

Voice Morphology, Case, and Argument Structure in Malagasy

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1. Introduction

The canonical Malagasy clause is divided into two constituents, the *predicate phrase* (PredP), and a definite noun phrase here called the *trigger*. This is schematized in (1) (cf. Keenan 1995 for evidence for this bipartite clause structure).

(1) [PredP V ...] [Trigger DP]

When the predicate phrase is headed by a verb, that verb is marked for *voice* to indicate the grammatical function of the trigger. Examples are given in (2) (here and throughout, the trigger is underlined; the morphological breakdown of each verb is given in brackets, with the voice morphemes boldfaced). (2a) illustrates the *actor-trigger* (AT) form, used when the external argument—here, the agent—is the trigger of the clause. The *theme-trigger* (TT) form in (2b) is used when an internal argument—here, the patient—functions as the trigger. Finally, the *circumstantial-trigger* (CT) form in (2c) is used when the trigger is an oblique element—here, the instrument with which the event is carried out. In each case, the trigger follows the predicate phrase, occurring at the right periphery of the sentence. Within the predicate phrase, the order of elements is VSOX: non-trigger external arguments appear right-adjacent to the verb, preceding internal arguments, which precede obliques.

- (2) a. Mamono [**m-aN-vono**] akoho amin'ny antsy ny... mpamboly
 AT.kill **m-Pfx-kill** chicken with-Det knife Det farmer
 'The farmer kills chickens with the knife'
- b. Vonoin' [vono-**in**] ny mpamboly amin'ny antsy ny... akoho
 TT.kill **kill-in** Det farmer with-Det knife Det chicken
 'The farmer kills the chickens with the knife'
- c. Amonoa' [aN-vono-**an**] ny mpamboly akoho ny... antsy
 CT.kill **Pfx-kill-an** Det farmer chicken Det knife
 'The farmer kills chickens with the knife'

In previous work (Pearson, to appear), I used evidence from binding, extraction, and other domains to argue that the trigger is not the subject of the sentence, as usually assumed, but is instead base-generated in the specifier of an A'-projection, *TopicP*, and linked to a null operator in the specifier of a lower projection, *WhP*, as shown in (3) (abstracting away from surface word order; on the right-peripheral position of the trigger, see Pearson (2001)).

(3) [TopP Trigger_i Top [WhP *Op_i* [TP V ... t_i ...]]]

The analysis in (3) suggests a novel approach to the voice alternations in (2): Generally, voice morphology is taken to encode active/passive-like alternations in

the mapping of thematic roles to the subject (nominative Case-checking) position. However, if the trigger is not the subject of the clause but a topic linked to an A'-chain, it is possible that voice morphology instead indicates the position from which A'-extraction takes place, with the AT form in (2a) marking subject extraction, the TT form in (2b) marking object extraction, and the CT form in (2c) marking oblique extraction.

Under this approach, voice in Malagasy is less like voice in English and more like *wh-agreement*, of the sort which Chung (1998) documents for Chamorro. In A'-extraction contexts in Chamorro, regular subject agreement of the sort shown in (4) is replaced by special morphology indicating whether the extracted element is a subject, object, or oblique, as in (5). In Pearson (to appear) I suggested that Malagasy voice marking is a 'generalized' version of this type of marking: While in Chamorro *wh-agreement* is confined to questions, relative clauses, and the like, in Malagasy it appears in all clause types due to a requirement that the specifier of WhP be filled in every clause.

- (4) **Ha-fa'**gasi si Juan i kareta
 3s-wash Det Juan Det car
 'Juan washed the car'
- (5) a. Hayi f<um>a'gasi i kareta? (subj. extraction)
 who um-wash Det car
 'Who washed the car?'
- b. Hafa f<in>a'gasése-nña si Henry pära hagu? (obj. extraction)
 what in-wash.Prog-3s.Lnk Det Henry for you
 'What is Henry washing for you?'
- c. Hafa pära fa'gase-mmu ni kareta? (obl. extraction)
 what Fut Ø-wash-2s Obl car
 'What are you going to wash the car with?'

In this paper I focus on the voice affixes themselves and propose an account of their distribution. Specifically, I argue that they are realizations of light verbs and Case-checking heads, which combine with the root through head-to-head movement. The distribution of the affixes is determined by the positions from which, and through which, the null operator in (3) moves on its way to the specifier of WhP. For example, the actor-topic prefix *m-* is treated as a nominative Case-checking head, which gets spelled out just in case the operator raises through its specifier. (My analysis is thus in the spirit of Guilfoyle, Hung, & Travis (1992), who also associate voice morphemes with Case licensing.)

2. The Morphology of voice

Before proceeding with this analysis, I offer a quick overview of Malagasy voice morphology. Verbs in Malagasy are formed from *roots*, some of which function independently in the language, either as nouns or as stative predicates. To form a verb stem, the root combines with one of a small set of *verbal prefixes* (glossed

'Pfx' in the examples), of which the two most common are *aN-* and *i-*. Some examples of roots and the verb stems formed from them are given in (6).

(6)	ROOT		VERB STEM	
	asa	'work, task'	<i>i</i> -asa	'work'
	fefy	'enclosure'	<i>i</i> -fefy	'be fenced'
	vavaka	'prayer'	<i>i</i> -vavaka	'pray'
	feno	'full'	<i>aN</i> -feno [ameno]	'fill'
	soratra	'writing'	<i>aN</i> -soratra [anoratra]	'write'
	tapaka	'broken'	<i>aN</i> -tapaka [anapaka]	'break'

Although the choice between *aN-* and *i-* is lexically determined, it does correlate to some degree with transitivity: *aN-* stems are almost always transitive, while *i-* stems tend to be intransitive. As illustrated in (7), there are a large number of roots which can take either prefix, where *aN-* forms a transitive stem and *i-* forms its intransitive counterpart:

(7)	<i>i</i> -haja	'be respected'	<i>aN</i> -haja [anaja]	'respect (tr.)'
	<i>i</i> -sasa	'wash oneself'	<i>aN</i> -sasa [anasa]	'wash (tr.)'
	<i>i</i> -voha	'be open'	<i>aN</i> -voha [amoha]	'open (tr.)'

Additional affixes are attached to roots and stems to mark voice. There are five morphologically distinct voice forms in Malagasy, listed in the table below and illustrated using *aN-tafi* 'wrap, dress' and *aN-velar* 'unroll, spread out' (two of a handful of stems which can occur in all five forms). The *actor-trigger* (AT) voice is formed by prefixing *m-* to the stem; while the *circumstantial-trigger* (CT) voice is formed with the suffix *-an*. The other three voices are usually grouped together as the *theme-topic* (TT) voices. These are formed by adding the suffix *-an* or *-in*, or the prefix *a-*. Notice that the verbal prefix is absent in the TT forms, a fact to which I return in the next section.¹

VOICE	TEMPLATE	EXAMPLES
AT	m- Pfx- ROOT	m-aN-tafi > manafy m-aN-velar > mamelatra
CT	Pfx- ROOT -an	<i>aN</i> -tafi- an > anafiana <i>aN</i> -velar- an > amelarana
TT	ROOT -an	tafi- an > tafiana velar- an > velarana
	ROOT -in	tafi- in > tafina velar- in > velarina
	a- ROOT	a-tafi > atafy a-velar > avelatra

Examples of these five forms are given in (8)-(10). The AT form is used when the trigger is the subject of the clause—that is, the sole 'core' argument of an intransitive

sitive verb (8a), or the external argument of a transitive verb (8b). The TT voices are used when the trigger is the direct or indirect object of a transitive verb (9) (see sections 4 and 5 for more on the distribution of these affixes).² (10) illustrates the CT form, which is used when the trigger bears some oblique role such as instrument, location, or benefactee.

- (8) a. Mipetraka [*m-i-petrak*] any Antsirabe ny...vehivavy
 AT.live *m-Pfx-live* there Antsirabe Det woman
 ‘The woman lives in Antsirabe’
 b. Manoratra [*m-aN-sorat*] taratasy ny...mpianatra
 AT.write *m-Pfx-write* letter Det student
 ‘The student is writing a letter’
- (9) a. Tapahin’ [*tapak-in*] ny lehilahy ny...vahitady
 TT.cut cut-in Det men Det vine.ropes
 ‘The men cut the vine ropes’
 b. Soratan’ [*sorat-an*] ny mpianatra ny...taratasy
 TT.write write-an Det student Det letter
 ‘The student is writing the letter’
 c. Atao [*a-taov*] ny fiomanana rehetra
 TT.make a-make Det preparation all
 ‘All the preparations are being made’
- (10) a. Amonoan’ [*aN-vono-an*] ny mpamboly akoho ny...antsy
 CT.kill Pfx-kill-an Det farmer chicken Det knife
 ‘The farmer kills chickens with the knife’
 b. Itoeran’ [*i-toer-an*] ny ankizy io...trano io
 CT.live Pfx-live-an Det children this house this
 ‘The children live in that house’
 c. Amonoan’ [*aN-vono-an*] ny mpamboly akoho ny...vahiny
 CT.kill Pfx-kill-an Det farmer chicken Det guest
 ‘The farmer is killing chickens for the guests’

I now consider each of the morphemes in the above table in turn. I start with the verbal prefixes, and then turn to the AT prefix *m-* and the TT suffix *-in*. Next I consider the TT prefix *a-*. Finally, I discuss *-an*, found in the remaining TT form, and in the CT form.

3. The verbal prefixes

As shown in the table above, the verbal prefixes *aN-* and *i-* appear in AT clauses, where the subject is extracted, and in CT clauses, where an oblique element is extracted. However, these prefixes are absent in TT clauses, where an object is extracted. What’s the reason for this? Recall that *aN-* and *i-* form verb stems from roots, many of which can occur independently: For instance, (12) shows that *aN-* may attach to a one-place stative root to form a two-place verb, adding an agent argument in the process.

ever, when an operator raises to (or through) SpecCP, the complementizer *a* is used instead, as shown in (16). I suggest that the alternation in Malagasy between the verbal prefixes *aN-* or *i-* and \emptyset is a lower phase analogue of this complementizer alternation: In each case, the availability of a landing site or escape hatch for A-bar movement correlates with how the head of the phase is realized. (Examples taken from Carnie, Harley, & Pyatt 2000, Guilfoyle 2000, and Chung & McCloskey 1987, respectively.)

(15) Ceapaim [go bhfaca sé an madra]
 think.1s Comp saw he the dog
 ‘I think that he saw the dog’

(16) a. *Caidé a* chuir sin i do cheann?
 what Comp put that in your head
 ‘What put that in your head?’

b. an bhean [*Op a* chuir t-isteach air]
 the woman Comp put in on.it
 ‘the woman who applied for it’

4. Intransitive and monotransitive verbs

Next I turn to the AT prefix *m-* and the TT suffix *-in*. Recall that *m-* appears on the verb when the transitive or intransitive subject is the trigger, as in (17) and (18a), while *-in* appears when the transitive object is the trigger, as in (18b):

(17) Mitomany [*m-i-tomani*] ny...zazavavy
 AT.cry *m-Pfx-cry* Det girl
 ‘The girl is crying’

(18) a. Mamaky [*m-aN-vaki*] boky ny...zazavavy
 AT.read *m-Pfx-read* book Det girl
 ‘The girl is reading a book’

b. Vakin’ [*vaki-in*] ny zazavavy ny...boky
 TT.read read-*in* Det girl Det book
 ‘The girl is reading the book’

Assuming that Malagasy is a nominative-accusative language, it seems that AT marking correlates with nominative Case, while TT marking correlates with accusative Case. I propose that *m-* and *-in* are realizations of the functional heads which license nominative and accusative Case, respectively: When the operator which raises to SpecWhP has a nominative Case feature to check, the head which checks it is spelled out on the verb as *m-*, and when the operator has an accusative Case feature, the head which checks that feature is spelled out as *-in*.

First of all, consider the sentences in (19) and (20), featuring a TT verb prefixed with *a-*. As these examples show, the predicate-internal subject may be overt, as in the (b) sentences; or it may be covert, as in the (a) sentences, in which case the agent is construed as unknown or arbitrary. Notice that overt subjects im-

mediately follow the verb, which is suffixed with the *linking morpheme*, glossed ‘Lnk’ in the examples (this linking morpheme is realized as *-y* between two non-continuant consonants, otherwise as *-n*’; I assume that the underlying form of this morpheme is *-ny*).

- (19) a. Atosika [a-tosek] ny...vato
 TT.push a-push Det stone
 ‘Someone is pushing the stone’ or ‘The stone is being pushed’
 b. Atosiky [a-tosek-ny] ny vehivavy ny...vato
 TT.push a-push-Lnk Det woman Det meal
 ‘The woman is pushing the stone’
- (20) a. Aroso [a-roso] ny vahiny ny...sakafo
 TT.serve a-serve Det guest Det meal
 ‘Someone serves the guests the meal’ or ‘The meal is served to the guests’
 b. Arosin’ [a-roso-ny] ny vehivavy ny vahiny ny...sakafo
 TT.serve a-serve-Lnk Det woman Det guest Det meal
 ‘The woman is serving the guests the meal’

Although the linking morpheme surfaces only on stems taking the *a-* prefix, I will assume that it is also present on stems ending in *-in* and *-an* when they have overt subjects, but fails to surface because of fusion with the *n* of the voice suffix:

- (21) a. Vakina [vaki-in] ny...boky
 TT.read read-in Det book
 ‘The book is being read’
 b. Vakin’ [vaki-in-ny] ny zazavavy ny...boky
 TT.read read-in-Lnk Det girl Det book
 ‘The girl is reading the book’

Since the linking morpheme is required to license an overt subject in the predicate phrase, I will assume that it is located in the functional head which checks nominative Case. Adapting an analysis due to Travis (1994), I identify this as the *event head* E, which selects *vP* as its complement, as shown in (22). In addition to checking nominative Case, the event head introduces (or binds) the event argument of the clause, and is in turn selected by the tense head. As an examination of the forms above shows, the linking morpheme is in complementary distribution with the AT prefix *m-*: I will therefore assume (following Travis (1994)) that the *m-* prefix is also in E. So *m-* and *-ny* are alternate realizations of the nominative Case-checking head.

- (22) [TP T [EP E-[NOM] [vP DP [v' v ...]]]]
 -ny / m-

What determines how E will be realized? Given my theory of triggers, this correlates with whether the subject (i.e., the nominative Case-marked argument) undergoes A'-movement or not: When the subject is an operator which raises to

5. Ditransitive constructions

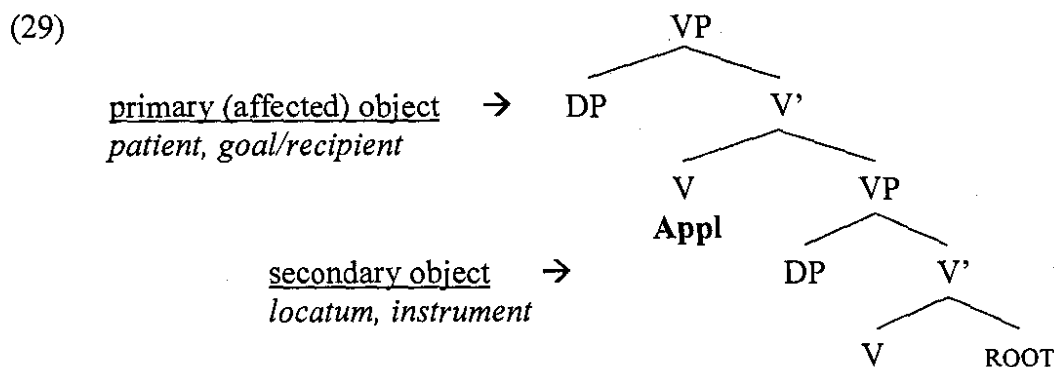
Although the majority of monotransitive verbs mark the TT voice using the suffix *-in*, there are a number of verbs which take the suffix *-an* instead, or the prefix *a-*, as illustrated in (9) above. More often, however, *-an* and *a-* are used with ditransitive verbs. As Paul (1999) discusses, ditransitives in Malagasy fall into various semantic classes: One class, illustrated by *roso* ‘serve’ in (26), includes verbs of transmission, selecting a goal or recipient and a locatum: Here *-an* is used when the goal is the trigger (26b), while *a-* is used when the locatum is the trigger (26c). A second class of ditransitives is illustrated by *didi* ‘cut’ in (27): This class includes verbs which select a patient, and an additional argument denoting an instrument acted upon by the agent to bring about a change in the patient. With verbs of this type, *-an* is used when the patient is the trigger (27b), while *a-* is used when the instrument is the trigger (27c):

- (26) a. Mandroso [**m-aN-roso**] sakafo ny vahiny ny...mpamboly
 AT.serve **m-Pfx-serve** meal Det guest Det farmer
 ‘The farmer serves the guests a meal’
 b. Rosoana [**roso-an**] sakafo ny...vahiny
 TT.serve **serve-an** meal Det guest
 ‘The guests are served a meal’
 c. Aroso [**a-roso**] ny vahiny ny...sakafo
 TT.serve **a-serve** Det guest Det meal
 ‘The meal is served to the guests’
- (27) a. Mandidy [**m-aN-didi**] antsy ny hena ny...mpamboly
 AT.cut **m-Pfx-cut** knife Det meat Det farmer
 ‘The farmer cuts the meat with a knife’
 b. Didiana [**didi-an**] antsy ny...hena
 TT.cut **cut-an** knife Det meat
 ‘The meat is cut with the knife’
 c. Adidy [**a-didi**] ny hena ny...antsy
 TT.cut **a-cut** Det meat Det knife
 ‘The knife is used to cut the meat’

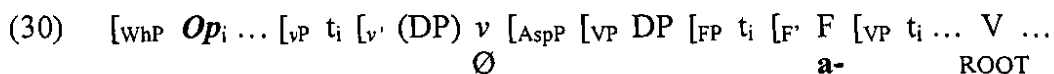
The verbs which take both *-an* and *a-* TT forms constitute the *double object* verbs of Malagasy—that is, those verbs which allow two internal DP arguments. Comparing the sentences in (26) above, we see that the trigger of the *a-* clause in (c) corresponds to the leftmost object in the actor-topic sentence in (a) (usually indefinite and adjacent to the verb), while the trigger of the *-an* clause in (b) corresponds to the rightmost object in (a). This pattern holds for (27). Following Dryer (1986), I will refer to the object farther from the verb as the *primary object* (PO), and the object closer to the verb as the *secondary object* (SO), as in (28). Hence the proper generalization is that the *-an* form indicates that the PO of a double object construction has undergone raising to SpecWhP, while the *a-* form indicates that the SO has undergone raising.

(28)		SO	PO		
	Mandroso	<u>sakafo</u>	<u>ny vahiny</u>	ny	mpamboly
	AT.serve	meal	Det guest	Det	farmer
		'The farmer serves the guests a meal'			
	Mandidy	<u>antsy</u>	<u>ny hena</u>	ny	mpamboly
	AT.cut	knife	Det meat	Det	farmer
		'The farmer cuts the meat with a knife'			

Following Marantz (1993), I assume that double object constructions are really *applicative* constructions in which the applicative morpheme is null. As schematized in (29) below, Marantz treats the applicative morpheme as a kind of light verb, which selects a phrase containing the lexical root as its complement (cf. Larson 1988). The PO merges as the specifier of the applicative head, while the SO merges within its complement. Based on data from Bantu applicatives, Marantz argues that the structure in (29) compositionally represents the complex event denoted by an applicative construction, such that the PO is interpreted as affected by the sub-event denoted by the complement of the applicative head. Hence, for verbs taking a goal and a locatum, it is the goal which will be mapped to the PO function, while verbs taking a patient and an instrument will map the patient to the PO function.



Under this analysis, the *a-* prefix receives a similar treatment to *m-* and *-in-*, discussed earlier. Suppose that in double object constructions, the Case feature of the PO is checked by the Asp head, which selects the structure in (29); while the Case feature of the SO (partitive?) is checked by a lower functional head F, which takes the VP containing the root as its complement and projects an FP, selected as the complement of the applicative head. As with E and Asp, assume that the F head may be strong or weak, where the prefix *a-* spells out a strong F head. When the SO is an operator attracted to SpecWhP, its Case is checked in Spec of FP by a strong F, and the prefix *a-* appears on the verb; otherwise the SO remains in situ, and the F head is null. The structure is given in (30): The SO raises first to SpecFP to check Case. It then raises further to the edge of the lower phase (forcing *v* to be null) before raising on to SpecWhP.



‘doubly-filled COMP’ filter (34). In accordance with this filter, *-an* is spelled out when its specifier contains a trace; otherwise the applicative head is null. Note that (34) is meant to hold generally: As an examination of the structures in this paper will show, each of the projections I posit (with one exception, which I return to below) has an empty head, an empty specifier, or both, at Spell Out.

- (34) If H is a head containing some feature F, * [HP XP [H⁰ H⁰ ...]] when XP and H⁰ both overtly encode F.

6. The circumstantial voice

I have now provided analyses of the AT form and the three TT forms in the table in section 2. This leaves the CT voice, used when the trigger is an *oblique*—that is, an element which requires a preposition in clauses where it does not function as the trigger. Examples are given in (35b) and (36b), showing CT clauses with locative and instrumental triggers, respectively.

- (35) a. Mitoetra [*m-i-toer*] ao amin’io trano io ny...ankizy
 AT.live *m-Pfx-live* here in-this house this Det children
 ‘The children live in that house’
 b. Itoeran’ [*i-toer-an-ny*] ny ankizy io trano io
 CT.live *Pfx-live-an-Lnk* Det children this house this
 ‘The children live in that house’
- (36) a. Mamono [*m-aN-vono*] akoho amin’ny antsy ny...mpamboly
 AT.kill *m-Pfx-kill* chicken with-Det knife Det farmer
 ‘The farmer kills chickens with the knife’
 b. Amonoan’ [*aN-vono-an-ny*] ny mpamboly akoho ny...antsy
 CT.kill *Pfx-kill-an-Lnk* Det farmer chicken Det knife
 ‘The farmer kills chickens with the knife’

Notice that the CT form does not include any new morphemes, but rather a combination of morphemes found in other voice forms. Like the TT forms, the CT takes the linking morpheme *-ny*, indicating that the E head is weak and the subject is Case-licensed in SpecvP. The CT also includes the suffix *-an*, which means that the operator raises from the specifier of an applicative head. But unlike the TT form with *-an*, the root carries a verbal prefix. Since by assumption the lower phase is opaque to A’-extraction when a verbal prefix is present, it follows that the operator in SpecWhP in a CT clause has raised from somewhere outside of vP.

Putting these pieces together, I conclude that the applicative head in Malagasy may be introduced in either the lower phase or the higher phase. In ‘low’ applicatives, the applicative head merges with the VP containing the root. Its specifier is a DP which checks accusative Case under agreement with the Asp head, and is interpreted as an ‘affected object’. In ‘high’ applicatives, by contrast, the applicative head merges with some larger projection, possibly vP. Its specifier does not contain a DP bearing accusative Case and interpreted as affected, but rather a PP. A possible structure is given in (37).⁴

- (37) [_{VP} PP [_{V'} V [_{vP} DP v AspP]]]
Appl

Extraction of an operator from this higher applicative position yields the combination of morphemes associated with the CT voice, as shown in (38): The subject and object remain in situ, their Case-licensing heads spelled out as *-ny* and \emptyset , respectively. The operator raises from the specifier of the higher applicative head, causing its head to be spelled out as *-an*, in accordance with the ‘doubly-filled COMP’ filter. No extraction takes place from *vP*, and so the light verb surfaces as a prefix on the verb stem. To explain the absence of a preposition in CT clauses, we may assume (a) that the operator is of category PP, and/or (b) that the oblique operator in SpecWhP (comparable to *dont* in French) does not need Case.

- (38) [_{WhP} *Op*_i [_{TP} [_{EP} E [_{vP} *t*_i V [_{vP} (DP) v [_{AspP} ... V]]]]]]]]
-ny -an Pfx- ROOT

One apparent problem with (38) is that the *vP* projection violates the ‘doubly-filled COMP’ filter discussed above: The head of *vP* is spelled out as a verbal prefix, while the specifier of *vP* contains the in situ subject. There are various possible solutions to this problem. For example, we could simply expand the tree so that the subject and the verbal prefix end up in different projections. A second, perhaps more interesting possibility is that *vP*, by virtue of being a phase, is somehow exempt from the ‘doubly-filled COMP’ filter. Adopting Chomsky’s (1999) idea that Spell Out operates cyclically, we might speculate that the ‘doubly-filled COMP’ filter (plausibly a condition on Spell Out) applies only within a given cycle. Suppose that the head of a phase and its specifier are spelled out in different cycles, then it follows that *vP* would be able to have an overt head co-occurring with an overt specifier.

7. Conclusion

In this paper I have argued that the morphemes which combine to form the different voices in Malagasy are realizations of heads which attach to the root via head-to-head adjunction in the syntax. The verb stem-forming prefixes are light verbs, which alternate with a null variant when A’-extraction from the lower phase takes place. The AT prefix *m-*, the TT prefix *a-*, and the TT suffix *-in* are strong Case-licensing heads which surface just in case an operator raises through their specifiers. Finally, the suffix *-an*, found on the CT and on one of the TT forms, is an applicative head, which surfaces when the applicative argument raises out of its specifier, in accordance with a generalized ‘doubly-filled COMP’ filter.

Endnotes

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1. For discussion of the rules for deriving the surface forms from their underlying representations, see Keenan & Polinsky (1998), Erwin (1996), Paul (1996a/b). Here I will mention only that when a consonant occurs at the end of a phonological word, an epenthetic *a* is inserted after it, in accordance with a surface ban on closed syllables (e.g., *velar-an* > *velarana*).

2. Note that the TT suffixes *-in* and *-an* are generally treated not as separate voice markers, but as lexically-conditioned allomorphs of a single marker. However, Rahajarizafy (1960) notes that there are a handful of verbs which can take either suffix, with a concomitant difference in argument structure (see Pearson 2001 for discussion). Ileana Paul (p.c.) informs me that her consultants reject Rahajarizafy's examples, allowing a stem to take *-in* or *-an* in the TT form, but not both. Since my speaker accepts Rahajarizafy's examples, I will treat *-in* and *-an* as separate morphemes—while acknowledging that the distinction between them may be disappearing for some speakers.

3. Notice that in the case of (35), the Asp head is null, rather than surfacing as *-in*, as expected. To capture this, I posit a morphological filter which blocks *-in* from attaching to a verb stem which already carries a suffix.

4. Because a clause can contain multiple PPs, I must assume that the higher applicative projection can be recursive. (It is possible that the lower applicative projection is recursive as well, although no more than projection will contain a DP specifier interpreted as an affected object.)

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