

Two Aspectual Puzzles in Saisiyat

1. Introduction: Two Puzzles with [ila]

In this paper I investigate two puzzles with the Saisiyat aspect marker [ila]. With states and activities, [ila] gives two distinct readings: a universal perfect reading and an inchoative reading (Puzzle One). These two readings can be illustrated by the following scenario: at first, Ataw weighed 100 kg. Over time he lost some weight, and has gotten comparatively skinnier. Now he only weighs 70 kg, which is still quite large in Taiwan. Both (1-2) are felicitous in this scenario, with different aspectual meanings despite analogous surface structure.

1) Ataw balih ila

Ataw skinny ILA

“Ataw has become/gotten skinny(-ier)”

2) Ataw kerpee ila

Ataw fat ILA

“Ataw has been and is (still) fat”

The difference in meaning between (1) and (2) is not due at all to the semantic content of the state. The meanings can be switched: in a different scenario, (1) can mean “Ataw has been skinny” and (2) can mean “Ataw has become fat.” As these examples show, a stative predicate with [ila] can generate both an inchoative and a universal perfect reading.

With accomplishments and achievements, [ila] implies culmination of the event: the natural goal or endpoint has been reached. This is unlike another Saisiyat aspect marker, the perfective [ina], that only marks termination of the event, which can be at an arbitrary point (Puzzle Two). In (3), [ila] implies that all the rice cakes are completely eaten, i.e., the natural result has been accomplished; thus it is contradictory to state that the rice cakes have not been finished.

However, in (4) the perfective marker [ina] only implies that the event of eating the rice cakes has ended, which may have been before all the rice cakes were all finished; thus there is no contradiction.

3) haseb ni ataw si'ael-en ila ka tinawbon. #okay il-amet-i:
five GEN Ataw eat-PV ILA D rice cake NEG eat-finish-PV.DEP
“Ataw has eaten five rice cakes. #They are not finished.”

4) ataw ina s<om>i'ael haseb tinawbon. okay il-amet-i:
Ataw INA <AV>eat five rice cake NEG eat-finish-PV.DEP
“Ataw has eaten five rice cakes. They are not finished.”

I give an account of [ila] that unifies its behavior across different predicates and solves the two puzzles. I propose that [ila] is a Perfect marker: it indicates that a transition anterior to reference time has happened, resulting in a new state that obtains at reference time. In the terminology of Iatridou et al (2001), [ila] sets up a Perfect Time Span (PTS) interval, extending from a Left Boundary (LB) determined either by temporal adverbials or context, to a Right Boundary (RB), coterminous with reference time. Depending on viewpoint aspect, the transition can either be before or after LB, and the resulting new state can still obtain or not at RB.

However, this state indicated by [ila] seems to differ across situation types. With atelic predicates (i.e., states and activities), the [ila] state is the state or activity indicated by the predicate itself. With telic predicates (i.e., accomplishments and achievements), the [ila] state is the target state of the accomplishment or achievement. I suggest that this difference is due to [ila] requiring the presence of a lower telic operator, which triggers the target state with naturally telic predicates, and transforms states and activities into inchoatives, which are (akin to) intransitive achievements (see, e.g., Travis 2000). Thus the state or activity is actually the target state of the

derived achievement; [ila] therefore specifically indicates the target state for all situation aspect types, once they have been made telic. I furthermore argue that accomplishment and achievement predicates in Saisiyat are actually unspecified for telicity without this operator, so that with the perfective marker [ina], the culminative reading is not necessary.

I argue that the two different readings given by [ila] with atelic predicates, inchoative and universal perfect, are due to the presence of different silent viewpoint aspect markers: imperfective and neutral. Neutral aspect, which places the initial boundary and at least some of the internal points inside the viewpoint time, here the PTS (Smith 1991), gives a more purely inchoative reading. With the neutral aspect, the initial point, i.e., the transition point into the new state, occurs within the PTS, and the new state may still obtain at RB, i.e., reference time. Imperfective aspect, which places both boundaries outside of the PTS, gives the universal perfect reading, as the new state holds throughout the PTS, including up to reference time (Iatridou et al 2001, Pancheva 2003). As a Perfect marker, [ila] takes scope over viewpoint aspect (see, e.g., Chomsky 1957, Pancheva 2003) thus, [ila] can co-occur with other aspect markers, such as the perfective [ina] and the continuative [CVC-]. I suggest that the surface position of [ila] is due to a phonological requirement that it post-cliticize to the first phonological word it takes scope over.

2. Background

In order to clearly show the phenomena of the puzzles with [ila], there are several matters of Saisiyat syntax that need to be sorted through. In this section, I also set up the theoretical apparatus I use to describe and account for the puzzles.

2.1 The Saisiyat Language

Saisiyat is an endangered Austronesian language spoken in the mountains in the northwest of Taiwan, in Hsinchu and Miaoli counties. None of its remaining few hundred fluent speakers are monolingual, and there has been considerable influence from Mandarin and the other Chinese languages of Taiwan (Southern Min and Hakka), the extent of which has been debated. Several syntactic investigations have been undertaken on Saisiyat: Word-order (Yeh 2000, Lee 2010), movement (Tsai 2008, Chou 2008, McKinney-Bock 2002), and information structure (Hsieh and Huang 2006, McKinney-Bock 2012) have all been investigated. However, aspect has not been well-studied, and what has been said (Huang 2003, Yeh 2002) has not been adequately investigated nor formalized.

2.1.1 Focus System and Case

Saisiyat has a Philippine-type focus system (Ross 2002), differentiating Actor Focus (AF), Patient Focus (PF), Locative Focus (LF), and Instrumental Focus (IF); as indicated by (CITE), Locative Focus is no longer productive, being mainly restricted to nominalization. As argued in Aldridge (2004) for other Austronesian languages, this focus system is in fact a type of voice alternation. In Actor Focus, the agent argument is the subject of the verb and is marked with Nominative Case, while the patient or theme argument (if present) is marked with Accusative Case (5) (Yeh 2000). In the other Foci, the relevant argument (patient/theme, locative/goal, or instrument) is the subject of the verb and is marked with Nominative Case, while the agent argument (if present) is marked with Genitive case (6-7) (Yeh 2000). The Nominative and Accusative markers are homophonous ([ka]), and are not obligatory; further research is necessary to divine what other meanings (specificity, information focus) are associated with [ka].

5) Somay k-om-aliS ka kahoey

bear <AF>scratch ACC tree

“the bear scratched the tree”

6) Somay ‘alep-en noka ma’iyaeh

bear hunt-PV GEN person

“the person hunted bears”

7) hini kina:at k-in-a:at-ani ni Kizaw

this book <IN>write-IF GEN Kizaw

“this book was written by Kizaw”

It appears that Actor Focus features Nominative/Accusative alignment, while non-Actor-Foci show Ergative/Absolutive alignment. While the Genitive-marked agent in non-Actor-Focus can be dropped, it is not clear whether this is because the agent is not obligatory, or because of a general Saisiyat phenomenon of argument-dropping: arguments that can be inferred from context are commonly dropped (this may be actually just a case of pro-drop, where the inferred argument is a pronoun that is dropped).

2.1.2 Word Order and Movement

In AF, SVO is the unmarked order (8-9) (Yeh 2000).

8) [yako]s s-om-i’ael [ka pazay]o

1.Sg.Nom <AF>eat ACC rice

“I ate the rice”

McKinney-Bock (2012)

9) [away]s s-om-oloeh [ka ayam]o

Away <AF>roast ACC pork

“Away roasts the pork”

McKinney-Bock (2012)

However, other orders (OSV and V-initial) are possible (McKinney-Bock 2012, contra Yeh 2000, Lee 2010). These latter orders seem to have a purpose in conveying information structure (Hsieh and Huang 2006), namely introduction of a new discourse referent. According to McKinney-Bock (2012), who uses the same informant as in this study, OSV focuses the object (10); while verb-initial orders are grammatically acceptable, they are not spontaneously produced (11-12).

- | | | |
|--|-----|----------------------|
| 10) [pazay] _o [yako] _s somi'ael | OSV | |
| "I eat RICE" (as opposed to noodles) | | McKinney-Bock (2012) |
| 11) somi'ael [ka pazay] _o [yako] _o | VOS | |
| 12) somi'ael [yako] _s [ka pazay] _o | VSO | |

In the other Foci, there is no order which is less marked than the others; all six orders are found, though some informant judgments suggests that VSO may be ungrammatical (McKinney Bock 2012, Yeh 2000, Lee 2010). No clear pragmatic difference exists among the different orders.

- | | | |
|--|------|----------------------|
| 13) [Saita'] _s kita'-en [noka korkoring] _o | SVO | |
| Saita' see-PF GEN child | | |
| "Saita was seen by the child" | | McKinney-Bock (2012) |
| 14) [Saita'] _s [noka korkoring] _o kita'en | SOV | |
| 15) ?kita'en [Saita'] _s [noka korkoring] _o | ?VSO | |
| 16) kita'en [noka korkoring] _o [Saita'] _s | VOS | |
| 17) [noka korkoring] _o kita'en [Saita'] _s | OVS | |
| 18) [noka korkoring] _o [Saita'] _s kita'en | OSV | |

Hsieh and Huang's (2006) corpus study suggests that V-initial order is "presentational," though more intensive study of information focus is necessary to corroborate this. While Tsai (2008) and

Chou (2008) describes Saisiyat as a wh-in situ language, McKinney-Bock (2012) reports that both topicalization and focus/wh-movement are possible. While topicalization appears to be to a position above the Subject position in AV (see (3) above for an example of OSV through object topicalization), wh-movement appears to be to a position to the left of the verb in AV (19).

19) [hizaeh Somay]_S [kanoʔ]_{O-wh} k-om-aliS
 that bear what <AF>scratch

“What did that bear scratch?”

McKinney-Bock (2012)

2.1.3 Tense and Aspect

Saisiyat is a tenseless language (Huang 2003, Yeh 2002), in the sense that it has no obligatory tense markers, and sentences without a tense marker are ambiguous as to tense. For example, (8) and (9) above, both of which do not have an overt tense marker, have been translated as past and present tense sentences, respectively. However, they can both indicate either a past or present event, depending on context and nearby absolute tense words (e.g., “yesterday,” “next year”). I repeat (8) below with the several possible English translations.

20) yako s-om-iʔael ka pazay
 1.Sg.Nom <AV>eat ACC rice

“I ate the rice”/“I eat the rice”/“I am eating the rice”

Some markers are available that do indicate tense, such as [-in-] (associated with the past (21)) and [am] (associated with the future (22)) (Yeh 2003). However, these are not purely tense markers, but also have other associated meanings: [-in-] seems to be associated with patients or results of activities, while [am], whose lexical meaning is ‘want’, sometimes gives a progressive aspect reading.

21) yako s-om-in-i'ael ka pazays

1.Sg.Nom <AV><IN>eat ACC rice

“I ate the rice”

22) yako am s-om-i'ael ka pazay

1.Sg.Nom AM <AV>eat ACC rice

“I will eat the rice”

Most aspect markers have a fixed position with respect to the verb. Some aspect markers are prefixal, such as [-in-], which is infixal for phonological reasons, and [CVC-] (heavy syllable reduplication), a continuative/repetitive marker. Other aspect markers are strictly preverbal, such as [ina] (perfective), [ima] (non-future perfective), [am], or [mam] (progressive) (CITE).

2.2 Theory of Aspect

I adopt the two-component system of aspect (viewpoint vs. situation) outlined in, e.g., Smith (1991). In this theory, the internal aspectual nature of the situation (Aktionsart) is distinguished from the relationship between the situation and reference time. In the terminology I use, ‘perfective’ indicates a bounded situation, where both endpoints of the event are properly included within the situation time (Smith 1991). Telicity refers to the predicate as having a natural endpoint, goal, or culmination, as opposed to an arbitrary termination.

I also adopt Vendler’s four-way Aktionsart distinction between states, activities, accomplishments, and achievements. States are non-dynamic (i.e., having no internal parts or stages), while the other three are dynamic events with internal parts (Smith 1991). Activities have temporal duration and are atelic (i.e., have no natural endpoint). While accomplishments and achievements are both telic, accomplishments have temporal duration for the process that

brings about the end result, while achievements are instantaneous, with the end result brought about automatically.

2.2.1 Analysis of the Perfect

Since I argue that [ila] is a perfect marker, it is important to be clear what is meant by the term ‘Perfect’. There is no consensus on what property defines the perfect: some analyses focus on anteriority of the event with respect to reference time (e.g., Hornstein 1990), others on the resulting state following from the event (e.g., Parsons 1990), and still others on a time interval (the Extended Now) extending back from reference time (e.g., McCoard 1978). I adopt Iatridou et al’s (2001) adaptation of the Extended Now framework, which situates the event beneath the perfect within the Perfect Time Span (PTS). The right boundary (RB) of the PTS is reference time, while the left boundary (LB) is set either by a temporal adverbial or by context. The properties of anteriority and resulting state are derived from the interaction of the perfect with lower viewpoint aspect markers (Iatridou et al 2001, Pancheva 2003, Pancheva and von Stechow 2004).

3. Data: Two Puzzles

I focus on the aspect marker [ila], whose behavior contains the two puzzles, repeated here from the introduction:

- Puzzle One: with states and activities, [ila] can give both an inchoative reading and a universal perfect reading
- Puzzle Two: with accomplishments and achievements, [ila] only gives a completive reading, unlike the perfective marker [ina], which only gives a terminative reading

In this section, I will lay out the two puzzles in detail. All the data in this section are from my field notes with a Saisiyat informant, ‘Oemaw a ‘Oebay Tawtawazay (his Chinese name is Chao

Shan-He). The informant is a native speaker of Saisiyat, but is multilingual, fluent in Mandarin, Japanese, and Hakka Chinese. However, he has very strong intuitions about Saisiyat, which often differ sharply from what one would expect if he were confusing his native language with one of his second languages. The sentences were either elicited from the informant, given spontaneously by him, or constructed by the researcher and checked with him. The language of translation for the fieldwork was Mandarin Chinese; my fellow researcher, Huilin Fang, a native Mandarin speaker, provided the translation into English.

3.1 Basic Facts

Unlike most aspect markers in Saisiyat, which are either strictly preverbal or prefixing, [ila] is typically immediately postverbal. However, [ila] can also be placed after an argument or an adverb. Phonologically, [ila] appears to be post-cliticized to the preceding word, as it does not have stress. Unlike phonologically independent words in Saisiyat, which are required to be consonant-initial, [ila] is vowel-initial; no glottal stop is epenthesized at the beginning (unlike with vowel-initial roots). [ila] can co-occur with all the other (prefixing or preverbal) aspect markers except for the progressive [mam].

I argue that [ila] is structurally higher than the other markers, as it can co-occur with them. The position of [ila] after these markers is due to a phonological requirement that it be post-cliticized to the first phonological word that it takes scope over. The inability of [ila] to co-occur with the progressive is due to the state that obtains after the transition point: these states cannot occur with the progressive. I will introduce how the meaning of a sentence with [ila] is affected by word order changes and accompaniment by adverbs and other aspect markers in Sections (3.4), after I present the basic meaning of [ila] sentences without other factors.

3.2 States and Activities – Puzzle One

With both individual-level and stage-level states, as well as activities, [ila] consistently gives two readings: an inchoative reading and a universal perfect reading. These readings may not necessarily both be picked up by the informant: depending on the context, one reading or the other may be more salient, sometimes to the point of making the second reading unnatural. However, both readings seem to be generally available for the informant, and many sentences with [ila] are genuinely ambiguous for him. In the case of ambiguous sentences with [ila], the informant often asks for more context to the sentence, so that he can figure out which reading to give it.

In the universal perfect reading, the state or activity obtains throughout the highlighted time span (PTS), and continues to obtain at reference time. In the inchoative reading, the transition into the state or activity occurs within the PTS (see Smith 1991 for arguments that an event boundary cannot be identical with reference time). Both readings may be accompanied by a weak modal implication that the state or event is not expected to obtain during the time span in which it actually does. This implication can be translated into English as “already” with the inchoative reading (i.e., the transition into the new state “already” happened before it was expected to) and “still” with the universal perfect reading (i.e., the resulting state “still” obtains at reference time, after it was expected to have finished).

3.2.1 Individual-Level States

Individual-level states are predicated of individuals, and typically are assumed to be inherent rather than transient properties of those individuals (Smith 1991). Individual-level predicates are usually not treated as having beginnings separate from that of the individual. With [ila], however, the individual begins to be characterized by the individual-level state, giving an

inchoative reading, as in (23-24). This indicates that prior to this change-of-state, the individual did not have this characteristic; e.g., (23) implies that Ataw used to be a woman, and (24) implies that Ataw has recovered from a head injury.

23) ataw kamanra:an ila

Ataw male ILA

“Ataw has become male”

24) ataw kayzaeh ka tae’oeloh ila

Ataw good KA head ILA

“Ataw has become smart”

Unlike stage-level states, as in the “fat” and “skinny” sentences in the introduction, only the inchoative reading is available: the universal perfect cannot be interpreted here. This is similar to perfects in other languages, such as English, which are not acceptable with individual-level states (e.g., “#John has been male”). The availability of the inchoative reading only is thus confirmation that [ila] is a perfect marker in the same vein as perfects in other languages.

With individual states, [ila] can also imply that the characteristic is unexpected. For example, (23) may characterize a situation in which, during pregnancy, a baby was thought to be female, but turned out to be male; or, during a tour, there was a person missing who was thought to be a woman, but turned out to be a man. In this sense only the intensional state of Ataw’s gender (i.e., in the speaker’s mind) has changed from female to male, not the actual state. This is reminiscent to the phenomenon of mirativity (developed in, e.g., DeLancey 1997 and Aikhenvald 2004), in which the speaker indicates surprise at the proposition. In several languages, including Turkish and Georgian, mirativity is expressed by perfect morphology.

If the predicate is gradable rather than absolute, then [ila] indicates that individual is now characterized by a higher degree of the predicate, as in (25), which implies that before, Saita's hair was not very dark, or that the speaker thought that Saita's hair was light-colored.

25) bekes ni Saita' elngihan ila
hair GEN Saita' dark ila
“Saita's hair has become dark(er)”

3.2.2 Stage-Level States

Stage-level states are predicated of stages of an individual's existence, i.e., that the individual is only temporarily characterized by the state (Smith 1991). With stage-level states, [ila] gives the two distinct readings that constitute Puzzle One above: the individual can have entered into the state during the highlighted time span (inchoative), or the state can obtain up to and including the reference time (universal perfect). Often [ila] gives an extra meaning here, of “already” with the inchoative reading (i.e., the state has “already” been entered into before it was expected to), or “still” with the present relevance reading (i.e., the “state” still obtains at reference time after it was expected to finish). (26) illustrates both readings.

26) ataw m-ae'rem ila
Ataw AF-sleep ILA
“Ataw is already asleep”/“Ataw is still asleep”

I have not yet found overt adverbials in Saisiyat that contribute similar meanings to “already” and “still.” If I find such adverbials, I can examine how they affect [ila] sentences with both stage-level and individual-level states, as well as what other aspect markers they can occur with.

If a stage-level state is initiated at one point in time, and it continues to obtain up to another point, [ila] can be used to anchor the state with respect to both points. This is a natural

consequence of the two readings of [ila]: in the inchoative reading, the initiation point is highlighted, falling within the PTS set up by the initiation point, while in the universal perfect reading, the whole state is highlighted, obtaining within (and possibly beyond) the PTS set up by the continuation point. For example, if Ataw became sick the day before yesterday, and his sickness continued, still obtaining yesterday, [ila] can be used with either day as the shifted reference time (27-28). In (27), the PTS consists of the whole day before yesterday, within which at some time Ataw became sick. In (28), the PTS consists of the whole day of yesterday, within all of which Ataw was sick.

27) ataw kahakri'ael 'ayaeh ila
 Ataw day before yesterday sick ILA
 "Ataw had become sick the day before yesterday"

28) ataw kahiyae' 'ayaeh ila
 Ataw yesterday sick ILA
 "Ataw was still sick yesterday"

This difference in meaning is not due to the temporal adverbials themselves: in other contexts, (27) can mean "Ataw had been sick the day before yesterday," and (28) can mean "Ataw had become sick yesterday."

3.2.3 Activities

Activities are dynamic events (i.e., predicates with distinguished sub-events) that are atelic (i.e., without natural endpoints) and durative (i.e., take up a length of time) (Smith 1991). Like with stage-level states, [ila] gives both an inchoative and a universal perfect reading, often accompanied by the modal meaning of "already" or "still" (29).

29) ataw S-om-bet ila ka 'aehoe'

Ataw <AF>beat ILA ACC dog

“Ataw (already) started beating the dog”/“Ataw has been (is still) beating the dog”

3.3 Accomplishments and Achievements – Puzzle Two

With accomplishments and achievements, [ila] gives a culminative reading, indicating that the natural endpoint of the predicate has been reached. In this reading, the accomplishment or achievement has been brought about within the PTS, with the object of the verb being in a result state. However, the perfective marker [ina] only gives a terminative reading with accomplishments and achievements. With [ina], there is no implication that the end result has been accomplished or achieved, only that the associated event has ended. This is different from, e.g., English, in which both perfective and perfect give culmination readings (e.g., “I ate the banana” and “I have eaten the banana” both entail that the banana is completely eaten up).

3.3.1 Accomplishments

Accomplishments are dynamic, durative events that, unlike activities, have a natural endpoint, goal, or result (Smith 1991). Accomplishments may be considered to have two parts: a process part, in which agent interacts with the patient or theme over time, and a stative part, in which the patient or theme has been completely affected by the process. With accomplishments, [ila] implies that the result state has been brought about by the process, and that the object thus has been completely affected (30).

30) ataw rae'oe' ila ka pinobaeh

Ataw drink ILA ACC wine

“Ataw drank the wine” (the wine is finished)

An [ila] sentence such as (30) cannot be followed by an assertion like (31) that the object has not been completely affected. Thus the combination of (30) and (31) is infelicitous (32).

31) okay il-amet-i:

NEG eat-finish-PV.DEP

“[it] is not eaten/drunk up”

32) ataw rae’oe’ ila ka pinobaeh. #okay il-ameti:.

However, with [ina], the predicate [rae’oe’ ka pinobaeh] “drink the wine” does not indicate that the wine must be completely finished (though it is certainly compatible with this scenario) (33).

Therefore the combination of (33) and (31) is felicitous (34).

33) ataw ina r-om-ae’oe’ ka pinobaeh

Ataw INA <AF>drink ACC wine

“Ataw drank the wine” (the wine may or may not be finished)

34) ataw ina romae’oe ka pinobaeh. okay il-ameti:.

3.3.2 Achievements

Achievements are instantaneous events that bring about a result state or end goal (Smith 1991).

With achievements, [ila] indicates that the change-of-state associated with the predicate has been achieved (35).

35) ataw ‘-oem-leb ila kateSnenan

Ataw <AF>closed ILA door

“Ataw closed the door” (the door is closed)

An [ila] sentence like (35) cannot be followed by an assertion that the result was not achieved.

For example, since (35) indicates that the closing of the door has been achieved, the dog cannot have gotten in Ataw’s way (36), so the combination of (35) and (36) is infelicitous (37).

36) 'aehoe' am '-om-aybez

dog AM <AF>block

“The dog was blocking the way”

37) ataw 'oemleb ila kateSnenan. #'aehoe' am 'omaybez.

However, with [ina], the predicate ['oemleb kateSnenan] “close the door” does not indicate that the door must have been closed, e.g., in (38) the achievement of closing the door may only have been attempted, or only the activity associated with closing the door was performed. Therefore, (38) can be combined with (36) felicitously (39).

38) ataw ina '-oem-leb kateSnenan

Ataw INA <AF>closeddoor

“Ataw closed the door”/“Ataw tried to close the door”

39) ataw ina 'oemleb kateSnenan. 'aehoe' am 'omaybez

3.4 Other [ila] Facts

[ila] displays other phenomena that bear on the discussion of its meaning, which I will illustrate below.

3.4.1 With Other Aspect Markers

As mentioned in Section (3.1), [ila] can co-occur with other aspect markers. These markers themselves are not very well-figured out at this point, so their meaning presented must be taken as a first approximation. So far I have only checked the combination of [ila] and other aspect markers with atelic predicates; I will soon check how their combination affects telic predicates.

The preverbal marker [am] has the lexical meaning of “want,” but can also indicate future tense or progressive aspect ((40); see also (36) above). [am] and [ila] together put the inchoative

meaning in the (near) future (41). I have not checked whether [am] and [ila] together can also give a future (universal) perfect reading.

40) ataw am m-ae'rem

Ataw AM AF-sleep

“Ataw wants to sleep”/“Ataw will sleep”/“Ataw is sleeping”

41) ataw am m-ae'rem ila

Ataw AM AF-sleep ILA

“Ataw is about to go to sleep”/“Ataw is trying/wants to go to sleep”

The preverbal marker [ima] gives a past imperfective reading, though with adjectives it can give a characterization reading that extends into the present (42). [ima] with [ila] does not seem to have a different meaning than [ila] alone (43). I have not checked whether [ima] and [ila] together can generate a universal perfect reading.

42) ataw ima m-ae'rem

Ataw IMA AF-sleep

“Ataw was sleeping”

43) ataw ima m-ae'rem ila

Ataw IMA AF-sleep ILA

“Ataw is already asleep”

The preverbal marker [ina] gives a perfective reading, indicating that state or event has terminated, and thus does not obtain at the reference time (44). Combing [ina] and [ila] indicates that state or event was initiated in the past, but has ended before the present (45). This is an existential perfect, where the state or event only has occurred sometime within both boundaries of the PTS, not throughout the PTS.

44) ataw ina kayzaeh ka tae'oeloh

Ataw INA good KA head

“Ataw used to be smart” (but no longer is)

45) ataw ina kayzaeh ka tae'oeloh ila

Ataw INA good KA head ILA

“Ataw had become smart” (but no longer is)

The [CVC-] Reduplicative prefix gives a continuous meaning to the sentence (46). [CVC-] and [ila] together combines the continuous meaning of [CVC-] with the universal perfect meaning of [ila] (47). I am unsure whether (47) can also have an inchoative meaning, e.g., “Ataw has started to sleep continuously.”

46) ataw mae'-m-ae'rem

Ataw CVC-AF-sleep

“Ataw sleeps continuously”

47) ataw mae'-m-ae'rem ila

Ataw CVC-AF-sleep ILA

“Ataw still continues to sleep”

The preverbal marker [mam] gives a progressive reading to the sentence (48). [ila] cannot co-occur with [mam], i.e., their combination is ungrammatical (49).

48) ataw mam m-ae'rem

Ataw MAM AF-sleep

“Ataw is sleeping”

49) *ataw mam m-ae'rem ila

3.4.2 Temporal Modifiers

The behavior of [ila] with temporal adverbs and prepositional phrases sheds further light on its meaning. With prepositional phrases that act as temporal adverbials, [ila] can get different readings. A temporal adverbial can mark the distance between the LB of the PTS and reference time. In (50), the activity obtains throughout the whole PTS as measured out by the durational adverbial: this is the universal perfect reading. Note that a [masae'] is an interval of time roughly 15 minutes long.

50) ataw ray 'ae'hae' masae' 'ae'aew ila

Ataw LOC one 15 minutes AF-runILA

“Ataw has been running for 15 minutes

A temporal adverbial can never mark the duration between the two endpoints of a bounded event with [ila]. The duration can only mark the distance from the initial endpoint (i.e., the transition into the state) to reference time. In (51), the adverbial can mark the distance from the one of the endpoints to the reference time. However, the adverbial cannot mark the distance between the two endpoints. It is of further interest that either endpoint can be picked out by [ila].

51) ataw 'inaray taew'aen m-inoSa ila kakiSka:atan 'ae'hae kaSepewan

Ataw from home AF-go to ILA school one hour

“Ataw left from home for school an hour ago;” or

“Ataw arrived at school from home an hour ago;” not

#“Ataw went from home to school in an hour”

The durational adverb [honaehnge] “a long time” can mark the distance between the LB of the PTS and the reference time. (52) has a universal reading in which the predicate obtains during all

the moments picked out by [honaehnge]; in other words, the state lasts for the whole interval from the beginning up to reference time.

52) ataw honaehnge m-ae'rem ila
Ataw a long time AV-sleep ILA

“Ataw has been sleeping for a long time”

In (53), [honaehnge] can either mark the duration of the PTS, or the distance between the initial transition into the new state and the reference time. In other words, [honaehnge] extends back from reference time, either to the initial endpoint or the LB of the PTS.

53) ka 'aehoe' honaehnge ila Sebet-en ni ataw
NOM dog a long time ILA beat-PF GEN Ataw

“Ataw started beating the dog a long time ago;” or,

“Ataw has been beating the dog for a long time”

This points to an ambiguity in Saisiyat as to the properties of temporal adverbials: they can be either durative or completive (Smith 1991). Saisiyat in fact has no morphological or lexical means of distinguishing durative from completive adverbials (to my knowledge), e.g., (54) can be either durative or completive.

54) (ray) 'aehae' kaSepewen
LOC one hour

“in one hour” or “for one hour”

The frequentative adverb [rengreng] “often,” “always” is odd with [ila]. The only possible meaning is that the initial transition itself is frequent (55); with the predicate [mae'rem] “sleep,” the implication is that the subject is sick (as he keeps falling asleep).

55) ?ataw rengreng m-ae'rem ila

Ataw often AF-sleep ILA

“Ataw often falls asleep;” “Ataw keeps falling asleep again and again”

I have not yet checked the behavior of [ila] with punctual temporal adverbials, like “at noon.”

3.4.3 Word Order

[ila] typically occurs directly after the verb. Indeed, with many sentences, this is the only possible placement of [ila] (56-58).

56) ataw m-ae'rem ila

Ataw AF-sleep ILA

“Ataw is already/still asleep

57) *ataw ila m-ae'rem

58) *ila ataw m-ae'rem

With a transitive Agent Focus verb, [ila] can occur either directly after the verb (59) or after the object (60).

59) ataw S-om-bet ila ka 'aehoe'

Ataw <AF>beat ILA ACC dog

“Ataw (already) started beating the dog”/“Ataw has been (is still) beating the dog”

60) ataw S-om-bet ka 'aehoe' ila

I have not checked for the possible positions of [ila] in AF sentences with orders other than SVO.

In Patient Focus, [ila] can occur either directly after the verb (61-62) or after the post-verbal argument (63-64), but not after the pre-verbal argument (65-66)

61) Ka 'aehoe' Sebet-en ila ni Ataw

KA dog beat-PV ILA GEN Ataw

“The dog is already/still beaten by Ataw”

62) Ni Ataw Sebet-en ila ka 'aehoe'

63) Ka 'aehoe' Sebet-en ni Ataw ila

64) Ni Ataw Sebet-en ka 'aehoe ila

65) *Ka 'aehoe' ila Sebet-en ni Ataw

66) *Ni Ataw ila Sebet-en ka 'aehoe'

I have not checked every permutation of [ila], the PF verb, and the two arguments for possible orders (which is sure to be a daunting task).

Certain adverbs, such as [honaehnge], can occur before or after the verb. If the adverb is pre-verbal, [ila] can follow either the verb (67) or the adverb (68). If the adverb is post-verbal, [ila] can occur directly after the verb (69) but not after the adverb (70).

67) ataw honaehnge m-ae'rem ila

Ataw a long time AV-sleep ILA

“Ataw has been sleeping for a long time”

68) ataw honaehnge ila m-ae'rem

69) ataw m-ae'rem ila honaehnge

70) *ataw m-ae'rem honaehnge ila

3.4.3.1 Subject Focus

With some transitive AF verbs, [ila] can be placed after the subject. When [ila] is post-subject, it gets a subject-focused inchoative reading, indicating that the subject (Ataw) has begun the event, as opposed to someone else (71). The informant makes the inference from this reading that the

subject is taking over from some other agent, i.e., that it is now the subject's "turn" to engage in the event that has already been taking place.

71) Ataw ila S-om-bet ka 'aehoe'

Ataw ILA <AF>beat ACC dog

"ATAW starts beating the dog" (implication: Ataw is taking over from someone else)

This seems to generalize to other predicates, such as [ka:at ka kina:at] 'write a letter' (72-73).

(72) generates the inchoative reading with focus on Ataw, while (73) can get either the inchoative or the universal perfect reading.

72) Ataw ila k-om-a:at ka kina:at

Ataw ILA <AF>write ACC letter

"ATAW starts writing the letter" (it's his turn to write now)

73) Ataw k-om-a:at ila ka kina:at

Ataw <AF>write ILA ACC letter

"Ataw has started writing;" "Ataw has been writing"

3.5 Generalizations with [ila]

The following tables shows the behavior of [ila] with different situation aspects, viewpoint aspect markers, and temporal adverbials. With atelic predicates, [ila] gives two different readings: inchoative and universal perfect (though the universal perfect is blocked with individual-level states. With telic predicates, [ila] gives a culminative reading.

Table 1. [ila] with Situation Aspects

Situation Aspect	Reading with [ila]	
Individual-Level State	Inchoative	
Stage-Level State	Inchoative	Universal Perfect
Activity	Inchoative	Universal Perfect
Accomplishment	Culminative	
Achievement	Culminative	

With non-perfective aspect markers, [ila] can give an inchoative or universal perfect reading, sometimes combined with the additional meaning of the other aspect markers. However, more possible readings for all these aspect markers need to be checked. With the perfective aspect marker, [ila] gives an existential perfect reading. [ila] is not compatible with the progressive.

Table 2. [ila] with Other Aspect Markers (with Atelic Predicates)

Viewpoint Aspect (+ Tense)	Reading with [ila] (Checked)	Possible Reading with [ila] (Not Checked Yet)
[am] 'Future'	Future + Inchoative	? Future + Universal Perfect
[ima] 'Non-Future Imperfective'	Inchoative	? Universal Perfect
[ina] 'Perfective'	Existential Perfect	
[CVC-] 'Continuative'	Continuative + Universal Perfect	? Continuative + Inchoative
[mam] 'Progressive'	Not Possible	

Temporal adverbials measure the distance of an interval of time; with [ila], the Left Boundary (LB) of the adverbial is either the LB of the PTS or the transition point, while the Right Boundary (RB) is usually the RB of the PTS (i.e., reference time), though sometimes it is the end of the state or activity (if that final endpoint is outside the bounds of the PTS). Frequentative adverbials are odd with [ila], but can trigger an inchoative reading.

Table 3. [ila] with Temporal Adverbials

Temporal Adverbial	Reading with [ila]	
Number + Temporal Amount	LB of PTS to RB of PTS (Reference Time)	Transition Point to RB of PTS (Reference Time)
[honaehnge] “a long time”	LB of PTS to RB of PTS (Reference Time)	Transition Point to RB of PTS (Reference Time)
[rengreng] “often”	Frequentative + Inchoative	

4. Analysis: Solving the Puzzles

I propose an analysis of [ila] that solves the two puzzles above, and gives a unified account of the behavior of [ila] with the different situation aspects, viewpoint aspects, and temporal adverbials as detailed above. I propose [ila] as a perfect marker, as defined in Iatridou et al (2001), that sets up a Perfect Time Span (PTS) interval spanning leftwards from the reference time. [ila] also requires a transition into a new state, either the event itself (for atelic predicates) or a target state resulting from the event (for telic predicates). I propose that [ila] requires the presence of a silent telic operator, which generates the target state of telic predicates and shifts atelic predicates into inchoatives. I then argue that the apparently telic predicates are actually

unspecified for telicity in Saisiyat. Thus with a bounded reading (e.g. with the perfective [ina]), there is no implicature of culmination, and the terminative reading is available; with [ila], however, which triggers telicity, only the culminative reading is given (Puzzle Two).

I propose that the different readings generated by atelic predicates with [ila] (inchoative and universal perfect) is due to the presence of one of two silent viewpoint aspect operators, neutral and imperfective (Puzzle One). With the neutral viewpoint, the initial point and at least one subsequent part are situated within the PTS, while the final point may or may not be within it; this generates the inchoative reading. With the imperfective viewpoint, both endpoints are outside the PTS, so that the entire PTS is filled with the state, generating the universal perfect reading. I argue that there is no silent perfective operator in Saisiyat, so that [ila] by itself cannot generate the experiential perfect; however, with the overt perfective marker [ina], [ila] does give the experiential perfect reading. As a perfect marker, [ila] can appear with the other (non-perfective) viewpoint markers, generating either the inchoative or universal perfect readings. [ila] cannot occur with the progressive marker [mam], which I ascribe to the incompatibility of [mam] with states, which are what [ila] denotes. Lastly, I propose on the basis of surface distribution and the subject focus reading that [ila] is phonologically a post-clitic, attaching to the first phonological word it takes scope over.

4.1. [ila] is a Perfect Marker

Under the above proposal, [ila] is a perfect marker, with the properties of anteriority and a resultative state reading (Smith 1991). Following Iatridou et al (2001), I assume that the anteriority property is due to the perfect setting up a time interval whose Right Boundary (RB) is reference time (RT): the Perfect Time Span (PTS). The event that the perfect takes scope over holds during at least some of the time indicated by the PTS. If the event only obtains over some

actual telic predicates are derived through the presence of this telic operator, rather than the lexical semantics of the verb or the composition of the predicate. The telic operator account has been developed extensively in the literature: e.g., Travis (2000) uses a telic marker to account for morphological facts of Malagasy and Tagalog having to do with argument structure and situation aspect, while Kratzer (2003) connects the telic operator to the assignment of accusative case in Finnish and German.

4.2.1. Solving Puzzle Two

In Puzzle Two, apparent accomplishment and achievement predicates have culminative readings with [ila] but not necessarily with the perfective marker [ina], which only indicates termination of the event. In other words, with [ila], these predicates behave as if they were telic, while with [ina], they behave as if they were atelic. Positing general unspecification of telicity of predicates in Saisiyat, together with the requirement of a telic operator by [ila], accounts for this puzzle. Atelic and telic predicates with the perfective viewpoint give a terminative and culminative reading, respectively. If the predicate is not specified as telic, then either reading is possible. Depending on contextual factors, the event may or may not have been culminated. When a following sentence cancels out the possibility of the result (e.g., (75-76), repeated from (31) and (36) above), then the perfective viewpoint only specifies an arbitrary final endpoint (77-78).

75) okay il-amet-i:

NEG eat-finish-PV.DEP

“[it] is not eaten/drunk up”

76) ‘aehoe’ am ‘-om-aybez

dog AM <AV>block

“The dog was blocking the way”

77) ataw ina romae'oe' ka pinobaeh. okay il-amet-i:

“Ataw drank (some of) the wine. (The wine) is not finished.”

78) ataw ina 'oemleb kateSnenan. 'aehoe' am 'omaybez

“Ataw tried to close the door. (But) the dog was blocking the way.”

Accomplishments and achievements in Saisiyat therefore are ambiguous to whether culmination into a target state is necessary. Breaking these predicates apart into processes (accomplishments) or instantaneous events (achievements) and transitions into target states (both) may provide a way to unify their behavior with [ina] and [ila]. If these predicates always specify a process or instantaneous event, but do not specify the target state, then a perfective marker like [ina] will indicate the end of the event, but not necessarily the accomplishment or achievement of the target state. On the other hand, because [ila] triggers telicity, then [ila] will specify the target state of these events. This account is similar to Tai's (1984) account of Mandarin Chinese, which displays similar phenomena to (3-4), i.e., a perfective viewpoint with seemingly telic predicates. In Tai's account, Mandarin has no (underived) accomplishment verbs. This account of Saisiyat goes further, taking specification of telicity out of the composition of predicates, and into a requirement.

4.2.2. Inchoativity

The telic requirement of [ila] also can account for the inchoative reading with states and activities. In many languages, telic morphology can derive inchoatives from atelic predicates (see, e.g., Smith (1991) for Russian and Mandarin, Filip (1997) for Czech, and Travis (2000) for Malagasy). I propose that in Saisiyat, like in the languages cited above, combining inherently atelic predicates with a telic marker derives inchoatives. These inchoatives are basically achievement verbs, with an instantaneous change-of-state into the resulting state. Thus with [ila],

a state like [‘ayaeh] “sick” becomes an inchoative “get/become sick.” Shifting stative predicates into telic, inchoative predicates also allows a unification of the different states that [ila] situates in the PTS: rather than indicating the eventuality itself typically given by the (atelic) predicate, [ila] indicates the target state of this (telic) inchoative. Thus, [ila] gives

Saisiyat thus contrasts with Greek and Bulgarian, where perfective morphology derives inchoatives from statives (Iatridou 2001). In Saisiyat, the perfective marker [ina] indicates that the state or activity has terminated (79-81), rather than giving an inchoative reading:

79) ataw ina kayzaeh ka ta’oeloh

Ataw INA good KA head

“Ataw was smart” (but no longer is)

80) ataw ina Sarara’ hi wa:on

Ataw INA like ACC Wa:on

“Ataw used to like Wa:on” (but no longer does)

81) ataw ina am-ata:waw

Ataw INA AF-work

“Ataw used to work” (but no longer does)

Perhaps there is a parameter here: many languages cannot use perfective morphology with states to indicate termination of the state (see Smith (1991) for Russian and Mandarin). In at least some of these languages, perhaps the use of the perfective with states can only indicate inchoativity: i.e., since there cannot be a final boundary separate from the initial boundary, perfective (bounded) viewpoint collapses the two boundary, rendering an achievement followed by the state as a target. In other languages, such as French (Smith 1991), perfective aspect can mark termination with states; while in French, perfectly marked states may give inchoative readings

(Smith 1991), note that there is no telic marker to otherwise derive inchoatives. In Saisiyat, which has both a perfective marker [ina] and a marker [ila] triggering telicity, [ina] is free only to mark termination, while [ila] can handle derive inchoatives. Since both perfectivity and telicity can derive inchoatives (the former through boundedness, the latter through culmination), a language may be free to choose by which of the two means to do so, depending on other factors, e.g., the productivity of perfective and telic marking, and the ability of a perfective to render a terminative reading with a state.

4.2.3. Situation Types in Saisiyat

According to the above analysis, telicity is no longer a compositional property of predicates in Saisiyat, but an effect of a telic operator required by [ila]. Apparently telic predicates, i.e., accomplishments and achievements, actually refer to atelic events without [ila], i.e., processes and instantaneous events. Apparently atelic predicates, i.e., states and activities, become telic inchoatives with [ila]. The following chart shows the behavior, with and without [ila], of predicates in Saisiyat that would typically be taken to refer to Vendler's four situation types.

Table 4. Situation Types in Saisiyat

Underlying Predicate	Without [ila] (Atelic)	With [ila] (Telic)
[m-ae'rem] “sleep” – State	State – “sleep”	Inchoative – “fall/go to sleep”
[S-om-bet ka 'aehoe'] “beat the dog” – Activity	Activity – “beat the dog”	Inchoative – “start beating the dog”
[rae'oe' ka pinobaeh] “drink the wine” – Accomplishment	Activity – “drink (some of the) wine”	Accomplishment – “drink the wine (and finish)”
[‘-oem-leb kateSnenan] “close the door” – Achievement	Instantaneous Event (or Related Activity) – “(try to) close the door”	Achievement – “close the door (successfully)”

An interesting difference thus arises between apparent activities (e.g., [S-om-bet ka 'aehoe'] “beat the dog”) and apparent accomplishments (e.g., [rae'oe' ka pinobaeh] “drink the wine”).

While without [ila], both event are activities, with [ila] the former event becomes an inchoative while the latter becomes an accomplishment. This difference is likely in the lexical semantics of the individual predicates; at any rate, more work is needed to determine what factors distinguish the two sets of predicates.

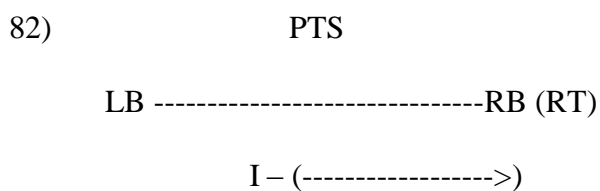
4.3. Viewpoint Aspect

I have proposed that [ila] contributes the following meaning to a sentence: it requires a telic operator, telicizing the predicate below, and it places the target state of this telicized eventuality within the PTS. This contribution gives the inchoative meaning to an atelic predicate; however, it is not yet clear where the ambiguity between the inchoative and universal perfect reading comes from. If neither [ila] nor the predicate has an ambiguous meaning, the ambiguity must arise from

the presence or absence of a covert marker. I propose that this is indeed the case: one of two silent viewpoint aspect operators are present in [ila] sentences. I propose that a silent neutral aspect marker derives the inchoative reading, while a silent imperfective aspect marker derives the universal perfect reading, along the lines of Iatridou et al (2001) and Pancheva (2003).

4.3.1. Solving Puzzle One

In Puzzle One, apparent state and activity predicates can give two different readings with [ila]: an inchoative reading and a universal perfect reading. In the inchoative reading, the transition point into the resulting state is highlighted, i.e., it is placed inside the PTS. The state may last until reference time, but does not necessarily do so; whether the final endpoint is inside or outside the PTS is not specified. The inchoative reading thus puts the initial point and at least part of the resulting state within the PTS. This is equivalent to neutral viewpoint aspect, which places the initial endpoint and at least one part of the following eventuality with the viewpoint time. I show how this works for a stage-level state predicate such as [‘ayaeh] “sick” with [ila] in the schema below (82).



In (82), the subject becomes sick at point I, inside the PTS, and is sick for at least some (and potentially all) of the subsequent intervals of the PTS. Thus, in the viewpoint time picked out by the PTS, the subject has become sick; he or she may or may not still be sick at reference time.

In the universal perfect reading, the state lasts throughout the whole of the PTS, i.e., the endpoints of the state are outside the PTS. This is equivalent to imperfective viewpoint aspect,

85)

PTS

LB -----RB (RT)

I ----- F

In (85), the subject becomes sick within the PTS, and stops being sick before the PTS ends, i.e., before reference time. In the viewpoint time picked out by the PTS, the subject is only sick in a subset of the interval; this is, in other words, an existential perfect.

The behavior of [ila] with the other markers [am] ‘Future’, [ima] ‘Past Imperfective’, and [CVC-] ‘Continuative’ is murkier, likely because the actual meaning of these markers is not well-defined. In addition, I have not checked whether both universal perfect and inchoative readings are available with these markers; so far, I have only found one or the other with each marker (inchoative with [am] and [ima], universal perfect with [CVC-]). This may be an indication that [am] and [mam] are actually neutral viewpoint markers, and that [CVC-] is an imperfective viewpoint marker. On the other hand, more research is needed to clarify this matter.

The inability of [ila] to occur with the progressive marker [mam] is likely due to the presence of the target state indicated by [ila]. States in many languages are incompatible with the progressive, as in the English examples below (86-87).

86) *He is being asleep

87) *The window is being broken

Further research is necessary to check whether the progressive marker [mam] is also ungrammatical with states in Saisiyat.

4.3.3. Temporal Adverbials

Temporal adverbials, such as [‘aehae’ masae’] “fifteen minutes,” [‘aehae’ kaSepewan] “one hour,” and [honaehnge] “a long time,” can mark the distance from either the Left Boundary (LB)

of the PTS or the initiation of the target inchoative state to the reference time. For example, in (88) (repeated from 54), [honaehnge] can mark either the interval from the start of beating the dog to the reference time, or the length of the interval of the PTS, throughout which the dog has been being beaten.

88) ka 'aehoe' honaehnge ila Sebet-en ni ataw
 NOM dog a long time ILA beat-PF GEN Ataw

“Ataw started beating the dog a long time ago;” or,
 “Ataw has been beating the dog for a long time”

I propose that these two readings are in fact the inchoative and the universal perfect readings. In the inchoative reading, the adverbial reaches back from reference time to the contextually salient point of the initial transition into the target inchoative state (89).

89) PTS
 LB -----RB (RT)
 I – (----->)
 |-----honaehnge-----|

In (89), [honaehnge] is bounded on one end by the initial endpoint when Ataw started beating the dog, since which point there has been a long time up to the reference time. Because of the bounded reading, the English translation is the completive adverb “a long time ago,” though this is not marked in Saisiyat.

In the universal perfect reading, the adverbial reaches all the way back from reference time to the only contextually salient anchor point, the LB of the PTS (90).

90) PTS
 LB -----RB (RT)
 (I) ----- (F)
 |-----honaehnge-----|

In (90), [honaehnge] is the PTS itself; it has been a long time, throughout which Ataw has been beating the dog. Again, the unbounded reading gives the durative adverb translation in English, “for a long time.”

The oddness of the frequentative adverb [rengreng] “often” with [ila] may be due to the its inability to occur with the universal perfect reading: since the target inchoative state fills up the whole PTS, it cannot be said to recur within this viewpoint time. The inchoative reading, on the other hand, is available: the initial point (and a short subsequent state) can recur throughout the PTS. This reading is, in fact, the only possible one.

4.4.Surface Position of [ila]

If the order of heads in the tree constructed above ((84), repeated below as (91)) were spelled out faithfully on the surface, one would expect the order of viewpoint markers (e.g., [ina]) and [ila] in (92).

91) [_{PerfP} ila [_{AspP} Ø_{Neut}, Ø_{Imperf}, ina_{Perf} [_{TelicP} Ø [_{VP} ...]]]]

92) *ataw ila ina S-om-bet ka ‘aehoe’

Ataw ILA INA <AF>beat ACC dog

In fact, [ila] occurs either after the verb or the direct object (93-94).

93) ataw ina S-om-bet ila ka ‘aehoe’

94) ataw ina S-om-bet ka ‘aehoe’ ila

One possible account for this surface order is that [ila] surfaces in the head of TelicP, not in PerfP, and that the verb and optionally the direct object are raised above it (but below AspP). However, this cannot account for the grammaticality of (95) (repeated from 68), in which [ila] is preverbal; here there seems to be no motivation for the verb not to raise above [ila], if it indeed raises in (93-94).

- 95) ataw honaehnge ila m-ae'rem
 Ataw long time ILA <AF>sleep

If [ila] instead post-cliticizes to the first phonological word over which it has scope, this could account for the grammaticality of (95): if [honaehnge] is left-adjoined to AspP, then [ila] has scope over it, and post-cliticizes to it (96). If [honaehnge] is right-adjoined to AspP, then the first phonological word [ila] has scope over is the verb [m-ae'rem], and [ila] must thus post-cliticize to [m-ae'rem] (97), not [honaehnge] (98), which would result in the ungrammatical reading.

- 96) ataw [PerfP [AspP honaehnge-ila [AspP \emptyset [VP m-ae'rem]]]]
 97) ataw [PerfP [AspP [AspP \emptyset [VP m-ae'rem-ila]] honaehnge]]
 98) *ataw [PerfP [AspP [AspP \emptyset [VP m-ae'rem]] honaehnge-ila]]

The grammaticality of (99) presents a challenge if [honaehnge] is adjoined to AspP (100). If [honaehnge] is adjoined to PerfP instead, it is clearly grammatical (101).

- 99) ataw honaehnge m-ae'rem ila
 100) ??ataw [PerfP [AspP honaehnge [AspP \emptyset [VP m-ae'rem-ila]]]]
 101) ataw [PerfP honaehnge [PerfP [AspP \emptyset [VP m-ae'rem-ila]]]]

This account makes the clear prediction that in (101), [honaehnge] does indeed adjoin to PerfP, i.e., that it merges at a point in which the PTS is already set up, giving the universal perfect reading of [honaehnge] in (90). This prediction needs to be checked.

I do not yet offer an account of the position of [ila] in PF, as so little has been ascertained about the syntax of its apparently free word order. This study could prove a fruitful avenue for further study, continuing the initial investigations in McKinney-Bock (2012).

4.4.1. Subject Focus

I suggest that the post-cliticization account might make sense of the subject focus reading in (102) (repeated from (71)), in which the implication is that the subject is starting his or her role as subject, taking over an ongoing action from another person.

102) Ataw ila S-om-bet ka ‘aehoe’

Ataw ILA <AF>beat ACC dog

“ATAW starts beating the dog” (implication: Ataw is taking over from someone else)

Under the post-cliticization account, [ila] has scope over the subject [Ataw]. I suggest that in this sentence, the subject remains VP-internal, so that TelicP has scope over it. This would suggest that the actual target inchoative state is not “beating the dog” but “Ataw beating the dog,” which actually seems at first blush to make sense of the implication that what has been initiated is not the beating of the dog, but the beating of the dog by Ataw. More research is needed to see if there is any evidence that the subject indeed remains VP-internal, such as the unavailability of overt case marking, or the position of aspect markers and temporal adverbs.

5. Cross-Linguistic Comparison

The behavior of [ila] in Saisiyat finds some parallels in other unrelated languages. The St’at’imcets aspectual marker [plan] also gives an inchoative “already” reading with states and activities, and a culminative “already” reading with accomplishments and achievements (Davis 2006). This split between inchoative and culminative readings based on situation type with [plan] is strongly similar to [ila], though [plan] does not give a universal perfect reading.

The Mandarin aspectual marker [-le] has been a source of controversy, especially the difference between verbal [-le] (which appears immediately post-verbally) and sentential [-le] (which appears sentence-finally). Verbal [-le] gives a terminative or completive reading to events, while sentential [-le] may provide an inchoative reading, a “contrary to expectation” reading, or a present relevance reading (Soh 2008, 2009). The behavior of sentential [-le] seems to be quite akin to that of [ila] with states and activities. Further research on the effects of [ila] in Saisiyat may shed light on the debate on concerning verbal and sentential [-le].

6. Future Research

This paper is an initial foray into the syntax and semantics of [ila], and more generally into the syntax and semantics of aspect in Saisiyat. Along the route of this paper, I have noted many points where I need to gather more data to check the predictions of my account. I believe the major areas for immediate study are the specifics of the telicity requirement of [ila] and the interaction of viewpoint aspect with accomplishments and achievements. This latter area is completely unexplored, but I have found a few potential issues with the telicity requirement.

The line between underlying activities and (apparent) accomplishments in Saisiyat is very blurry. If predicates are truly underspecified for telicity with [ila], then both these eventualities would have the same situation type without [ila]: a process with an arbitrary endpoint. However, with [ila], these predicates do show a difference: underlying activities become inchoatives, while underlying apparent accomplishments become true accomplishments. In one case, I have found a predicate that is ambiguous as to which of these types it is. The predicate [‘inary taew’aen m-inoSa kakiSka:atan] “go from home to school” gets two different readings with [ila] ((103), repeated from (51)).

103) ataw 'inaray taew'aen m-inoSa ila kakiSka:atan 'aehae kaSepewan
 Ataw from home AF-go to ILA school one hour

“Ataw left from home for school an hour ago;” or

“Ataw arrived at school from home an hour ago”

The transition point picked out as the left boundary for the temporal adverbial [*'aehae kaSepewan*] “one hour” can either be the initial endpoint (leaving home) or the final endpoint (arriving at school). In other words, there is both an inchoative reading and a culminative reading, which points to an ambiguity as to how the telic operator works on this predicate.

There is also the possibility is that at least some instances of telicity can be derived compositionally in Saisiyat, similarly to Soh and Kuo’s (2005) analysis of Mandarin and Singh’s (1998) analysis of a somewhat similar phenomenon of the “neutral perfective” in Hindi. In these analyses, the difference between a culminative and a terminative reading lies in the type of accomplishment predicate. In Mandarin and Hindi, accomplishment predicates in which the object is created by the process (rather than modified or otherwise involved) do give completion readings with a perfective marker. I do have an example of [*ina*] with such a predicate, [*tomaew'aen ka imaSaso' taew'aen*] “build a new house” that does act just this way. (104) indicates that the house is built, i.e., that there has been sufficient work done to make it a house, so combining it with (105) is infelicitous (in (106), [*ko'hael am sizaeh*] can only mean that Ataw will finish doing ancillary work on the house).

104) ataw ina t-om-aew'aen ka imaSaso' taew'aen
 Ataw INA <AV>build house KA new house

“Ataw build a new house” (and the house is built)

105) ko'hael am sizaeh
next year AM finish
“next year (he) will finish (it)”

106) ataw ina tomaew'aen ka imaSaso' taew'aen. #ko'hael am sizaeh.

More accomplishment predicates of different types need to be investigated to determine whether an analysis like Soh and Kuo's or Singh's fits the Saisiyat data. But if such an analysis is warranted, then it complements the above analysis that not all apparently telic predicates are indeed specified for telicity in Saisiyat. The predicates that are necessarily telic (e.g., [tomaew'aen ka imaSaso' taew'aen] “build a new house”) will get completion readings with both [ina] and [ila], while those that are not necessarily telic (e.g., [romae'oe' ka pinobaeh] “drink the wine” or [oemleb kateSnenan] “close the door”) will only get completion readings with [ila], as [ila] triggers telicity, and indicates a target state (e.g., that the wine is drunk, or that the door is closed).

7. Conclusion: Puzzles Solved!

In this paper, I have investigated the behavior of the Saisiyat particle [ila]. I have proposed that [ila] is a Perfect marker that situates a target state of a telicized predicate with respect to the Perfect Time Span (PTS) (Iatridou et al 2001). [ila] triggers telicity in the predicate that it takes scope over, making atelic predicates into inchoatives, and only giving culminative readings with telic predicates. Without [ila], telicity is unspecified, so with the perfective marker [ina], apparent accomplishments and achievements can give terminative readings (Puzzle Two). Two different silent viewpoint aspect markers give rise to two different readings with [ila] and underlying states and activities: a neutral marker gives an inchoative reading, while an imperfective marker gives a universal perfect reading (Puzzle One). I illustrate how this analysis

of [ila] can begin to account for its behavior with other aspect markers, with temporal adverbials, and with respect to word order. This foray into the heretofore little-explored realm of Saisiyat aspect has generated insights into the workings of both viewpoint aspect and Aktionsart in this language, with potential cross-linguistic implications.

References

- Aikhenvald, Alexandra. 2004. *Evidentiality*. New York: Oxford University Press.
- Aldridge, Edith. 2004. *Ergativity and Word Order in Austronesian Languages*. Doctoral Dissertation, Cornell University, Ithaca, New York.
- Chomsky, Noam. 1957. *Syntactic Structures*. Mouton de Gruyter.
- Chou, Marc Yi-Ming. 2008. *Left Periphery and wh-Questions in Saisiyat*. MA Thesis, National Tsing Hua University.
- Davis, Henry. 2006. *A Teacher's Grammar of Upper St'at'imcets*.
- DeLancey, Scott. 1997. Mirativity: the Grammatical Marking of Unexpected Information. *Linguistic Typology* 1: 33-52
- Filip, Hana. 1997. Integrating Telicity, Aspect and NP Semantics: The Role of Thematic Structure. *Formal approaches to Slavic linguistics* 3: 61-96.
- Hornstein, Norbert. 1990. *As Time Goes By: Tense and Universal Grammar*. Cambridge, Mass. MIT Press.
- Hsieh, Fuhui and Xuanfun Huang. 2006. The Pragmatics of Case Marking in Saisiyat. *Oceanic Linguistics* 45.1: 91-109.

- Huang, Xuanfun. 2003. The Tense, Aspect and Reality in Tsou and Saisiyat.
- Iatridou, S., E. Anagnostopoulou and R. Izvorski. 2001. Observations about the Form and Meaning of the Perfect. *Ken Hale: A Life in Language*, ed. M. Kenstowicz: 189-238. Cambridge, Mass: MIT Press. Reprinted in *Perfect Explorations*, eds. A. Alexiadou, M. Rathert, and A. von Stechow. Mouton de Gruyter.
- Kratzer, Angelika. 1994. The Event Argument and the Semantics of Voice. Ms., UMass Amherst.
- Kratzer, Angelika. 2000. Building Statives. *Proceedings of the 26th Annual Meeting of the Berkeley Linguistics Society*: 385-399. UC Berkeley.
- Kratzer, Angelika. 2003. Telicity and the Meaning of Objective Case. *The Syntax of Time*, ed. J. Gueron and J. Lecarme. Cambridge, Mass: MIT Press.
- Krifka, Manfred. 1989. Nominal Reference, Temporal Constitution and Quantification in Event Semantics. *Semantics and Contextual Expression*, eds. R. Bartsch, J. von Benthem, and P. van Emde Boas: 75-115. Dordrecht: Foris.
- Krifka, Manfred. 1992. Thematic Relations as Links between Nominal Reference and Temporal Constitution. *Lexical Matters*, eds. Ivan Sag and Anna Szabolcsi: 29-53. CSLI Publications: Stanford University Press.
- Lee, Ting-Wu Terry. 2010. On Relative Clause Constructions in Saisiyat. MA Thesis, National Taiwan Normal University.
- McCoard, Robert W. 1978. The English Perfect: Tense Choice and Pragmatic Inferences. Amsterdam: North-Holland Press.

- McKinney-Bock, Katy. 2012. ... Presented at 19th Meeting of the Austronesian Formal Linguistics Association. Academia Sinica: Taipei. June 26-29, 2012.
- Pancheva, Roumyana. 2003. The Aspectual Makeup of Perfect Participles and the Interpretations of the Perfect. *Perfect Explorations*, eds. A. Alexiadou, M Rathert, and A. von Stechow: 277-306. Mouton de Gruyter.
- Pancheva, Roumyana and Arnim von Stechow. 2004. On the Present Perfect Puzzle. *NELS 34*, eds. K. Moulton and M. Wolf.
- Parsons, Terence. 1990. Events in the Semantics of English: A Study of Subatomic Semantics. Cambridge, Mass: MIT Press.
- Ross, Malcolm. 2002. The History and Transitivity of Western Austronesian Voice and Voice-Marking. *The History and Typology of Western Austronesian Voice Systems*: 7-62. Canberra: Pacific Linguistics.
- Singh, Mona. 1998. On the Semantic of the Perfective Aspect. *Natural Language Semantics* 6: 171-199.
- Smith, Carlota. 1991. The Parameter of Aspect. Dordrecht: Kluwer.
- Soh, Hooi Ling and Jenny Yi-Chun Kuo. 2005. Perfective Aspect and Accomplishment Situations in Mandarin Chinese. *Perspectives on Aspect*, eds. Angeliek van Hout, Henriette de Swart and Henk Verkuyl: 199-216. Dordrecht: Springer.
- Tai, James H.Y. 1984. Verbs and Times in Chinese: Vendler's Four Categories. *Papers from the Parasession on Lexical Semantics, Chicago Linguistics Society* 20, eds. D. Testen, V. Mishra, and J. Drogo: 289-296.

- Travis, Lisa. 2000. Event Structure and Syntax. *Events as Grammatical Objects*, ed. J. Pustejovsky and C. Tenny, 145-185. CSLI: Stanford University Press.
- Travis, Lisa. 1992. Inner Aspect and the Structure of VP. *Proceedings from the Second Annual Lexical-Syntactic Relations Workshop*. Cahiers Linguistique de l'UQAM, eds, Mariette Champagne and Sylvie Ratte 1.1: 130-146.
- Tsai, Cheng-Yu Edwin. 2008. Wh-Interrogatives in Saisiyat and Lexical Merger Parameter. *UST Working Papers in Linguistics* 4, eds. Xin-Xian Rex Yu and Chia-yun Hu: 117-131. Hsinchu: National Tsing Hua University.
- Vendler, Zeno. 1957. Verbs and times. *The Philosophical Review* 66: 143-160. Reprinted in *Linguistics in Philosophy* (1976). Ithaca, New York: Cornell University Press.
- Yeh, Marie M-L. 2000. The Reference Grammar of Saisiyat (in Chinese). Formosan Language Series, No. 2. Taipei: Yuan-Liou Publishing Company
- Yeh, Marie M-L. 2002. A Syntactic and Semantic Study of Saisiyat Verbs. Doctoral Dissertation, National Taiwan Normal University. Taipei.