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Topicalization in Malagasy: Effects of Teaching Malagasy as a Topic Language

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TOPICALIZATION IN MALAGASY:
EFFECTS OF TEACHING MALAGASY AS A TOPIC LANGUAGE

by
Jeremy Workman

A thesis submitted to the faculty of
Brigham Young University
In partial fulfillment of the requirements for the degree of

Master of Arts

Department of Linguistics and English Language
Brigham Young University

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of a thesis submitted by
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ABSTRACT

TOPICALIZATION IN MALAGASY: EFFECTS OF TEACHING MALAGASY AS A TOPIC LANGUAGE

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Master of Arts

This study discusses teaching Malagasy as a second language. Malagasy is the native language spoken on the island of Madagascar. Traditionally, Malagasy has been taught as a language that is similar to English in the way that it uses active and passive voice constructions. However, most native-English students struggle to produce native-like utterances using non-active voice constructions in Malagasy. Recent studies have suggested that Malagasy more closely relates to Germanic V2 languages than it does to English (Pearson 2005, Hyams et al. 2006). This might explain why students taught Malagasy as an English-like language struggle. This study compares the relative effectiveness of teaching Malagasy as a V2 language with topicalized triggers, as opposed to traditional approaches, where the trigger is seen as an English-like subject. The study is based on data gathered from two groups of beginning Malagasy students at the LDS Missionary Training Center in Provo, Utah. One group was taught according to traditional methods. The other was taught the topic/voicing theory set forth by Pearson (2005). There was a general trend of improvement from the traditionally taught group to the group taught topicalization.

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1. Introduction

1.1 Background

Malagasy, an Austronesian language spoken on the island of Madagascar, has typically been analyzed as a language, like English, whose main clausal argument is a subject. Despite its relation to Philippine languages, such as Tagalog, which have topics and actors, Keenan (1976a) thoroughly discussed the differences between the trigger¹ of a Malagasy sentence and that of a Tagalog sentence, following criteria set forth by Schachter (1976) and Keenan (1976b). Schachter declared that all languages fell into one of two categories: languages that have subjects like English and languages that use topics like Tagalog. Based on this assumption, Keenan showed that because the trigger in Malagasy functioned more like a subject than a topic, Malagasy was an English-like language. This view persisted through the end of the century. In recent years, there has been a call to restructure our view of Malagasy. Matthew Pearson (2005) presented the theory that “the trigger in Malagasy is not a subject occupying a case position, but an A'-element comparable to fronted topics in Germanic V2 languages.” An element occupying an A'-position does not receive a theta role in that position, such as a *wh*-operator, therefore the Malagasy trigger is not the nominal case position, like the subject of English.

1.2 Present Study

The main purpose of this study is to answer the question, “What difference is there in learning outcomes of beginning Malagasy students when they are taught Malagasy as a topic language rather than a subject language?” I predict that the understanding of how and when to use the different verb forms will be greater with those who are taught following the topic theory.

¹ This is what I will call the subject/topic element of a Malagasy sentence (following Pearson 2005), in order to be consistent as I discuss the different theories throughout this paper.

The different verb forms in Malagasy are closely tied to the function of the trigger, as I will explain with the main issues below. In chapter 2 of this paper, I will outline in greater detail the literature dealing with Malagasy subjects and topics and the relation to verbs. In chapter 3, I will describe the method and participants I will use for my study. In chapter 4, I will give the results of the study. In chapter 5, I will discuss the results and their significance. Then, I will present my conclusions and possibilities of future research in this area.

1.3 Main Issues

How one views the trigger in Malagasy will determine how voice morphology is approached with Malagasy verbs. If the subject hypothesis is correct “non-active sentences then should be derived from more active like underlying structures...which create subjects from non-subjects and demote the original subject” (Keenan 1976a, 260). If Pearson’s theory is correct then the voice morphology on the verb would indicate the grammatical function and role of the trigger in relation to the principal verb. Malagasy has three verbal voices: active (Agent Trigger, AT), passive (Theme Trigger, TT) and circumstantial (Circumstantial Trigger, CT). The examples in (1) demonstrate the use of each of these three voices.

(1) *Active:* Mandidy ny mofo amin’ ny antsy **aho**².
 cut.AT the bread with the knife I
 ‘I cut the bread with the knife.’

Passive: Didia(na) +ko amin’ ny antsy **ny mofo**.
 cut.TT by me with the knife the bread
 ‘The bread, I’m cutting it with the knife.’

² Following Pearson, in example sentences, I will mark the trigger of each sentence in bold, and underline the agent. I also mark morphemes that combine in an example with a ‘+’ to signify concatenation.

Circumstantial: Andidia(na) +ko ny mofo **ny antsy.**

cut.CT by me the bread the knife

‘The knife, I’m using it to cut the bread.’

Although these sentences would be considered truth-equivalent, they would be different in their intent and use by a native speaker. Keenan would describe this difference as promoting different NP’s to subject and demoting the agent, while Pearson would describe it as a change in aboutness and thus a morphological change is made to the verb that marks the relationship between the topic and action.

In traditional pedagogical texts, Keenan’s approach has been used where the active voice is most basic and the other voices are derived from it. Early texts such as *Malgasy without Moans* (Stark 1969) teach that active and passive forms are equal in portraying the meaning of an active sentence in English and fail to recognize that there are differences in their use. However, they do explain that “the Passive Voice is used much more frequently in Malagasy than in English” but take this too far by stating that the passive in Malagasy is used “more frequently than the Active Voice.” Newer texts such as *Malagasy Course for Foreigners* (Razafindrabe et al. 1996) teach Malagasy as an English-like language beginning with the active voice and many of its nuances before addressing the passive (chapter fifteen) and the circumstantial (chapter thirty-six). This teaches the student to get comfortable using the active to express whatever he or she may want, whether it is correct to do so or not, and then to learn these other voices to put extra emphasis on an object or circumstance surrounding the verb, when they feel inclined to do so. Most students rarely feel inclined to do so. Students of Malagasy tend to base their sentence formation on English argument structure, which is primarily active. This leads to one of two

results. One, they produce mostly active sentences in Malagasy because they think in active voice as a native English speaker. Or two, they passivize everything they say, because they learn in their texts that Malagasies speak more in passive than in active. Neither of these cases leads to much usage of the circumstantial voice, however.

Although the example phrases and structures portrayed in their texts demonstrate the validity of Pearson's theory, the authors of these texts have difficulty recognizing topicalization because it is uncommon in English and Romance languages, which are the language backgrounds of the authors of these texts.

- (2) Hita +ko ny trano ipetraha(na) +nao.
 seen.TT by me the house lived in [circ] by you
 'I see the house that you live in.'

A comparable principle in English is fronted topicalization, where the highlighted topic is moved to the front of the sentence and preceded by *as for*.

- (3) As for **the book**, the man didn't read it.
 periphrastic topic subj pst. neg past, act occupier

Fronted topicalization also takes place in Malagasy and the fronted topic is followed by an inversion marker, *dia*, giving additional prominence to the trigger. However, in Malagasy, the voice of the principal verb in the clause is marked morphologically for the role of the fronted NP (4), unlike its English counterpart (3). The verb in (4) is in the passive voice because the topic is the object of the verb.

- (4) **Ny boky** dia tsy novakian' +ny lehilahy.
 the book inv. marker not pst.read.TT by the man
 'As for the book, the man did not read it.'

Pearson likened the topicalization in Malagasy to clause-initial topics of German, in terms of how they function in the sentence. The difference is that, in German, the NP topic is marked for case (5) while the verb is the item marked to indicate the role of the topic in Malagasy.

- (5) **Das Buch** hat der Mann nicht gelesen.
 the[acc] book has the[nom] man not read
The book, the man did not read it.

In addition to syntactic evidence given by Pearson for topics in Malagasy, Hyams, Ntelitheos and Manorohanta (2006) showed that developmentally L1 learners of Malagasy are quite comparable to L1 learners of German and other topic-oriented European languages. They showed that Malagasy children pass through a root infinitive (RI) stage, with utterances like (6), similar to the RI stage in European languages, like German (7).

- (6) Lomano za (Adult: milomano aho)
 swim (root) I[str]
I am swimming.

- (7) Auch Teddy Fenster gucken
 also Teddy window look(inf)
Teddy is also looking at the window.

In (6), “za” is short for the strong first person singular pronoun *izaho*. *Izaho* is used in place of the normal trigger pronoun, *aho*, when it appears as a fronted topic for extra stress or as a standalone pronoun that is not part of a clause, and is thus considered a ‘strong’ pronoun. The dissociation between the trigger and the verb through the use of the strong pronoun and the use of the verbal root makes the utterance in (6) comparable to the German child’s infinitive use in

(7). Hyams et al. also show that Malagasy children develop the different voices in a pattern consistent with topic theory, as outlined below.

Due to the syntactic evidence provided by Pearson and the statistical backing from Hyams et al. I believe the topic theory to be better supported and attempt in this thesis to show the effects of teaching methods following Pearson's theory to L2 learners of Malagasy, in contrast to effects of teaching methods following the standard model.

2. Background

2.1 Malagasy as a Subject Language

In Li and Thompson's discussion (1976) of topic versus subject prominent languages, they list Malagasy as a clear subject prominent language. Keenan (1976) agreed with this claim, arguing that Malagasy was most similar to a subject language, like English, when compared to a topic language, like Tagalog. He states that "the NP we call subject in Malagasy has several of the critical properties which distinguish subjects from 'mere' topics" (p. 249). He makes several arguments in favor of this view which have been cited and accepted by most researchers who have dealt with Malagasy previous to the last few years.

One surface-level syntactic property which he gives is that the word order in Malagasy is rigid. This is shown in (8) below. When Tagalog is used as the prototypical topic-prominent language and English as the subject-prominent, this would provide evidence that Malagasy is a subject language, since word order is fixed in English and not in Tagalog.

(8) Mamaky boky **aho**.

read.AT book I

'I'm reading a book.'

Another argument that Keenan makes for the subjecthood of the Malagasy trigger is that active voiced sentences are the most basic. Since subjects, according to Comrie (1989), are the intersection between agents and topics, it would seem natural that in a subject language active voice is most basic, because active voice will have an agent as its main argument. Despite the prevalence of non-active verbs in Malagasy Keenan still claims that the underlying form in

Malagasy is active, like English, and that these underlying structures undergo passivization and the subject of the underlying sentence is demoted. This is difficult to accept fully when we look at voice usage data. Nearly 40% of verbs used in Malagasy are in non-active voices (Keenan and Manorohanta 1992³), compared with only 6% in English (Svartvik 1966). In addition, passive verbs with surface level agents occur in 60% of passives used in Malagasy, whereas they only make up 15-20% of passives in English. Even though these numbers would indicate that Malagasy is not quite active based, or at least not nearly to the degree English is, Keenan offers several reasons for his argument.

The first reason that he gives is that, in terms of morphology, no active verb is derived from a passive verb. However, this is not really true. There is a class of verbs whose root acts as a passive verb by itself without any derivation, as shown by the example in (9).

(9) Hita **izy.**

seen.TT (root) he

‘He is seen.’

The second reason that he gives for the primacy of actives is that active verbs are much more widespread in their distribution than passive verbs, because only verbs that subcategorize a direct object have a passive form. Although every verb in Malagasy has an active form and not every verb has a passive, this is still a fairly weak argument. If we look at the distribution of verbs we see that many verbs which do have a passive form appear much more frequently as a

³ In their study, Keenan and Manorohanta used novels which had a large amount of dialogue to best represent what the amount of each verb type in natural Malagasy discourse.

passive than as an active verb. If active is the underlying form, how can we motivate passivization to take place more often than not with those verbs? In sections 2.2.1 and 2.3, I will present alternative analyses that can explain this distributional data.

The third reason Keenan gives for active sentences being underlying to all utterances is that nominalizations are limited to actives and circumstantial (which he claims are active based). This is also not true. As shown in (10), any fully derived verb can take an article and thus be nominalized (Keenan 1995).

- (10) a. ny mangalatra omby
 the steal.AT cows
 ‘stealing cows’
- b. ny natao + nao azy
 the done.TT.pst by you him
 ‘what you did to him’
- c. ny nitondran’+ ny jirika azy
 the carry.CT the brigand him
 ‘the carrying him off by the brigand’

As to his claim that circumstantial verbs are basically actives, there are two alternative interpretations. Keenan’s claim is based on the fact that circumstantial verbs have, what he

interprets to be, part of the active prefix, as shown in (11). Most active verbs have either an *i-* or an *an-* prefix, and the circumstantial verb form retains this prefix.

- (11) an +tao +v +ana
 AT do (root) TC⁴ CT
 ‘doing’

One alternative to this view is that according to Keenan and Polinsky (2001), as well as several grammar texts (Stark 1969, Jadele and Randrianarivelo 1998), the *-i-* and *-an-* prefixes on AT and CT verbs are loosely tied to transitivity. It would therefore make sense that only active and circumstantial verbs would have transitivity markers. Since passives cannot be derived from intransitive verbs, there is no need to make a distinction in the passive between transitive and intransitive. Another interpretation is that given by Guilfoyle et al. (1992) which says that those prefixes assign accusative case to the theme allowing another uncased NP argument (either the agent or an oblique) to be raised to trigger. (This theory will be explained further in the following section.)

The fourth reason for Keenan’s argument is that the causative prefix (*-amp*) only occurs in the active voice, showing that actives are more basic. However, this prefix does occur frequently in the passive and circumstantial voices, as seen in (12).

⁴ TC = Thematic Consonant. These are sometimes added before TT and CT suffixes on verbs.

(12) a. amp + anantena + ina (ampanantenaina)

cause hope TT

‘promised (caused to be hoped for)’

b. amp + ianatra + ana (ampianarana)

cause learn CT

‘teaching (causing to be learned)’

The final reason Keenan gives to show that actives are the most basic is that the control of reflexives is limited to active triggers. Again, this was shown to be not true (Manaster-Ramer 1992 and Pearson 2005). As shown in the circumstantial example below (13), the reflexive is clearly controlled by the non-trigger agent. Thus, it would appear that active triggers control the reflexive, because they are also agents.

(13) Namonoan +ny ny tenany **ny zanaka.**

kill.AT by him himself the children

‘It was for the children that he killed himself.’

Based on the above arguments of Keenan, there is clearly not convincing evidence that active sentences are the most basic. However, Keenan does provide other arguments for Malagasy being a subject language. The next argument that he gives is that only the trigger relativizes in Malagasy, as in (14). For a non-agent NP to be relativized it must first be promoted to trigger, causing a change in the voice of the verb. If the relative head is the theme, the passive

voice will be used (15a). If the head is an oblique argument then the circumstantial voice will be used (15b).

(14) a. **ny mpamboly** izay mamono akoho amin'ny antsy
 the farmer that kill.AT chickens with the knife
 ‘the farmer that kills chickens with the knife’

b. ***akoho** izay mamono amin'ny antsy ny mpamboly
 chickens that kill.AT with the knife the farmer
 ‘chickens that the farmer is killing with a knife’

c. ***ny antsy** izay mamono akoho ny mpamboly
 the knife that kill.AT chickens the farmer
 ‘the knife that the farmer is killing chickens with’

(15) a. **ny akoho** izay vonoin' ny mpamboly amin'ny antsy
 the chickens that kill.TT by the farmer with the knife
 ‘the chickens that the farmer is killing with a knife’

b. **ny antsy** izay amonoan' ny mpamboly akoho
 the knife that kill.CT by the farmer chickens
 ‘the knife that the farmer is killing chickens with’

According to Keenan and Comrie (1977), if a language only allows the relativization of only one grammatical function, then it must be the subject that relativizes. Therefore, the trigger in Malagasy must be a subject, since it is the only element that relativizes. This appears to be strong evidence for Malagasy being a subject language, but I will return to this point below when I discuss Schachter's theories (1976).

Another argument for the subject theory deals with NP-drop in Malagasy. It has been well noted that Malagasy drops NP arguments whose referents have been well established earlier in the discourse. This is something that is very common in topic languages, however Keenan points out that the dropped NP must be a trigger. In a sentence with an embedded clause, if the object of the embedded clause is the same as the matrix trigger, it must be promoted to clausal trigger before it can be dropped, as shown in (16) below.

(16) a. Mino **aho** fa tia ahy/* \emptyset **izy**.

believe.AT I that like.AT me/ \emptyset she

‘I believe that she likes me.’

b. Mino **aho** fa tia(na) +ny **aho**/ \emptyset .

believe.AT I that like.TT by her I/ \emptyset

‘I believe that she likes me.’

The final argument given by Keenan that I will discuss here is that the trigger is the subject, because it takes question particles. The yes/no question particle, *ve*, is always placed directly before the trigger.

(17) Mino izany ve **ianao**.

believe.AT that yes/no you

‘Do you believe that?’

However, according to Dahl (1996), the question particle belongs to the same tonal group as the predicate. This tonal group division is marked by a raising of the tone towards the end of the group, and the trigger starts a new tonal group on a lower tone. This he claims proves that it is the predicate which takes the particle and which is, in fact, interrogative.

2.1.1 Comparing Malagasy with Tagalog

As a member of the same language family, Tagalog has also been the subject of discussions of subject and topic. Schachter (1976) discusses the problems students of Tagalog have experienced in trying to identify the subject of a Tagalog sentence. He covers a lot of the same issues that Keenan does in his discussion of Malagasy. Schachter provides pro and con evidence for both the topic and non-topic actor being the subject of a sentence in Tagalog. As we will see, the topic in Tagalog has many of the same characteristics as the trigger in Malagasy.

First, Schachter gives arguments for the topic in Tagalog being the subject element. His first argument is that if we stipulate that all complete declaratives must contain a subject and a predicate, then the topic must be the subject, since there are basic sentences which only have a one word predicate and a topic NP, as with the sentences below (from Schachter).

(18) a. Magtatrabaho **ang lalaki.**

will work.AT T man

‘The man will work.’

b. Abogado **ang lalaki.**

lawyer T man

‘The man is a lawyer.’

Another argument that he gives is that, like the trigger in Malagasy, only Tagalog topics can relativize. This means that there cannot be a separate topic for the imbedded clause, as in (19b), because the topic of the imbedded clause must be extracted.

(19) a. Interessante **ang diyaryong** binasa ng lalaki.

interesting T newspaper.linker read.GT Act man

‘The newspaper that the man reads is interesting.’

b. *Interessante **ang diyaryong** bumasa **ang lalaki.**

interesting T newspaper.linker read.AT T man

‘The newspaper that the man reads is interesting.’

The third argument he gives is that, in other Philippine languages (Kapampangan), it is the topic which controls verb agreement.

However, he does consider arguments against the topic being considered the subject. As with Malagasy, the topic of Tagalog must be a definite noun. Since no such restriction is made

for English subjects, Schachter argues that this distinguishes Tagalog topics from subjects. Also, he states that there is a restriction on subjects which allows subjects to control reflexives, but not be reflexive themselves. Since it is common in Tagalog for the topic to be the reflexive NP, it makes it hard to claim the topic to be the subject.

(20) Sinaktan ng babae **ang kaniyang sarili.**

hurt.DT Act woman T her self

‘The woman hurt herself.’

Schachter then argues for the actor being the topic. It has been established (Li and Thompson 1976) that it is the subject that controls Equi-NP deletion and is the addressee of imperatives. In Tagalog, it is the actor which holds both these properties.

(21) Nag-atubili siyang humiram ng pera sa bangko.

hesitated.AT T.he.linker borrow.AT G money D bank

‘He hesitated (he) to borrow money from the bank.’

(22) Ibalik **ang libro** kanako.

give back.GT T book D. me

‘Give me back the book!’

Schachter also argues that, because the actor is translated into English as the surface subject, it must be the subject of Tagalog sentences. This seems like a fairly weak argument, since the relation between the English subject and Tagalog actor tends to be more semantic than syntactic.

In the end, Schachter claims that the element we call subject in a language is in reality a collection of properties rather than a single syntactic element. Therefore he determines that Tagalog does not have a subject, but it does have the properties of subjecthood, which is why it has been difficult for learners of Tagalog to identify a single subject element.

Keenan uses Schachter's typology of Tagalog to further his claim that Malagasy is a subject and not a topic language. He claims that the division of properties found in Tagalog does not occur in Malagasy, because the subject properties held by the actor in Tagalog are not shared by the agent in Malagasy. First, Keenan argues that agents in Malagasy do not control or undergo Equi.

Again, he claims that agents do not control reflexives, but, as I showed above in (13), they do. He also claims that agents do not have a fixed position, because they can either be at the end of the sentence when they are the trigger, or adjacent to the verb when they are not. A counter argument to this is that we can claim that there is a very fixed default word order of Verb-Agent-Object-Oblique-Trigger, and which ever argument is promoted to trigger leaves its fixed spot to fulfill that role at the end of the sentence. Otherwise we could say that objects and obliques do not have a fixed position either since they can move to the trigger spot or closer to the verb, which would weaken his earlier argument that Malagasy has a very fixed word order.

His final argument for the difference between Tagalog and Malagasy is again the claim that AT verbs are the most basic, but I have already shown how his reasons for this claim are not firmly founded.

Although Keenan does not agree to Malagasy being like Tagalog, in terms of its subject properties, he does submit that Malagasy is, indeed, more topic prominent than English, and it is therefore not a purely subject prominent language. Of the seven following properties of topic languages (Li and Thompson 1976), Keenan says that Malagasy has two and English has none, leading to his claim that Malagasy is slightly more topic prominent than English.

1. Topic languages don't have passives
2. Topicalization is not a marked process
3. The topic does not play a major role in cyclic transformations
4. Topic NP is not coded on the verb
5. Topic languages often have a double subject construction
6. Topic languages do not have dummy subjects
7. NP drop due to context from subject

Keenan argued that Malagasy only demonstrates the last two of this list, the lack of dummy subjects and context sensitive NP drop. However, a couple of the previous properties are debatable. Concerning the first property, topic languages do not have passives, Japanese, a topic prominent language, does use a passive construction. Number four above says that the topic cannot be coded on the verb, but the grammatical relation of the Topic NP is coded on the verb in Tagalog in the same way that it is in Malagasy. Since Keenan, himself, uses Tagalog as his topic language of comparison, we cannot discount Malagasy being a topic language based on this property. In number five, it says that topic languages *often* have a double subject construction, but not always. Malagasy can be one of those few that do not have a prominent double subject construction.

Apart from the seven specific properties of topic languages above, Li and Thompson's two general properties of topics themselves are found in Malagasy triggers, adding to Keenan's admittance that Malagasy is somewhat topic prominent. These general topic properties are that the topic NP is always definite and the topic is the center of attention. These are both true of the trigger in Malagasy.

2.2 Transitional Thinkers

In the early nineties, the issue of the Malagasy trigger was revisited. Manaster-Ramer (1992) reanalyzed Schachter's typology as it relates to Malagasy, as well as Keenan's description of Malagasy. In regards to subjects and topics, he concluded that Tagalog has a subject (which is the actor) and a topic, Malagasy has a subject which is a topic, and English has no topic, because its subject has no referential prominence. Manaster-Ramer agrees with Keenan that the split properties of the subject in Tagalog do not work with Malagasy. He first argues the fact that the subject property dealing with imperative addressees may not forcibly be limited to agents. He says that he has never seen anything that says that you cannot have imperatives where a non-agent trigger is the addressee, such as the English imperatives "Don't be fooled!" and "Let them be washed!" With regards to imperatives, Comrie (1989) said, "For an instruction to be felicitous, the person to whom the instruction is addressed must have control of the resultant situation," or in other words, it must be the agent. In essence, English makes these 'passive' imperatives again focus on the agent by adding an active voice auxiliary, "let" and "do," changing the imperative into a proper active imperative.

Another point that Manaster-Ramer makes is that reflexives with non-AT verbs, such as that in (13), have an English equivalent, such as that in (23).

(23) The letter was addressed by John to himself.

However, the reflexive in (13) is much more natural to a native speaker of Malagasy than (23) is to a native speaker of English. So, although it may be grammatically possible in English, I have difficulty accepting them as equivalent and as evidence for the comparability of English and Malagasy.

Another way that Manaster-Ramer presents Malagasy as more comparable to English than to Schachter's Tagalog is that Malagasy and English cannot have a reflexive as a subject and Tagalog can. However, this is not true. It has been shown by Pearson (2005) and Rackowski and Travis (2000) that Malagasy can have a reflexive as its trigger (24).

(24) Novonoin' ny lehilahy **ny tenany**.

pst.kill.TT by the man his self

'The man killed himself.'

Although the occurrence of this structure in Malagasy is far less common than in Tagalog, it does provide strong evidence for distinguishing Malagasy from English. *Self* cannot be an agent (English subject), but it can be a topic (Malagasy and Tagalog).

In agreement with Keenan, Manaster-Ramer suggests that the fixed word order of Malagasy makes it a greater candidate for being a subject language, like English, than a topic language, like Tagalog. This is only true if we consider Tagalog to be our prototypical topic language. Li and Thompson remarked that concreteness of word order is not a distinguishing feature between subject languages and topic languages. They showed that there are pure topic languages, such as Mandarin, which do code their topics by a fixed position in the sentence.

Even with these somewhat false arguments, attempting to draw connections between Malagasy and English, Manaster-Ramer still concludes that Malagasy should be considered its own type of language, somewhere between the subject languages like English and the topic languages like Tagalog.

Another group of researchers, from the same time period, commenting on the nature of subjects and topics in Austronesian languages was Guilfoyle, Hung and Travis (1992). They reinterpreted the data of Schachter to say that, instead of having no real subject in these languages, there are in fact two subjects. These two subjects share the properties of subjects in most languages and are found at SpecVP and SpecIP. The fact that these languages, and specifically Malagasy, license a lexical DP in SpecVP explains why a non-trigger agent is still a core argument and not a demoted oblique in non-AT phrases. As explained by Guilfoyle et al. “the expression of Agent by means of a *by*-phrase in the English passive stems from the inability of the SPEC of VP to receive Case. The SPEC of VP receives an Agent theta role, and may only be occupied by a PRO coindexed with an adjunct *by*-phrase.” (pg 407) Some have argued that, since agentive pronouns are the same as possessives in Malagasy, non-AT agents are really in a *by*-phrase equivalent. However, Travis (2005) demonstrated that Malagasy allows agents on all passive construction types (eventative, resultative, state) where English does not. This evidence strengthens the proposal of Guilfoyle et al. that the agent is a remaining core argument and not equivalent to the demoted agents of English passives.

To explain Malagasy verbal morphology and the promotion to trigger operation, Guilfoyle et al. demonstrate how case is assigned to core NP arguments by verbal affixes, leaving the remaining NP argument to be moved into the trigger position. They claim that the *i*-

and *an-* prefixes found on active and circumstantial verbs assign accusative case to the direct object, keeping it from being promoted to trigger. The *-ina* and *-ana* suffixes and *a-* prefix found on passive and circumstantial verbs assign nominative case to the agent, keeping it from being promoted. Therefore, in active sentences, accusative case is assigned to the direct object by the active prefix, leaving the agent uncased and primed for promotion to trigger. In passive sentences, the passive affix assigns nominative case to the agent, leaving the theme uncased and primed for promotion to trigger. In circumstantial sentences, the prefix assigns accusative case to the direct object and the suffix assigns nominative case to the agent, leaving no core NP's, and therefore it is an oblique argument which is promoted.

Guilfoyle et al.'s new approach to Malagasy syntax does provide a strong alternative to the subject theory and primacy of active sentences presented by Keenan. But even Keenan himself, during this time, began to shift his thinking away from a subject analysis of Malagasy. In 1992, he recognized that the voicing system plays a different role in Austronesian languages than it does in European languages, meaning that the preference for active sentences may not necessarily be the same in Malagasy. He stated that Malagasy clause structure is like Tagalog clause structure, except there is less case marking on NP's and more word order structure.

A few years later Dahl (1996) also shed new light on the discussion of Malagasy clause structure. He said that in Austronesian languages there were two parts, the predicate and the trigger. He learned that the trigger is what you are talking about, and the predicate is what you want to say about it. He showed that these two parts of the sentence were distinct tonal groups in an utterance. He also showed how it is only the predicate and not the trigger which can be negated and interrogative, as shown in (25) and (26).

(25) a. Tsy niditra **ny lehilahy.**

not pst.enter.AT the man

‘The man didn’t enter.’

b. *Niditra **tsy ny lehilahy.**

pst.enter.AT not the man

‘The man didn’t enter.’

(26) a. Niditra ve **ny lehilahy?**

pst.enter.AT yes/no the man

‘Did the man enter?’

b. *Niditra **ny lehilahy ve?**

pst.enter.AT the man yes/no

‘Did the man enter?’

It seems that Dahl showed good evidence for Malagasy being a topic language: the trigger is always definite and is the center of attention, and the trigger is exterior to the predicate, unlike the clausal nature of subjects. However, he did present some holes in this analysis by showing how fronted topics in Malagasy do not always follow these guidelines. Sometimes fronted topics are indefinite (27), and fronted circumstantial topics have prepositions, when they do not sentence-finally (28).

(27) **Lehilahy** no nanao izany.

a man stress pst.do.AT that

‘It was a man who did that.’

(28) Amin’ **ny antsy** no amonoa +**ny** ny akoho.

with the knife stress kill.CT by him the chickens

‘It’s with the knife that he is killing the chickens.’

Dahl hints that these fronted topics may in fact be predicates. This analysis was furthered a few years later by Paul (2001). Paul showed how these fronted topics are actually predicates and what was thought as the inversion stress marker, *no*, is actually an article. When a sentence with a fronted topic is made interrogative, it is directly after the fronted topic (29) that the question particle is placed. When they are negated, the negative marker goes in front of the fronted topic, not in front of the verb (30).

(29) Lehilahy ve **no nanao izany?**

a man yes/no art. pst.do.AT that

‘Was it a man that did that?’

(30) Tsy lehilahy **no nanao izany.**

not a man art. pst.do.AT that

‘It wasn’t a man that did that.’

Paul explains that this happens because the fronted topics are really not topics but pseudo-clefts, and the remaining clause is in fact a headless relative clause. If we take the sentence in (27), for example, “lehilahy” is then a predicate, and “no nanao izany” is the topic. This is clear when the sentence is used in a context. “No nanao izany” would be the old information, because we already know that someone did that, and “lehilahy” would be the new information. Potsdam (2004) extended this theory to *wh*-questions and how they act as pseudo-clefts instead of fronted topics. Therefore, according to Paul and Potsdam, this seemingly problematic area for the topic analysis of Malagasy actually continues to support it.

2.2.1 A Radical View of Tagalog and, by Association, Malagasy

Towards the end of the century, Foley (1998) presented a paper titled “Symmetrical Voice Systems and Precategoriality in Philippine Languages.” He created a new typology into which Tagalog can fit. His criteria for distinguishing this typology also accurately describe Malagasy and relates to characteristics described in the discussion of Malagasy as a topic language below. I present this here because it seems to fit with transitional thoughts revealed by Keenan just a few years prior. Keenan (1995) stated that active and passive morphologies in Malagasy are in complementary distribution and are, by consequence, not derived from each other, as he had previously declared. He also proposed that it is the verbal morphology which determines the argument structure of the predicate, not a default active verb.

Foley presented similar ideas for Tagalog, and he took them far enough to propose a whole new language typology. First, he argues against previously established typologies that have been used to analyze these languages. The first of which is the active/passive language type. The first argument he gives against Tagalog being an active/passive language is that the

actor of a passive sentence is still a core NP and not a demoted oblique. As I discussed above, this is also true of Malagasy. Another argument that he gives is that, unlike English, even non-subcategorized elements are able to be promoted to trigger, as shown in (31). These can, of course, be such things as the manner, tool, place or time.

(31) Bibilhan ng lalake ng isda **ang** **tindahan.**

will.buy.DT core man core fish T store

‘The man will buy fish in the store.’

Another argument he gives against the active/passive analysis is that there is no unmarked actor form of a verb. There are morphemes that make a root into either an active verb or a passive verb. This is in line with Keenan’s declaration that active and passive verbs are morphologically independent, as shown in (32).

(32) **AT:** **mag** + salis ‘will take out’

GT: aalis + **in** ‘will be taken out’

Foley also argued against an ergative/antipassive analysis of Tagalog. His first argument against this theory is that what would mark antipassives (33a) and true intransitives (33b) in Tagalog are the same thing. This is never true of antipassives in true ergative languages.

(33) a. **B-um-ili** ng isda sa tindahan ang lalake.

ANTI-buy erg fish obl store abs man

‘The man bought fish in the store.’

b. P-**um**-unta ang lalake.

INTR-go abs man

‘The man went.’

He also claims that the antipassive analysis depends on a well defined notion of transitive and intransitive classes. However, in Tagalog, as well as in Malagasy, some affixes that are considered intransitive markers are also used for transitive verbs, as shown by (34) and (35).

(34) Tagalog: i-kasal ‘get married’ (*i-* is a transitive marker)

(35) Malagasy: mi-vidy ‘to buy’ (*mi-* is an intransitive marker)

Some researchers have argued for the ergative analysis of Malagasy (Ndaygiragije 2006) and others who have tried came to the same conclusion as Foley, that it just is not feasible (Paul and Travis 2006).

In a comparison with English, Foley pointed out some radical differences that forced him to propose a new way to look at Austronesian languages. First, in English there is an argument (the agent) that is preferred for the subject. In Tagalog, as well as Malagasy, any argument NP can be promoted to trigger. Second, in Philippine languages, there is not much rearranging of arguments for different voices, but in English there is a radical rearranging of elements when a sentence undergoes passivization. And third, in English, the unmarked form of a verb is the active verb. In Tagalog and Malagasy, on the other hand, the unmarked form of a verb is a root,

which is not used on its own⁵. For example, the unmarked form of the verb ‘to give’ in English is ‘give’ which acts as an active verb when it appears as is. In Malagasy, the unmarked form of the verb ‘to give’ is ‘ome’ which is a root that is never used on its own. The active form of the verb is ‘man+ome’ and the passive form is ‘ome+na.’

These distinctive characteristics led Foley to a new view of Austronesian. He calls this typology symmetrical voice. Foley proposes that argument structure does not exist for a verb until the trigger is chosen and the voice morphology is imposed. The idea that the trigger is chosen first, leading to which voice morphology the verb will take and the emergence of the argument structure is radically different than English. English verbs have a presupposed argument structure inherent in them and a NP with a certain thematic role already required to be the subject. Thus, in English the verb chooses the subject, but in Malagasy and Tagalog, the trigger will choose the verb. This notion of trigger first, then voice, then argument structure aligns well with the proposition that Malagasy is a topic language after all.

2.3 Malagasy as a Topic Language

Traditionally, when researchers have thought about the possibility of Malagasy being a topic language they have compared it to Tagalog, a topic language in the same family. I have noted previously some differences that have been found between the trigger in Malagasy and the topic in Tagalog which have kept linguists from committing to the topic view for Malagasy. For example, the trigger in Malagasy has a fixed position and the topic in Tagalog does not. Also, it

⁵ As mentioned earlier, there is a small class of verbs in Malagasy whose root acts as a passive verb on its own without the addition of a morpheme. According to Foley, these types of verbs in fact have a null passive morpheme, and are therefore still marked.

is very common for the topic in Tagalog to denote ‘self’ in reflexive constructions, and much less common a topic to do so in Malagasy.

Pearson (2005) took a different approach to the topic theory for Malagasy. He found that there are a great number of similarities between Malagasy triggers and the fronted topics of Germanic V2 languages. Pearson re-presented the evidence that the Malagasy trigger is more likely a topic than a subject, adding a couple new points to further strengthen his view. I will just briefly reiterate these points. First, the trigger must be definite. Second, the trigger picks out the element to which the speaker wishes to give greatest referential prominence. Third, the agent of non-AT verbs is not demoted, but remains as a core NP. Fourth, there is evidence that non-trigger agents form a prosodic element with the verb, meaning that no adverbial or preposition can intervene between the verb and the agent. Fifth, the agent is the addressee of imperatives, and is thus a subject. Sixth, antecedent agents control reflexives. His seventh argument is one not previously mentioned. One traditional argument for the subjecthood of the trigger is that, no matter which NP was acting as trigger, the trigger pronoun always took the same form, reminiscent of the nominal case in English pronouns that act as subject for both active and passive verbs. However, Pearson showed that these pronouns (*izaho*, *ianao*, *izy*, *izahay*, *isika*, *ianareo*, *izy ireo*) are default pronouns, because their distribution goes beyond the trigger and would cover more than one case position. Or, in other words, their usage is not very marked. As shown in (36)-(38), these pronouns can be found as predicates, simple interrogatives and non-AT agents.

(36) Ianao **no** **mpangalatra.**

you art. thief.

‘You’re the one that’s a thief.’

(37) Izaho ve?

I/me yes/no

Me?

(38) Novonoin’ izy roa **ny omby.**

pst.kill.TT by the two of them the cow

‘The two of them killed the cow.’

We can see by the English translations of these constructions that the nominative case in English is not always equivalent to the trigger pronouns of Malagasy. The proposal that these pronouns are default, and not nominative pronouns, is further strengthened by evidence from Ntelitheos and Manorohanta (2004) who found that these pronouns appear very early in Malagasy child language and are frequently substituted for other pronoun forms, suggesting that they are a default.

2.3.1 Comparing Malagasy to V2 Languages

Pearson provides several examples of how the Malagasy trigger is functionally very similar to the topics of V2 languages. The one difference that he does mention is that the case marking is different. In Germanic languages each NP is marked for case, but in Malagasy it is

the verbal morphology which indicates the case of the trigger. According to Pearson, the similarities between Germanic topics and Malagasy triggers stem from filling an A'-position rather than an A-position. An A'-position is a position that cannot take a theta role. This may explain why the trigger position in Malagasy is always filled by a default pronoun, rather than a case-marked pronoun. This means that the trigger in Malagasy is not a clausal argument but a clause external operator. This claim necessitates the existence of either a topic operator or *wh*-operator in every clause. Voice morphology can then be explained as *wh*-agreement with the trigger as its operator.

According to the subject theory of Malagasy which explains the trigger as an A-element, there is an additional movement constraint which is needed to say that only subjects can extract in relative clauses and *wh*-questions. However, if we say that the trigger fills an A'-position, extraction would be A'-movement and we would not need that additional constraint.

Pearson shows some distributional evidence to support his proposal. First, trigger pronouns appear to be default, uncase-marked, pronouns which fit into an A'-position analysis. Second, these trigger pronouns can be present in both active (39a) and non-active imperatives (39b).

(39) a. Mampianara **ianao!**

teach.AT.Imp you

Teach!

b. Ampio **izy!**

help.TT.Imp he

‘Help him!’

If the trigger filled an A-position it could not be present in an active imperative, because it would be the addressee of the imperative as the subject. (See Koopman 2005 for further discussion on A'-movement in Malagasy imperatives.)

Another distributional property of the trigger is that of NP-drop. I have already mentioned that in bi-clausal sentences if the embedded trigger and the matrix trigger are the same, the embedded trigger may be dropped. Pearson also states that this NP-drop can occur in isolated sentences, if the trigger is well established due to discourse context. This topic drop occurs frequently in topic prominent languages. Evidence that this is most-likely a topic drop situation comes from Potsdam and Polinsky who showed that this NP drop is not licensed by an agent of non-AT verbs, but only by the trigger.

(40) Ninoa(na) +ny fa handresy izy/*∅.

pst.believe.TT by him₁ that fut.win.AT he₁/∅₁

‘He believed he would win.’

Using data from three Malagasy children and comparing it to data for children learning Romance languages and children learning Germanic languages, Hyams, Ntelitheos and Manorohanta were able to show that Malagasy does closely relate to Germanic V2 languages, as proposed by Pearson. Because A'-movement occurs much earlier in an L1 than A-movement, it

is very easy to indicate whether the Malagasy trigger occupies an A'-position or an A-position, or in other words, a clause exterior topic or a clausal subject. Hyams et al. noted that topicalization in topic languages is very productive in the early grammar with a wide variety of topic NP's.

They used three indicators to show whether Malagasy was a topic language or a subject language. The first is whether or not there was the existence of a Root Infinitive (RI) stage. This is where the root of a verb is used in a clause without any morphology. If Malagasy is a subject language then it must be a null subject language, like Spanish or Italian, since it experiences NP trigger drop. Since null subject languages do not have a RI stage, if Malagasy does have one then it is a topic drop language and not a null subject language. Their results showed that there definitely was a RI stage. 43% of AT verbs and 29% of TT verbs showed no verbal morphology. In V2 languages, RI's span from 40-50%, but in Romance languages in general, RI's show up less than 10% of the time. Hyams et al. submit that the differences in percentages between Malagasy RI's and V2 language RI's stem from differences in structure associated with the voicing system.

The second indicator is the use of AT and TT sentences. Since the children in the study are under three years old, if TT verbs show up regularly in their speech, then Malagasy has A'- and not A-movement, because passive sentences rarely show up in early stages of Romance language acquisition. The tables below show voice data for the three children in the study. Table 1 shows the frequency of the different voices among the three children. Because one of the children, Ninie, was more advanced linguistically and showed greater tendency to use passive verbs, the question was raised as to whether that would indicate that passive voice is a later

acquisition and derived from the active, as claimed by Keenan. The data was reanalyzed by time for each individual child. As shown in Table 2, the data was split into an early period (1 year 7 months to 2 years 1 month) and a later period (2 years 2 months to 2 years 8 months) to see if the amount of passive usage went up from the early period to the late period.

Table 1. Frequency of voice types in Malagasy child language.

	Active	Passive	Circumstantial
Tsiorisoa	361 (75%)	115 (24%)	3 (.06%)
Sonia	274 (69%)	122 (31%)	3 (.07%)
Ninie	309 (59%)	212 (41%)	1 (.02%)
Total	944 (67.5%)	449 (32%)	7 (.05%)

Table 2. Proportion of voice types by age.

Child	Period 1 (1;7-2;1)		Period 2 (2;2-2;8)	
	Active	Passive	Active	Passive
Tsiorisoa	121 (76%)	39 (24%)	240 (76%)	76 (24%)
Sonia	199 (72%)	76 (28%)	75 (62%)	46 (38%)
Ninie	177 (59%)	121 (41%)	132 (59%)	91 (41%)
Total	497 (68%)	236 (32%)	447 (68%)	213 (32%)

Table 2 shows us that the preference of Ninie to use the passive voice is an individual difference due to the fact that each child is generally using the same percentages in the earlier stage and the later stage. In another L1 acquisition study, Keenan and Manorohanta (2004) showed that TT imperatives showed up earlier in a child's language than AT imperatives, which provides additional evidence that topicalization is occurring in Malagasy rather than passivization.

The third indicator is the frequency of trigger drop in different clauses. It was shown that when topic drop occurs, it occurs more frequently in non-finite clauses than in finite clauses. But,

when trigger drop is a null subject, there is no relation between verb finiteness and trigger drop. Hyams et al. showed that these children demonstrated trigger drop in 46% of finite clauses and 60% of non-finite clauses, showing a tendency towards non-finite clause trigger drop, similar to what occurs in V2 languages.

Given the distributional and functional data provided by Pearson and the acquisition data provided by Hyams et al. it is reasonable to conclude that Malagasy is in fact a topic language.

3. Methods

3.1 Participants

Forty-two missionaries at the Missionary Training Center (MTC), in Provo, Utah, were taught Malagasy and tested over the course of fourteen months. These forty-two missionaries came into the MTC in seven consecutive groups for two months each. Groups ranged from two to eleven missionaries each. All participants were male, ages nineteen to twenty-one. All were native English speakers from the United States and Canada.

3.1.1 Control Group

The first nineteen missionaries were taught based on the premise that Malagasy acts like English in the way subjects are configured and the way that passive verbs are, in theory, derived. They were taught to use active verbs first and then passive and circumstantial verbs much later, as outlined in their text and according to traditional English and Romance language pedagogy.

3.1.2 Test Group

The remaining twenty-three missionaries were taught according to topicalization. They were taught that the trigger of Malagasy sentences is actually a topic and the voice of the verb in the sentence will be determined by the relation to the topic with the main verb. They were also taught to use passive verbs from the beginning of their training along with active verbs, as that is how L1 learners acquire them. (Hyams et al. 2006)

3.2 Assessment

The assessment for the study consisted of two written post-tests: a general grammar assessment covering everything they were taught during their training and a verb-focused assessment covering many areas where a student's understanding of the trigger of a Malagasy sentence came into play.

3.2.1 General Grammar Assessment

The general grammar assessment was modeled after the Language Grammar Assessments (LGA) created by the MTC Research and Evaluation department for the major languages taught at the MTC and was created under the department's director. This assessment consists of fifty multiple-choice questions where the student is prompted to choose the best answer to fill in the blank in a sentence. Like the LGA's created for other languages the general grammar assessment used in this study was tested on natives and expert speakers, as well as students with no Malagasy experience to validate the assessment. (See Appendix A for this assessment)

3.2.2 Verb Assessment

This assessment was again modeled after the LGA and was multiple-choice to fill in a blank. This assessment, however, only consisted of twenty-five questions. These questions focused on verb usage in relative clauses, *wh*-questions and general context driven sentences. The questions in both assessments were in a missionary context, as to test them with material and vocabulary with which the participants were familiar, in order to isolate their knowledge of the grammar. (See Appendix B for this assessment)

3.3 Predictions for the Study

My prediction for the study was that missionaries in the test group would score somewhat higher on the general grammar assessment and significantly higher on the verb assessment. I predicted that the test group would score higher on the general grammar, because they would be able to focus more on general principles than those in the control group. Based on my experience, many missionaries spend a lot of their time in training trying to figure out when and how much to use active and passive verbs, because they know that they should use passive a lot more, but their texts and traditional instruction leaves them wanting concrete rules. This

confusion and uncertainty sometimes causes them to lose confidence in their ability to learn the language and trust their language materials.

Of course, I also predicted the test group would score higher on the verb assessment, because theories of topicalization simplify the question of when and how to use the different voices, which is the main thing that the verb assessment tests.

4. Results

In this section, I will present the results of the two assessments for both groups. In addition to presenting the overall scores for each missionary, I will present results that will highlight differences in the two groups' understanding. I will present group scores for each individual question on both assessments, group scores for verb type (AT, TT, CT) on the verb assessment and group scores for question type (context driven, relative clause, *wh*-question) on the verb assessment. Then in Section 5, I will discuss these differences and their implications for the present study.

4.1 Language Grammar Assessment

The Language Grammar Assessment consists of fifty contextualized multiple choice questions, covering a wide range of grammar principles (25 principles in Malagasy). Missionaries learning other languages who take this assessment for their language generally score an average of 30/50 at the end of their two month training at the MTC. Tables 3 and 4 below show the scores by missionary for the control group and the test group respectively.

Table 3. Control Group - LGA

Control 1	Control 2	Control 3	Control 4	Control 5	Control 6	Control 7	Control 8	Control 9	Control 10	Control 11	Control 12	Control 13	Control 14	Control 15	Control 16	Control 17	Control 18	Control 19	Mean
25	36	27	18	22	30	25	21	29	29	22	18	17	21	20	19	23	31	30	24.4

Table 4. Test Group⁶ - LGA

Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9	Test 10	Test 11	Test 12	Test 13	Test 14	Test 15	Test 16	Test 17	Test 18	Test 19	Mean
24	38	29	21	34	21	29	44	19	23	26	28	41	23	28	29	37	19	34	28.8

As we can see, the missionaries in the test group were much closer to scoring the expected 30/50 than those in the control group. Also, using a two-tailed t-test⁷, we find that results were significantly different with a $p < .05$ of .043. This is in line with the prediction that the test group would score better even on a general grammar test due to the fact that having more concrete directions on when to use the different verb forms would free up energies to acquire other grammatical rules.

4.1.1 Language Grammar Assessment – by Question

In order to see which principles were most affected by teaching the missionaries topicalization as opposed to the traditional typology, I have broken down the results by question. The percentages represent the number of missionaries in each group to get that question correct.

⁶ The original test group was made up of 23 missionaries, but one district of four missionaries was removed from the group results due to outside factors which affected their scores. See Notes section for further discussion.

⁷ The two-tailed t-test includes data from both ends of the data distribution and calculates that percent chance that the results found were because of chance, as opposed to the application of a test method. I accept any result with a $p < 5\%$ as being significant in favor of the test method.

Table 5. Question Results - LGA

Question #	Control	Test	Principle Tested
1	26%	37%	Active Imperative
2	16%	32%	Passive
3	11%	32%	Circumstantial
4	79%	89%	Possessive
5	26%	26%	Demonstrative Pronouns
6	47%	79%	'When' question
7	95%	100%	Subject Pronouns
8	89%	74%	Indirect Object
9	79%	89%	Numbers
10	58%	95%	'For' - benefactive
11	0%	11%	Adv of place, IO pronoun
12	0%	21%	Circumstantial
13	63%	63%	Infinitive
14	53%	37%	'Together' Construction
15	89%	84%	Time
16	58%	42%	Indefinite Article
17	84%	100%	Interrogative with "ve"
18	26%	47%	Passive
19	58%	58%	Reciprocal
20	53%	68%	If...then
21	21%	58%	DO with proper name
22	53%	63%	Passive
23	26%	21%	Possessive
24	74%	79%	Gerund
25	63%	74%	Stressed "I"
26	26%	53%	Circumstantial
27	95%	100%	Demonstrative Adjective
28	63%	79%	Predicate adjective
29	21%	53%	Transitive/Intransitive
30	79%	84%	Superlatives
31	37%	37%	Causative
32	47%	68%	Express desire
33	37%	63%	Possessive
34	63%	47%	Circumstantial
35	21%	37%	DO with title
36	63%	79%	Passive

37	42%	32%	Passive
38	16%	5%	Passive Imperative
39	26%	58%	Possessive
40	5%	16%	'Voa-' passives
41	95%	84%	Demonstrative Adjective
42	21%	21%	Comparison construction
43	16%	16%	Definite Subjects
44	89%	100%	Adjectives
45	26%	37%	Passive
46	53%	74%	Subject Pronouns
47	58%	42%	Circumstantial (form)
48	58%	84%	DO Pronouns
49	84%	74%	Circumstantial Nouns
50	47%	58%	IO Pronouns

I consider a difference between the two groups to be significant with a difference of at least 16% (or 3 missionaries). Based on this standard, we can see that the control group scored significantly better than the test group on 5 questions. The test group, on the other hand, scored significantly better on 19 questions. It is interesting to note that two of the questions on which the control group did better were questions which targeted the circumstantial voice (#'s 34 and 47). This could be rather surprising when we consider that these missionaries were taught an active/passive typology which may have a hard time fitting in to it the circumstantial voice. I will discuss some possible reasons for these results in the next chapter. The test group did significantly better on a number of topics, including: direct objects, transitivity, expressing desire, "if...then" constructions, question words, adjectives and possessives. I will comment on a couple of these specifically in the next chapter. The others will be taken as improvements, not due to the typology itself, but due to their freedom from worry about verbal voice.

4.2 Verb Assessment

The Verb Assessment consisted of 25 multiple choice questions which basically required the missionary to choose the correct verb voice to use in a given questions. Some distractors were an incorrect form of a verb with the correct voice morphology, thus they may have selected the correct voice for the context but missed some of the transformations required of that particular verb. The results of the two groups are presented in Tables 6 and 7.

Table 6. Control Group – Verb Assessment

Control 1	Control 2	Control 3	Control 4	Control 5	Control 6	Control 7	Control 8	Control 9	Control 10	Control 11	Control 12	Control 13	Control 14	Control 15	Control 16	Control 17	Control 18	Control 19	Mean
10	15	8	8	6	8	5	9	9	10	10	5	6	9	6	11	6	13	10	8.63

Table 7. Test Group – Verb Assessment

Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9	Test 10	Test 11	Test 12	Test 13	Test 14	Test 15	Test 16	Test 17	Test 18	Test 19	Mean
9	11	8	8	11	8	10	17	12	8	7	11	15	7	9	12	16	5	13	10.37

We can see that the difference in the results for the two groups were approaching significance with a $p > .05$ of .080. The lack of real significance between the two groups will be discussed in the next chapter. This could be due to the fact that the low scores for each group were both 5, while the high score for the test group was 2 points higher than the high for the control group. Although there were six scores in the control group lower than 7, and only one in the test group.

So, there was still a general upward shift of the scores in the test group compared with the control group.

4.2.1 Verb Assessment – by Question

The question breakdown for the verb assessment is presented in Table 8. Again, the percentages are the percentage of missionaries in each group that got that question right, and we will consider a significant difference to be at least 16%, which means that 3 more missionaries got it right.

Table 8. Question Results – Verb Assessment

Question #	Control	Test	Principle Tested
1	58%	63%	Relative Clause: CT
2	63%	26%	Relative Clause: CT
3	32%	37%	Relative Clause: CT
4	16%	11%	Relative Clause: CT
5	26%	47%	Context: CT
6	74%	89%	Context: AT
7	11%	42%	Question: TT
8	42%	68%	Question: TT
9	42%	47%	Question: AT
10	16%	16%	Question: CT
11	26%	21%	Relative Clause: CT
12	5%	16%	Relative Clause: CT
13	32%	42%	Relative Clause: TT
14	42%	63%	Relative Clause: AT
15	11%	32%	Relative Clause: CT
16	47%	53%	Context: CT
17	74%	74%	Context: TT
18	0%	26%	Relative Clause: TT
19	21%	53%	Context: TT
20	5%	5%	Context: CT
21	47%	21%	Relative Clause: TT
22	37%	53%	Context: TT

23	21%	16%	Relative Clause: CT
24	63%	47%	Question: AT
25	53%	68%	Context: AT

We can see that of the 25 questions, the control group did significantly better on 3 and the test group did significantly better on 10. The 3 questions on which the control group did better included one of each of the three voices. Explanations for why they may have done better on these questions will be discussed in the next chapter.

4.2.2 Verb Assessment – by Question Type

Analysis was also done to compare how each group did in terms of question type, in order to see if there was any bias due to the typology they learned. There were three main question types: relative clauses, where the verb in the relative clause was tested; *wh*-questions; and context-driven sentences, where the sentence structure and trigger selection would clearly indicate which voice was preferred.

Table 9. Question Type

	Control	Test
Relative Clauses	29%	31%
Questions	35%	44%
Context-driven	42%	55%

Table 9 shows that, overall, the test group did better on each question type, but the difference is more significant with questions and context-driven sentences. In fact, the test group matched or bettered the control group on each of the context-driven sentences, as can be seen in Table 8. This could have been predicted since topicalization is more distinct from the

active/passive typology in its approach to normal sentences than it is with questions and relative clauses, since the active/passive typology as presented by Keenan would require that only subjects extract. Therefore, relative clauses and *wh*-questions, where extractions take place, would produce somewhat similar results to the topicalization approach.

4.2.3 Verb Assessment – by Verb Form

The final breakdown of the Verb Assessment data was made to see what preference there was in terms of voice selection. The data in the table below represents the percent correct for each group on questions that targeted each of the three voices.

Table 10. Verb Form

	Control	Test
Active (AT)	55%	63%
Passive (TT)	33%	47%
Circumstantial (CT)	27%	29%

Again, it is surprising to see that there is not much of a difference between the two groups for circumstantial voice. It would have been predicted that the test group would have done much better with circumstantial questions, and they certainly should have done better than 29%. It is also interesting and understandable that, for both groups, they scored the best on active questions, then next best on passive and worst on circumstantial. It would not have been surprising if the control group did better with active questions than the test group, but this was not the case. The test group did better than the control group with each voice.

4.3 Conclusion

As we can see in this chapter, the test group performed better than the control group in all areas of analysis, except for a few specific assessment questions which will be discussed later. Although the p -value for the overall scores of the Verb Assessment were not truly significant, the overall trend of improvement from the control group to the test group has led the Malagasy teachers at the MTC to permanently change their approach to teach in line with the principles of topicalization.

5. Discussion

5.1 Overall Assessment Results

I showed in the previous section that teaching missionaries Malagasy based on theories of topicalization does have a statistically significant effect on their learning Malagasy during their two month training at the MTC. The most significant effect was seen with the Language Grammar Assessment. The missionaries in the test group spent less time trying to figure out when to use the non-active voices than the missionaries in the control group. It was observed by the teachers that those in the control group constantly asked them to re-explain how they could know when to use passive and circumstantial voice, whereas those in the test group rarely asked. In an informal interview, one teacher even commented that it seemed each subsequent test group asked less and less until the last group didn't ask at all. Being free from the worry of which verb form to use and when allowed them to spend more study on the other aspects of the language. This was shown by the test group's improvement on non-verb related questions.

It was surprising, however, that the test group, although given a clearer understanding and vision of when to use the non-active verb forms, still did not perform significantly better on the Verb Assessment. There are three possible explanations for this. First, Malagasy is, like Manaster-Ramer said, a language that is somewhere between a pure topic and a pure subject language, and because missionaries were taught Malagasy as a more-or-less pure topic language that caused them to be misled. The second possibility is that Malagasy is a topic language, but because the missionaries are learning it from a subject language perspective they had a hard time changing how they see and use language in the two short months they worked on it. The third possibility is that, even though the teachers were exposed to the principles of topic languages and

had received training, it was still new to them and they were able to improve the way they taught those principles as they went along.

In regards to the first explanation, I think that it was very clear from chapter 2 that even though Malagasy is not a pure topic language as explained by Li and Thompson, it is a topic language. Pearson and Hyams et al. clearly demonstrated this point. Because studies of second language acquisition always have additional motivational and experiential elements which are difficult to factor into the results, it would be much more prudent to conclude that Malagasy is a topic language, based on the L1 data from Hyams et al., than to presume that Malagasy is a semi-topic language based on L2 data.

I submit that the difference of scores on the Verb Assessment was not significant because of a combination of the second and third explanations above. Two months is not a long time to completely change one's views about how language is used. In reality, the process of going from concept to utterance for a native English speaker is completely inverted in Malagasy. In English, we start with a concept that we want to express, which is usually centered on the action. We then think the subject. According to Foley, in English, there is an NP that is always preferred for the subject. In essence, the verb chooses the subject. Whichever verb one uses will decide whether one needs an agent or an experiencer to be the subject. After the subject is attached, we say the subject and then the action. In Malagasy, this line is inverted. We start thinking about the topic (the old information). We then think the predicate (the new information). The topic determines the verb form, unlike English, where the verb chooses the subject. Then we say the predicate and then the topic. Coincidentally, in both languages we say first what we were thinking last. This is not true of V2 languages, of course. Because the concept to utterance process is opposite in their

native language and target language, it is understandable that they cannot retrain their brain in two months from what took nineteen years to ingrain.

Based on the observations from the teacher, mentioned at the beginning of this chapter, I would also submit that the teacher's experience with teaching topicalization had a slight effect on the results of the Verb Assessment. As they got better at teaching it, the missionaries needed less clarification on when to use each verb voice. We can verify improvement by looking at the mean score for the four districts that made up test group, as shown in Table 11.

Table 11. Test Group – By District

District	1	2	3	4
Mean Score	10	9	11.67	10.45

There is not a clear trend from the first group to the last. However, the missionary receiving the high score for the entire test group (17) was found in district 3, which significantly brought up that group's mean score shown in Table 11, because his score was much higher than the next highest of his group (10). Also, the missionary with the lowest score for the entire test group (5) was found in district 4. He scored a couple of points below the next lowest of that group. If we were to factor out those two missionaries, we would see the general trend of improving scores over time. However, this trend is not overtly obvious from the first group to the last, without these factorings. On the other hand, we can see that the average score of the first two groups combined is lower than the average score of the second two groups combined. I, therefore, conclude that teacher improvement is a small contributing factor in the less than significant difference between test and control groups on the Verb Assessment.

5.2 Individual Question Results

As was shown in the results section, there were some questions where the control group did better, and some where the test group did better. However, the test group did better on several more than the control group. Of the 75 questions, the test group did significantly better on 29 and the control group on 8. I would like to discuss some of these questions and what they might tell us about the two approaches.

5.2.1 Control Group Advantage

Of the 8 questions that the control group did better on, 3 of them targeted circumstantial verbs. Two of these were relative clauses with the word *fotoana* ('time') as their heads (#34 on the LGA and #2 on the Verb Assessment). Those in the control group, who were taught an active/passive model, had a difficult time conceptually fitting in the notion of circumstantial verbs. To help in this the teachers had taught the missionaries in this group some trigger words to help them recognize when to use it, just as a Spanish teacher gives trigger words to help native English speakers know when to use subjunctive mood (which is also not a regular part of English speech). *Fotoana* was one of these circumstantial trigger words that they taught. Those in the test group were not taught these trigger words, and had to rely on their analysis of what role *fotoana* played in the sentence. Therefore, it was less of an automatic process for the test group, which is a good reason why the control group probably scored better on these questions.

The control group also did better on one question from the Verb Assessment, which had another one of the circumstantial triggers, *fomba* 'manner,' but which was actually the head of TT relative clause. I cannot think of a good reason why they would do better on this one, except for chance. There was nothing in what they were taught that would prompt them to think that

passive was more appropriate for that phrase with a word that they knew to be a circumstantial trigger.

The other questions on which the control group did better were questions which targeted active voice, which is understandable for this group, and a couple of smaller principles, indirect objects and articles.

5.2.2 Test Group Advantage

With the test group, there were several non-verb voice principles with which they did better. As these principles were already listed in the previous section, I will not repeat them. However, there are two principles which I would like to discuss because I think they could be related to the teaching of topicalization. One is the use of adjectives. Because there is no verb 'to be' in Malagasy, adjectives appear on their own when they are the predicate. The test missionaries were taught the basic sentence structure as Predicate + Topic, whereas the control group was taught VOS. When a missionary sees the sentence as a topic and predicate, it is easy to understand how to use adjectives. They see it as when the adjective is the predicate it goes before the noun, and when it is not, it goes after the noun. This, of course, is an oversimplification, but it works in many respects. When a missionary sees the sentence as VOS, and they have a sentence like, "The book is blue," they don't know what to do with the verb spot. So, they rely on the rule that adjectives go after what they describe.

The other principle with which the test missionaries had greater success is with possessives. I think that this could be due to the fact that they felt more comfortable with possession than the control group. My reason for this is that possession and agent endings on non-AT verbs are basically equivalent. Because the test group used non-AT verbs more

frequently than the control group (who relied a lot on the basic active), they had more practice with attaching these endings and therefore were able to do better on these questions.

5.3 Conclusion

When we look at the approaches from which the two groups were taught, many of the differences in results can be easily explained. Overall, the differences in scores tended to favor the test group, indicating that teaching topicalization to Malagasy learners does have positive effects.

6. Conclusion

In this thesis, I have shown significant effects in learner understanding by teaching Malagasy as a topic language rather than a subject language, like English. The effects in understanding have come by helping missionaries better understand the role of the trigger in Malagasy and how that relates to its verbal voicing system. Helping them understand that the way English and Malagasy speakers use active and passive constructions is different has helped them understand why Malagasy speakers use more non-active verbs than English speakers and when they should use those verbs in their own speech. They may have a better understanding of when to use them, as evidenced by better results in this study and less requests for help from the teachers, but they still need more practice with and exposure to this new way of constructing sentences.

6.1 Future Research

One principle that may prove beneficial, and should be tested, is symmetrical voicing, as described by Foley. One thing that missionaries were not taught, but that they should understand, is that the default or base form for every verb is the root. Even in the test group, missionaries thought of the active as the default or infinitive form, and they still needed reminders to learn all three voice forms when they learn a verb and not just the active. It would be interesting to see if understanding that a verb has no form until the topic is chosen would help force them to think of topic first and then predicate, instead of predicate then subject. One problem they still have to deal with is that they are trying to build Malagasy sentences from English predicate argument structures, altered according to what they want the topic to be, when in Malagasy, a verb has no argument structure until after the topic is selected.

Another research project that needs to be done is a long term study with missionaries taught both ways in the MTC. They need to be tested after having been in Madagascar for a few months. Although missionaries taught topicalization did not show a significant difference in scores at the end of the MTC training, they may pick up topicalization faster when they get there than those that were taught the traditional way in the MTC, because they have a base for understanding what they hear during interactions with native speakers.

Note

1. An interesting phenomenon with MTC districts is that because the missionaries of a district spend every minute of every day together, they grow very close and take on a personality as a group. When one missionary is burdened, they all tend to be. With the district whose results were removed from the study this was also the case. Their results on both assessments were significantly lower than the rest of the test group results, with a mean score on the LGA of 16 and a mean score on the Verb Assessment of 5.5. When looking back at this district and what they went through, it is easy to see why. Their district was plagued by illness much of the time, with one missionary or another. Because the group was made up of only four missionaries and missionaries are always required to be with at least one other missionary, when one missionary was sick and had to stay in the apartment or visit the doctor, this meant that half of the district was gone. This made it difficult for the teachers, who had to backtrack to catch missionaries up on things missed. With one missionary, he was being tested for a serious malady and did not even know until the last week if he was even going to be able to go to Madagascar, or if he would have to go home, or serve somewhere in the U.S. When one does not know if he will ever use a language, it is hard to be focused and motivated enough to learn it effectively. The difference between this district's scores and the scores of the remainder of the test group was very significant with a $p < .01$ of .00016 on the LGA and $p < .01$ of .0047 on the Verb Assessment. Since they were taught the same method, this means that there has to have been other factors involved to cause such a difference in results, such as those explained above.

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Appendix A: Language Grammar Assessment

Elders Johnson and King are getting to know Matio, a member. Matio walks up the path just as the Elders call "Haody ô!"

1. Matio: _____, elders. Avy mampianatra ny kilasy any amin'ny université aho.
Matio: Come in, elders. I'm just coming from teaching my class at the university.
 - a. Mandroso
 - b. Tonga ao
 - c. Tongava
 - d. Mandrosoa

2. Elder Johnson: Misaotra.
Elder King: Inona no _____?
Elder Johnson: Thanks.
Elder King: What do you teach?
 - a. Mampianatra ianao
 - b. Ampianaranao
 - c. Ampianarinao
 - d. Ianaranao

3. Matio: Mampianatra histoire aho.
Elder King: _____ dia nianatra histoire tany amin'ny université aho.
Matio: I teach history.
Elder King: Before I came here, I studied history at college.
 - a. Taloha tonga eto aho
 - b. Talohan'ny nahatongavako teto
 - c. Taloha tonga teto aho
 - d. Talohan'ny nahatongavako eto

4. Elder Johnson: _____ ve ireo?
Elder Johnson: Are those your children?
 - a. Ny zanakao
 - b. Ny zakananao
 - c. Ny zanak'izy ireo
 - d. Ny zanaka anao

5. Matio: Eny, _____, ary Hery ny kely.
Matio: Yes, this is Mamy and the little one is Hery.
 - a. Mamy ity
 - b. Ity Mamy ity
 - c. Mamy dia ity
 - d. Ity Mamy dia ity

6. Elder King: _____ no natao batisa ianareo?
Elder King: When did you all get baptized?
 - a. Ahoana
 - b. Aiza
 - c. Rahoviana
 - d. Oviana

7. Matio: Natao batisa tamin'ny 2003 _____.
Matio: We got baptized in 2003.
- Isika
 - Izaho
 - Izy ireo
 - Izahay
8. Matio: Nanome Bokin'i Môrmôna _____ vadiko ny mpikambana iray.
Matio: A member gave a Book of Mormon to my wife.
- Tany
 - Amin'ny
 - An'i
 - Tamin'ny

Sisters Ford and Haney are meeting with Tiana and Olga, an investigator couple, and are helping them prepare for their baptism.

9. Soeur Ford: Ao amin'ny bokin'i _____, misy soratra masina izay miresaka momba ny batisan'i Jesoa Kristy.
Soeur Ford: In the book of second Nephi, chapter 31, verses 4 through 7, there is a scripture which talks about the baptism of Jesus Christ.
- Roa Nefia toko faha iraka amby telopolo andininy faha efatra ka hatramin'ny fito.
 - Roa Nefia toko faha iray amby telopolo andininy faha efatra ka hatramin'ny faha fito.
 - Nefia faha roa toko faha iraka amby telopolo andininy faha efatra ka hatramin'ny faha fito.
 - Nefia faha roa toko faha iray amby telopolo andininy faha efatra ka hatramin'ny fito.
10. Soeur Ford: Nametraka ohatra _____ i Kristy amin'ny fanaovana batisa.
Soeur Ford: Christ set an example for everyone by being baptized.
- Ho an'ny olon-drehetra
 - Ho ny olon-drehetra
 - Ho any olon-drehetra
 - Ho olon-drehetra
11. Soeur Ford: Tian'Atra hiverina _____ isika...
Soeur Ford: God wants us to return to Him...
- Amin'izy
 - Any aminy
 - Aminy
 - Amin'azy
12. Soeur Ford:...ary antony iray _____ izany.
Soeur Ford:...and that's one reason that we need to be baptized.
- Fa mila atao batisa isika
 - Izay mila atao batisa isika
 - Fa ilaintsika atao batisa
 - Izay ilantsika atao batisa
13. Tiana: Afaka manatrika raharahan'ny batisa ve izahay mba _____ ho an'ny batisanay?
Tiana: Can we attend a baptismal service in order to prepare for our baptism?
- Hiomana
 - Hiomananay

- c. Hiomanana
d. Miomana
14. Soeur Haney: Eny. Misy raharahan'ny batisa amin'ny Asabotsy. Te _____ ve ianareo?
Soeur Haney: Yes. There's a baptismal service on Saturday. Do you want to go with us?
a. Handeha aminay
b. Handeha amintsika
c. Hiara-handeha amintsika
d. Hiara-handeha aminay
15. Tiana: Ho tsara izany.
Soeur Haney: Handalo aty amin'ny _____ izahay.
Tiana: That'll be great.
Soeur Haney: We'll pass by here at 12:25.
a. Roa sy sasana latsaka dimy
b. Roa amby folo sy sasana lasa dimy
c. Roa ambin'ny folo sy sasana latsaka dimy
d. Roa ambin'ny folo sy sasana mahery dimy
- Elders Wilson and Jackson are working with Jaona and Sahondra, a member couple, to get a referral.*
16. Jaona: Manana _____ izahay izay vonona hihaino ny filazantsara.
Jaona: We have a friend who is ready to listen to the góspel.
a. Iray namana
b. Namana
c. Ny namana
d. Namana iraiika
17. Elder Wilson: Efa nanome _____ ianao?
Elder Wilson: Have you given him a Book of Mormon already?
a. ve azy Bokin'i Môrmôna
b. azy ve Bokin'i Môrmôna
c. azy Bokin'i ve Môrmôna
d. azy Bokin'i Môrmôna ve
18. Jaona: Tsy mbola. _____ hanome azy boky _____.
Jaona: Not yet. We want you to give him a book.
a. Maniry anareo ... izahay
b. Te anareo ... izahay
c. Tianay ... ianareo
d. Tianareo ... izahay
19. Elder Jackson: Afaka _____ isika, nefa mila miresaka aminy aloha ianareo.
Elder Jackson: We can help each other, but you need to talk to him first.
a. Manampy isaky hafa
b. Mifanampy
c. Mampanampy
d. Manampy ny hafa

20. Elder Wilson: Raha manasa azy amin'ny takarivam-pianakavy ianareo, _____ izahay.
Elder Wilson: If you invite him to a family home evening, we'll come.
- Dia ho tonga
 - Avy eo tonga
 - Tonga
 - Ho tonga
21. Sahondra: Hanasa _____ ho tonga amin'ny alatsinainy manaraka izahay.
Sahondra: We'll invite Hery to come next Monday.
- Hery
 - Any Hery
 - i Hery
 - an'i Hery
22. Sahondra: Mbola _____ ianareo, raha tsy afaka tonga i Hery.
Sahondra: You're still invited if Hery can't come.
- Asaina
 - Nanasa
 - Asainareo
 - Nanasana
23. Elder Jackson: Afaka hizara lesona antsoina hoe " _____ " izahay.
Elder Jackson: We can share a lesson called "The teacher's child."
- Ny zanan'ny mpampianatra
 - Ny zanakan'ny mpampianatra
 - Ny zanaky ny mpampianatra
 - Ny zanak'ny mpampianatra

Sisters Giles and Toon are teaching Haingo about learning the truth of the Book of Mormon through the Holy Ghost.

24. Haingo: _____ ny Bokin'i Môrmôna, nahatsapa fiadanampo aho.
Haingo: By reading the Book of Mormon, I felt a peace.
- Tamin'ny famakiana
 - Amin'ny mamaky
 - Amin'ny vakiana
 - Tamin'ny mamaky
25. Soeur Toon: _____ mahatsapa mitovy rehefa mamaky azy.
Soeur Toon: I feel the same way when I read it.
- Aho dia
 - Aho no
 - Izaho dia
 - Izaho no
26. Haingo: Ahoana no _____...
Haingo: How do I know...
- Ahafantarako
 - Ahafantatro
 - Mahafantatra aho
 - Fantatro

27. Haingo: ...raha avy amin'ny Fanahy Masina _____?
 Haingo: ...if those feelings come from the Holy Ghost?
 a. Ny fahatsapana ireo
 b. Ireo fahatsapana ireo
 c. Io fahatsapana
 d. Ity fahatsapana ity
28. Soeur Giles: Raha _____ dia avy amin'ny Fanahy izany.
 Soeur Giles: If the feeling is good and happy then it comes from the Spirit.
 a. Ny fahatsapana tsara sy faly
 b. Tsara fahatsapana sy faly
 c. Tsara sy faly ny fahatsapana
 d. Tsara sy faly fahatsapana
29. Soeur Giles: _____ ny Bokin'i Môrmôna ve ianao?
 Soeur Giles: Will you continue to read the Book of Mormon?
 a. Hitohy hamaky
 b. Hanohy hamaky
 c. Hanohy famakiana
 d. Hitohy amakiana
- Elders Paulson and Jones are teaching Vahoangy about repentance.*
30. Elder Paulson: _____ izay nataon'i Jesoa Kristy ho antsika ny sorompanavotana.
 Elder Paulson: The atonement is the greatest thing that Jesus Christ did for us.
 a. Ny zavatra lehibe indrindra
 b. Ny lehibe zavatra indrindra
 c. Ny lehibe indrindra zavatra
 d. Indrindra ny zavatra lehibe
31. Elder Paulson: Tsy _____ izy.
 Elder Paulson: He won't make us repent.
 a. Hanao hibebaka antsika
 b. Hanao antsika hibebaka
 c. Hampibebaka antsika
 d. Hanahibebaka antsika
32. Elder Paulson: _____ antsika izy nefa...
 Elder Paulson: He wants to help us but...
 a. Te hanampy
 b. Te manampy
 c. Maniry nanampy
 d. Maniry manampy
33. Elder Paulson: ...misy ny safidy malalaka ao amin' _____
 Elder Paulson: ...His plan includes agency.
 a. Drafitry
 b. Ny drafitry
 c. Ny drafitr'izy
 d. Ny drafiny

34. Elder Paulson: Iza no fotoana _____.
Elder Paulson: Now is the time for us to repent.
- Hibebahantsika
 - Ho antsika hibebaka
 - Hibebakantsika
 - Hibebahana isika
35. Elder Jones: Vahoangy, hangataka _____ ho an'ny famelan-keloka ve ianao?
Elder Jones: Vahoangy, Will you ask God for forgiveness?
- An'Andriamanitra
 - i Andriamanitra
 - amin'i Andriamanitra
 - Andriamanitra
36. Vahoangy: _____
Vahoangy: I'll do that.
- Ataoko fa
 - Anaovako izany
 - Hataoko izany
 - Hanao fa aho
- Elder Hanks is helping his junior companion Elder Smith prepare for a companionship exchange.*
37. Elder Hanks: Iza no _____?
Elder Smith: Manitra.
Elder Hanks: Who are you going to visit?
Elder Smith: Manitra.
- Hamangy anao
 - Hamangy ianao
 - Hovangiana ianao
 - Hovangiana
38. Elder Hanks: _____ hahatsapa ny Fanahy Masina satria...
Elder Hanks: Help him feel the Holy Ghost because...
- Manampy azy
 - Ampio izy
 - Ampio azy
 - Manampy izy
39. Elder Hanks: ...tena mila _____ izy.
Elder Hanks: ...he really needs our message.
- Ny hafatsika
 - Ny hafatrasika
 - Ny hafatrantsika
 - Ny hafatra antsika
40. Elder Hanks: Tadidio fa _____ hitory ny filazantsara ianao ary ...
Elder Hanks: Remember that you have been called to preach the gospel and...
- Voaantso
 - Vaoantso
 - Niantso
 - Niantsoana

41. Elder Hanks: ... hanampy anao hampianatra _____ Andriamanitra.

Elder Hanks: ...God will you teach those important lessons.

- a. Ireo lesona ireo zavadehibe
- b. Ireo lesona zavadehibe
- c. Lesona ireo zavadehibe
- d. Ireo lesona zavadehibe ireo

42. Elder Hanks: Mila miankina amin'ny Fanahy ianao, satria mahafantatra _____ izy.

Elder Hanks: You need to rely on the Spirit because He knows more than you.

- a. Kokoa izay ianao
- b. Kokoa noho anao
- c. Bebe kokoa izay anao
- d. Bebe kokoa noho ianao

43. Elder Smith: Tsara _____ raha manana ny Fanahy Masina ianao.

Elder Smith: A lesson is good if you have the Holy Ghost.

- a. Ny lesona iray
- b. Lesona
- c. Ity lesona ity
- d. Lesona iray

Elder Tanner, a zone leader, is speaking to his zone at a zone conference.

44. Elder Tanner: Nanao _____ isika.

Elder Tanner: We've done good work.

- a. Tsara asa
- b. Asa tsara
- c. Asa
- d. Tsara zavatra

45. Elder Tanner: Nampiasa tsara ny fotoana _____ isika.

Elder Tanner: We've used well the time that God has given us.

- a. Izay nanome antsika Andriamanitra
- b. Nanomezan'Andriamanitra antsika
- c. Nomen'Andriamanitra antsika
- d. Fa nanome antsika Andriamanitra

46. Elder Tanner: Raha maharitra hatramin'ny farany _____ dia ...

Elder Tanner: If you endure to the end, then...

- a. Ianareo
- b. Ianao
- c. Izahay
- d. Izaho

47. Elder Tanner: ... hisy fiadanana lehibe amin'ny andro _____ any aminareo.

Elder Tanner: ...there will be a great peace on the day that you return home.

- a. Izay hiverina ianareo
- b. Izay hiverinanareo
- c. Izay hiverenanareo
- d. Izay verinanareo

48. Elder Tanner: Nangataka _____ ny filohan'ny misiona hanampy anareo...
Elder Tanner: The mission president asked us to help you...
- Anay
 - Antsika
 - Anao
 - Anareo
49. Elder Tanner: ...amin'ny _____ ny fiteny.
Elder Tanner: ...with your language study.
- Mianatrareo
 - Mianatra ianareo
 - Fianatrareo
 - Fianaranareo
50. Elder Tanner: Hametraka fotoana _____ hijery ny drafitrareo ho an'ny fianarana ny fiteny izahay.
Elder Tanner: We will set a time with you to look at your language study plans.
- Miaraka ianareo
 - Amin'ianareo
 - Aminareo
 - Amin'ianao

Appendix B: Verb Assessment

1. Tokony ho toerana _____ ny Fanahin'Andriamanitra ny tokontrano.
The home should be a place where the Spirit of God dwells.
 - a. Mijanona
 - b. Ijanonan'
 - c. Janonin'
 - d. Anjanonan'

2. Nisy fotoana _____ ny taranak'i Adama ny filazantsara.
There were times when the posterity of Adam rejected the gospel.
 - a. Nandavan'
 - b. Lavin'
 - c. Nanda
 - d. Nolavina

3. Nahatanteraka izay rehetra _____ ny Rainy azy izy.
He accomplished all that His Father sent him to do.
 - a. Naniraka
 - b. Iraky
 - c. Nanirahan'
 - d. Irak'

4. Taorian'ny taonjato maro _____ ny fahamaizinana ara-panahy dia nonohitra ireo fomba fivavahana nisy tamin'izany ny olona sasany.
After many centuries when there was spiritual darkness some people protested the current church practices.
 - a. Nisy
 - b. Misy
 - c. Nisiana
 - d. Nisian'

5. Tamin'ny alalan'i Joseph Smith no _____ tamin'ny laoniny teto an-tany ny fahafenoan'ny filazantsaran'i Jesoa Kristy.
Through Joseph Smith, the fullness of the Gospel of Jesus Christ was restored to the earth.
 - a. Niverina
 - b. Naverina
 - c. Namerenana
 - d. Namerina

6. Raha nivavaka i Joseph Smith dia _____ andrim-pahazavana.
When Joseph Smith prayed, he saw a pillar of light.
 - a. Nohitany
 - b. Hitany
 - c. Nahita
 - d. Nahitany

7. Iza no _____ ?
Who did they teach?
- Nampianarin'izy ireo
 - Nampianaran'izy ireo
 - Nampianatr'izy ireo
 - Nampianatra izy ireo
8. Inona no _____ omaly?
What did you do yesterday?
- Nanao ianao
 - Nataonao
 - Nanaovanao
 - Anao ianao
9. Iza no _____ io boky io?
Who wrote this book?
- Nosoratana
 - Soratan'
 - Nanoratan'
 - Nanoratra
10. Inona no _____ ?
What did you make this with?
- Namboarinao amin'ity
 - Nanamboaranao ity
 - Nanamboatra ity amin'ny ianao
 - Namboarinao ity
11. Fantatrao ve ny anaran'ny magazay _____ ny bokiny?
Do you know the name of the store where he sells his book?
- Aiza mivarotra ...izy
 - Aiza ivarotany
 - Izay mivarotra...izy
 - Izay ivarotany
12. Mitady ny penina _____ taratasy aho.
I'm looking for the pen I write letters with.
- Amin'izay manoratra
 - Izay soratako
 - Izay anoratako
 - Izay soratro
13. Manana ny boky _____ ve ianao?
Do you have the book I gave you?
- Nomeko anao
 - Nanome anao aho

- c. Nanomeko anao
d. Nanomezako anao
14. Rakotomalala no mpikambana izay _____ ao an-tsekoly.
Rakotomalala is the member that teaches in school.
- a. Ianarana
b. Ampianarina
c. Mampianatra
d. Ampianarana
15. Hiasa mafy aho mandrapahatonga ny andro _____.
I'll work hard until the day that I go.
- a. Handehanako
b. Mandeha aho
c. Handeha aho
d. Lehako
16. Io no _____ ity seza ity.
That's what he made this chair with.
- a. Namboariny
b. Nanamboarany
c. Nanamboatra izy
d. Nanaboatra aminy izy
17. _____ hijoro ho vavolombelon'i Jesoa Kristy ny mpaminany.
The prophets are called to testify of Jesus Christ.
- a. Niantsoana
b. Niantso
c. Antsoina
d. Antso
18. Nitarika ny fianakavian'i Nefia ho any amin'ny _____ Andriamanitra.
God led Nephi's family to the promised land.
- a. Tany nampanantenana
b. Nampanantena tany
c. Tany nampanantena
d. Tany nampanantenaina
19. _____ amin'ny Fanahy Masina ny filazantsara.
We preach the gospel with the Holy Ghost.
- a. Mitory izahay
b. Torianay
c. Itorianay
d. Mitorinay

20. Izarako ny vavolombeloko _____.
I share my testimony with the scriptures.
- Amin'ny soratra masina
 - Miaraka ny soratra masina
 - Miaraka amin'ny soratra masina
 - Ny soratra masina
21. Ny filazantsara no fomba _____ antsika hivoarana.
The gospel is the way God gave us to progress.
- Nomen'Andriamanitra
 - Nanome Andriamanitra
 - Nanomezan'Andriamanitra
 - Omeo Andriamanitra
22. Nitady ny fahamarinana i Joseph Smith. Tsy _____...
Joseph Smith searched for the truth. He didn't know...
- Fantatr'izy
 - Fantany
 - Nahafantatry
 - Fantatry
23. ...ny fiangonana tokony _____.
...which church he should join (enter).
- Hiditra izy
 - Hidirany
 - Hiditr'izy
 - Hidiny
24. Inona no _____?
What happened to him?
- Nitrangany
 - Nitrangainy
 - Nitranga taminy
 - Nitranga azy
25. Isika no _____ ny fahamarinana.
We are the ones who know the truth.
- Mahafantatra
 - Ahafantarana
 - Fantatra
 - Fantatsika

Appendix C

Institutional Review Board
for Human Subjects



Brigham Young University
A-285 ASB . Provo, Utah 84602
(801) 422-3841 / Fax: (801) 422-0620

March 19, 2009

Jeremy Workman
530 East Center St. #16
Provo, UT 84606

Re: Malagasy Grammar Study

Dear Jeremy Workman

This is to inform you that Brigham Young University's IRB has approved the above research study.

The approval period is from 3-19-2009 to 3-18-2010. Your study number is E090080. Please be sure to reference this number in any correspondence with the IRB.

Continued approval is conditional upon your compliance with the following requirements.

All protocol amendments and changes to approved research must be submitted to the IRB and not be implemented until approved by the IRB.

Advertisements, letters, Internet postings and any other media for subject recruitment must be submitted to IRB and approved prior to use.

A few months before this date we will send out a continuing review form. There will only be two reminders. Please fill this form out in a timely manner to ensure that there is not a lapse in your approval.

If you have any questions, please do not hesitate to call me.

Sincerely,

Christopher Dromey, Ph.D., Chair
Santee M.P. Munoz, Administrator
Institutional Review Board for Human Subjects
CD/se