is a lexically determined classifier, in order to assign it to a possessive class. We will refer to this strategy as (productive) **nominal classification** as opposed to lexicon-based and relation-based classification.

This approach has fundamental consequences for the theoretical status of a phenomenon which Lichtenberk (2009a) calls **fluidity**: If a noun can occur with

more than one possessive classifier, there is said to be fluidity.

Contra Lichtenberk, we do not take fluiditiy as unanimous evidence for relation- based classification. Instead, we suggest that fluidity may also exist for the following reasons: 1) Certain nouns have either generally low frequency or only rarely occur in possessive constructions; for these nouns, a lexical feature specifying their possessive class might not be readily available to speakers. 2) The specialized fire and basket classifiers of DL and NA are relatively infrequent and not equally available to all speakers; speakers with low or no access to them have to assign corresponding items to one of the remaining three categories. 3) Some speakers can be persuaded to consider possible worlds in which they would reassign certain nouns based on semantic criteria.

In all cases, we are dealing with a classification of nouns rather than relations between possessor and possessed, that is, with a nominal classification strategy instead of a relation-based one.

We will discuss our evidence for all the aspects of this scenario in the following sections.

3. LEXICAL CLASSIFICATION

3.1. Absence of standart cases of fluidity

This section is meant to establish that fluidity is generally very low in the languages at hand. We are going to pick out two domains which have featured prominently in the discussion and show that in North and West Ambrym, they are not very fluid at all. These two domains are animals and plant parts on the one hand and cases described as **passive possession** (Lynch, 2001) on the other hand.

In many Oceanic languages, a noun referring to an animal or plant can be used with dierent possessive classifiers depending on the actual relation between possessor and possessed expressed in a particular situation.

The same is not the case for DL, DA and NA. Generally speaking, nouns referring to edible plants and all animals are always used with the food classifier, entirely independent of whether or not the owner actually intends to eat them, sell them, or grow them. This principle is illustrated by the two examples from DA below:

- (2) (a) **s-/* **m-/* Ø -*ok* kuli GEN.CLF-/ DRINK.CLF-/ FOOD.CLF-1S.POSS dog `my dog'
 - (b) **s-/* **m-/* Ø -*ok* mago GEN.CLF-/ DRINK.CLF-/ FOOD.CLF-1S.POSS mango `my mango'

A particularly popular example is the coconut, which, depending on its growth stage, can be drunk or eaten or be used as raw material for many purposes. In the languages under consideration, however, each growth stage of the coconut is referred to by a dierent lexeme and the choice of classifier is firmly determined by this term, rather than the intended use by the possessor. For example, the NA term vyoo 'green coconut' occurs exclusively with the drinkable classifier, even though a vyoo also contains sweet meat which is eaten. When talking about eating this meat, people will refer to the meat directly using the phrase kili vyoo 'meat of the green coconut' – which then is associated with the edible classifier. The situation is similar for the NA term ol goro 'dry coconut' which is used mainly for grating to make coconut milk from, but also contains drinkable juice. It can not be used with the drinkable classifier.

The very fact that all animals – including spiders and poisonous fish – as well as, for many speakers, all trees are associated with the edible classifier should make reconsider: While the label 'edible' centers on an object's potential relation to a possessor, a label like 'animal' or 'tree' classifier implies that the broader semantics of a noun are the basis of classification. We will stick with the original labels but ask the reader to keep in mind their theoretical bias.

A second phenomenon which has been discussed in some detail goes by the label of passive possession: In some Oceanic languages, the choice of classifier can clarify whether the possessor of a nominalized noun phrase refers to the agent or the patient of the action (Pawley and Sayaba, 1990; Lynch, 2001).

A similar contrast can be found in some languages with songs and stories, depending on whether the possessor is the subject or the teller/ singer, and with weapons, depending on whether the possessor is the one who uses them or the one against who they are used (Lynch, 2001: cf).

However, none of these eects can be found in the languages under consideration. All these cases can occur with only one classifier.

Concluding this section, we have shown that fluidity does not exist in some of the areas where you would expect it most, based on the data from other Oceanic languages. We suggest that this finding supports a lexicon-based analysis, it is in part compatible with an nominal classification analysis, and it shows that relationbased strategies of possessive classification do at least not play a major role in the languages under consideration.

3.2. Semantic exceptionality in nouns without fluidity

In this section, we will present some facts which we take as conclusive evidence for the claim that possessive classification in the languages under consideration is in part lexicon-based: Certain nouns do not fit in semantically with the majority of nouns for which the same possessive classifier is used.

One such example is the word for 'year', DA dom, DL rem and NA rrem, which is associated with the food classifier in all three languages – the example in (3) is from DA:

(3) \mathscr{D} -ok dom mw-i twenty FOOD.CLF-1S.POSS year REAL-COP twenty 'I am twenty years old'

The apparent reason for this is that these words are derived from, and still homophonous with the word for 'yam' in each language.

In this case, it is very clear that the choice of the classifier does not rely on either the semantics of the possessed noun 'yam', nor on its relation to the possessor.

Another piece of evidence comes from a number of kinship terms which are used with the food classifier in NA and DL. They include DL taata 'father', tuutu 'mother-in-law', and ina 'father's sister'. They do not include terms like metolo 'father-in-law' and búlbúlan 'brother', which are associated with the general classifier instead.⁵ In Daa kaka, by contrast, all kinship terms are generally associated with the general classifier. As far as we can tell, there is no semantic generalization which would convincingly account for this state of aairs and we conclude that the choice of classifiers is lexically conditioned in these cases.

Moreover, they also happen to directly contradict an expectation expressed by Lichtenberk (2009a: 282) about relation-based classification: 'Thus it is unlikely that the noun for "father" would occur in the PM [possessed] position in the food or drink possessive construction'.

There are several more minor inconsistencies: While there might well be semantic reasons for the association of the noun tan 'ground' with the food classifier, it is not clear why the same association is not possible for the noun for 'garden/ field' (DA too, DL tel, NA lonorr). To give a final example, the term from DA *m-an sisis* (DRINK.CLF-3s.POSS teat) 'his/ her nipples' can be used both to refer to the motherly breast that the infant possessor is going to drink from as well as for example a man's body parts – which should exclude a relation-based analysis; it also shows that the possessive classification is independent from the referent's potential as a source for a beverage. So again, the possessive classification does not appear to rely on semantic properties of either the possessed noun or its relation to the possessor, but on a lexical specification.

⁵ The translations for the kinship terms given here do cruel injustice to the complex kinship terminology of Ambrym languages. Each term in fact refers to far more than one type of relation. For example tuutu also refers to grandparents, grandchildren, a woman's daughter in law and others.

		1	2	3	4	5	6	7	8	9	10
we	'water'	D	D	D	D	D	D	D	D	D	D
tee	'sea, seawater'	D	D	D	E/G	D	D	D	D	D	D
00	'rain'	G	G	D	G	Х	D	X/D	G	Х	G
molrre	'dew'	G	D	D	G	Х	G	Х	Х	Х	G
li byang	'banyan tree'	Е	G	Е	G	Е	G	G	Х	Х	D
yem	'firewood'	F	F	D	F	F	F	F	F	F	F
bulu fyang	'ashes'	D	F	D	G	G	D	D	F	F	G
akin	'digging stick'	Е	G	Е	G	Е	Е	Е	Е	G	D
akemkem	'spoon'	G	G	Е	G	Е	G	G	Е	Е	G

Table 2Examples of elicited judgements on classifiers from NA. E: food; G: general;
D: liquids; F: fire; B: baskets; X: not possessable.

4. PRODUCTIVE CLASSIFICATION

4.1 In low-frequency items

In this section, we will review one of the experiments conducted by Franjieh on NA, which shows that there individual speakers can dier in their associations between nouns and classifiers. Some examples of the results are given in table 2. The question is whether this variation is the result of relation-based classification or of nominal classification. We are going to argue that the better explanation for these cases is that classification is based on the properties of the nouns rather than on their relation to the possessor.

In the experiment, ten participants were asked to classify 133 nouns, without context. While some nouns were classified identically by all speakers, some other nouns were assigned to a wide variety of classes.

The results indicate that there is a correlation between the degree fluidity of a given noun and the frequency with which it is possessed; this supports our hypothesis that fluidity can be caused by the fact that speakers do not have lexical information about a noun's possessive class: If they have never heard anyone use it with a possessor, they will have to assign it to a class on an ad hoc basis.

Furthermore, the types of possessors chosen also allow us to draw conclusions about the strategies involved. In our view, the data are much better compatible with the view that the process is based on classification of nouns rather than classification of relations.

The first four lines of table 2 compare four terms referring to fluids: (fresh) water, seawater, rain and dew. A combined count of corpus occurences of these four items across the three languages gives the following results: 'dew' does not

occur at all in our corpora; 'rain' occurs sixteen times, none of those in possessive constructions; there are 191 instances of the word for sea or seawater, one of which is possessed; and the term for water occurs 131 times, where six instances are possessed.

The contrasts in frequency between 'water' and 'sea' on the one hand and 'rain' and 'dew' on the other hand correlate with variability in classifier assignments, as can be seen in table 2. Certainly, frequency is not the only factor at play here. It is however striking that there is little to no variation for the terms for water and seawater, even though they can be used for a variety of dierent purposes.

This suggests that for 'water' and 'sea', speakers did not contemplate the dierent possible relations between possessor and possessed, nor did they reflect much about the properties of the nouns – they simply used the canonical, lexicalized classifier instead. By contrast, the classification of rain and dew appears to have required a certain amount of premeditation. To get a better impression of what strategies these premeditations might involve, let's have a look at some of the other low frequency items in the table.

There is an interesting contrast between *yem* 'firewood' and *bulu fyang* 'ashes': They both can be associated with the specialized fire classifier *bo*, but while this association is almost exclusive with *yem*, there is far greater variation with *bulu fyang*; again, frequency probably plays a role, but here we want to focus on the fact that the predominant classifier for *bulu fyang* is the drinkable one. We see two possible explanations for this: One has to do with the fact that the 'drinkable' classifier is also used for houses and associated items. As such, the fact that every kitchen hut is equipped with a fireplace – where ashes gather – might provide a conceptual link here.

The other scenario has to do with the lexical properties of the term itself: The phrase *bulu fyang* is homophonous with a phrase which translates as 'hole of fire', with the transitive noun *bulu* being the head of a complex noun phrase; and holes or cavities are regularly associated with the 'drinkable' classifier. At the same time, the meaning of *bulu* 'hole' does not seem to make any semantic contribution to the term *bulu fyang*, which is used in expressions such as 'put the ashes down here'. This would mean that, in choosing a classifier, people do not only look at the semantics of a word, but also to formally similar nouns. In either case, it certainly does not look like they are thinking about the actual relation a possessor might have to the ashes though.

Similar arguments can be made for the other cases in the table, and indeed the other items tested in the experiment. Summarizing this section, we have argued that low frequency items are more likely to be fluid than high-frequency items, which we take to indicate that high-frequency items are classified without concern for situational specifics. For low frequency items, the data suggest that they are classified on the basis of the noun's lexical properties, rather than its potential use for a possessor.

4.2. Reclassification

Finally, we want to consider the results of two other experiment conducted by Franjieh. So far six participants were shown videos depicting people drinking raw

eggs and eating paper, nails and lightbulbs.

For the videos that involved eating unconventional items the corresponding nouns were overwhelmingly generally classified, except for one participant who said that nil 'nail' was edible. The drinking of raw eggs gave similar results, eggs always occur with the edible classifier even when occurring with a verb of drinking, again with one exception in which a speaker did use the drinkable classifier.

We will discuss these two exceptions in the context of the final experiment where a list of questions in Bislama (the lingua franca) that expressed different contexts for the speaker to translate; seven participants took part in this experiment.

One scenario involved the fruit of the banyan tree, which is considered inedible. Franjieh proposed a context where a person likes to eat the fruit of the banyan tree; some people chose the 'edible' classifier – but these speakers associate plant parts in general with the edible classifier, independent of the context.

Some speakers however classified it as general; when Franjieh asked if the edible classifier could also be used, one speaker said that he would only accept that if everyone ate it.

These statements shed an interesting light on the strategies they use to choose a classifier. First of all, we can see here that for some speakers, the edible classifier comprises all fruit, while for others it is only associated with edible fruit – this can also be seen in table 2 with the example of the banyan tree.

This indicates that infrequently possessed nouns are classified on the basis of their semantic properties, and different speakers might come up with different generalizations about the semantic boundaries of each possessive class.

Secondly, the statement by one speaker that the choice of the edible classifier for the fruit of the banyan tree would require that everyone ate it shows quite clearly that the choice of classifier is not based on a particular situation; instead, choosing the edible classifier would, for this speaker, require a reclassification of the noun itself as referring to an edible fruit. Again, these observations are also supported more broadly by the experiment and by anecdotal evidence. They also allow us to accomodate the two exceptions cited above: The two speakers might have had different classifier associations to begin with and they might also have been prompted to reclassify the corresponding nouns based on the contextual stimulus.

5. SUMMARY

In this paper, we have argued that the best way to account for the use of possessive classifiers in NA, DA and DL is to stipulate a combination of lexically determined classification and productive classification of nouns.

We have shown that some nouns are clearly at odds semantically with the classifier that invariably accompanies them. We have taken these cases as evidence that at least for part of nominal vocabulary, the choice of possessive

classifier is lexically determined.

Moreover, we have argued that fluidity is not necessarily evidence for a relation-based analysis: Cases of fluidity are in principle compatible both with the view that speakers choose classifiers based on the relation between possessor and possessed, and with the view that the choice depends on the semantic and formal properties of the possessed noun. In reviewing evidence from experimental and spontaneous language data, we have concluded that the only way to account consistently for all cases was to assume that noun-based classification is responsible for fluidity in classifier use.

By contrast, the only real evidence for a relation-based strategy would be situation-based, spontaneous choices of classifiers independent from the properties of the possessed noun. Since we have not found this kind of evidence, we conclude that relation-based classification does not play a role in North and West Ambrym.

Our findings show that within a large family of languages such as Oceanic, widely accepted theories on the grammatical function of different elements should not be viewed as given, but must be looked at on a language-by-language baseis, with in-depth documentation and experimentation.

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