

PASSIVES, STATES, AND ROOTS AND MALAGASY¹

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1. INTRODUCTION

The goal of this paper is two-fold — first to investigate four types of passive in Malagasy and to propose a syntactic analysis for them that captures their distinctive nature and second to compare and contrast these passives with three types of participles that are under discussion in the theoretical literature (see e.g. Embick 2004, Kratzer 2000, Wasow 1977). In order to understand the typology of Malagasy passives, one has to first be familiar with two important issues of Malagasy syntax — the representation of telicity and the realization of external arguments. For this reason, I begin the paper with some background on these two issues in section 2, and only then turn to the discussion of Malagasy passives (section 3), their syntactic realization (section 4), and the similarities and differences between the Malagasy constructions and a set of constructions in English.

2. BACKGROUND

2.1. *Telicity*

Like some other languages such as Chinese (Tai 1984), Japanese (McClure 1995, Uesaka 1996) and Tagalog (Dell 1983), endpoints in Malagasy accomplishments are a result of implicature rather than entailment. Some relevant examples from Phillips (2000) are given below. The (b) continuations of the sentences given show that the endpoint is defeasible. This is possible for transitive active constructions, passive constructions and marginally possible with unaccusatives.

(1) TRANSITIVE ACTIVE/UNERGATIVE

- | | |
|--|---|
| a. nisambotra ny alika ny zaza.
PST./captive DET dog DET child
'The child caught the dog.' | b. ... nefa faingana loatra ilay alika.
but quick too that dog
'... but the dog was too quick.' |
|--|---|

(2) PASSIVE

- | | |
|--|--|
| a. Nosamborin'ny zaza ny alika.
PST.captive.GEN'DET child DET dog
'The dog was caught by the child.' | b. ... nefa faingana loatra ilay alika
'... but the dog was too quick.' |
|--|--|

¹ The presentation of this paper and the analysis proposed are substantially different from the paper given at AFLA 12, having benefited from comments from the AFLA audience, the audience at the Argument Structure Workshop in Tromsø in November 2004, as well as discussions with, in particular, Peter Hallman and Jillian Mills. I am grateful for all of this input, as well as research funding from SSHRCC 410-2004-0966. Further, I appreciate the insights and the patience of my native language consultants both in Canada and in Madagascar. All mistakes are my own.

(3) UNACCUSATIVE

- a. Nivory ny olona. PST./I.meet DET people
‘The people met.’
- b. ? nefa tsy nanana fotoana izy.
but NEG PST.have time 3SG
‘... but they didn't have time.’

In order to entail the actuality of the endpoint, one must use a different morphological paradigm. For each of the constructions above, there is a parallel construction with a telic prefix (or prefix complex) as shown below. With these morphemes, the actuality of the endpoint is entailed and the continuation that was awkward for unaccusatives is now impossible.²

(4) TRANSITIVE ACTIVE/UNERGATIVE

- a. nahasambotra ny alika ny zaza. PST.AHA.captive DET dog DET child
‘The child was able to catch the dog.’
- b. * nefa faingana loatra ilay alika.
‘... but the dog was too quick.’

(5) PASSIVE

- a. Voasambotry ny zaza ny alika. VOA.captive.GEN DET child DET dog
‘The dog was caught by the child.’
- b. * nefa faingana loatra ilay alika.
‘... but the dog was too quick.’

(6) UNACCUSATIVE

- a. tafavory ny olona. TAFVA.meet DET people
‘The people met.’
- b. * nefa tsy nanana fotoana izy.
‘... but they didn't have time.’

In summary, there are two sets of verb forms — one only implies the natural endpoint and the other entails the endpoint. These forms are given in the table below.³

(7) TELICITY MARKING

	ATELIC	TELIC
ACTIVE/UNERG	<i>an-/i-√</i>	<i>aha-√</i>
PASSIVE	<i>√-V-na</i>	<i>voa-√</i>
UNACCUSATIVE	<i>i-√</i>	<i>tafa-√</i>

Having seen how telicity is encoded in Malagasy, we now turn to the realization of external arguments and see how this realization is tied to telicity in certain cases.

² GEN indicates changes in the verb form that are related to the realization of an external argument. This part of N-bonding discussed in section 1.2.

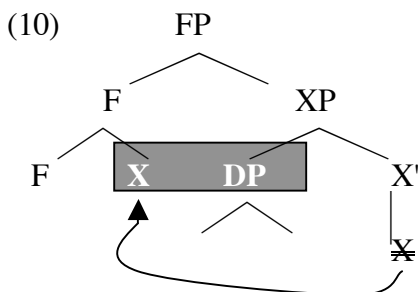
³ *maha-* is a sequence of the morphemes *m-* (Actor Topic in present tense), *a-* (stative), and *ha-* (telic). For the purposes of this paper, I refer to the complex as either *aha-* (without the tense marker), or *maha-*.

1.2. External arguments

External arguments⁴ in Malagasy are different from those in English in a number of related aspects. Famously, Malagasy external arguments are realized in their theta-position even when another argument becomes the subject⁵ of the clause (Guilfoyle, Hung and Travis 1992). When the external argument is not the subject, it directly follows the verb and triggers a morphological process called N-bonding (Keenan 2000). N-bonding is a very productive morphological process that occurs with external arguments of all four lexical categories as shown below (see Paul 1996 for more on this).⁶

- | | | |
|-----|--|--|
| (8) | N: Possessor | V: Agent |
| a. | ny tranon'ny olona
DET house'DET people
'the people's house' | b. Sitranin'ny dokotera ny aretinao
cure.TT'DET doctor DET illness.2SG
'Your illness is being cured by the doctor' |
| (9) | P: Object (R-R 1971:145) | A: Cause (R-R 1971:43) |
| a. | alohan'ny fararano
before'DET autumn
'before autumn' | b. Lenan'ny orana
wet'DET rain
'made wet by the rain' |

It has been assumed that the appropriate analysis for N-bonding involves head movement of the lexical head to a higher functional category. The N-bonding morphology then occurs between the raised head and DP in the lower Spec position (see, for example, Guilfoyle, Hung and Travis 1992). The common tree for all four constructions, then, would be as in (10) below where N-bonding occurs between the X and the DP.



In spite of this fairly productive realization of external arguments, unaccusative verbs, as in other languages such as English, are not able to realize an external argument as shown below.

⁴ By external argument I mean the argument that is highest within the theta-domain of the head. It is not necessarily the argument that will be syntactically realized in the highest position (i.e. the subject position).

⁵ There is much debate about whether the clause final DP is subject or topic. I will call it 'subject' throughout this paper and assume that it is in Spec, TP.

⁶ The apostrophe in these examples is an orthographic convention that indicates certain cases of N-bonding.

- (11) a. *Nivory ny mpampianatra ny ankizy.
 PST.I.meet DET teacher DET children
 (an attempt at: ‘The teachers managed to gather the children.’)
- b. *Nivorin’ny mpampianatra ny ankizy.
 PST.I.meet’DET teacher DET children
 (an attempt at: ‘The teachers managed to gather the children.’)

What is surprising, however, is that the telic form of the unaccusative verb (*TAF*A+√) can optionally realize an external argument.

- (12) Tafavory ny mpampianatra ny ankizy.
*TAF*A.meet.GEN DET teacher DET children
 ‘The teacher managed to gather the children.’

Further, adjectives can realize a cause in subject position when they appear with the *maha*-prefix that we have already seen is used to make transitives telic. An example is given below.⁷

- (13) Mahatsara ny trano ny voninkazo.
 PRES.A.HA.beautiful DET house DET flowers
 ‘The flowers make the house beautiful.’

This leads us to a third observation about external arguments in Malagasy. When a telic prefix is used (such as *maha*-, *tafa*-, or *voa*-), the external argument is not seen as being volitional.⁸ This is most remarkable in the telic version of an agentive transitive verb. Here the difference in meaning between the two forms is not just a question of telicity but also the volitionality of the external argument. This shift in meaning is often translated by ‘able to’ or ‘managed to’ as can be seen in (4a) above.⁹ When the *maha*- prefix is added to a root that normally does not have an external argument such as an adjective, the additional external argument cannot be agentive as the distinction between (13) above and (14) below shows.

- (14) * Mahatsara ny trano Rabe.
 PRES.A.HA.good DET house Rabe
 ‘Rabe makes the house beautiful.’

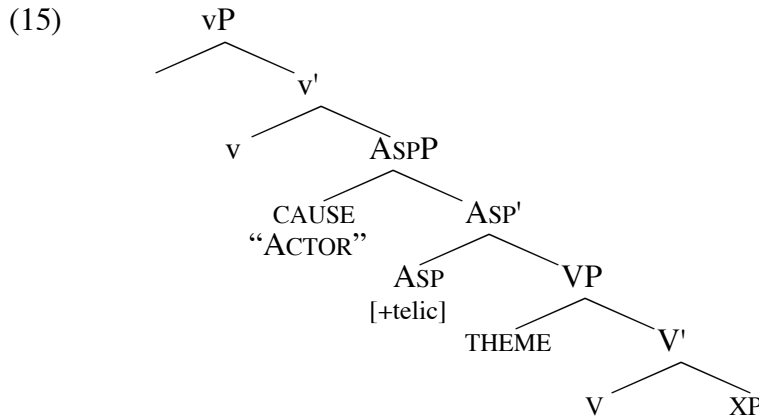
I have argued elsewhere (Travis 2005) that the external arguments of telic predicates are merged in Spec, ASP. While I cannot reproduce all of my arguments here, I give an indication of

⁷ We already saw a case in (9b) where an adjective with no further morphology can realize an external argument in Spec, AP. The arguments that can appear in Spec, AP and the ones that appear as subjects of *maha*- constructions, however, are not identical. I leave this for further study.

⁸ Dell (1983) discusses a similar fact about Tagalog.

⁹ I discuss these additional aspects of the meaning of the telic morphemes in Travis (in press).

the direction these arguments take. First, the appearance of these external arguments is related to the telicity of the predicate. Second, they are different from their agentive counterparts in that they have more of a cause meaning.¹⁰ Third, certain morpheme deletion facts in Tagalog support this analysis. The structure I propose is given below.



2. MALAGASY PASSIVES: 4 TYPES

Now we turn to the four types of Malagasy passives. What they all have in common is that there is a Theme argument in the highest syntactic position that I have been calling the subject position. Further, they all allow the expression of an external argument. We will see, however, that they differ in their syntactic representation and in their event structure.

2.1. The data

I start with some examples. In all the cases given, I have included the external argument (underlined), but it should be noted at the outset, in all cases, the external arguments are optional. The four types are called in the traditional literature (Rajemisa-Raolison 1971) (i) the suffix passive, (ii) the *VOA* passive, (iii) the *TAF*A passive, and (iv) the root passive.

- (16) a. SUFFIX PASSIVE ($\sqrt{+V+na}$)
 Tapahin'ny lehilahy ny tady. $\sqrt{TAPAKA+ina}$
 cut.TT'DET man DET cord
 'The cord was cut by the man.'

¹⁰ This could be related to Pylkkänen's distinction between a Cause head and a higher External Argument head though I have followed a slightly different direction.

- b. *VOA PASSIVE* (*voa* + √)
 Voatapaky ny antsy ny tady. *voa+√TAPAKA*
 VOA-cut DET knife DET cord
 ‘The cord was cut by the knife.’
- c. *TAFAPASSIVE* (*tafa* + √)
 Tafavohan’ny lehilahy ny varavarambe. *tafa-√VOHA*
 TAFAPASSIVE-open’DET man DET door
 ‘The door was opened by the man.’
- d. *ROOT PASSIVE* (√)
 Tapaky ny antsy ny tady. *√TAPAKA*
 √cut DET knife DET cord
 ‘The cord is cut by the knife.’

2.2. *The Distinctions*

In this section I give some tests to distinguish among these four types of passives. Note that the first three of these passives have already appeared in the discussion of telicity. The *VOA* passive is the telic counterpart of the suffix passive, and the *TAFAPASSIVE* is the telic counterpart of an unaccusative. This observation leads us to our first two distinguishing characteristics.

As we have seen earlier, the suffix passive does not entail that the natural endpoint of the event, while the *VOA* and the *TAFAPASSIVE* forms do. The root passive, while it does not denote a change of state, does in effect describe a state. These three forms, as opposed to the suffix form, are considered resultatives by traditional grammarians. Therefore, (end)state distinguishes the suffix form from the other three (see the data in (2), (5), and (6) for support of this claim).

In order to distinguish between *VOA* and *TAFAPASSIVE* passives we turn to the issue of external arguments. While both can optionally realize their external arguments, only the *VOA* form must have an implicit external argument when not overtly realized. This is not surprising given the *VOA* form is the telic version of the suffix passive which, as in English, has an implicit external argument. The *TAFAPASSIVE* form, on the other hand, is the telic version of the unaccusative construction. Again, it is not surprising that when the external argument is not expressed, it is not implicit.¹¹ The relevant data are given below.

- (17) a. Tapahina ny tady.
 cut-TT DET cord
 ‘The cord is being cut by someone.’

¹¹ In fact, what is surprising is that the external argument appears with an unaccusative at all. Sometimes, if a consultant has just seen an example with an overt external argument, s/he gets the implicit reading even if the external argument is not overtly realized. However, out of the blue first readings never have the implicit argument reading.

- b. Voatapaka ny tady.
VOA.cut DET cord
'The cord was cut by someone.'
- c. Tafalentika ny tsilo.
TAFa.go-in DET thorn
'The thorn went in.'
- d. Tapaka ny tady.
cut DET cord
'The cord is cut.'

An additional way that suffix passives are distinguishable from the other three is through tense realization. The table below shows that suffix passives have a three way tense distinction. The *VOA*, *TAFa*, and root passives, however, like adjectives, show only a two way tense distinction.¹²

(18)

	Suffix	<i>Voa</i>	<i>Tafa</i>	ROOT
Present	0-	0	0	0
Past	no-	0	0	0
Future	ho-	ho	ho	ho

Another way to distinguish the four passives is through tense interpretation. A future marked suffix passive gets a future reading of an event while the root passive gets a future reading of a state. The *VOA* and *TAFa* passives, as they describe the endpoints of events, get a future perfect reading of the event (and a future reading of the endstate).

- (19) a. Hovoriko izy ireo amin'ny fito.
FUT.reunite.1SG 3PL AMIN'DET seven
'They will be gathered by me at seven.'
- b. Ho voavóriko izy ireo amin'ny fito. (Rajemisa-Raolison 1971:96)
FUT *VOA*.reunite.1SG 3PL AMIN'DET seven
'They will have been gathered by me at seven.'
- c. Ho tafavóry izy ireo amin'ny fito.
FUT *TAFa*.reunite 3PL AMIN'DET seven
'They will have gathered at seven.'

¹² A better way to think of this might be as a realis/irrealis distinction.

- d. Ho tapaka ny tady amin'ny fito.
 FUT cut DET cord AMIN'DET seven
 'The cord will be cut at seven.'

As a final way to distinguish among the passives, the adverbial *tsy ela* 'not long ago' can only be used with dynamic eventualities and therefore cannot appear with the root passive but can appear with the other four. This is shown in (20) below.

- (20) a. Notapahina tsy ela ny tady.
 PST.cut.TT NEG long.ago DET cord
 'The cord was cut not long ago.'
- b. Voatapaka tsy ela ny tady.
 VOA.cut NEG long-ago DET cord
 'The cord was cut not long ago.'
- c. Tafapetraka tsy ela ny ankizy.
 TAFA-stand NEG long-ago DET child
 'The child stood up not long ago.'
- d. *Tapaka tsy ela ny tady.
 cut NEG long.ago DET cord
 'The cord was cut not long ago.'

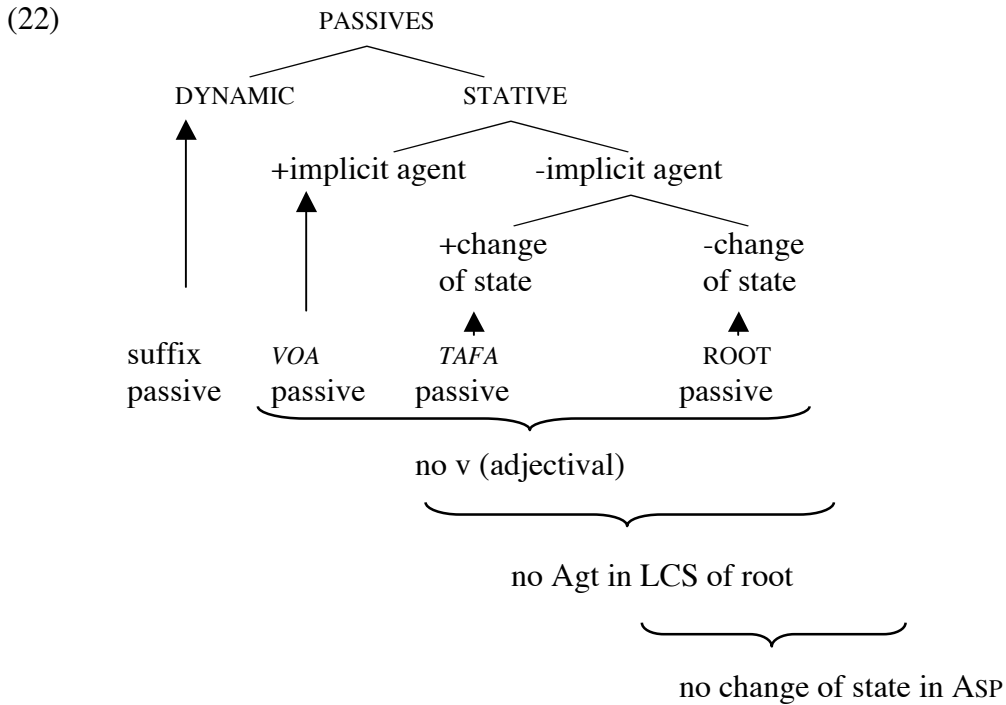
The results of the tests are summarized in the table below. We can see that the resultative passives (*VOA*, *TAFA*, root) are similar in how they realize tense and in their (end)state meaning. Argument structure distinguishes the suffix and *VOA* passives from the other two since they always have external arguments even when not overtly realized. *VOA* and *TAFA* passives assert an event and an end state while the suffixed passive and the root passive assert only an event or a state respectively. This distinction shows up in the interpretation of the future tense. Finally, *tsy ela* distinguishes between the change of state passives and the root passive.

(21) SUMMARY OF TESTS

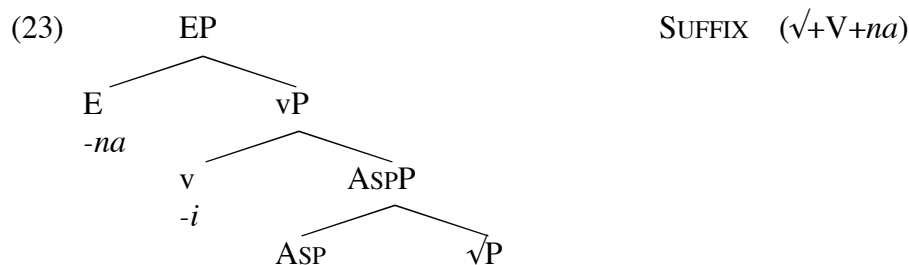
	Tense form	Endpoint achieved	Implicit external	Tense interpretation	<i>Tsy ela</i>
Suffix	<i>0/no-/ho-</i>	No	Yes	future	√
<i>voa</i>	<i>0/0/ho</i>	Yes		future perfect	
<i>tafa</i>			No		
ROOT				future	*

3. PHRASE STRUCTURE ACCOUNT OF PASSIVE TYPES

In this section I propose a phrase structure to capture the distinctions between the passive types. Below is a diagram that outlines the basic idea of how to match the observations with syntactic characteristics.



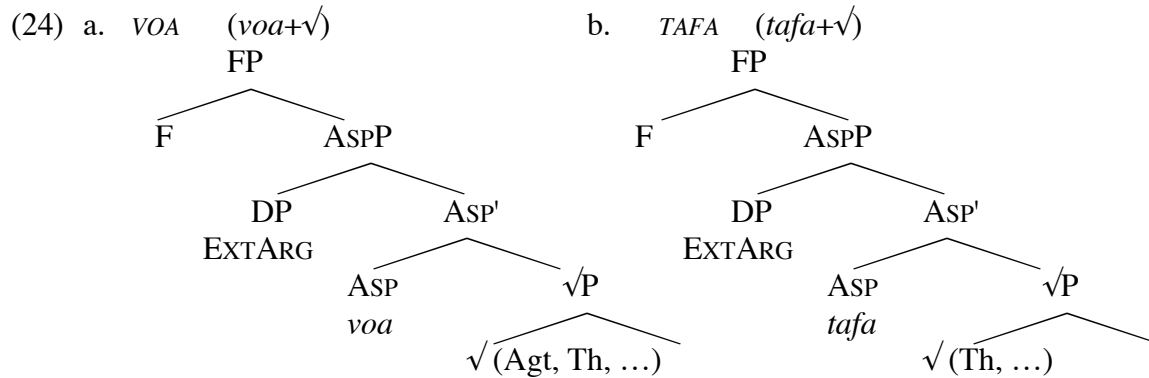
Now we see how this summary gives four different structures. The suffix passive has the same structure as its active transitive counterpart. Part of the suffix is in *v*, and part in *E*.¹³



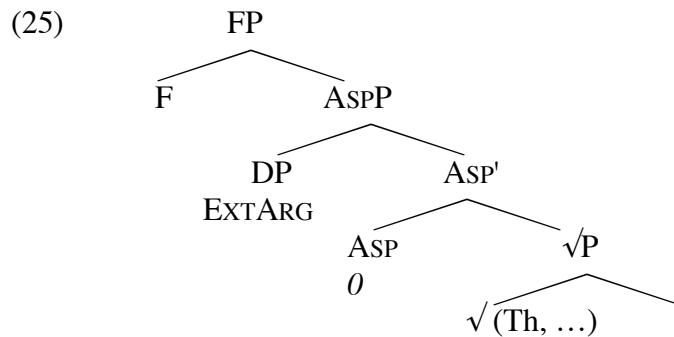
The next three trees have no *v* explaining their adjectival nature (and the difference in tense realization). As the two trees below indicate, the only difference between the *VOA* and *TAFE* passives is the nature of the argument structure of the root. *Voa* and *tafa* both will appear in a change of state ASP. *Voa* indicates an absorption of an external argument, while *tafa* does not.

¹³ See Travis (1994) for a discussion of *E*.

FP indicates a functional category which is the landing site of the head movement (perhaps also E).



Lastly, the structure for the root passive is given below. Here the null aspect morpheme will indicate no change of state.



Given the space constraints, this analysis will have to remain just a sketch. Now we turn to English.

4. COMPARISON WITH ENGLISH

4.1. *The data*

The four Malagasy passives have some similarities with three constructions investigated by, among others, Embick (2004) — the eventive (verbal) passive, the resultative (adjectival) passive, and the stative (adjective). Examples are given below where (26a) is ambiguous between the eventive and the resultative, and (26b) is the stative form.

- (26) a. The door was opened.
- EVENTIVE (Someone opened the door.)
 - RESULTATIVE (The door was in the state of having become open.)

- b. The door was open.
 ▪ STATIVE (The door was in the state of being open.)

The table in (27) shows some more examples. Two things to notice are (i) that the Stative sometime has a suffix and sometimes is the bare form, and (ii) that the morphology is always the same for the resultative and eventive while it might differ for the stative (indicated by the shading).¹⁴

(27) English forms

Root	Stative	Resultative	Eventive passive
√BLESS	ble ^s s-èd	ble ^s s-ed	ble ^s s-ed
√AGE	ag-èd	ag-ed	ag-ed
√ROT	rott-en	rott-ed	rott-ed
√OPEN	open-0	open-ed	open-ed

As we have seen for Malagasy, tests can be used to distinguish the English constructions. I give just two of these to get the three-way distinction. First, resultatives can be distinguished from states using manner. Below we see a case where an adverb is not possible with the state but is with the resultative.¹⁵

- (28) a. The package remained carefully opened.
 b. * The package remained carefully open.

We can see the distinction between the eventive construction (verbal passive) and the resultative construction (adjectival passive) using tests made famous by Wasow (1977). For example, eventive constructions support *by*-phrases while resultatives do not. The construction in (29a) below contains a *by*-phrase. We can tell by its interpretation that it is the eventive passive because it must have a habitual interpretation. In (29b) where the adjectival construction is forced by the presence of the verb *remain*, the interpretation is stative and the *by*-phrase is not possible.

- (29) a. The metal is hammered by John.
 b. The shoes remain tied (*by John).

4.2. The Structures (from Embick)

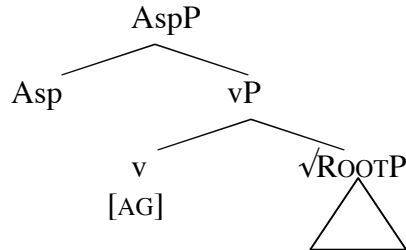
Now we can turn to the structures proposed by Embick. He gets the three-way distinction by having two types of *v* and then a structure with no *v*. Eventive constructions contain an agentive *v* (*v*[AG]) which can license a *by*-phrase. Resultative constructions have a fientive *v* (*v*[FIENT])

¹⁴ See Embick (2004) for a longer list.

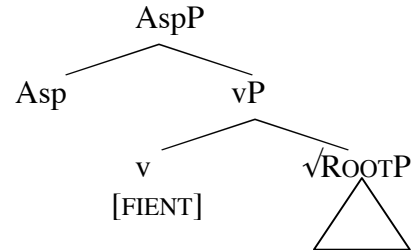
¹⁵ By using *remain* we ensure that this is the adjectival passive (resultative) rather than the verbal passive (eventive). See Embick (2004) for a variety of other distinguishing tests.

which gives a change of state reading and can license manner adverbs. Stative constructions contain no *v*. The relevant structures are given below.

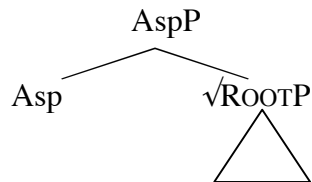
(30) a. VERBAL PASSIVE



b. RESULTATIVE



c. STATIVE



4.3. The Comparison

A problem arises immediately when trying to make a direct comparison between Malagasy and English. Malagasy allows the Malagasy equivalent of a *by*-phrase in every construction.¹⁶ Nevertheless, there are correlations across constructions in the two languages that seem intuitively appropriate. The suffix passive in Malagasy is closest to the eventive construction in English. In both languages, this is the most verbal form. The root passive in Malagasy is closest to the stative construction in English. In both languages, these forms do not encode a change of state. Further, the *VOA* passive seems closest to the adjectival passive since it selects roots that normally take external arguments. This leaves the *TAF*A passive as the one without an English counterpart. I propose, however, that *TAF*A passives are similar to unaccusative constructions in a language like French where a participle form is also used. Below is an example of a French unaccusative construction.

- (31) Les enfants sont arrivés.
 the children are arrived
 ‘The children have arrived.’

The tentative comparison to English (and French), then, is given below.

¹⁶ Also, tests using manner adverbs brought murky results.

(32) Comparing English and Malagasy

English		Malagasy	
EVENTIVE	<i>opened</i>	SUFFIX	<i>tapahina</i> 'was cut'
RESULTATIVE	<i>opened</i>	VOA	<i>voatapaka</i> 'was cut'
??	?? <i>arrivé</i> (French)	TAFA	<i>tafavory</i> 'gathered'
STATE	<i>open</i>	ROOT	<i>tapaka</i> 'cut'

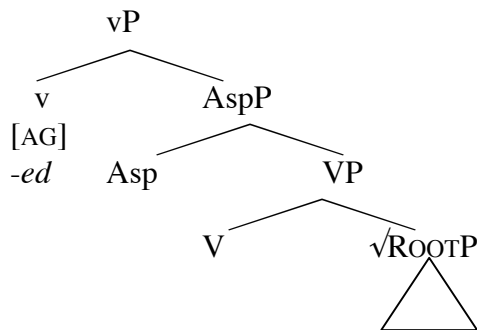
Now we can return to the sets of structures proposed for Malagasy and English. In both systems, there are structures with and without *v*. For Embick, the dividing line comes between the stative constructions and the other two while for the proposed Malagasy structures, the dividing line comes between the eventive constructions, and the other three.

(33) Comparing English and Malagasy structures

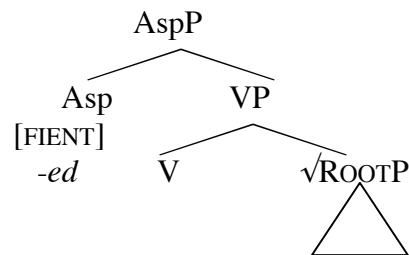
English	Malagasy
EVENTIVE	SUFFIX
RESULTATIVE	VOA
??	TAFA
STATE	ROOT

The main disagreement between the two views is the presence of *v* for the English resultative and not for the Malagasy VOA passive. Embick's argument for the need of this head comes from resultative forms such as *flattened* where, besides the root *flat*, there are two other morphemes *-en* and *-ed*. He proposes that the former is in the *v*[FIENT] head while the latter is in the Asp head. In my analysis of the Malagasy structures, I argued that the adjectival nature of the VOA and TAFA passives comes from the lack of *v*. Combining my observations for Malagasy with Embick's structures, I tentatively make the following proposal for the English constructions.

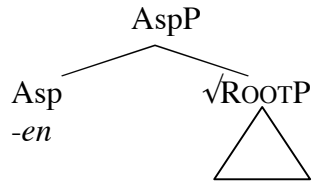
(34) a. VERBAL PASSIVE



b. RESULTATIVE



c. STATIVE



Discussion of some of the details of the structures above is not possible because of space limitations. I propose that there is a multifunctional morpheme that changes depending on its syntactic position. As a verbal passive morpheme (eventive), like the Malagasy passive suffix, it appears in *v*. The adjectival passive morpheme (resultative), like *voa* in Malagasy, appears in *Asp*. The adjectival nature of a construction is encoded in the (lack of) structure. I have an additional *V* below *Asp* partly to allow a position for *-en* in forms like *flattened*, partly to comply with structures that I have argued for elsewhere (e.g. Travis 2000).¹⁷ More work needs to be done, however, to carefully compare the languages. For example, in the structures I propose, the adjectival passive and the *VOA* passive are similar. There is at least one clear empirical difference, however. Adjectival passives do not have implicit external arguments while *VOA* passives do. I leave it to future research to make a closer comparison between the two sets of constructions.

5. CONCLUSIONS

The main goals of this paper were to investigate four different types of passive in Malagasy and to compare them to similar constructions in English and to come to a better understanding of the phrase structure of Malagasy and English in the process.¹⁸ I have claimed that certain distinctions are found in both languages. The verbal vs. adjectival distinction that is well-known in the literature on English appears in Malagasy in the difference in tense realization. The change of state distinction also shows up in both languages dividing the state/root forms from the others. Other distinctions are obscured by language specific properties. Because Malagasy can realize external arguments in more environments than English can, the ability for a construction to support a *by*-phrase is not a useful test in Malagasy. Further, as mentioned above, there seems to be a difference between the languages in terms of implicit arguments. Finally, independently existing properties of a language make some distinctions not exist at all. English, being a language with telic accomplishments, shows no telicity distinctions while in Malagasy, telicity plays an important role in distinguishing eventive vs. resultative passives. The hope is that future work will unearth more relevant data to address some of the questions raised by the proposals in this paper.

¹⁷ There may also be a *V* of this sort in the Malagasy structures as well.

¹⁸ In other work I present more details on slight interpretation distinctions between the Malagasy constructions (see Travis in press).

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