CHAPTER 7

THE SYNTAX OF ACHIEVEMENTS

7.1 INTRODUCTION

In the preceding portions of this book, I have set up a view of phrase structure that incorporates insights from the domains of semantics, morphology, and syntax. The result is a proposal that phrase structure mirrors event structure quite closely and this has overt effects in the syntax and in morphology. The contribution of semantics is that proposals for sub-eventual structure are reflected through an articulated VP structure. This has the effect that aspectual verb classes can be distinguished syntactically and explains why there appears to be such a tight correlation between verb classes and certain syntactic phenomena such as case assignment. While semantic arguments for phrase structure might work at an intuitive level, since not all semantic distinctions are necessarily captured by syntactic differences, such intuitions must be confirmed with results from pure syntax. For this reason, arguments from morphology (involving Mirror Principle/head movement type phenomena) and syntax were advanced to support the claim. We have seen that inflectional type morphemes can appear within a lexical item suggesting that (a) there should be some overlap between syntax and the lexicon and (b) that inflectional heads must appear quite low within the VP. The nature of syntax interacts with these morphological arguments in the following way. If inflectional heads are postulated within the VP, it can be expected that inflectional Specs appear there as well. I have argued that there is a derived position within the VP that, again, adds further support for my view of phrase structure.

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1 Half of the contents of this chapter was presented at the third meeting of the Austronesian Formal Linguistics Association (AFLA) at UCLA in 1996 and the other half at the eighth meeting of the AFLA at MIT in 2001. Parts were published as Travis (2002, 2005).
In this chapter, I back up these claims by returning Malagasy and Tagalog. I examine a particular problem in the characterization of event types and I show that, like the central issue of this book, there is a semantic angle, a morphological angle, and a syntactic angle. The semantic problem involves the status of Achievements within a theory of event structure. The syntactic problem is the appearance of an unexpected external argument with telic inchoatives in Malagasy. The morphological problem is the disappearance of certain morphemes in Tagalog verb forms that we first encountered in Chapter 6. While these issues may seem unrelated, I argue that they provide intersecting evidence for the claim that event structure is mirrored in phrase structure. In the course of the discussion I make the following claims.

(i) Achievements form a linguistically relevant verb class.
(ii) Like States, the phrase structure of Achievements is formed without a process \( V_1 \).
(iii) Unlike States, Achievements contain a [+telic] ASP head.
(iv) [+telic] ASP may assign a theta-role to its SPEC position.
(v) The morpheme responsible for theta-assignment may be covert to conform to a doubly filled projection restriction.\(^2\)
(vi) Morpheme deletion in Tagalog provides insight into an oddity in the morphological paradigm of cognition verbs.

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\(^2\)The restriction on simultaneously filling a specifier and a head position was already discussed in Chapter 6, section 6.4.2xx.
7.2 THE SEMANTIC PROBLEM

Achievements occupy an unstable position within the aspectual verb classes. In previous Chapter 4, I argued that each aspectual verb class is represented by a different phrase structure. In arguing for this, however, I have basically stipulated that Achievements are like Accomplishments (they are certainly both telic), but with a different sort of V₁. In this chapter I address the problem of Achievements more directly.

7.2.1 Achievements as a Class

We have seen in Verkuyl’s table that Achievements are characterized as being [+definite], [-process] (Verkuyl 1989: 44).

(343)

-PROCESS +PROCESS
  - DEFINITE State Activity
  + DEFINITE Achievement Accomplishment

In this typology, Achievements form a natural class with States, and a test that has been used to show this partitioning is the formation of the progressive in English. Both Activities and Accomplishments may appear in the progressive, while neither States nor Achievements can.³

(344)

a. I am pushing the cart. ACTIVITY
b. I am writing a novel. ACCOMPLISHMENT
c. * I am knowing the answer. STATE
d. * I am recognizing her face. ACHIEVEMENT

In the context of the disagreement concerning the status of Achievements outlined in the following sections, it will be important to keep in mind Vendler’s conclusion that Achievements share certain properties with States. Vendler’s system is closely followed in Dowty’s characterization repeated from Chapter 4.

³As I have earlier, this test should just be a rule of thumb since there are some troubling counterexamples.
Note further that, in this system, every Accomplishment contains an Achievement. Keeping these two characteristics in mind, i.e. that Achievements have something in common with States and that every Accomplishment contains an Achievement, we turn to some of the problems raised by Achievements.

7.2.2 Achievements Not Linguistically Relevant

There are some semanticists who believe that the class of Achievements, while perhaps ontologically relevant, is not linguistically relevant but is rather a subset of Accomplishments.4 Below I give two directions that this disagreement has taken. What is interesting for my purposes is that, while each researcher combines Achievements with Accomplishments, each chooses a different characteristic to explain the apparent distinction from the other types of Accomplishments. I will claim below that these two different characteristics are not unrelated and can be captured in a phrase structure account of event structure.

Pustejovsky (1991) proposes to characterize Accomplishments and Achievements as two examples of transitions. As can be seen in his own words below, he sees that a difference in agentivity has given the false impression that these two verb types should be classed as different event types (1991: 59).

... we will argue that there is no further distinction necessary in terms of event structure for classifying these two aspeutical types [Accomplishment and Achievement]. Rather, achievements and accomplishments can be distinguished solely in terms of an agentive/non-agentive distinction.

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4 Ryle (1949: 49), however, writes ‘the verbs of gettings and keepings are active verbs ... and this grammatical fact has tended to make people, with the exception of Aristotle, oblivious to the differences of logical behavior between verbs of this class and other verbs of activity or process’. While many of the verbs that he discusses, e.g. find, discover, win, solve, are what Vendler would also classify as Achievement verbs, Ryle opposes them to task (process/activity) verbs more than to Accomplishment predicates.
As we have already seen in Chapter 4, the event structure of these two verb classes (shown in bold below) will be the same. In both cases it is represented by a Transition (T) from a Process (P) to a State (S).

(346)  
a. The door closed.
   b. ES:  
   \[ \begin{array}{c}
   P \\
   \hline
   T \\
   S
   \end{array} \]

   LCS': [closed (the-door)]
   \[ \begin{array}{c}
   \hline
   [] \text{closed (the-door)}
   \end{array} \]

   LCS: become ([closed (the-door)])

(347)  
a. John closed the door.
   b.  

   ES:  
   \[ \begin{array}{c}
   P \\
   \hline
   T \\
   S
   \end{array} \]

   LCS': [closed (the-door)]
   \[ \begin{array}{c}
   [\text{act (j, the-door)}] \\
   \& \left[ \text{closed (the-door)} \right]
   \end{array} \]

   LCS: cause ([\text{act (j, the-door)}], become ([closed (the-door)])

Where the difference becomes apparent is at the levels of LCS' and LCS because at these levels the agentivity of the external argument is expressed.

Verkuyl (1993), like Pustejovsky, collapses Achievement and Accomplishment calling them both events (as distinct from Processes and States), but he sees the key semantic difference between these two classes as stemming from a problem of durativity. He concludes that since the length of time that it takes to complete an act can be manipulated by manipulating the world surrounding the act (typing a letter on a computer by pushing a button to print it vs. typing a letter on a typewriter), ‘the length of the event does not seem to be a linguistic matter’ (Verkuyl 1993: 49).

Given these considerations, there appear to be no grounds for distinguishing Achievement terms from Accomplishment terms. I would
also like to conclude that Vendler’s quadripartition is perhaps relevant for philosophical (ontological) purposes, but not for the study of structural meaning involved in aspectual composition.

Pustejovsky and Verkuyl raise one question about the status of Achievements — is this a linguistically relevant predicate class? I would like to raise a further question concerning Achievements — do the verbs that have been argued to be in this class form a linguistically relevant natural class?

To start to answer this question, one has to have an idea of what sorts of predicates have been relegated to the class of Achievements. Below is a sample:

(I have listed verbs here though it is recognized that choice of complement can affect the class membership.

(348) Achievement verbs

Vendler: recognize, reach, spot, win, realize, identify, lose, find, cross, start, stop, resume, be born, die, catch (Vendler 1967: 107)

Dowty: (LOCATIVE) reach, leave, touch, arrive at, land on, depart from, fall from, (CHANGE OF PHYSICAL STATE – ABSOLUTE STATE) melt, freeze, die, be born, molt, ignite, explode, collapse, turn into, turn to, become, (CHANGE OF PHYSICAL STATE – DEGREE STATE) darken, warm, cool, sink, improve, become ADJ-er, (ASPECTUAL COMPLEMENT VERBS) begin, start, cease, stop, resume, end, (POSSESSIVE) acquire, receive, get, lose, (COGNITIVE) notice, spot, see, catch sight of, hear, taste, smell, feel, lose sight of, realize, recognize, understand, detect, find, remember, forget, (CHANGE OF STATE OF CONSCIOUSNESS) awaken, fall asleep. (Dowty 1979: 68)

Verkuyl: win, recognize, reach (Verkuyl 1989)

Pustejovsky: die, find, arrive (Pustejovsky 1991: 52)

\[5\] I have listed verbs here though it is recognized that choice of complement can affect the class membership.
The group of verbs that I will be concentrating on in this chapter will include two types listed above and exclude one other. I will agree with Verkuyl in recognizing that Accomplishments may represent a variety of interval lengths. For this reason, I assume that a predicate that is considered an Achievement solely because it is temporally brief (like typing the letter ‘p’) are really an Accomplishments. These may have slightly different flavors of \( V_1 \), but they will all be dynamic. Also, as I will argue, some achievements are more coercible than others, again making membership less clear.

I start with what I consider the clearest case of achievements. Examples from this class are verbs like \( \text{find}, \text{discover}, \text{notice}, \text{remember} \). As claimed by Pustejovsky, these are not agentive. As claimed by Verkuyl, these are not durative. One might want to characterize them as a change of state like the unaccusative verbs and give them an LCS similar to the Dowty-like semantic analysis of \( \text{become} \), but this raises the additional question of how the external argument receives a theta-role. This question will be one of the concerns of this chapter.

### 7.2.3 Achievements in Non-Telic Languages

Before turning to the morphological and syntactic problems of Tagalog and Malagasy, I want to pursue the question of the status of Achievements by looking at a variety of languages. It is particularly instructive to investigate Achievements in non-telic languages of the type discussed at the end of Chapter 4. Recall that these are languages where telicity is entailed only where telicity is overtly expressed with a morpheme or resultative phrase. In these languages, Accomplishments that are stripped of these telic markers are ambiguous between Accomplishments and Activities. In terms of Dowty, once the \( \text{become} \) has been stripped from the verb, all that is left is the DO. Returning to Dowty’s characterization of Achievements, their meaning consists solely of the

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6 Thanks to Dave Lebeaux for raising the question of whether Achievements form a natural class and to an anonymous reviewer for making me rethink the membership.

7 These are good examples of Ryle’s (1949:151) ‘purely lucky achievements’.

8 CAUSE is not possible without \( \text{become} \).
idiosyncratic information of the verb and telicity (in the form of \textit{BECOME}). As there is no \textsc{do} component to Achievements, in languages where telicity is encoded by something extra, it is hard to imagine that a bare Achievement verb could exist. There would be no process left to express. In other words, if an Accomplishment stripped of an endpoint is an Activity, what is an Achievement stripped of an endpoint? As we will see below, languages that are basically non-telic handle Achievements in a variety of ways. Russian, Bulgarian, and other Slavic languages must overtly express telicity in the formation of Accomplishments (see Slabakova 1996 for a description and account of these facts). Taking examples from Bulgarian, Slabakova shows that a bare form of the verb expresses imperfective aspect (349a). In order to express an Accomplishment, i.e. an event with a natural endpoint, a pre-verb must be added. Sometimes, as in (349b) these preverbs simply encode the existence of this endpoint, other times, as in (349c) the preverbs may, in fact, change the meaning of the verb.

(349) Bulgarian (Slabakova 2001:82-83)
\begin{itemize}
    \item a. pis-a
      \begin{itemize}
          \item write-3SG/AORIST
      \end{itemize}
    \end{itemize}
‘He wrote’

\begin{itemize}
    \item b. na-pis-a
      \begin{itemize}
          \item PV-write-3SG/AORIST
      \end{itemize}
\end{itemize}
‘He wrote up’

\begin{itemize}
    \item c. pre-pis-a
      \begin{itemize}
          \item PV-write-3SG/AORIST
      \end{itemize}
\end{itemize}
‘He copied’

Slabakova, following Brecht 1984, argues that the morphological form of the verbs mark overtly the aspectual verb class of the predicate. More precisely, the absence or presence of a preverb indicates whether the predicate is atelic or telic. Slabakova proposes that only Accomplishments, in fact, have definable preverbs and she links this
to the presence of the CAUSE predicate in the LCS (and in her framework also the phrase structure) of the predicate. As we can see by referring to Dowty’s characterization of the four Vendler verb classes, only Accomplishments contain the semantic operator CAUSE. Both Brecht and Slabakova show that an Activity may become an Accomplishment\(^9\) through the addition of a preverb.\(^{10}\)

(350) Toj na-pis-a pisma *3 casa/√za 3 casa
he PV-write-3S/AORIST letters *for three hours/√in three hours

‘He wrote up letters for/in three hours.’

Further, in order to be an Accomplishment, the verb form must contain a preverb as the Russian examples below taken from Brecht show (Brecht 1984:12).

(351) Russian Accomplishments

\begin{align*}
\text{vy-polnit} & \text{ ‘fulfill’} \\
\text{do-kazat} & \text{ ‘prove’}
\end{align*}

What is interesting for our purposes is the morphological nature of Achievements. Achievements in Russian, unlike the Accomplishment/Activity distinction shown above, are telic in their bare form. In order to encode imperfectivity on these forms, additional morphology must be added. As Brecht points out, with Accomplishments/Activities, the lack of morphology indicates imperfectivity, whereas with the Achievement class of verbs, a morpheme must be added. In Slavic languages, then, Achievements are a linguistically relevant class since these are the verb forms which have telic interpretation in their bare form.\(^{11}\)

\(^9\)Brecht, in fact, argues that an Activity becomes an Achievement, i.e. it loses the process part of its reading. I will argue below that this is also true of Tagalog and Malagasy.

\(^{10}\)What is interesting to Slabakova about this example is that the [-SQA] object has no effect on the event class of the verb. The preverb marking the event as telic overrides the lack of cardinality of the object.

\(^{11}\)Slabakova writes that Bulgarian has 50 verb forms that are perfective without the addition of preverbs. These, not surprisingly, are all Achievements. Nossalik (2006) argues that Russian achievements are always bimorphemic though some of them contain morphemes that never appear independently.
As we have seen in Chapter 4, Japanese as described in Uesaka (1996) presents a slightly different picture, though, like the two Slavic languages described above, her view of Japanese suggests that Achievements must be held as a separate linguistically relevant class. In her discussion of the *te-iru* construction, Uesaka shows that the four traditional Vendler verb classes react differently. The *te-iru* form of the verb gives a different interpretation depending on the verb class to which it belongs. A summary of her findings is given below.

<table>
<thead>
<tr>
<th></th>
<th>Perfect of result</th>
<th>&quot;Progressive&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>STATES</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>ACTIVITIES</td>
<td>*</td>
<td>✓</td>
</tr>
<tr>
<td>ACCOMPLISHMENTS</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ACHIEVEMENTS</td>
<td>✓</td>
<td>*</td>
</tr>
</tbody>
</table>

Part of Uesaka’s conclusion is that, like Russian, the basic verb forms are not telic. Unlike the Slavic languages, though, Uesaka argues that there is an empty element in Japanese that may be added to verbs to make them telic, giving that appearance of an ambiguous nature. Once a predicate is telic, the perfect of result reading is obtained. Otherwise one gets the "progressive" reading. Activities cannot add this null morpheme (though they may add overt elements which express a result), and Accomplishments may add this null morpheme. This accounts for the fact that Accomplishments can get both the perfect of result and the "progressive" reading. Finally, Achievements must add this element.

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12Because the use of this form is not identical to the use of the English progressive, I am using quotation marks.
Once again, then, we find a language where Achievements are special in that some specific form must be used expressing result. While in Russian and Bulgarian these forms are overtly different from other forms of the verb, in Japanese the form is identical on the surface. It can be distinguished from other verb classes, however, by more subtle means.

My conclusions from this discussion of Achievements in a variety of languages is that they do form a linguistically relevant class. In the rest of this chapter, I explore the syntactic nature of this class in an effort to determine its phrase structure. Two questions that are subsumed here involve the characteristics mentioned by Pustejovsky and Verkuyl. How is the lack of durativity represented and how is the lack of volitionality represented? Part of the second question contains the further question, how is the external theta-role of the transitive Achievement assigned. To shed light on these issues, I turn to the two problems found in Tagalog and Malagasy. I begin with a morphological puzzle from Tagalog, then outline a syntactic puzzle in Malagasy. Keeping both problems in mind, I will then propose a syntax for Achievements and suggest that this syntax solves not only the semantic questions concerning Achievements but also the problem of Tagalog morphology and Malagasy syntax. Further, once the account of morpheme deletion in Tagalog is set up, we can use it as a probe into the argument structure of cognition verbs, a notoriously problematic class.

### 7.2.4 Achievements in Malagasy

As we know from Chapter 4, section 4.5.3xx, Malagasy is similar to Russian in that the most normally used form of the verb need not be telic, but it is unlike Russian in that, in the absence of any additional information, it is interpreted as telic. For example, under
normal conditions, upon hearing (354a) the assumption would be that the dog was caught. As (354b) shows, however, this assumption is defeasible (from Phillips 2000: 22).

(354) a. nisambotra ny alika ny zaza  
    PST.1.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.’

Like Russian, telicity is ensured by choosing a specific form of the verb. Generally this involves having special morphology as the example below shows for the active form of the verb where the morpheme aha- is added (this will appear as maha- in the present and naha- in the past).13

(355) a. nahasambotra ny alika ny zaza  
    PST.A.HA.captive det dog det child  
    ‘The child caught the dog.’

    b. *.... nefa faingana loatra ilay alika  
    ‘... but the dog was too quick.’

Given this, it is interesting to see how Achievements are realized. Phillips (1996) notes, following Rabenilaïna (1985), that the prefix aha- can change the meaning of the verb in important ways. Below are some pairs of predicates, the first column without aha-, the second column with aha- (Phillips 1996: 37).14

(356) a. mijery ‘to look at’  
      mahajery ‘to notice’  
      √JERY

    b. mandinika ‘to examine’  
      mahadinika ‘to remark’  
      √DINIKI

The form of the verb containing the normal active prefix (either i- or an-) describes an Activity while the aha- prefixed form describes a related Achievement. Both qualities mentioned by Pustejovsky and Verkuyl are present, there is no durativity and no

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13 The aha morpheme complex replaces the an/i morpheme complex.
14 These pairs are similar to some given in Nossalik (2006) for Russian: zametit’-PERF 'noticed' / metit’-IMPF 'to mark'.
agentivity in the aha- forms. Rabenilaina (1985) also gives a list of verbs which only appear in the aha- form, and they are all arguably Achievement verbs.\footnote{It is often hard to distinguish States from Achievements and this problem becomes clear in this list. The translations of a verb form like hazo ‘to understand, to seize’ show both sides of the meaning. This also is evident in Japanese where many statives are created by adding te-i-ru to an Achievement to get a perfect result reading: waka-te-i-ru ‘understand’. See Uesaka , pp. 36-37, and fn. 27. We will see this again shortly in the case of root passives.}

(357) verbs only taking aha- (Rabenilaina 1985: 372)

\begin{itemize}
\item mahazo ‘to understand, to seize’
\item mahalala ‘to know’
\item mahatsiahy ‘to feel, to remember’
\item mahatsikaritra ‘to remark’
\item mahatsiaro ‘to perceive’
\item mahahay ‘to know’
\item mahahita ‘to see’
\end{itemize}

Another realization of Achievement predicates is as a bare root. As we have already seen in Malagasy, most verbs are formed by adding either active (Actor Topic) or passive (Theme Topic) morphology to a root.\footnote{Recall that there is also a third type of form, the circumstantial topic form but this form is not relevant here.} Some verbs, however, can appear in their root form, which realizes its arguments in the same manner as a passive, i.e. the Theme appears in the subject position and the Agent is within the VP. When verbs appear in their root form, there are two effects, (i) the agent is no longer agentive and (ii) the action is no longer durative. I will exemplify each of these properties in turn below.

Rajemisa-Raolison, in his grammar (Rajemisa-Raolison 1971), gives minimal pairs where the same verb form has both a standard passive form\footnote{More accurately, this is one of the Theme Topic forms. In much of the literature, however, these are referred to as passive forms since the Theme is now in a predicate external position. In this discussion, I will use the term ‘passive’ in the text, but to be consistent with the glosses elsewhere in the book, I will gloss the appropriate morpheme as Theme Topic (TT).} created through suffixation on the verb and a root passive form. Unfortunately, in some cases the difference between the forms is not striking since the morphology for genitive case marking on the Agent within the VP (what Keenan (2000) calls N-bonding) masks the lack of passive
morphology. We can see the similarity in forms in (358) below. However, the stress placement can distinguish between the two where the passive morphology displaces stress one syllable to the right. In (358a), the root form, the natural use of the non-agentive agent is clear through the presence of ‘the wind’ as the agent. In the case where there is a volitional agent, the suffixed passive form is most naturally used as in (358b) (based on examples from Rajemisa-Raolison (1971:95)).

(358) **ROOT PASSIVE**

a. Símban’ny rivotra ny voninkazontsika
   simba.GEN’DET wind DET flowers.GEN1PL(INCL)
   ‘Our flowers were ruined by the wind.’ (non-deliberate)

**SUFFIX PASSIVE**

b. Simbán’ny zanakao ny kilalaonay
   simba.TT.GEN.DET child.GEN2S DET toys.GEN1PL(EXCL)
   ‘Our toys were ruined by your child.’ (deliberate)

The example in (359) shows the same effect but with a clearer distinction between the two verb forms (*sitrana* vs. *sitranina*). The difference in meaning is subtle, but in (359b) the doctor is highlighted as a volitional agent (based on examples from Rajemisa-Raolison (1971:95)).

(359) **ROOT PASSIVE**

a. Sitran’ny fanafody ny ankizy
   cure-GEN-DET medicine DET children
   ‘The children were cured by the medicine.’

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18 The issue of four different passives, the suffixed passive, the VOA-passive, the Tafa-passive, and the root passive is an intricate one. I address it in more detail in Travis (2005a) and (2005b).
**Suffix Passive**

b. Sitranin’ny doktera ny ankizy
cure-TT-GEN-DET doctor DET children
‘The children were cured by the doctor.’

In example (360), the distinction between telic and non-telic is highlighted. The presence of the suffixed passive is also clear in this case since the form of the verb changes (*vita* vs. *vitaina*). In (360a), where the root passive is used, the resultant state of the action is not defeasible. Where the suffixed form of the verb is used in (360b), the result is not an entailed outcome.

(360) **Root Passive**
a. Vitan’ny ankizy ny asa a’. *.... nefa mbola tsy vita foana
finish.GEN-DET children DET work .... but still not finished yet
‘The children finished the work.’

**Suffix Passive**

b. Vitain’ny ankizy ny asa b’. .... nefa mbola tsy vita foana
finish.TT.GEN-DET children DET work
‘The children finished the work.’

These forms can be contrasted with the passive form of the Malagasy example we have already seen from Malagasy. As expected, as a suffixed passive form, it is atelic.

(361)a. Nosamborin’ny zaza ny alika b. ... nefa faingana loatra ilay alika
PST.captive.GEN’DET child DET dog ‘... but the dog was too quick.’
‘The dog was caught by the child.’
Since the root forms denote actions that are not durative\textsuperscript{19} and are non-volitional, it is not surprising that some Achievements are most naturally expressed by roots.

(362)a. \textit{hita} ‘see’\textsuperscript{20}

\begin{verbatim}
Hitako ny ankizy see.GEN1S DET children
‘I see the children.’
\end{verbatim}

b. \textit{re} ‘hear’

\begin{verbatim}
Reko ny ankizy hear.GEN1S DET children
‘I hear the children.’
\end{verbatim}

c. \textit{azo} ‘understand’

\begin{verbatim}
Azoko ny ankizy understand.GEN1S DET children
‘I understand the children.’
\end{verbatim}

Malagasy, then, which does not encode telicity in the most common forms of verbs uses special forms of the verbs to express Achievements. These forms are of two types, \textit{aha}- forms and root forms.\textsuperscript{21}

In order to discuss the syntactic problem in Malagasy, we have to return to our discussion of telicity in Malagasy. We have already seen two ways to mark a verb as [+telic]. One is to add \textit{aha} to the root, which results in an active telic predicate. Another way is to use a bare root, which results in a passive [+telic] predicate. Two other forms of resultatives (which is probably the best way to refer to these, see Schachter 1996) are

\textsuperscript{19}Rajaona (1972) calls these durative results but it is the result that is durative, not any activity leading up to the result.

\textsuperscript{20}See Vendler (1967:113) for a discussion of \textit{see} as an achievement.

\textsuperscript{21}We will return to two other forms (\textit{voa-} and \textit{tafa-}) below which I will also argue express Achievements although in these two cases the Achievement nature is less clear.
the voa- passive and the tafa- passive. (363) is an example of the voa- passive that would correlate with the structure given in (361) above.

(363) VOA PASSIVE
voasambotry ny zaza ny alika b. * ... nefa faingana loatra ilay alika
VOA.captive.GEN DET child DET dog ‘... but the dog was too quick.’

‘The dog was caught by the child.’

Since the distribution of the two different forms, voa- and tafa-, falls along the same lines as the transitivity alternation in Malagasy, before turning to tafa- and voa-, I review the facts of this alternation (see Chapter 6xx for a longer discussion).

As we saw in Chapter 6xx, in the active form of Malagasy verbs, roots often come in pairs — an inchoative with a i- prefix and a lexical causative with a an-prefix. One example of this is the root √vory, which appears either as mivory ‘to meet\text{\textregistered}\text{-INTRANS}’ or mamory ‘to gather\text{\textregistered}\text{-TRANS}’.

(364) Transitivity alternation in Malagasy
\[
\begin{align*}
\sqrt{vory} & \ ‘\text{meet}’ \\
m-an-vory & \quad \text{mamory} \quad \ ‘X \text{gathers} Y’ \\
m-i-vory & \quad \text{mivory} \quad \ ‘Y \text{meets}’ \\
\end{align*}
\]

As we can see in (365) and (366), both the inchoative and the lexical causative forms of these verbs can be interpreted as non-telic.

(365)a. namory ny ankizy ny mpampianatra
PST.AN.meet DET children DET teacher
‘The teacher gathered the children’

---

22Rajemisa-Raolison (1971) refers to both of these as passive though, as will become clear below, the tafa-form is less clearly a passive.

23My consultant found (366b) odd but much better that the resultative form with tafa- given in (370).
b. … nefa tsy nanana fotoana izy
      … but NEG PST.have time 3P
      ‘... but s/he didn't have time.’

(366)a. Nivory ny olona                     b. ? .... nefa tsy nanana fotoana izy
         PST.I.meet DET people                                 ‘.... but they didn’t have time.’
         ‘The people met.’

The lexical causative of this form, naturally, has a suffixed passive form which, like
the examples we have already seen, may also be atelic. This is shown in (367) below.

(367)a. Novorin’ny mpampianatra ny ankizy
          PST.meet.TT.GEN’DET teacher DET children
          ‘The children were gathered by the teacher.’

b. .... nefa tsy nanana fotoana izy
    ‘... but s/he didn’t have time.’

One way to ensure the telicity of the transitive form of the verb is by adding aha- as
we have seen in section 7.2.4.

(368)a. nahavory ny ankizy ny mpampianatra
          PST.A.HA.meet DET children DET teachers
          ‘The teachers gathered the children.’

b. *.... nefa tsy nanana fotoana izy
    ‘.... but they didn't have time.’

We can also make the passive form of the verb telic by adding the prefix voa-.
(369)a. voavorin’ny mpampianatra ny ankizy

*VOA.meet.GEN’DET teacher DET children

‘The children were gathered by the teacher.’

b. * .... nefa tsy nanana fotoana izy.

‘ .... but s/he didn’t have time.’

As we can see, in both cases, the completion of the event is not defeasible. Further, the inchoative form of the verb can also have its telicity forced with additional morphology, in this case the prefix tafa-.

(370) a. tafavory ny olona

*TAF meet DET people

‘The people met.’

b. * .... nefa tsy nanana fotoana izy.

‘ .... but they didn't have time.’

This is to be contrasted with (366b) above. (370b) is clearly impossible while (366b) is simply awkward.

The effect of this morpheme inventory, then, is that, just as the prefixes i- and an- distinguish between the lexical causative and the inchoative forms of the verb, the prefixes voa- and tafa- appear to do the same.
(371) a. voavory ‘X be gathered by Y’  b. tafavory ‘X meet’

voa- = [+telic] passive of transitive form
tafa- = [+telic] of inchoative/unaccusative form

There are some obvious ways in which the i-/an- forms differ from the tafa-/voa-forms. The difference important to our discussion so far is that i-/an- are atelic while tafa-/voa- are telic. Another way the paradigms differ is that, in the i-/an pattern, one form of the verb has two arguments with the Agent in subject position, while the other has one argument, the Theme, which is in subject position. In the tafa-/voa- paradigm, while the argument structure appears to mirror the i-/an argument structure, now in both cases the Theme is external. We will see shortly, however, that a change in telicity effects a change in argument structure.

7.3 THE SHAPE OF ACHIEVEMENTS

Now I investigate the structure of Achievements by looking closely at the argument structure, how the arguments are realized, and what the lexical subparts of the event actually encode. Malagasy and Tagalog together provide information on the argument structure, the event structure, and the phrase structure of Achievements through the behavior of the morphology and the interpretation of the constructions.

7.3.1 The external argument

With further data, we see another unexpected effect of telicity. I have said that the argument structure appears not to be affected by the shift in telicity, but in fact, this is not
the case. It is clear in the example given below that the \textit{i}-form of the verb is truly the inchoative form and has only one theta-role to assign. (372a) shows that only one argument may appear with the verb. (372b) shows that no manipulation of the word order or morphology can improve the structure.

(372) a. * Nivory ny ankizy ny mpampianatra.
\hspace{1cm} PST.I.meet DET children DET teacher

\hspace{1cm} b. * Nivorin’ny mpampianatra ny boky

(373) shows, however, that an additional argument can be added to the telic form of the verb, i.e. the \textit{TAF\textscript{A}} form.\textsuperscript{24}

(373) Tafavory ny mpampianatra ny ankizy
\hspace{1cm} TAF\textscript{A}.meet.GEN DET teacher DET children

‘The teacher was able to gather the children.’

The questions we are left with here are: (i) why can an inchoative verb, which normally has only one theta-role to assign, realize two arguments and (ii) why is this only possible in the telic form?

To find a solution, I will take an excursion into a problem in Chinese and a solution proposed by Chen (1995). Chen discusses constructions such as the ones given below where the agent and the theme of a verb are unexpectedly flipped in the syntax.

(374) a. Fangfang he le jiu
\hspace{1cm} Fangfang drink ASP wine

‘Fangfang drank the wine.’

\textsuperscript{24} The translation includes the notion of ability. I argue elsewhere, using ideas of Bhatt (1999), that the ability reading is parasitic on the Achievement reading (see Travis 2005a, 2005b).
b. Fangfang he-zui le jiu
   Fangfang drink-drunk ASP wine
   ‘Fangfang drank the wine and got drunk.’

c. Zhe bei jiu he-zui le Fangfang
   This CL wine drink-drunk ASP Fangfang
   ‘This glass of wine made Fangfang drink (it) and she got drunk.’

As we can see in (374a), Chinese is (basically) an SVO language. It is also, as we have seen at the end of Chapter 4, section 4.5.2xx, a non-telic language (see e.g. Tai 1984). It has, however, a very rich system whereby results may be expressed either through separate predicates, or by predicate incorporation as in (374b). When telicity is overtly expressed (or a bounded time defined), the object and the subject may appear to flip positions as in (374c). The flip construction has been the focus of much research and has generated different accounts. Li (1995) proposes an account at the level of argument structure. We have seen Sybesma’s account in Chapter 2 where the predicate he ‘drink’ behaves more like a manner adjunct (similar to ‘The wine caused Zhangsan to be drunk via a drinking event’). Chen’s account retains he ‘drink’ as the main predicate. I find Sybesma’s account of the Chinese data most convincing but find that Chen’s account works well for Malagasy and Tagalog where there is only one predicate. For this reason, I present Chen’s account in more detail.

To explain the argument flip that we have seen in (374c) above, Chen proposes the following structure.
I will walk through the tree from the bottom to the top discussing primarily the distribution of theta-roles since this is most relevant to the issue at hand. The verb is generated with its theta-grid of (Agent, Theme). The Theme theta-role is assigned to the Spec of the lower VP (V₂P). The ASP head is determined to be [+telic] because of the resultative predicate drunk. What Chen proposes is that a [+telic] predicate is able to trigger early theta-role discharge of the Agent theta-role in the theta-grid of the verb. It is this early theta-discharge that accounts for at least half of the flip since now the Agent will be in the typical object position. What allows the Theme to be in the typical subject position is the cause predicate in the top VP coupled with the anaphoric pro in the Theme position of the lower VP.²⁶ I refer the reader to Chen’s papers for details on these two questions. For my purposes it is important to note that (i) an external theta-role may be discharged to the Spec, ASP position, (ii) that this theta-role assignment is dependent on the telicity value of ASP, and (iii) that an Agent in this position is non-volitional. For this latter point, Chen suggests that the Agent theta-role, which is assigned independently of the cause predicate results in a non-volitional Agent.

²⁵Chen, in fact, calls this EP. I prefer to keep it as ASP to be consistent with the other trees in this book.
²⁶For Chen’s account to work, we need both the theta-grid information for the predicate and the event structure information for the predicate. If she is right, there is not a necessary one-to-one correspondence between the two. I will remain agnostic on her account here since all I need at this point is the fact that a [+telic] ASP can trigger early theta-role discharge.
These characteristics point to a solution for the unexpected argument realization in Malagasy. The problem in Malagasy was that there were inchoative verbs unexpectedly assigning external arguments when the telic morpheme was added. Further, these external arguments took on a semantic role different from the role of the external argument of the transitive form of the same verb. Following Chen, then, I propose the following solution. *Tafa-* in ASP, as a telic morpheme, may allow a verb to license an external argument, which is not possible when the non-telic form of the verb is used.

Further evidence for this account comes from the characteristics of the prefix *aha-.* If we are claiming that the [+telic] ASP realized as *tafa-* is allowed to discharge a theta-role in the SPEC, ASP, we can ask whether all [+telic] morphemes in Malagasy are allowed to do the same thing. Given observations made in Phillips (1996) the answer appears to be yes. In order to see this, we have to understand the range of meanings of the prefix *aha-* . We have already seen that this prefix makes the predicate telic and that it creates Achievements. The two meanings that are generally listed in grammars and dictionaries for this morpheme are the abilitative and the causative.

(376) ABILITATIVE

Nahaongotra ravina tamin’ny tanana Rabe
PST.A.HA.pull.out root PST.with’DET hands Rabe
‘Rabe was able to pull out the roots with his hands.’

(377) CAUSATIVE

a. Tsara ny trano
   beautiful DET house
   ‘The house is beautiful.’

b. Mahatsara ny trano ny voninkazo
   PRES.A.HA.beautiful DET house DET flowers
   ‘The flowers make the house beautiful.’
Phillips convincingly argues that, in fact, there is one *aha-* that has a different effect depending on the nature of the root to which it attaches. To be more precise, there are two morphemes, *a-* and *ha-*. *A-* is the stative prefix mentioned earlier which attaches to roots to create adjectives. Below we see some examples of this (from Abinal and Malzac 1988).

(378) Malagasy

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Morpheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>dio</td>
<td>cleanliness</td>
<td><em>m-a-dio</em> clean</td>
</tr>
<tr>
<td>loto</td>
<td>dirt</td>
<td><em>m-a-loto</em> dirty</td>
</tr>
<tr>
<td>zava</td>
<td>light, clarity</td>
<td><em>m-a-zava</em> clear</td>
</tr>
<tr>
<td>zoto</td>
<td>diligence</td>
<td><em>m-a-zoto</em> diligent</td>
</tr>
</tbody>
</table>

This morpheme is located in V₁ and completes the paradigm with the lexical causative *an-* and the unaccusative *i-*. *A-* introduces a stative event variable *s*, *i-* introduces the event variable *e*, *an-* introduces the event variable *e* as well as some process predicate like *DO* which allows for an external argument.

In fact, all three of these verbal prefixes can be attached to a stem containing the root and the prefix *ha-* (which becomes *ka-* following the nasal). We have already seen the cases of *m-a-ha-* in (376) and (377b) above and examples of *m-an-ha* and *m-i-ha* are given in (379) and (380) below.

(379) *manka 'Y make X A' (m-an-ha-*)

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Morpheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>hery</td>
<td>strongₐ</td>
<td>mankahery</td>
</tr>
<tr>
<td>many</td>
<td>sweetₐ</td>
<td>mankamamy</td>
</tr>
<tr>
<td>rary</td>
<td>painₙ</td>
<td>mankarary</td>
</tr>
</tbody>
</table>
SYNTAX OF ACHIEVEMENTS

(380) mīha 'X become A' (m̩-i-ha-) 
  tsara good mihatsara X get better 
  ratsy bad miharatsy X get worse 

Ha- is the morpheme which encodes the telicity of the event and it is located in Asp. 27 This gives the following common structure for the abilitative and causative.

(381) 

\[
\begin{array}{c}
  V_1 P \\
  \text{DP} \\
  \text{V}_1' \\
  \text{AspP} \\
  \text{a-} \\
  \text{DP} \\
  \text{Asp'} \\
  \text{Asp} \\
  \text{ha-} \\
  \text{DP} \\
  \text{Theme} \\
  \text{V}_2 P \\
  \text{V}_2' \\
  \sqrt{\ldots}
\end{array}
\]

The Theme theta-role will be assigned within the projection of the root. 28 Departing now from Phillips’ analysis, I take the telicity of Asp to be what allows a additional theta-role to be assigned, and this theta-role will be assigned to the Spec, Asp position. 29 I follow Phillips, however, in relating the meaning of the affixes to a functor predicate as in Ritter and Rosen (1993) where have may assign an additional theta-role but the exact theta-role is not specified. For Ritter and Rosen, this lack of specification accounts for why we can get ambiguities between an Agent reading or an Experiencer reading of Mary in the example below.

---

28 I have shown the root to be a verb but in fact it is more often the case an A or N.
29 In previous work, I have mistakenly presented my analysis as being the same as Phillips’. In fact, Phillips keeps the external argument in Spec, VP. I believe there are reasons from morpheme deletion in Tagalog and tense realization in Malagasy to believe that the external argument is in a lower position. I give both of these arguments below.
Mary had all her students walk out.

a. **AGENT** She asked them to all walk out.

b. **EXPERIENCER** They all walked out on her.

In Malagasy, again, the exact theta-role is not specified, but in this case it follows from the nature of the root. If the root is an eventive root (and Phillips supplies independent tests to distinguish this), we will get the abilitative reading. If the root in non-eventive, we will get the causative reading. This split in interpretation follows from Grimshaw’s (1990) claim that eventive elements (in her case nouns) have argument structure and non-eventive elements do not. Returning to the tree in (381) we can see that only the Theme theta-role has been assigned by the time that the [+telic] ASP has been reached. If the root has a theta-grid, and that theta-grid has an Agent theta-role to be assigned, as in Chinese, that theta-role will be discharged in the Spec, ASP. If the root is non-eventive, then the theta-role to be discharged will be a default cause as in Ritter and Rosen.

Phillips argues, in fact, that there are not two meanings for the prefix *aha-* but one. There appear to be two interpretations but it is because each gets translated by what is the most salient change in the predicate. Imagine that the meaning of a morpheme is $x+y$. If this morpheme attaches to a root which already contains the meaning $x$, then the meaning of the affix appears to be $y$. If the root already has the meaning of $y$, the affix appears to have the meaning $x$. In the case of an eventive predicate with an Agent theta-role in its argument structure, what is most salient is the fact that the Agent is non-agentive. In the case of the non-eventive predicates, it is the addition of the cause argument that is most salient. In both cases, however, a stative predicate is being formed (this is what *a*- does), and a [+telic] ASP is discharging a non-agentive cause theta-role.

---

30It is not clear why Experiencer is not an option here.
31The assumption here is that one element in the L-syntax cannot have 2x or 2y.
32And this non-agentivity gives the abilitative reading, for some reason. While the exact reason is not clear, it is interesting that other languages with stativizing processes often have the same effect, for example stative passives in Chichewa (see 1996).
There are two interesting outcomes here. One is that the additional cause of the non-eventive predicate cannot be an Agent. This is because the role does not come from a theta-grid. The second outcome is that prefixation of maha- onto an unaccusative eventive root (like tonga ‘arrive’) will never give the pure abilitative reading (‘able to arrive’), but will always give the causative reading (‘able to cause to arrive’). This is because the theta-grid, even though it exists, does not provide an external argument. The relevant data for these two results are given below.

(383)  **NO AGENT**

* Mahatsara ny trano Rabe

\[ \text{PRES.A.HA.good DET house Rabe} \]

‘Rabe makes the house beautiful.’

(384) **NO PURE UNACCUSATIVE ABILITATIVE**

a. √tonga ‘arrive’

(Phillips 2000: 103)

b. mahatonga ‘able to make arrive’

≠ ‘able to arrive’

c. mahatonga ny zanakao ho hendry ny fianarana

\[ \text{PRES.A.HA.arrive DET child.GEN.2S FUT wise DET studies} \]

‘Studies make your child wise.’

We have so far seen three uses of the aha- constructions in Malagasy — to form Achievements as in (356) and (357), to form abilitatives as in (376), and to form causatives as in (377). All will have the same structure as shown below.

(385) **aha- abilitative**

\[ [V_1P [V_1' a- [ASPP DP [Asp' ha [V_2P Y [V_2' √ ]]]]]]

“Agent” [+telic] (Agt, Th, ...)

draft: 8/10/06
b. *aha- causative*

\[
[V_1P [V_1' a- [AspP DP [Asp' ha [V_2P2 Y [V_2' √]]] ]]
\]

\[
\text{Cause [+telic]} \quad \text{(Th)}
\]

c. *aha- Achievement*

\[
[V_1P [V_1' a- [AspP DP [Asp' ha [V_2P2 Y [V_2' √]]] ]]
\]

\[
\text{“Agent” [+telic]} \quad \text{(Agt, Th, ...)}
\]

Having postulated that [+telic] Asp may assign a functor theta-role to its SPEC position to solve the problem of the unexpected argument in Malagasy, we turn to the problem of morpheme drop. What I will be arguing for is the placement of the external argument in SPEC, Asp rather than in SPEC, \(V_1\). The arguments will come from morpheme deletion in Tagalog and tense realization in Malagasy.

### 7.3.2 *ka- deletion in Tagalog*

If it is possible to allow Agents to appear in SPEC, Asp, we have two different positions where Agents may appear — SPEC, \(V_1P\) and SPEC, Asp. If this is the case, we would expect some effects of these two positions that go beyond simply their interpretation as being volitional or non-volitional. In this section I want to argue that this difference in positions is made visible in the two morpheme drop phenomena we have seen above.

We saw in Chapter 6, section 6.4.2xx that *pag-* can drop in Tagalog when certain syntactic requirements are met. A second case of morpheme deletion in Tagalog occurs with the *aka-* prefix (cognate to the Malagasy *aha-* prefix discussed above). As in the case of *pag-* deletion, morpheme deletion occurs in the Theme Topic form of the verb. In this case, however, *aka-* becomes *a-*, i.e. *ka-* deletes.\(^{34}\)

---

\(^{33}\) This construction is good only if Rabe makes the house beautiful through his own beauty.

\(^{34}\) Note that the translation of the Tagalog structures captures two aspects of the Malagasy morpheme *aha-* discussed above — achievement of the end result and non-volitionality of the Agent.
Again it seems as if movement of a particular argument explains the appearance of a certain morpheme. In this case, movement of the Agent to the subject position allows the *ka-* morpheme to appear as in (383a). When the Theme has moved to the subject position and the Agent has stayed in situ as in (383b), then the *ka-* deletes. Ideally we would like these two apparently separate phenomena of *ka-* deletion and *pag-* deletion to have a common solution. In other words, ideally we will be able to use the Doubly Filled Voice filter of Sportiche, discussed in Chapter 6, section 6.4.2xx, to also account for *ka-* deletion. This would mean that the Agent would be in the specifier position of the head that houses *ka-*. I have argued that Malagasy *ha-* is in ASP. Assuming that *ka-* in Tagalog has a similar account, and we have no reason to believe otherwise, we can construct the schema for *ka-* given in (386b) and compare it to the analysis of *pag-* given in (386a).

(386) a. \[ \text{[V}_1 \text{P Agent [V}_1' \text{ pag}] ASPP [ASPP'} [V}_2 \text{P Y [V}_2' \sqrt \text{]]} \]

b. \[ \text{[V}_1 \text{P [V}_1' \text{ a] ASPP Agent [ASPP'} \text{ ka} [V}_2 \text{P Y [V}_2' \sqrt \text{]]} \]

In both *pag-* deletion and *ka-* deletion, it is in the Theme Topic form, i.e. when the Agent is in-situ, that the deletion occurs. In order to collapse *pag-* deletion and *ka-*
deletion, we have to assume that the external argument of a $ka$- construction is merged in the Spec, Asp position. As we can see in (386) above, the morpheme that deletes is in a Spec, Head relationship with the in-situ external argument. So, for $ka$- deletion as well as $pag$- deletion we can, at least descriptively, use Sportiche’s Voice Filter.

To recap, I argue that the non-volitional Agent or cause was generated in the Spec, Asp position in Malagasy since it was related to the appearance of the telic morpheme. This view is confirmed by the case of morpheme deletion in Tagalog where this telic morpheme may have zero realization when the non-volitional agent or cause appears in situ.

7.3.3 Tense realization in Malagasy

Another argument can be made that the external argument of a telic predicate in Malagasy is generated in a lower position within the VP. In order to see this, we have to return to Theme Topic telic predicates. These are the VOA-, Tafa-, and root passives. Examples of each are given below.\(^{35}\)

(387) a. Voatapaka ny tady  \hspace{1cm} \text{voa+√TAPAKA}
   \hspace{1cm} \text{VOA-cut} \hspace{1cm} \text{DET} \hspace{1cm} \text{cord}
   \hspace{1cm} ‘The cord was cut (by someone).’

   b. Tafatsangana ny ankizy  \hspace{1cm} \text{tafa-√TSANGANA}
   \hspace{1cm} \text{Tafa-stand} \hspace{1cm} \text{DET} \hspace{1cm} \text{child}
   \hspace{1cm} ‘The child stood up.’

   c. Tapaka ny tady  \hspace{1cm} \text{√TAPAKA}
   \hspace{1cm} \text{√cut} \hspace{1cm} \text{DET} \hspace{1cm} \text{cord}
   \hspace{1cm} ‘The cord is cut.’

---

\(^{35}\) As mentioned earlier, sometimes the label of ‘passive’ used by traditional grammarians for these structures appears misleading since the Tafa- passive often seems like a straight unaccusative and the root passive often seems like a straight adjective. It is the ability for all of these constructions to realize external arguments (causes) that makes them appear passivelike.

draft: 8/10/06
As we saw in (369), (370) and (360), these three passives differ from the fourth type of passive, the suffixed passive, in that they entail the successful outcome of the event. They have another thing in common which is that they all realize tense differently from other verb forms. In fact, as far as tense realization is concerned, they behave exactly like adjectives. The relevant tense forms are given in the table below. Suffix passives, like other verbal forms, make a three way tense distinction while adjectives and VOA-, TAFA- and root passives only distinguish present and past from future (perhaps realis from irrealis).

\begin{tabular}{|c|c|c|c|}
\hline
 & SUFFIX & VOA & TAFA & ROOT \\
\hline
Present & 0- & 0 & 0 & 0 \\
\hline
Past & no- & 0 & 0 & 0 \\
\hline
Future & ho- & ho & ho & ho \\
\hline
\end{tabular}

Elsewhere I accounted for this difference by positing that head movement in verbal forms must move through V₁ while adjectival type constructions (adjectives and these particle constructions) do not move as high in the phrase structure (see Travis 2005, 2005). Tense realization, then will depend on the landing site of the head. Since all of these constructions, including adjectives, can realize external arguments, it must be the case that these external arguments are in positions lower than V₁. This is sketched below.\textsuperscript{36}

\textsuperscript{36} In the works cited, I assume that V₂ was simply a root node and that the verbal counterparts become verbal by the addition of V₁. In fact, these and other facts about the Malagasy forms raise questions about categorial distinctions. In the text, I call the VOA, TAFA, and root forms adjectival. In fact, I see them as being part of a continuum with adjectives at one end and verbs at the other. Verbs contain the most syntactic structure and adjectives the least. This is the topic of ongoing work.

draft: 8/10/06
If this analysis of tense realization is appropriate, then we have another argument that the external arguments of telic predicates are lower in the phrase structure.

Now I follow up two consequences of the proposals that have been made concerning the structure of Achievements. In both cases we learn a bit more about argument structure and how it is represented in the lexicon.

### 7.3.4 The argument structure of cognition verbs in Tagalog

One consequence of the analysis outlined above is that, if we take this morpheme deletion very seriously, we are forced to reanalyze the argument structure of some verbs such as Experiencer verbs. De Guzman (1992) describes the following puzzle.\(^{37}\) When looking at the paradigms of the cognition verbs below, we see some irregularity. There appears to be a mismatch of syntax and morphology. Looking only at the highlighted areas, we can see that \(a-\) is used for constructions where the object (Theme) is the subject for perception and cognition verbs but for constructions where Experiencer is the subject for emotion verbs.\(^{38}\)

---

\(^{37}\) De Guzman’s interest is in first language acquisition, not in the determination of argument structure.

\(^{38}\) I leave the table as it is given in De Guzman’s work. The prefix that I call \(a-\) is labeled \(ma-\) here because of the extra \(m-\) prefix. Further, I save the questions raised by the rest of this paradigm for future work.
(390) De Guzman’s (1992) puzzle

<table>
<thead>
<tr>
<th>Root</th>
<th>Experiencer Focus (EF)</th>
<th>Object Focus (OF)</th>
<th>Reason/Other Focus (RF)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PERCEPTION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kita</td>
<td>see</td>
<td>MA-KA+kita</td>
<td>I-KA-kita (MA-kita-AN)</td>
</tr>
<tr>
<td>dinig</td>
<td>hear</td>
<td>MA-KA+dinig</td>
<td>I-KA-dinig (MA-dinig-AN)</td>
</tr>
<tr>
<td>punah</td>
<td>notice</td>
<td>MA-KA+punah</td>
<td>KA-punah-AN</td>
</tr>
<tr>
<td>damdam</td>
<td>sense</td>
<td>MA-KA+damdam</td>
<td>I-KA-damdam</td>
</tr>
<tr>
<td><strong>COGNITION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alala</td>
<td>remember</td>
<td>MA-KA+alala</td>
<td>(I-KA-alala)</td>
</tr>
<tr>
<td>alam</td>
<td>know</td>
<td>MA-KA+alam</td>
<td>(I-KA-alam)</td>
</tr>
<tr>
<td>isip</td>
<td>think</td>
<td>MA-KA+isip</td>
<td>(I-KA-isip)</td>
</tr>
<tr>
<td>tutoh</td>
<td>learn</td>
<td>MA-tutoh</td>
<td>KA-tutoh</td>
</tr>
<tr>
<td><strong>EMOTION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>takot</td>
<td>fear</td>
<td>MA-takot</td>
<td>(I-KA-takot)</td>
</tr>
<tr>
<td>inis</td>
<td>annoyed</td>
<td>MA-inis</td>
<td>(I-KA-inis)</td>
</tr>
</tbody>
</table>

Given my assumptions, the *a-* form is really the *a-ka-* form with the *ka-* in its zero realization. Having a particular view of morpheme deletion forces me to have a particular view about the argument structure of these verbs. We know three things. The zero form of *ka-* must come about because the argument in its *SPEC* position is in situ. This argument must be Cause, and it must be in *SPEC*, ASP. Now we are forced to reanalyze the object of an emotion verb as the Cause, and the Experiencer of a perception or cognition verb as a Cause. Below I give De Guzman’s argument structure contrasted with what the present analysis forces us to say so that we can compare them.39

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39 Obj for De Guzman would be similar to a Theme theta-role.
Emotion verbs:

X FEARS Y
De Guzman EXP Obj
X experiences fear of Y
Proposed Obj CAUSE
Y is the cause of X’s having become frightened

Cognition/perception verbs:

X KNOWS Y
De Guzman EXP Obj
X experiences knowledge of Y
Proposed CAUSE Obj
X is the cause of Y’s having become known

While this may not be the same argument structure as the English translations, we have already seen that languages differ in terms of event structure and that translations can be misleading. The Tagalog data here suggest that cognition verbs have the event structure of Achievements. This is similar to some Japanese data. In Chapter 4, section 4.5.1xxx we saw the te-iru test applied to classes of verbs to distinguish Activities, Achievements, and Accomplishments. Uesaka (1996), following Kindaichi (1976), lists only four stative verbs for Japanese: i-ru ‘to be’, a-ru ‘to be’, ir-u ‘to need’, and dekir-u ‘to be able to’. None of these roots can appear in the te-iru form. Roots like wakar-u ‘understand’, however, do appear in te-iru constructions, and, like Achievements, have only the perfect of result reading (Uesaka 1996:4 and 42). (392a) below is an example of an Achievement verb in the te-iru construction. As we can see, it gets the perfect of result reading. The examples in (392b) and (392c) tell us two things. First, since these verb roots appear in the te-iru construction, we know that they are not States. Second, since they have the perfect of result translation, they behave like Achievements.

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(391) a. Emotion verbs: X FEARS Y
De Guzman EXP Obj
X experiences fear of Y
Proposed Obj CAUSE
Y is the cause of X’s having become frightened

b. Cognition/perception verbs: X KNOWS Y
De Guzman EXP Obj
X experiences knowledge of Y
Proposed CAUSE Obj
X is the cause of Y’s having become known

---

40 See Vendler (1967:113) for a discussion of this issue.
41 Uesaka (:40-42) has a long footnote about the problematic status of the verb class of a root like wakar-. As we see in (392c) this verb can assign nominative case to its object like a stative verb, yet it can simultaneously appear in the te-iru construction. This sort of dual behavior still needs to be explained.
(392) a. Ki-ga taore-te-i-ru
    tree-NOM fall-TE-I-PRES
    ‘Trees have fallen down (and they are on the ground now).’

b. John-ga Mary-o shir-te-i-ru
    John-NOM Mary-ACC get.to.know-TE-I-PRES
    ‘John has got to know Mary (and the result still holds now).’
    = ‘John knows Mary.’

c. John-ga nihongo-ga/o wakar-te-i-ru
    John-NOM Japanese-NOM/ACC understand-TE-I-PRES
    ‘John understands Japanese.’

These data from Japanese make cognition verbs like ‘know’ appear similar to Achievement verbs like ‘fall’. Further, given that they are transitive, one might also suppose that they are similar to transitive Achievements like ‘find’. This lends some support to the analysis of the Tagalog verb forms above. Once the argument structure is viewed this way, the paradigm becomes less problematic and perhaps we have learned something about how these languages choose to organize the argument structure of such verbs.

7.3.5   Achievements as pure results

Before turning to the issue of external arguments and theta-grids, I reflect a bit on where we are in viewing the structure of Achievements. We can ask first if they form a natural class. If we think of the characterization of Vendler and Dowty, they are processless results. If one adds a process to them, they become Accomplishments. In terms of the structure proposed here, they differ from Accomplishments in the make-up of \( V_1 \). In fact, their \( V_1 \)s most likely come in a variety of types. There seem to be two sub-types — basically unaccusatives (\( die, fall \)) and transitives (\( find, discover \)). In Malagasy, unaccusatives have an \( i- V_1 \) and transitive achievements have an \( a- V_1 \). Presumably these differ on a dynamic vs. stative axis rather than a +process vs. –process axis. Further, in
the first group, there is no argument in SPEC, ASP, while in the second group there is.\textsuperscript{42} Since the tests we use to distinguish verbs classes probe the process content of \(V_1\) and the telicity of \(ASP\) and not the theta-grid of the root nor the stativity of \(V_1\), these two groups of predicates will fall into the same Aktionsart class. This class will appropriately belong to the same supercategory as States due to the \(V_1P\) has no process predicate. It will also fall into the same supercategory as Accomplishments due to a [+telic] \(ASP\).

The characterization of Achievements as pure results seems most appropriate. As Ryle puts it (1949:152):

> My seeing of the hawk seems to be a queerly transparent sort of process, transparent in that while a hawk is detected, nothing else in detected answering to the verb in ‘see a hawk’.

In ‘I saw the hawk’, what is important is the result (the hawk’s being seen) not the manoeuvre to use Dell’s terminology for characterizing the Tagalog AIA construction. Again in the words of Ryle (1949:152):

> They [achievement verbs] do not stand for performances, or ways of being occupied … To put it crudely, they belong not to the vocabulary of the player, but to the vocabulary of the referee. They are not tryings, but things got by trying or by luck.

The importance of result and the non-importance or non-existence of the ‘tryings’, the manoeuvre, is directly represented in the structure proposed. Further, the demotion of the ‘player’ is also encoded.

While achievements have something in common, a non-DO/CAUSE \(V_1\), they also differ. Unaccusatives are one type and transitive achievements another. I chose to put these in the same class just as I assume transitive and intransitive states are one class. The difference shows up, however, along the agentivity/durativity lines set up by Pustejovs\'ky/Verkuyl. Unaccusatives, more easily than transitive achievements, can be coerced into being agentive in some cases and durative in some cases. This flexibility comes from the lack of specification of \(V_1\) (beyond being eventive). I tentatively outline how this comes about.

\textsuperscript{42} Note that Malagasy, and not English, allows SPEC, ASP to realize an argument even for unaccusatives.
First, we can see that some unaccusatives like arrive and fall can be agentive.

(393)a. They deliberately arrived late.
   b. They fell on purpose.

Certain verbs that enter into the lexical causative alternation in Malagasy like misitraka ‘hide’, mihisatra ‘move slowly’, mitsangana ‘stand up’ can also be agentive in their intransitive form. I assume that these verbs have the option of projecting the structure below. Matsuoka (2001) has argued that this structure is necessary to account for Japanese unaccusatives.

(394)

\[ \begin{array}{c}
V_1P \\
\downarrow \\
DP_1 \quad V_1' \\
\downarrow \\
V_1 \quad AspP \\
\downarrow \\
Asp' \\
\downarrow \\
Asp \\
\downarrow \\
V_2P \\
\downarrow \\
DP_{pro_i} \quad V_2' \\
\downarrow \\
V_2 \\
\end{array} \]

(Theme)

The theta-grid of the verb shows that it is unaccusative. However, V1 can take on the flavor of agentivity, and assign an Agent theta-role. Since the theta-grid can have only one ‘true’ argument (i.e. it appears in the Spec of a lexical category), this Agent must be coindexed with the existing theta-role, Theme. What allows these verbs to enter into the lexical causative alternation is that the theta-grid may be satisfied in V2P.\(^{43}\)

Other unaccusative verbs, while not agentive, seem to have some sense of durativity. Further, they can appear with the progressive.
(395)  a. The chocolate is melting.
       b. The boat is sinking.

I propose that it is the underspecification of $V_1$ that allows these shifts. Notice that transitive achievements which have a stative $V_1$ are more resistant to coercion.

(396)  a. ??They deliberately found/noticed/discovered the flaw.
       b. ??They were finding/noticing/discovering the flaw.

I leave an exploration of this for future research.

Now we turn to the problem of these external arguments, and external arguments more generally.

7.4 EXTERNAL ARGUMENTS AND LCS
Given the conclusions reached so far in this chapter, there are two positions for external arguments — in $\text{Spec, } V_1$ and in $\text{Spec, ASP}$. This has much in common with a proposal made by Fujita (1996) that locates Cause in a position lower than Agent. There is a difference, however, in how the theta-role is assigned. First, it seems to be assigned by a non-lexical category, Aspect. Second, there are two manifestations of it. In one case, the theta-role comes partly from the theta-grid of the root (385b). In the other case, the theta-role comes purely from the $+$telic Aspect (385a). In fact, this brings up another issue. Throughout the book, I have been assuming that external theta-roles are generally part of the theta-grid or Lexical Conceptual Structure (LCS) of the root. Given the current climate of the Minimalist Program, this assumption is controversial. In this section, I argue that this view of the representation of argument structure accounts for some interpretation distinctions in Malagasy nominals.

43 This mechanisms may explain why in some languages, ingestive verbs (eat, drink) and some outward signs of emotion verbs (cry, laugh) can enter into lexical causative alternations (eat/feed; drink/suckle; laugh/amuse?, cry/tease?).
As we can see in the data presented below, aha- predicates can be made into \( f \)-nominals\(^{44} \) however depending on whether the external argument is encoded in the theta-grid of the root or not determines the meaning of the nominal. We start with a root that has a complete theta-grid. As we can see, this appear in an \( an- \) form, and an aha- form with the predictable interpretations. The \( f \)-aha-nominal form changes the ability form to a capability nominal.

\[(397) \text{a. } \sqrt{\text{soritra}} \text{ ‘line’}
\]
\[b. \text{ m-an-} \sqrt{\text{soritra}} \quad \text{manoritra} \quad \text{‘to sketch’}
\]
\[c. \text{ m-a-ha-} \sqrt{\text{soritra}} \quad \text{mahasoritra} \quad \text{‘to be able to sketch’}
\]
\[d. \text{ f-a-ha-} \sqrt{\text{soritra-a-na}} \quad \text{ny fahasoritana} \quad \text{‘the capability of sketching’}
\]

Now we look at a root that does not have a complete theta-grid meaning that it does not have an external argument in its theta-grid. This is what Phillips (1996, 2000) would consider a non-eventive root. As we see there is no \( an- \) or \( ana- \) form, the aha- form has a cause type reading\(^{45} \). Importantly, the \( f \)-aha-nominal does not retain any of the causal meaning but it only interpreted as an abstract noun.

\[(398) \text{a. } \sqrt{\text{finaritra}} \text{ ‘pleasant’}\(^{46} \)
\]
\[b. \text{ m-an-} \sqrt{\text{finaritra}} \quad * \text{ mampinaritra,} \quad * \text{ manafinaritra} \quad \text{‘to please’}
\]
\[c. \text{ m-a-ha-} \sqrt{\text{finaritra}} \quad \text{mahafinaritra} \quad \text{‘to please’}
\]
\[d. \text{ f-a-ha-} \sqrt{\text{finaritra-a-na}} \quad \text{ny fahafinaretana} \quad \text{‘pleasure’}
\]

In summary, those roots with full theta-grids (i.e. having external argument) can combine with the prefix \( an- \) as shown in (397b). Adjectival roots have no external

\(^{44}\) Paul (1997) discusses the formation of \( f \)-nominals in detail.
\(^{45}\) Object experiencer psych predicates are generally aha- forms.
\(^{46}\) In previous work I gave kamo ‘lazy’ as an example of this type of form. The consultant I was working with had no mani/mana form and only the abstract noun interpretation of the \( f \)-nominal. However, other consultants I have worked with do have in their lexicon manakamo ‘to make lazy’ and also the ability reading of the \( f \)-nominal. Clearly this is the sort of phenomenon that will vary from speaker to speaker.
argument in their theta-grid and cannot combine with \textit{an-} as shown in (398b). The
distinction correlates with another distinction within the paradigm. Only the roots that
can combine with \textit{an-} retain the meaning of verbal \textit{aha-} form when in the \textit{f-aha-}nominal
(compare (397c and d) vs. (398c and d)).

This is quite productive — another example is \textit{√henatra} ‘shame’; \textit{menatra} ‘to be ashamed’; \textit{mahamenatra} ‘to cause shame’
\textit{fahamenarana} ‘shame’.

Now we need to address the difference in behavior. Why would the argument
structure of one set of roots be retained while the other is lost? Why doesn’t
\textit{fahafinaretana} mean ‘the causing of pleasure’? I link the difference to a difference in the
root themselves (presence or lack of a theta-grid) and to the nature of the theta-role
assignment in the \textit{aha-form} (from the \textit{ASP} plus the theta-grid or from the theta-grid alone).
Apparently, the theta-roles that are completely dependent on the Aspect head are
lost. In the nominal form, then, \textit{ASP} loses its ability to add the cause theta-role. In order
to have this distinction reappear in the nominal form, we need something other than a
lexical head to assign a theta-role and we need to have the full argument structure linked
to the root itself.

There are a variety of directions into which this research can extend. One
interesting outcome is that we can now test whether external arguments act like Agents or
Causes. Here I will just give some examples that raise questions, leaving a proper
investigation to further research. As shown below, the ‘Agent’ morphology can be used
for instruments (from Paul 2000:53) suggesting that new terminology is needed.

\begin{verbatim}
(399)Mandidy tsara ny hena ity antsy ity
       PRES.AN.cut well the meat this knife this

   ‘This knife cuts the meat well.’
\end{verbatim}

Further, while generally the Cause morphology is used for Object Experiencer
psych predicates, the productive causative morphology can be used as well. As we have

\begin{verbatim}
indicating a variation in lexical entries. So far I don’t have consultants with a manafinaritra form. I am
grateful for input from Peter Svenonius and the argument structure reading group at Tromsø.
\end{verbatim}
seen in Chapter 6, this morphology contains the *an-* (‘Agent’) prefix. This is shown below. As we can see once again below, the term ‘Agent’ morphology is not ideal since the external argument can be either animate (400b) or inanimate (401b). A more appropriate characterization of the *mampa*- form, perhaps, is that it is eventive.

(400)a. Nahaliana an-dRakoto ny mpampianatra  
PST.A.HA.\^interest ACC-Rakoto DET teacher  
‘The teacher interests Rakoto.’

b. Nampaliana an-dRakoto ny mpampianatra  
PST.A-F.A.\^interest ACC-Rakoto DET teacher  
‘The teacher made Rakoto interested.’

(401)a. Nahaliana ahy ny lahatsoratra  
PST.A.HA.\^interest ACC.1SG DET article  
‘The article interested me.’

b. Nampaliana ahy ny lahatsoratra  
PST.AN.F.A.\^interest ACC.1SG DET article  
‘The article made me interested.’

I have given slightly difference translations for these examples depending on the morphology. One reason is because my account creates one in the L-syntax (*nahalina*: X interests Y) and one in the S-syntax (*nampaliana*: X makes Y interested). Another reason I do this is because of a similarity with a fact about Experience Object constructions in other languages. As pointed out by Pesetsky (1995), Experience Object constructions, while apparently causative versions of Experience subject constructions, have a missing ‘third argument’. The relevant data are given below.

---

47 Abstract nominals can be constructed from roots with theta-grids (e.g. fahakamoazana ‘laziness’; manakamo ‘to make lazy’) but the reverse is not true. A capability nominal can never be constructed from a
(402)a. I am interested in Madagascar.
   b. The book interests me (*in Madagascar).
   c. The book made me interested (in Madagascar).

I do not go over Pesetsky’s account here except to note that it depends on the lack of overt causative morphology in construction in (402b). The Malagasy data raise problems for an analysis that goes in this direction. First, we can see that a similar distinction arises exists in Malagasy. The *aha-form disallows the third argument while the *ampa-form allows it.

(403)a. Nahaliana an-dRakoto (*an’iMadagasikara) ny mpampianatra

   PST.A.HA.interest ACC-Rakoto (in Madagascar) DET teacher

   ‘The teacher interests Rakoto (*in Madagascar).’

b. Nampaliana an-dRakoto (an’iMadagasikara) ny mpampianatra

   PST.AN.F.A.interest ACC-Rakoto (in Madagascar) DET teacher

   ‘The teacher made Rakoto interested (in Madagascar).’

(404)a. Nahaliana ahy (*an’iMadagasikara) ny lahatsoratra

   PST.A.HA.interest ACC.1sg (in Madagascar) DET article

   ‘The article interested me (*in Madagascar).’

b. Nampalina ahy (an’iMadagasikara) DET lahatsoratra

   PST.AN.F.A.interest ACC.1sg (in Madagascar) the article

   ‘The article made me interested in Madagascar.’

I do not propose an account here but simply suggest that the distinction stems from the domain in which the causative is formed. If it is created in L-syntax (i.e. is just one E-word), the third argument is not possible. If it is created in S-syntax (i.e. is more than one E-word), the third argument can be realized.

root without a theta-grid.
7.5 CONCLUSION

The goal of this chapter was not only to solve the problem of the syntax of Achievements, the problem of argument realization in Malagasy and morpheme drop in Tagalog, but also to show how semantics, syntax, and morphology can converge on a single issue. Argument realization in Malagasy pointed to something special about telic predicates. While telicity is a semantic notion, it has dramatic effects on the syntax, in particular the arrangement of the arguments of the predicates. I chose to see this as a rearrangement of theta-role assignment. Tagalog morphology provided quite subtle confirmation of this. If we allow Agent theta-roles to be assigned in two different ways to two different positions, we can capture the semantic differences of the roles (volitional vs. non-volitional), the syntactic realization, as well as the distribution of covert morphemes in Tagalog. All of these observations combined can be brought back to bear on the question of Vendler’s verb classification. If [+telic] predicates can satisfy both their argument structure and their event structure requirements without projecting a V₁P, they form the syntax of an Achievement predicate.

This chapter has supported the claim that Achievement exist as a separate Vendlerian class. Much of the discussion centered on the syntactic realization of telicity and how it may vary cross-linguistically. In the next chapter, I address problems of telicity that arise in cross-linguistic variation, acquisition, and coercion.