Case and the Acquisition of the Pronominal Paradigm in Malagasy

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1. Introduction

In this paper we report results of a longitudinal study of the acquisition of pronouns in Malagasy. We discuss issues related to the order of acquisition of different forms and to case morphology and its relation to the grammatical role that pronouns serve in a structure. For this purpose we examine transcripts of three Malagasy-speaking children between the ages of 19 and 32 months.

Malagasy is a Western Malayo-Polynesian language of the Austronesian family, spoken by over 12 million people throughout the island of Madagascar. There is a fair amount of work on Malagasy Morphology, Phonology, and Syntax. However, there has been no published work related to Malagasy First Language Acquisition and in general there is very little work done on the acquisition of Austronesian languages.

Our principle concern in this paper is to provide a careful description of the early development of the Malagasy pronominal paradigm, especially those aspects related to case. Where relevant we also discuss the theoretical implications of our findings. The

paper is organized as follows. In Section 2 we present in detail the pronominal system of Malagasy and we discuss the notion of default case providing examples that show how a particular pronominal type of Malagasy acts as a default case form in specific syntactic environments. In section 3 we discuss the theoretical implications for first language acquisition. In particular we discuss a number of theoretical approaches that have been put forward to explain certain distributional patterns of pronominal forms in child speech: the morphological feature-geometric model (Hanson, 2000; Harley & Ritter, 2002) and approaches related to the underspecification of functional projections of the verbal domain and its relation to the case properties of subject nominals (Schütze and Wexler, 1996; Hoekstra & Hyams, 1998). In section 4 we present our data and discussion. We present details on the subjects and coding method for the data and an overall presentation of pronoun production. In separate subsections we discuss children's use of proper names and proforms to refer to themselves at the early stages, the order of emergence of the first pronouns and mistakes in the use of proper case forms. We show that the morphological feature geometric model seems to make the right predictions. We also show that default pronominal forms appear with truncated verbal forms providing some support to proposals that associate default case overgeneralization to the under-specification of certain functional projections of the verbal domain. Finally in section 5 we present our concluding remarks.

2. The pronominal system of Malagasy

Malagasy has a very impoverished system of inflection in the nominal paradigm. However, the pronominal system of the language exhibits morphological alternations

depending on the grammatical function that pronouns serve. Three major classes of pronouns exist corresponding to external or topic noun phrases 1, internal objects (2.a-2.b), and internal agent phrases (3) or possessors (4) or objects of prepositions (5). These forms are traditionally termed Nominative, Accusative, and Genitive respectively (c.f. Keenan & Polinsky, 1998; Paul, 1996).

1. N-a-hita ny ankizy **izy**[1]
PST-ACT-see DET children 3.NOM
'He/She/They saw the children'

2. a. Nahita **azy** ny ankizy
PST-ACT-see 3.ACC DET children
'The children saw him/her/them'

b. Nanolotra **azy** ny dite ny ramatoa
PST-ACT-offer 3.ACC DET tea DET woman
'The woman offered him/her/them the tea'

3. hita**-ko** ny ankizy
see.PAS.ROOT-1SG.GEN DET children
'The children were seen by me

4. ny sotro **-ko**
DET spoon -1SG.GEN
'my spoon'

5. ami **-ko**
with -1SG.GEN
'with me'

Table 1 illustrates the three types of the Malagasy Pronominal Paradigm:

Table 1: The Malagasy Pronominal Paradigm

1 We will use the following conventions in abbreviating labels in the examples: DET determiner; DEM, demonstrative; 1, 2, 3, person, INCL, 1st person plural inclusive; EXCL, 1st person plural exclusive; SG, singular,; PL, plural; ACT, active voice or agent topic focus; PAS, passive or patient topic focus; ROOT, root verbal forms with no overt voice/tense morphology; NOM, nominative; GEN, genitive or bound pronominal form; ACC, accusative; OBL, oblique/prepositional case; STR, strong pronoun form *izaho* for 1st person singular; PRS, present tense; PST, past tense; FOC, focus particle; TOP, topic particle.

Person	Nominative	Accusative	Genitive
SG.			
1	aho, izaho	ahy	-ko / -o
2	ianao	anao	-nao / -ao
3	izy	azy	-ny / -y
PL.			
1 (incl.)	isika	antsika	-ntsika / -tsika
1 (excl.)	izahay	anay	-nay / -ay
2	ianareo	anareo	-nareo / -areo
3	izy (ireo)	azy (ireo)	-ny / izy ireo

Departing from most of the recent literature on the morphosyntax of Malagasy (Guilfoyle, et al, 1992; Keenan & Polinsky, 1998; Paul, 1996) Pearson (2001) assumes that the Nominative and Genitive pronominals do not encode different cases but are rather different forms of the same subjective case: the *aho*-series is the free form and the *–ko* series the bound form. This approach builds on specific proposals on structurally deficient types of pronouns (c.f. Cardinaletti & Starke, 1999; Zribi-Hertz & Mbolatianavalona, 1999). According to this line of research pronouns are divided into three types, strong, weak, and clitics that exhibit different distributional properties, i.e. appear in different syntactic environments. The basic idea in Cardinaletti & Starke (1999) is that weak pronouns appear in case-licensing environments while strong pronouns appear in environments in which weak pronouns are not allowed, the latter including θ-positions, clefts, left- and right-dislocations, and in isolation (i.e. the sole element in an answer to a *wh*-question). Furthermore, weak pronouns cannot be modified, or co-ordinated. In all the above environments weak pronouns are substituted by their strong counterparts. Cardinaletti & Starke (1999:186), propose that it is the lack of some sort of functional case from the deficient pronouns that forces them to appear only in

environments where structural case can be assigned to them (i.e. the specifier of some Agr projection). An alternative line of research is pursued in Schütze (2001) where the case manifested on strong pronouns is related to 'default' case:

> *"The default case forms of a language are those that are used to spell out nominal expressions (e.g. DPs) that are not associated with any case feature assigned or otherwise determined by syntactic mechanisms."* Schütze (2001: 206)

Since weak pronouns occupy case-related positions and strong pronouns all other non-case-licensing positions, strong pronouns carry default case. The approaches discussed above are in line with cross-linguistic typological tendencies that treat free/strong forms of pronouns as 'unmarked' forms and weak/bound forms as the 'marked' ones. For example, Carstairs-McCarthy (1992:165) observes that *"...no language lacks free forms while some languages may lack bound forms..."* an observation that confirms the free form's status as the default form.

Paul (1996), Zribi-Hertz & Mbolatianavalona (1999), and Pearson (2001) show that the nominative/free forms of Malagasy pronouns substitute for the genitive/bound forms in a number of the environments listed in Cardinaletti & Starke (1999). Third person pronouns are often augmented to encode number distinctions as the form of the 3rd person pronoun is the same for both singular and plural numbers. The pronoun is usually supplemented by the plural demonstrative *ireo*. However, when augmentation of the bound form takes place it is substituted by the free form:

6. a. * hita -ny ireo
see.PAS.ROOT -3.GEN DEM
'Seen by them'

b. hita -n' izy ireo
see.PAS.ROOT -GEN 3 DEM
'Seen by them'

c. Satrok 'izy ireo
hat '3 DEM
'Their hat'

Another type of augmentation is pronoun modification (c.f. Paul, 1996, Pearson, 2001):

7. a. hita -n' izy roa
see.PAS.ROOT -GEN 3 two
'Seen by the two of them'

b. Satrok 'izy mivady
hat '3 spouse
'Their (who are) spouses hat'

Structures like (7.a.-7.b.) are quite productive with family-type verbal elements and numerical expressions (i.e. *mirahalahy* 'be brothers', *roalahy* 'two-male-ones')[2]. In a similar type of structure, there is a possibility to emphasize the ownership that the bound pronominal expresses by adding the free form next to the bound one resulting in a double-pronoun structure[3]:

2 Pronoun augmentation is also possible with 1st and 2nd person pronouns. However in these cases the weak forms are used:

hita -nay mivady
see.PAS.ROOT -1PL.EXCL spouses
'Seen by us (who are) spouses'

3 One consultant (a Merina dialect speaker) consistently rejected all cases of double pronouns. However, these cases are reported in the literature as grammatical (c.f. Paul, 1996:88-89) and so it seems that these rejections are related to speaker/dialectal variation and will be treated as such here.

8. a. trano -nareo ianareo mivady
house -2PL.GEN 2PL.NOM spouse
'your own house as spouses'

b. hita -nay izahay zazalahy
see.PAS.ROOT -1PL.EXCL.GEN 1PL.EXCL.NOM boy
'Seen by us, (who are) boys'

The doubling is obligatory in the first person singular genitive pronouns. In these cases it is the strong form *izaho* that appears:

9. hita -ko izaho zazalahy
see.PAS.ROOT -1SG.GEN 1SG.NOM boy
'Seen by me, a boy'

Finally, free forms also appear in non-case-licensing positions in structures that involve co-ordination (10.c), focalization (11), and topicalization (12):

10. a. hita -ny t -any an -tokotany i Koto
see.PAS.ROOT -3.GEN PST-there OBL -garden DET Koto
'She/He/They saw Koto in the garden'

b. * hita -ny sy ny zaza] t -any an -tokotany i Koto
see.PAS.ROOT 'GEN 3.GEN and DET child PST-there OBL-garden DET Koto
'She/He/They and the child saw Koto in the garden'

c. hitan' [izy sy ny zaza] t -any an -tokotany i Koto
see.PAS.ROOT 'GEN 3.NOM and DET child PST-there OBL-garden DET Koto
'She/He/They and the child saw Koto in the garden'

11. izahay no n-a-nasa ny vilia
1.PL.EXCL.NOM FOC PST-ACT-wash DET dishes
'It was us, who washed the dishes'

12. Izy dia n-a-hita ny alika.
3-NOM TOP PST-ACT.see DET dog
'As for him/her/them, (he/she/they) saw the dog.'

Thus, as expected by the 'default case' approach the free forms of pronouns seem to appear in all cases where the pronoun occupies a non-case-licensing position. Consequently, we can assume that the free forms are the default pronouns in Malagasy, much like the free forms of pronouns in French, or the accusative pronouns in English (c.f. Schütze, 2001). Pearson (2001) uses this fact as an argument that the free forms of pronouns that appear as subjects in active sentences are not in fact in spec-IP. He proposes that agents always appear in bound form except in the cases where this is not allowed. Thus, the position where the external argument appears is not a case-licensing position but a left peripheral position that he assumes to be a Topic projection and in accordance with the discussion above a position where default forms of pronouns appear.

One problem with this analysis that Pearson does not address in his thesis comes from the 1st person singular. The 1st person singular in Malagasy allows for three different non-accusative pronominal forms to surface: *izaho*, *aho*, and the bound form *–ko*. If the external argument is in a position where elements bearing default morphological case appear the form of the pronoun in that position should be the same as the one that appears in all other non-case-licensing positions. This is the case with almost all the pronoun forms. However, the 1st person singular follows a different pattern. In the cases where the 1st singular is the external argument the intermediate form *aho* appears (13). In coordination (14), predication (15), double pronouns (9), focalization (16), and *dia*-topicalization (predicate inversion) (17) on the other hand, we find the strong form *izaho*.

13. n -a -hita ny alika aho
PST-ACT-see DET dog 1SG.NOM
'I saw the dog'

14. hitan' [izaho sy ny zaza] t -any an -tokotany i Koto
see.PAS.ROOT 'GEN 1.SG.STR and DET child PST-there OBL-garden DET Koto
'I and the child saw Koto in the garden'

15. izaho ihany ity
1.SG.STR only this
'It's only me.'

16. izaho no n-a-nasa ny vilia
1.SG.STR FOC PST-ACT-wash DET dishes
'It was me, who washed the dishes'

17. izaho dia n-a-hita ny alika.
1.SG.STR TOP PST-ACT.see DET dog
'As for me, (I) saw the dog.'

Thus the strong form *izaho* seems to be the default form of the 1st person singular in Malagasy, while *aho*, an intermediate, morphologically deficient form (in the sense of Cardinaletti and Starke, 1999), appears only in the external argument position[4]. Further support for this assumption comes from morphology. All forms in the nominative paradigm in Malagasy start with the prefix *i-* which seems to be some sort of definiteness marker in the language (c.f. Pearson, 2001). Thus, *izaho* seems to be closer to the other nominative forms than *aho* is. If this is correct then it is problematic under the view that the case of elements in external argument position is the default case in Malagasy. If this were the case then we would expect *izaho* to appear in these positions. We will not discuss this further but will come back to it when we have presented the acquisition data.

4 The weak form aho appears in another position the so-called bodyguard construction, in which an adjunct is fronted in a cleft-type of structure accompanied by the subject of the clause as in the following example:

i. Omaly aho no n -an -asa ny lovia maloto.
yesterday 1.SG.NOM FOC PST-ACT-wash DET dish dirty
'It was yesterday that I washed the dirty dishes.'

Although *aho* seems to be in a left-peripheral position in this structure, it has been argued (c.f. Paul, 2002) that it is within the predicate complex and not in a focus projection. Since this is a somewhat marked structure we will not pursue the issue further here.

3. Theoretical Implications for First Language (L1) Acquisition

A first issue related to the acquisition of personal pronouns has to do with the expected order of emergence of the different pronoun forms. For example, is there any formal model that would predict exactly which forms of pronouns will emerge first with respect to person, number, and case features? Earlier approaches on the acquisition of personal pronouns implored notions of 'linguistic complexity' in trying to determine the order of emergence. Thus, Deutsch & Pechmann (1978) assume that the correct order is 1st person followed by 2nd, and 3rd persons in singular, followed by the plural forms. Their explanation for this is that there is a 'preference' for the speaker's own position in discourse and that naming a single person requires less complexity than naming any combination of two or more people. They support their assumptions with the results of an experimental study with children acquiring German as their first language. Using a naming task they show that children present greater difficulty in producing the correct forms of pronouns other than 1st and 2nd singular.

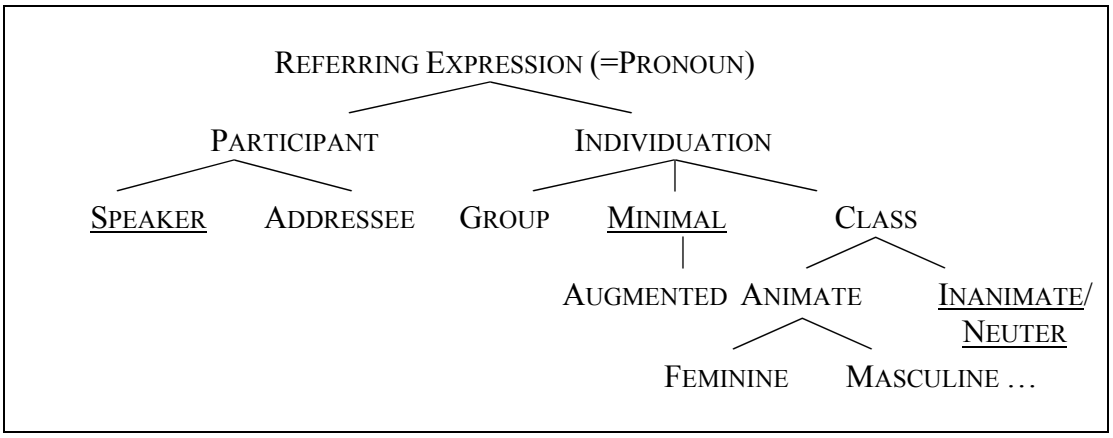
However, a number of subsequent studies show that such assumptions are not corroborated by crosslinguistic data. In fact, it seems that 1st person singular and 3rd person inanimate pronouns compete for the first place of acquired pronouns in different languages. Even in English 1st person (*I*, *my*, *mine*) and 3rd person inanimate (*it*) are usually the first to be used in significant numbers (c.f. Huxley, 1970; Chiat, 1986).

These observations lead to the assumption that there seems to be no formally restricted pattern of emergence of the different personal pronouns and that they can appear in any order in the children's speech. Chiat (1986) admits that:

> *"Given these problems, it is simply not possible to identify with certainty the point at which a particular pronoun is established as a separate, productively used form with a pronominal function. Naturalistic studies do not, then, give rise to a clear-cut order of emergence… This rather undermines explanations of pronoun acquisition in terms of semantic feature complexity, which would predict a systematic order of emergence of subclasses of pronouns."* Chiat, 1986: 343.

Recent work in the typological properties of pronouns cross-linguistically have shown that there seems to be a feature-geometric realization of morphological features. Based on a large amount of crosslinguistic data Harley & Ritter (2002) show that the contrast observed in the different pronominal paradigms in the languages of the world can be captured if we assume a feature-geometry of morphological features, as illustrated below:

Table 2. Morphological Feature Geometry



This feature-geometry functions in the same way as similar formal models that have been proposed in phonological research to capture the relation between different phonetic features that form natural classes. In this geometry, all nominal features are dependent upon a root node which is called REFERRING EXPRESSION. The features are divided into three groups:

- the PARTICIPANT node and its dependents, SPEAKER and ADDRESSEE, represent person, specifically, 1st and 2nd person (3rd person being unmarked),
- the INIVIDUATION node and its dependents, GROUP, MINIMAL, and AUGMENTED, represent number systems, and
- the CLASS node encodes gender and other class information.

As with other feature geometries if one morphological feature is logically implied by another, this relation is captured through dependence. Markedness is encoded via a node-counting metric. The more marked a given feature combination is, the more nodes will be required to represent it. Finally, at each level of the geometry the underlined node is considered the unmarked one. Thus, at the PARTICIPANT level the SPEAKER node is the unmarked or default one while the ADDRESSEE is more marked. This would mean that 1st person, singular number, and inanimate/neuter gender/class are default features, which are unmarked cross-linguistically.

From a First Language Acquisition point of view the feature-geometric model makes certain predictions. In particular, it predicts that default features will be acquired first and (assuming a top-down acquisition path) that mother nodes will be acquired before their

daughters. As the SPEAKER node is the default at the PARTICIPANT node it is expected that the 1st person pronouns will be acquired first. Similarly, with the MINIMAL node being the default at the INDIVIDUATION level singular should also emerge early on. Assuming that the 3rd person pronouns are inherently default (Harley & Ritter, 2002:487) and that Inanimate/Neuter is the default feature in the Class level, it is also expected that 3rd person inanimate pronouns will also emerge very early. Thus, the feature geometry accounts for the fact that 1st person and 3rd person inanimate pronouns appear first in child speech. Furthermore, since ADDRESSEE, GROUP, and CLASS are all equally embedded in the geometry, it is predicted that the rest of the pronominal forms should emerge later and in various relative orders of emergence (Hanson, 2000; Harley & Ritter, 2002).

The model described above makes no predictions with respect to case. Harley & Ritter, (2002) address this only in a hurry pointing out that case is determined by the syntactic context, it is not reflected in verb agreement and it appears outside person and gender morphology, all facts that indicate that case probably belongs to a different natural class from the rest of nominal features. However, specific universal patterns related to the case forms of pronouns have also been reported in the acquisition literature.

Acquisition data from mostly European languages has shown that children tend to use default-case forms of pronouns quite early and in positions in which adults use other forms. For example, children acquiring English as a first language overuse accusative

pronouns even in subject positions of clauses where adults use nominative ones (examples from Radford, 1990:175-176):

18. a. **Me** got bean.
    b. **Me** talk. **Me** look.
    c. **Me** want one. Me do it.

19. a. **Him** gone.
    b. **Him** swimming.
    c. **Him** asleep.

20. a. **Her** do that.
    b. **Her** go back in.
    c. **Her** climbing ladder.

Similarly in French, children acquire first the free forms of pronouns and later the clitic ones (Clarke, 1985:699). In fact children seem to overuse the free forms even in places where adults would use the clitic forms obligatorily, i.e. again as subjects of clausal strings (although French children use non-finite verb forms in these contexts in contrast with the finite forms used by adults, examples from De Cat, 2002):

21. a. **je** vais mettre ça comme Pol. (Adult)
    I will put that like Pol
    'I will put it like Pol.'

    b. **moi** mettre ça comme Pol. (Max, 2;3)
    me put that like Pol
    'I (want to) put it like Pol.'

    c. **moi** vo (Max, 1;11)
    me seen
    'I (have) seen one.

Similar patterns have been found to emerge in other languages as well (see for example Babyonyshev, 1993, for Russian, Schütze, 1995, for German, and others). As is obvious from the English (18-19-20) and French (21) examples, it seems that children tend to use

these default-case elements with non-finite verbs that appear in root clauses, traditionally termed 'root infinitives' (c.f. Rizzi, 1994; Wexler, 1994; Hyams, 1996; Schütze, 1997; Hoekstra and Hyams, 1998, among others). Thus in English the verbal forms that head the clausal structures are either bare forms or participial elements, while in French either infinitival or participial forms appear. Based on this observation Schütze and Wexler (1996), Schütze (1997), and Wexler, Schütze, and Rice (1998) proposed that the non-finite forms of the above examples correspond to syntactic structures that contain a head which is unspecified for agreement features. Whenever this is the case the subject in the specifier of the AGR projection surfaces in the default form.

If the above approaches are on the right track similar patterns are expected to appear in the Malagasy acquisition data. If the nominative/free forms of pronouns are the default forms as we claimed in Section 2 then they are expected to emerge first and definitely before the emergence of the genitive/bound forms. Secondly, if Malagasy children make case mistakes at all, then these mistakes are expected to follow a very restricted direction: free pronouns are predicted to substitute for bound pronouns while the reverse should not be observed. Furthermore, these substitutions should occur predominately in environments that show properties of root infinitives, one such property being the lack of finite morphology.

In the following section we list the results from the investigation of the Malagasy acquisition data and discuss their significance with respect to the predictions that the feature geometry and default case approaches make.

4. The Data

4.1 Subjects and Coding

The subjects of this study are 3 Malagasy-speaking children, Tsiorisoa, Sonnia, and Ninie. The children are from families that speak the Merino dialect spoken in and around the capital city, Antananarivo. Merina is also the basis for the standard written Malagasy and has been the focus of much of the linguistic research on Malagasy. They are from middle class families and some of their parents are affiliated with the university. Table 3 shows the number of files in the data, number of utterances, and children's ages and corresponding MLUs for the first and last file for each child.

Table 3. Age, MLU and number of utterances

TSIORISOA			**SONNIA**			**NINIE**		
Age	***MLU***	***Utter.***	***Age***	***MLU***	***Utter.***	***Age***	***MLU***	***Utter.***
2;0	1.68	24	1;6	2.84	61	1;10	3.09	88
2;1		200	1;7		122	1;11		156
2;2		31	1;8		27	2;0		42
2;3		35	1;9		50	2;1		14
2;4		41	1;10		81	2;3		33
2;5		58	1;11		90	2;4		33
2;7		85	2;0		31	2;5		68
2;8	4.5	38	2;1		29	2;6	4.09	74
			2;2	3.46	107			
Total		**512**			**598**			**508**

The tapes were transcribed by one of the authors, Cecile Manorohanta, a native speaker of Malagasy and were subsequently coded for form and grammatical function of the existing pronominal forms. The results are presented in the following section.

4.2 Results

A count revealed that the children used 257 tokens of different types of pronominal forms. Table 4 presents the forms attested in the child data with number of tokens, and age of first appearance.

Table 4. Pronoun Forms, Number of Tokens and Age of First Appearance[5]

5 Shaded cells with question marks correspond to types that were not attested in the child data.

Person	Case/Form	Pronoun	# of Tokens	First Appearance
Name			57	1;10
1sg	Nom	*aho*	57	1;10
	StrongNom	*izaho*	36	1;8
	Acc	*ahy*	2	2;0
	BoundForm	*-ko*	66	1;8
	Non-Adult	*nena/nana*	31	1;6
2sg	Nom	*ianao*	3	1;11
	Acc	*anao*	1	2;5
	BoundForm	*-nao/-ao*	5	1;11
3sg	Nom	*izy*	19	1;9
	Acc	*azy*	1	2;3
	BoundForm	*-ny*	9	1;11
1pl (in.)	Nom	*isika*	11	1;10
	Acc	*antsika*	0	??
	BoundForm	*-tsika*	1	1;11
1pl (ex.)	Nom	*izahay*	3	2;4
	Acc	*anay*	0	??
	BoundForm	*-nay/-ay*	10	2;5
2pl	Nom	*ianareo*	1	2;6
	Acc	*anareo*	0	??
	BoundForm	*-nareo/-areo*	1	2;7
3pl	Nom	*izy (ireo)*	0	??
	Acc	*azy (ireo)*	0	??
	BoundForm	*-ny/izy(ireo)*	0	??

The table lists 314 items, 57 of which are instances of names that children used instead of 1st person pronouns, in order to refer to themselves in different situations. From the rest of the tokens 31 belong to the non-adult form *nena/nana*, a perform that children use in the early stages to refer to themselves. The rest are forms of the pronominal system that adults use (most of the times appearing phonologically reduced). Before discussing the results in more detail, with respect to the feature geometry and the default case use let us discuss the use of proper names and the perform in some detail.

4.3 Use of Proper Names and *Proforms* in Early Stages

It has been noted in the literature (c.f. Clark, 1985; Chiat, 1986; Radford, 1990; Oshima-Takane, 1996) that children in their very early stages use either proper names or other nominal forms to refer to themselves and/or their mother, instead of 1st and 2nd person pronouns. This pattern carries on into subsequent stages in which the same forms are produced simultaneously with the correct pronominal forms until they disappear. Radford (1990) illustrates this with the following examples from the acquisition of English:

22. a. **Hayley** draw boat. (Hayley 20[6])
    b. **Betham** sit down. (Betham 20)
    c. **Betty** clip hair. *Betty* touch head. (Betty 24)

All the children acquiring Malagasy produced similar forms in their early stages. Sonnia and Ninie first use their names for self-reference at 22 months old while Tsiorisoa uses his at 24 months old. The children use their name in all possible syntactic contexts including possessive structures (23.a-23.b), as subjects of active sentences (24.a-24.b), agentive genitive of passive sentences (25.a-25.b), or objects of prepositions (26):

23. a. a goda **tsoso** ? (Tsiorisoa 29, 123[7])
    where pillow Tsiorisoa
    'Where is Tsiorisoa's pillow'

6 The numbers after the name in parenthesis indicate the child's age in months. The bold-typed nominal in the examples represents the name of the speaker.
7 The first number in the brackets corresponds to the child's age in months and the second to the number of the line from the child's file that the example was taken from.

b. ena n doda vava-**nonia** (Sonnia 23, 119)
wet GEN soda mouth-Sonnia
'Sonnia's mouth (is) wet from the soda.'

24. a. m -i -ants **tsoso** (Tsiorisoa 27, 55)
PRS -ACT-study Tsiorisoa
'Tsiorisoa studies/is studying'

b. esaka tonton **nonia** (Sonnia 22, 114)
speak uncle Sonnia
'Sonnia (wants to) speak to the uncle.'

25. a. tsi me -ny **Tsiosoa** (Tsiorisoa 31, 48)
NEG give-PASS Tsiorisoa
'Not given by Tsiorisoa'

b. kapon 'i **tonia** (Sonnia 26, 40)
beat-PASS GEN'DET Sonnia
'Beaten by Sonnia'

26. Adult: an' iza io?
for who this
'Who is this for?'
Tsior.: an-**Tsorisoa** (Tsiorisoa 32, 10)
for Tsiorisoa

Similarly, children tend to use some other nominal element, a 'proform' to refer to themselves. Clark (1985:699) notes that children acquiring French use *bébé* or their own names for self reference when talking about actions or states. Radford (1990) also presents examples of children's utterances where children use the English word *baby* to refer to themselves either as the subject of an active sentence (27.a-27.b) or as a possessor (27.c):

27. a. **Baby** eat cookies.
b. **Baby** open door.
c. Wiping **baby** chin.

Similarly, in the Malagasy acquisition data, the children use words made up of monosyllabic or disyllabic sequences of nasal consonants followed by /a/ or /e/ (i.e. nena/ *nana/ ne/ na,* and so on). Notice here that the Malagasy word for mother is *neny* (c.f. *nono* 'breast', *minono* 'to suckle (of an infant))[8]. The grammatical function of *nene* in the child language at these stages is predominately of possession (28.a-28.b) but some examples of it functioning as subject (29) or object of an imperative verb (30) do exist:

28. a. bibil **ana** (Sonnia 19, 41)
car my.PROFORM
'My car'

b. Adult: Aiza ny kiraronao? (Tsiorisoa 25, 34)
Where DET shoes-3SG.GEN
'Where are your shoes?'
Tsior: tita -ko **nina**
NEG.see -1SG.GEN mine. PROFORM
'I don't see mine'

29. **na** kaka (*Target: mikaka*) (Sonnia 21, 36)
me. PROFORM kaka
'I want to go potty.'

30. nono **nena** (Sonnia 19, 130)
feed-IMP me-PROFORM
'Feed me'

The use of names and performs at these early stages may be due to the unconventional use of the same elements in adults' child-oriented speech (c.f. Oshima-Takane, 1996), in other words the unconventional use of proper names instead of pronouns may be related

8 These words are combinations of unmarked syllables. In general syllables with no coda are considered unmarked cross-linguistically (Levelt & de Vijver, 2004). Furthermore, nasal-vowel sequences are produced spontaneously by infants, but their meanings are usually due to the associations they evoke in adults c.f. Jacobson, 1960). It is not surprising that the Malagasy children use them in the early stages for self-reference if they get reconfirmation from the adults.

to the input. We will not pursue this issue further here (but see Chiat, 1986; Oshima-Takane, 1996 and references therein for a more detailed discussion).

4.4 First Pronouns and Feature Geometry

As we can see from Table 4, the first pronouns that emerge in the children's speech after the perform are the strong form *izaho* (1;9) and the affixed form *–ko* (1;9) of the 1st person pronoun. In fact, the 1st person dominates the production of pronominals in the children's data. 197 out of the total of 257 produced pronominal forms (77%) refer to 1st person. The next person to emerge is 3rd person (1;10) while 2nd person forms emerge a month later (1;11). In a similar fashion singular forms of pronouns dominate the early stages of pronoun-production by the children (about 89%). Singular 1st person pronominals emerge at 1;9 while 1st person inclusive plural pronouns appear sporadically at 1;10, followed by 2nd person plural at 2;5. The 3rd person with plural interpretation or in its complex, compound form is not attested in the data.

This pattern seems to verify the assumptions in Hanson (2000), Harley & Ritter (2002). As we have seen in section 3 the morphological feature-geometry model predicts that either 1st person or 3rd person inanimate pronouns will be acquired first. This is because 3rd person is unmarked by default (it is not represented in the PARTICIPANT node) and SPEAKER, which corresponds to 1st person, is the unmarked value of the PARTICIPANT node. Furthermore, since MINIMAL is the default value of the INDIVIDUATION node, singular number is predicted to be acquired before plural.

Finally, no predictions are made about the order of appearance of the rest of the singular pronouns (2nd person or 3rd person animate) apart from the fact that they should appear before their plural counterparts. This is also confirmed by the Malagasy acquisition data. The 2nd person singular forms appear at 1;11, while the first 2nd plural form emerges at 2;6. The 3rd singular appears at 1;9 while the 3rd plural as we have already seen does not appear up to 2;8 so it must be acquired later.

The only discrepancy to the feature-geometric model is that it seems that the 3rd person animate pronouns appear simultaneously with the inanimate ones. In fact the first appearance of *izy* with a masculine reference is at 1;9, in Sonnia's data while the first appearance of *izy* with an inanimate reference is one month later, at 1;10 again in Sonnia's speech. Furthermore, this is the only occurrence of an inanimate 3rd person pronoun in the data. All other occurrences refer to [+human] entities.

How can we account for this discrepancy? We think that the pattern observed here is consistent with the typological tendency of languages to use demonstratives for 3rd person reference and in particular for 3rd person inanimate reference. It has been noted in the literature since Forchheimer (1953) that while the majority of languages have distinct 1st & 2nd person pronouns, many of them use demonstratives for 3rd person. This is also true for the Malagasy adult speech. The only time that an inanimate refernt can appear as a 3rd person pronoun is when the latter is preceded by a demonstrative. This is the case that is attested in the child speech:

31. bita beta ilay izy (Sonnia 22, 77)
finish.PAS.ROOT finish.PAS.ROOT DEM 3SG.NOM
'It has been finished'

A type/token frequency test reveals that Tsiorisoa at age 2;1, produces a total of 17 pronominal forms. On the other hand he produces 45 tokens of the distal demonstrative *io* referring to inanimate objects. Since the 3rd person pronoun can refer only to [+Animate] referents it is predicted that it will emerge later than the 1st person singular and the order of its emergence with respect to 2nd is unpredictable. As we have seen this prediction is confirmed for Malagasy.

The morphological feature-geometric model does not make any predictions about the order of emergence of different case forms in the acquisition of pronouns. In the following section we turn to this problem and examine the results obtained from the Malagasy data to check whether they follow the patterns that are observed in the European languages that were discussed in section 3.

4.5 Acquisition of Case

As we have seen, children acquiring a first language seem to make case mistakes at the early stages of acquisition. Furthermore, these mistakes are not random but follow specific patterns. More specifically, children tend to substitute pronouns with structural cases with pronouns that constitute the default members of the pronominal paradigm in the language as far as case is concerned. Default pronouns are the ones that are used in

syntactic positions that are not case-licensing positions (Schütze, 2001). As we have seen in section 2, in Malagasy the so-called nominative pronouns seem to be the default ones as they appear in a number of environments that no structural case is assigned (coordination, modification, topicalization, focalization, and double pronouns). Therefore, it is expected that these pronouns should be treated as default from a language acquisition point of view as well. Since 77% of pronominal forms produced by the children have a 1st person reference we will restrict our discussion here to the distribution of 1st person pronouns with occasional references to other persons when there is enough available data to support the point that is being discussed.

The 1st person singular paradigm has a three-way distinction of pronominal forms (strong-form *izaho*, weak-form *aho* and bound form *–ko*). The forms *izaho* and *aho* are treated in traditional grammars as different realizations of the nominative form. If this were true then both forms should act as default forms in the language. However, as we have seen in section 2, (examples 14-17, repeated here as 32-36) it is the strong form *izaho* that acts as the default form in cases of coordination (32), predication (33), double pronouns (34), focalization (35), *dia*-Topicalization (36), and as a free standing form (37):

32. hitan’ [izaho sy ny zaza] t -any an -tokotany i Koto
see.PAS.ROOT ’GEN 1.SG.STR and DET child PST-there OBL-garden DET Koto
‘I and the child saw Koto in the garden’

33. izaho ihany ity
1.SG.STR only this
‘It’s only me.’

34. hita -ko izaho zazalahy
see.PAS.ROOT -1SG.GEN 1SG.STR boy
'Seen by me, a boy'

35. izaho no n-a-nasa ny vilia
1.SG.STR FOC PST-ACT-wash DET dishes
'It was me, who washed the dishes'

36. izaho dia n-a-hita ny alika.
1.SG.STR TOP PST-ACT.see DET dog
'As for me, (I) saw the dog.'

37. iza no n -a -hita ny boky
who FOC PST-ACT-see DET book
'Who saw the book?'

Izaho
1SG.STR
'Me.'

This pattern, in addition to the results in a number of papers researching case acquisition in European languages, including English (Rispoli 1994), Russian (Babyonyshev, 1993), German (Schütze, 1995), French (De Cat, 2002), Dutch (Powers, 1995), Faroese (Jonas, 2002) and others, make a number of predictions about the acquisition of pronouns in Malagasy:

- Free/nominative forms of pronouns should be acquired before the bound/genitive forms. In particular the strong form *izaho* should be acquired before the weak form *aho* and the bound form *–ko*.
- Child language is expected to have a greater number of *izaho* than *aho* and *–ko* forms in comparison to the language of adults, and in general nominative forms are expected to appear more frequently than genitive forms when compared to adult language.

- If children make mistakes in the production of 1st person singular pronouns, these mistakes should consist of substitutions of the strong form *izaho* in the place of both the weak form *aho* and the genitive form *–ko* and not the other way around.

Let us check the Malagasy acquisition data more carefully to see which, if any, of these predictions are confirmed. With respect to the first point the data seems to confirm the prediction. In almost all cases the free forms emerge earlier in the data than the bound forms especially in the latter's function as Agent arguments in passive constructions. Table 5 presents the order of appearance of the different forms. The emergence of the bound form has been divided into two columns one representing its function as a possessor and the second as the Agent argument is passive constructions:

Table 5: Comparison of Chronological Appearance of Bound versus Free Pronominal Forms

Person	**Free Form**		**Weak Form**		**Bound Form**		
	Form	**Age**	**Form**	**Age**	**Form**	**Posses.**	**Agent**
1SG	izaho	1;8	aho	1;10	-ko	1;8	1;11
2SG	ianao	1;11			-nao	1;11	1;11
3SG	izy	1;9			-ny	1;11	---
1PL (incl.)	isika	1;10			-tsika	1;11	---
1PL (excl.)	izahay	2;4			-nay	2;5	---
2PL	ianareo	2;6			-nareo	2;7	---
3PL	izy (ireo)	---			-ny	---	---

As we can see in the above table in most cases the bound form seems to emerge at least a month after the free form has appeared. This is the case for example for 3rd singular, 1st plural exclusive and inclusive, and 2nd plural. The only apparent exceptions are the 1st

person strong form *izaho* which seems to appear at the same time as the bound form *–ko* (1;8) and the 2nd person *ianao* that appears at the same time as the bound form *–nao*. In the first case the bound form *–ko* emerges at 1;8 as a possessive. Its first appearance as an Agent argument is two months later (1;11) and thus it confirms the prediction at least partially. In the case of the second person the appearance of the bound form as an argument and a possessive is simultaneous (1;11). However the number of tokens of both forms is very small (9 tokens for both types in total) and so it is not clear if this pattern of emergence is representative of the Malagasy children's order of pronominal-form appearance. We will not discuss this issue here but leave it until more data becomes available.

The second prediction is difficult to check. The only numbers related to frequencies of case-marked DPs in Malagasy come from Keenan, 1995; Keenan & Manorohanta, 2004. In these studies a text count based on two newspaper articles and selections from three novels in Malagasy found case distributed as in (38):

38.	Nominative/Free	Accusative	Genitive/Bound
	33.6%	23%	43.4%

Thus in adult language the bound forms appear significantly more frequently than the free forms. A count of the pronominal forms in the child data though shows a different pattern (excluding preforms, indeterminate cases):

39.	Nominative	Accusative	Genitive

130 (57.5%) 4 (1.7%) 92 (40.7%)

Thus, nominative/free forms are significantly more frequent than genitive/bound forms contrary to the adult data. Keenan & Manorohanta (2004) provide a number of further reasons why nominative forms appear more often in child language. The first is that child speech consists mainly of short utterances, most of them headed by intransitive verbs with only one argument realized as the topic argument in the free pronominal form. The second reason is that prepositional elements like *ami(na)* which are quite common in adult speech and which take genitive complements are completely absent from child speech. To these two reasons we add the fact that the bound form *–ko* is substituted by the strong form *izaho* in some cases. It is further substituted by *izaho* or *aho* in three cases when it functions as a possessor[9].

As far as the relative frequencies of *izaho* and *aho* are concerned again the second prediction seems to be confirmed. A word count of text from Malagasy romance novels[10] reveals that in a sample of 23,241 words there are 124 free 1st person singular pronominal forms. (40) illustrates the relative frequencies of *izaho* versus *aho* in both adult and child counts:

		aho		*izaho*	
40.	Adult Count	120	(96.7%)	4	(3.3%)

9 Examples of such substitutions are:

i. tsi omby ilay kilalo na (Tsiorisoa 31, 137)
NEG enough.room DEM shoes 1SG.STR
'My shoes don't fit'

ii. h -i -resaka a soavaly a (Tsiorisoa 31, 223)
FUT -ACT -speak 1SG.NOM horse 1SG.NOM
"I spoke to my horse"

iii. lenan'i pipi za dada
wet.GEN'pipi 1SG.STR Daddy
'Dad was wet by my pipi'

10 The texts used in the count are the same as the ones used in Keenan & Manorohanta (2001).

Child Count	57	(61.3%)	36	(38.7%)

As we can see *izaho* appears a lot more frequently in the child data, an expected distribution if *izaho* is the default form. Unfortunately, in the child-directed speech in the files under investigation, the adult utterances are predominately questions of the *yes/no* and *wh* type and there is very limited use of personal pronouns. There are no instances of *aho* or *izaho* and therefore a comparison between child-directed adult speech and child speech is impossible.

As far as the third prediction is concerned the data again seem to confirm the predicted pattern. Here we restrict our discussion to the 1st person singular as this is the only form that appears in workable numbers in the data. The prediction is that if there are any mistakes that the children make then these mistakes are expected to include substitutions of the bound form *–ko* and the weak form *aho* by the strong form *izaho*. We found a limited number of mistakes in the data. These are illustrated in Table 6:

Table 6: Correct vs. Incorrect Use of 1st SG Pronouns in Child Speech

Function	**Environments**	**Correct**	**Incorrect**
Topic DP (*aho*)	76	55 (72%)	21 (28%)
Predicate-Internal Agent DP (*-ko*)	35	33 (94%)	2 (6%)
Possessor (*-ko*)	33	30 (91%)	3 (9%) (*aho*)

As we can see from the table the children make few mistakes in their production of pronominals. Most of the mistakes are made in their production of the weak form *aho* as the external argument/topic of active structures. As we have seen, these positions

constitute environments in which *aho* obligatorily appears in adult language. Children in fact do use *aho* in these environments in most cases as Table 6 indicates. Some examples of correct use are given in (41):

41. a. tsy m-ei **a**[11] (Ninie 28, 44)
NEG PRS-know 1SG.NOM
'I don't know'

42. b. petsaka eto **aho** (Sonnia 26, 269)
sit here 1SG.NOM
'I (will) sit here.'

However, *izaho* seems to substitute for *aho* in about 28% of these environments. This pattern follows the pattern observed in French (Pierce, 1992; Schütze, 1997; De Cat, 2002) and Hebrew (Berman, 1985). In French, children tend to use free pronouns in non-finite root contexts. In the majority of these cases the free pronoun appears in Spec-AgrSP as we saw in example (21.a-21.b) repeated here as (43.a-43.b):

43. a. je vais mettre ça comme Pol. (Adult)
I will put that like Pol
'I will put it like Pol.'

b. moi mettre ça comme Pol. (Max, 2;3)
me put that like Pol
'I (want to) put it like Pol.'

Similarly in Hebrew, children tend to use the free forms of pronouns in positions where adults use fused forms, e.g. objects of prepositions (data from Berman, 1985:304):

11 The written form of the pronoun aho indicates its pronunciation in careful speech /ahw/. However, in normal speech the adult form appears truncated and so does the form used by the children.

44.	Adult Form	Gloss	Child Form	Gloss
	alav	'on him'	*al hu*	'on he'
	bishvilénu	'for us'	*bishvil anáxnu*	'for we'
	eclam	'near them'	*ecel hem*	'near they'

Similar examples exist in the Malagasy acquisition data:

45. a. vono –ina -n 'Omar **aho** (Adult Form)
beat -PAS -GEN Omar 1SG.NOM
'I was beaten by Omar[12],'

b. volo n 'Omar **da**[13] (Sonnia 26, 38)
beat GEN Omar 1SG.STR
'I was beaten by Omar'

46. a. n- i- tomany **aho** (Adult Form)
PST- ACT- cry 1SG.NOM
'I cried'

b. tomany **za** (Tsiorisoa 31, 189)
cry 1SG.STR
'I cried'

47. a. m- i- lomano **aho** (Adult Form)
PRS- ACT- swim 1SG.NOM
'I swim'

b. lomano **za** (Sonnia 26, 223)
swim 1SG.STR
'I (want to) swim'

The percentage of correct use of the weak form *aho* (72%) in Malagasy roughly corresponds to the percentage of children's correct use of Nominative pronouns in

12 The translations and glosses of these forms are not completely accurate. The so-called passive form in Malagasy is a different construction than the passive of Indo-European languages (c.f. Keenan & Manorohanta, 2004). However, the exact properties of this construction are not related to the assumptions made here and therefore we will continue to use the less accurate translation and glossing for simplicity reasons.

13 The strong form *izaho* appears in as the reduced form *za/da* in the acquisition data and only in the last stages it eventually acquires its full phonological form in children's production. However, no ambiguity arises between the strong form and the weak form aho. The latter is usually realized as /a/ in children and as /aw/ in adult speech. The presence of the voiced fricative sibilant /z/ in the reduced strong form that the

English (83%, Rispoli, 1994) and Accusative nominals in Russian (84%, Babyonyshev, 1993). Research in this area has suggested that the existence and distribution of these case errors follows from a particular theory of optional infinitival forms in child language (Root Infinitives, cf. Wexler 1992, 1994; Hyams, 1996; Rizzi 1994; Schütze and Wexler, 1996). More specifically, Schütze and Wexler, 1996; Schütze, 1997; Wexler, Schütze, and Rice, 1998, have proposed that the lack of subjective case on the subject DP (i.e. clitic form *je* for 1st singular in French) case is not due to a lack of knowledge of the case system or of the nominative-assigning property of the AgrS projection. Both these properties are part of the child's grammar from the initial developmental stages (c.f. Schütze, 1997). Rather, the presence of non-nominative subjects is said to result from the very underspecification of Agreement. Nominative case can only be assigned to the subject when Agreement is fully specified. This entails that Tense and Agreement may be underspecified independently of each other. When the Agreement head is underspecified, the subject is predicted to surface in the default case (i.e. the free form *moi* in French).

However, it is not clear how relevant the notion of Agreement is in Malagasy. The Malagasy verbal complex never exhibits overt agreement morphology. It contains overt morphology that carries voice, aspectual, and tense information[14]. If Agreement is never present in Malagasy then the model of default case distribution presented above runs into problems. A different proposal that relates to the existence of Root Infinitives in a language has been put forward by Hoekstra, et al (1996); Hyams (1996); Hoekstra &

children produce (sometimes emerging as the stop /d/ as we can see from example (45.b)) is unambiguously audible in the recordings.

14 There are also some secondary affixes that introduce causation, reciprocity and other marked features. See Keenan & Polinsky (1998) for a detailed presentation of the Malagasy verbal morphology.

Hyams (1998). In this approach the existence of Root Infinitives in a language is determined by the underspecification of finiteness in the child speech. The basic assumption with respect to finite clauses is that they are grammatically anchored, i.e. the temporal location of the eventuality denoted by the VP is fixed through an operator located in the left periphery. Finiteness makes visible a chain between the operator and the verb, or, more specifically, the Tense position. Tense is assumed to have a pronominal categorical status, which becomes a variable if it is connected to a tense operator through a visible tense chain as illustrated below (c.f. Hoekstra & Hyams, 1998):

48. TO_i $F_1 \ldots$ $F_n \ldots$. $Tense_i$ VP

There are crosslinguistic differences as to which functional projections located between the VP and the Tense Operator make 'visible' this tense chain. Languages like Japanese have overt Tense morphology; Dutch marks verbs with Number agreement while Romance languages mark them (at least) with Person agreement. Hoekstra, et al (1996); Hyams (1996); Hoekstra & Hyams (1998) argue that the empirical generalization is that only languages that visualize the tense chain with overt Number agreement allow for Root Infinitives. This is the case, for example for Dutch and English.

This approach explains variation in the crosslinguistic distribution of Root Infinitives but does not seem to be able to account for the Malagasy data. As we have seen Malagasy verbal morphology does not have Agreement morphology and consequently it does not have Number Agreement morphology. This should indicate that no Root Infinitives are

available in Malagasy. However, the acquisition data shows that Malagasy child language does have a construction that resembles Root Infinitives in Germanic languages.

If this is on the right track, then we would expect *izaho*-substitutions to take place in sentences in which an inflectional head that links the Tense Operator to the VP is underspecified. This entails that there are specific parts of the Malagasy verbal morphology that can be argued to correspond or play an equivalent role to agreement morphology attested on the verbs of European languages. Malagasy verbs have a series of prefixes that convey tense/aspect information: in the active voice present tense forms of verbs have an *m-* prefix which alternates with *n-* for past tense and *h-* for future. In the rest of the voices present tense is null while past and present surface as *n-*/*no-* and *h-*/*ho-* respectively (the allomorphy being controlled by the initial segment of the verbal root). These prefixes are followed by the active voice prefix in the active voice or the verb root in the passive as most passive affixes are suffixes.

The prefix *m-* that appears word initially is considered in traditional grammar to be a present tense marker. However, Pearson (2001) assumes that it is an aspectual head and that the actual present tense marker is null as in the rest of the voices (see also (Keenan & Polinsky, 1998) for a relevant discussion and arguments for not treating *m-* as a tense morpheme). If *m-* is located in an aspectual projection then underspecification of this projection could be related to Root Infinitives in Malagasy. This would also comply with assumptions about specific aspectual interpretations of Root Infinitives, discussed in Hoekstra & Hyams (1998).

As is usually the case in children's grammars, verbal forms in the Malagasy acquisition data appear reduced or truncated with missing tense/voice morphology. To these we can add a number of verbal forms that are never affixed with voice or tense morphology in adult grammar and always appear as verbal roots that are inherently active or passive[15]. A working hypothesis then would be that these truncated or root forms are the equivalent of root infinitives in Indo-European languages. This is supported by the fact that children acquiring Malagasy omit tense/aspectual/voice morphology at proportions roughly equal to the omission of finite morphology by children acquiring European languages[16] (Hyams et al, 2004).

If this is on the right track, the prediction is that *izaho* will emerge as a default case mainly with truncated verbs in the children's utterances while the adult form *aho* will appear predominately with fully inflected forms. This seems to be true. Some of the cases where *izaho* appears in the place of the weak form *aho* are with root active or passive verbs that have no overt tense or voice morphology even in adult grammar (e.g. *tia* 'like, want', see footnote 16). The rest of the cases include truncated verb forms from which the children have omitted tense and voice morphology, as examples (45-47) illustrate. Table 7 shows the distribution of *izaho* and *aho* with truncated and inflected verbal forms:

15 With respect to root forms of verbs we cannot say with certainty whether they are finite or non-finite. However, the appearance of the default pronominal form with some of these roots suggests that the forms are non-finite in these cases. This assumption is supported by the behavior of clearly non-finite verbs, i.e. the truncated forms.

16 Keeping in mind that these percentages vary from language to language, i.e. English has a high percentage of Root Infinitives in these stages while V2 languages have slightly less forms and French is at the bottom of the list with the lowest percentages of non-finite forms in root contexts.

Table 7: Distribution of *izaho* and *aho* with Truncated and Fully Inflected Verbs in Environments where *aho* is obligatory.

Pronoun	**Inflected Verbs**	**Truncated Forms/Roots**
aho	40 (73%)	15 (27%)
izaho	5 (24%)[17]	16 (76%)

As we can see there is a clear asymmetry in the distribution of the two forms. The association between case and verb forms is highly significant by chi-square analogues: $\chi^2(1) = 15$, p 0.0001. This asymmetry seems to correspond to similar asymmetries observed in other languages. For example, the free form *moi* in French substitutes for the clitic form *je* in subject position in cases where the verb appears to be non-finite as well as with finite forms of the verb (Pierce, 1992: 96). On the other hand, the correct clitic-form *je* appears almost exclusively with finite verb forms (95%, Pierce, 1992: 96; Schütze, 1997:250).

Further support for *izaho* being the default case comes from data in which *izaho* appears in environments where adults use obligatorily the bound form *–ko*, i.e. when the latter functions as the predicate-internal agent of a transitive verb. There are two instances in the data that constitute unambiguous substitutions of this type:

17 In fact in all but one of the cases in which izaho is taken to appear with an inflected form the verb is not actually fully inflected. In the 4 cases there is no unambiguous tense prefix on the verb. This does not necessarily mean that the verb is not tensed. Future tense is realized as the prefix h- which is not audible. Furthermore, in one of these 4 cases the verb is in its passive form and the Malagasy passive verb is marked with a null morpheme for present tense. Thus, it is not sure that these verbs have Tense morphology. The remaining example is fully inflected with the aspectual prefix m- and the voice prefix a-
i. de m- a- laly za Sonnia 26,157
and/so PRS-ACT-pain 1SG.STR
'And I have pain'.

49. a. tsy n- alaina **-ko** ny sary (Adult Form)
NEG PST- take.PAS.ROOT -1SG.GEN DET picture
'The picture was not taken by me'

b. tsy n- alena taly **za** (Sonnia 2;2)
NEG PST-take.PAS.ROOT picture 1SG.STR
'The picture was not taken by me'

50. a. lani **-ko** io (Adult Form)
finish.PAS.ROOT -1SG.GEN DEM
'This was finished by me'

b. io any any **za** (Sonnia 2;1)
DEM finish.PAS.ROOT finish.PAS.ROOT 1SG.STR
'This was finished by me'

51. a. lenan' i pipi **za** dada (Sonnia 2;2)
wet.LNK DET pipi 1SG.STR daddy
'My daddy's pipi is wet'

Again, in both cases the substitution takes place with root passive forms with no overt voice/tense morphology. If we add these cases to the percentage of *izaho/aho* substitutions in truncated/root contexts we get an overall 88% percentage of *izaho*-substitutions in truncated contexts which is very close to percentages of default-case substitutions in non-finite contexts observed in English, French, and German (c.f. Schütze, 1997).

In conclusion, the data seems to confirm theories that relate default-case substitutions to some sort of underspecification of a functional projection within the verbal extended projection. The limitations that the available data poses constitute impossible more detailed discussion of the theoretical issues involved. More data is needed to establish the exact relation between the relevant verbal morphology and the distribution of default case in Malagasy.

5. Conclusion

In this paper we have examined the acquisition of the pronominal system of Malagasy based on a longitudinal study of production data from three Malagasy children. We showed that the order of emergence of the different pronominal forms is consistent with the morphological feature-geometric model of Harley & Ritter (2002) in that the 1st person singular appears first in the data. Furthermore, we showed that the children overuse the strong 1st person singular form *izaho*, conforming to the crosslinguistic tendency of children to use default pronominal forms in early stages. Finally, we showed that this default form appears with truncated verbal forms providing some support to proposals that associate default case overgeneralization to the under-specification of certain functional projections of the verbal domain.

Obviously, these results are only preliminary and more data is needed in order to obtain a better understanding of the properties of child grammar and language development in Malagasy. In particular a better understanding of the acquisition of the pronominal paradigm in Malagasy requires additional data from later developmental stages so that more pronominal forms than the ones that the children produce in these early stages can be adequately studied.

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