Chatino Situation Types
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I. Goal

The goal of this paper is to investigate Situation Types (events and states) in Chatino of San Juan Quiahije (SJQ). Chatino belongs to the Otomangean language family spoken by 29,000 people in Oaxaca, Mexico. In doing this work I will follow The Parameter of Aspect (1991) and “Aspectual Categories of Navajo” (1996) by Carlota Smith. This paper is the first part of an overall project to describe Chatino aspect.

Smith (1996) defines aspect as the semantic domain of temporal point of view in language. The aspectual system of a language includes such categories as perfective and imperfective viewpoint, and situation types such as states and events. Viewpoint aspect will not be addressed in this paper. This work will concentrate on Situation Types.

Situation Types are general semantic categories representing classes of idealized situations, organized according to their semantic temporal features. These features have grammatical correlates: the sentences that realize each situation type have a set of distributional properties, e.g., co-occurrence with certain adverbials, verbs, aspectual viewpoints and other forms (Smith 1996, p. 228).

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1 This paper was written for Carlota Smith’s LIN 393 Aspect And Tense: Time In Language. The present is dedicated to the memory of professor Smith, whose knowledge, wisdom and patience offered an inspiration for me to pursue the study of aspect in my native language, Chatino.
This paper seeks to investigate and offer tentative construction rules for Chatino situation types by performing well known tests to gauge temporal features inherent to particular situation types in the language. What is the relevance of investigating such topics in Chatino?

Woodbury (2006) points out that much of Chatino is virtually undescribed. A detailed study of situation types in Chatino serves to break ground into the investigation of Chatino aspect. Furthermore, the reality is that Chatino has a very intricate system of verbs and this work helps to classify some of these verbs in order to advance their understanding. The investigation of Chatino situation types and their characteristic temporal features also adds linguistic data from an under-documented language to the ongoing research of human perceptual and cognitive abilities.

II. Organization of the paper

In section III, I begin by looking at a general overview of situation types. Then in section IV I provide a brief description of grammatical correlates of temporal features. In V, I provide a basic general linguistic background of SJQ Chatino, then in section VI, I briefly touch on some basic issues of Chatino aspect. In VII, I go to grammatical correlates of temporal features in Chatino. In section VIII, I offer some preliminary construction rules for Chatino situation types. In IX, I make some conclusions,
III. General overview of situation types

Scholars have long been aware of the internal temporal features of situation types. Aristotle distinguished between Static and later other scholars have added the features of Duration and Telicity (Smith 1991, 1996). Smith further adds that the interesting point for linguistic analysis is that sentences which present situations of different types have reflexes in the grammar of a language. She points out that Vendler (1957) was one of the first scholars to show that a cluster of syntactic properties characterizes sentences that present states and events of each type.

Temporal features such as ±Dynamic (Dynamic/Static), ±Durative (Durative/Instantaneous), and ± Telic (Telic/Atelic) are intrinsic to many types of sentences, and play a role in many languages. Smith believed that Situation Types must be established separately for each language. In (1) I repeat Smith’s list of situation types which holds for English and for a number of other languages. The list provides some examples of each situation type and their characteristic temporal features.

(1) Situation Types

States: static (own the farm, know the answer, love Mary)

Events: dynamic

Activities: durative, atelic (laugh, push a cart, walk by the river)

Accomplishments: durative, telic (build a house, walk to work, learn Greek)

Semelfactives: instantaneous, atelic (tap, cough, flap a wing)
Achievements: instantaneous, telic (*burst a balloon, reach the top*) (Smith 1996, p. 228).

In talking about a situation in the world, a speaker invokes a given situation type by using the linguistic forms that are associated with it (Smith 1996). Smith also states that it is verbs and their arguments, or what she calls the *verb constellation*, that convey the concept of a situation. Given the above then, we have that verb constellations are associated with the situation types of a language because certain temporal semantic features are intrinsic to a given situation concept. One way to find out if a situation type is grammaticized in a language is to see if the verb constellations that express it have a consistent and unique set of distributional properties.

To investigate the grammatical correlates of temporal features that make up situation types in Chatino, I used similar concepts and examples of situation types presented by (Smith 1991 and 1996) and (Vendler 1957). For instance, *nt'ja23 t'n'i24* ‘s/he found some money’, to {*find money*} is an example of an instantaneous event, one that has no duration in principle. Therefore, for the purpose of this paper I consider the verb constellations that expresses {*found money*} in asking whether the feature ±Durative has any grammatical correlates in Chatino.

**IV. Brief overview of grammatical correlates of temporal features**

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3 Abbreviations and writing conventions.

7= Glotal stop. A,B,C,D= categories of view points and situation types: A=completive, B= progressive, C=habitual, D= potential; CL= classifier for humans; COMP=complementizer; IMP=imperative.
As we pointed out above, a situation has an internal temporal structure (an initial endpoint, stages, and a final endpoint, depending on the situation type). The three binary features of situation types are: dynamicity, durativity, and telicity, which distinguish the situation types by referring to the temporal structure encoded in the predicate (Mateo-Toledo 2004, p. 30). Table 1 below summarizes the list of situation types and their characteristic temporal features as proposed by (Smith 1991).

<table>
<thead>
<tr>
<th>Parameter of classification (temporal feature)</th>
<th>Dynamicity</th>
<th>Durativity</th>
<th>Telicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporal features of situation types</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>States</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Activity</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>accomplishment</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Achievement</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Semelfactive</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 1. Situation Types features (based on Smith 1991:30).

Next I am going to briefly describe each one of the temporal features that distinguish situation types in English in order enue the same in Chatino.

**Static/ Dynamic**

The temporal feature Static/Dynamic distinguishes statives from non-stative situation types, for examples: *Mary owned the farm* and *Mary bought the farm* (Smith 1996, p. 234). Smith also states that event situation types are compatible with expressions of agency and volition, but stative situation types are not grammatical in these context,
for semantic reasons, occur across languages. Thus, stative imperatives, and statives with
certain adverbs are usually semantically ill formed: *be tall, *she carefully owned the
farm. Smith mentions other diagnostic devises to constrast the distribution of state and
event situation types, and I will leave that topic for future research in Chatino.

**Durativity**

This feature is used to separate durative events from instantaneous events.

Sentences that present durative situations are compatible with direct durative adverbial,
such as *for an hour, in an hour*. The adverbials give the duration of the event in question,
e.g., *John played in the sandbox for an hour, Mary walked to school in an hour* (Smith
1996, p. 234). Sentences of instantaneous events behave differently with direct durative
adverbials. The *in* adverbials have an ingressive interpretation: they pertain to an interval
before the actual event, as in *Mary won the race in an hour*. The *for* adverbials, on the
other hand, are odd in some sentences of instantaneous events, e.g, *the ballon burst for
five minutes*. For other event situation types, direct durative adverbials trigger the
interpretation of a durative event with internal stages, *John coughed for an hour* (Smith

**Inceptives and terminatives**

Sentences of durative situations are compatible with inceptives and terminative
morphemes, e.g. *Mary began/finished building a sandcastle*. These sentences present the
beginnings and endings of the events. But with the same morphemes, sentences of
semantically instantaneous situations either are ill formed or have a different
interpretation. Thus *the bomb started to explode* presents stages preliminary to the actual event; *the bomb finished exploding* is semantically ill formed (Smith 1996, p. 235).

**Indirect duratives**

Sentences of durative situations are compatible with indirect durative adverbials, which imply duration rather than explicitly stating it such as *slowly, quickly: John slowly opened the door*. The adverbial pertains to the actual event as it unfolds in time (Smith 1996, p. 235). With sentences of instantaneous situation, the above mentioned adverbials are incompatible or have a different interpretation. Thus *the balloon burst slowly* is semantically odd, the adverb in *John slowly reached the top* pertains to preliminary stages as he approaches the top, not to the actual event of reaching it (Smith 1996, p. 235).

The distributional correlates presented above are based on the logic of duration. Situations that take time have beginnings and endings; they can occur slowly or quickly, and they have internal intervals (Smith 1996, p. 236). Smith adds that sentences of semantically durative situation types are compatible with the linguistic forms that express these notions. In conclusion then, we have that sentences presenting instantaneous situations are not compatible with those linguistic expressions or have different interpretations (Smith 1996, p. 236).
**Telicity versus Atelicity**

The third feature that often appears in temporal classification is that of telicity. The Telic/Atelic feature classifies event situation types according to whether or not they have a goal or natural endpoint. Telic events are completed when the natural endpoint is reached and the change of state occurs, while atelic events can stop at any time (Smith 1996).

Telic verb constellations are compatible with verbs and adverbials of completion such as *finish* and *in an hour*, and are at odds with simple duration adverbs such as *stop* and *for an hour*. For instance, *They built a summerhouse in a year,* and *They built a summerhouse or drew a circle for a year* (Smith 1996).

In contrast, (Smith 1996) states that atelic verb constellations are compatible with verbs and adverbials of simple duration *stop* and *for an hour*, and they are odd with forms of completion, e.g., *She walked in the park.* According to Smith the previous sentence is odd for native speakers of English because the activity type sentence because there is no inherent goal or change of an activity of walking in the park.

Another well known feature of telicity is the interpretation of the adverbial *almost* in telic and atelic sentences. The scope of the adverbial *almost* in a telic durative sentences is ambiguous: *Jane almost built a sandcastle* may mean that she almost started to build one, or that she almost completed the building. In contrast, *Jane almost walked in the park* has only one meaning, that the event almost started (Smith 1996, p. 236). In conclusion then, we have that these contrasts are semantically based: the notion of completion is intrinsic to a telic event and irrelevant to an atelic event (Smith 1996, p. 236).
Next I will investigate whether and how the temporal features of dynamicity, durativity, and telicity are expressed in Chatino. Before I embark on this matter, I first would like to offer a brief background of salient linguistic characteristics of Chatino.

V. Basic general linguistic background of SJQ Chatino

Phonological

- SJQ Chatino has 14 lexically distinctive tones⁴ (E. Cruz and Woodbury 2005). Tone conveys agreement and it is one of the formatives for aspect.
- Chatino tones follow Sandhi rule for tones.

Morphological

- VSO word order.
- All lexical items are monosyllabic.
- Chatino does not distinguish gender or number and there is no dedicated marker for third person in nouns, and verbs.
- Verbs are inflected for person and aspect. Chatino verbs are highly irregular; they resemble English strong verbs: run, ran, speaks, spoke, and additionally, for each verb, first, second, and third person singular forms must be listed in the lexicon for each of four aspects (Woodbury 2006).

⁴ Numbers: 1, 2, 3, and 4 represent basic level tones. Tone 1 is the highest and 4 the lowest. Numbers: 20, 32, 42 are rising tones. Numbers: 24, 14 are descending tones. Four consecutive numbers such as: 2432 represent complex tones.
VI. Chatino aspect

Aspectual information in Chatino is indicated by prefix and tone. In table 2 column1, the letters: A, B, C, D summarize the aspectual categories proposed by past Chatino researchers (Pride and Pride 2004 and Rasch 2002). Column 3 in Table 2 displays the formatives features of Chatino aspect.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Names assigned in past literature</th>
<th>FORMATIVES</th>
<th>Morphological</th>
<th>Phonological</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>“Completivo”</td>
<td>y- palatal glide or n-; k-; kw-</td>
<td>tone set X</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>“Progressivo”</td>
<td>Prenasalization</td>
<td>tone set Y</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>“Habitual”</td>
<td>Prenasalization</td>
<td>tone set Z</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>“Potencial”</td>
<td>k- or laminalization</td>
<td>tone set Z</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Chatino aspectual features.

Table 2 displays the complexity of Chatino aspectual features. In column 3, for instance, we see that there are morphological and phonological formatives that mark each one of the categories of aspect proposed by Pride and Pride (2004) and Rasch (2002).

Table 2 also shows that the Chatino aspectual categories proposed by the researchers mentioned previously does not take into account neither the difference between situation types and view point nor the difference between basic and derived situation types. For instance, if we approach this from the two point component proposed by (Smith 1991),
we could analyze what they call category A or “completivo” as conveying perfect viewpoint; category B or “progresivo” could also be a viewpoint; and category D or “potential” form perhaps conveys mood. Category C or what they label as “habitual” could be derived situation types.

VII. Grammatical correlates of temporal features in Chatino

Following Smith’s (1996) list of situation types, in (2) below I present a similar list in Chatino.

(2) Situation Types in Chatino.

States: static

There many types of states. They include concrete and abstract properties of all kinds, location, belief and other mental states, dispositions, habit, etc. (Smith 1991, p. 38). Sentence 3(a) and 2(b) below illustrate two stative situation type sentences in Chatino. The capitol letters: A, B, C, D represent categories of Chatino aspect taken from Table 1 above.

(3) a. s7we3 t’e32

B.good chest.3

‘s/he is generous (lit: s/he has a good chest)’

b. jl’o20 ri72

B/C.know.3 whole essence

‘s/he knows (lit: her essence knows).’
Events: dynamic

Activities: durative, atelic

Activities are processes that involve physical or mental activity and consist entirely in the process (Smith 1991, p. 44).

(4)  a. na3
    B.cry.3SG
    ‘s/he is crying’

   b. Ndla3 sne3
    B.play.3 guitar
    ‘s/he is playing the guitar’

Accomplishments: durative, telic

Accomplishment situation types are characterized by an end goal and concomitant change of state.

(5)  a. nt'ke73 ska4 kton732 nda4
    A.cook.3 one pot beans
    ‘s/he cooked a pot of beans’

   b. yku4 tkwa24 su4-ke1
    A.eat.3 two guavas
    ‘she ate two guavas.’

Semelfactives: instantaneous, atelic
Semelfactives are instantaneous, atelic events.

(6)  
   a. ndu742
       A.cough.3
       ‘s/he coughed’
   b. ntkon742
       A.knock.3
       ‘s/he knocked’

Achievements: instantaneous, telic.

(7)  
   a. y7wi4   l'o4   7in4 no4 k7yu1 kwa3
       A.recognize.3           to   CL  man    that
       ‘s/he recognized that man.’
   b. nt'ja2   t’n’i24
       C.find.3  money
       ‘s/he found money.’

Next I will test the Chatino situation type sentences I previously listed in order to
find out if they have grammatical correlates for the three temporal features:
Static/Dynamic, Durativity/Instantaneous, and Telicity/Atelicity.

Static/ Dynamic

Static and Dynamic temporal features distinguishes stative from non-stative
situation types. The diagnostic test used to contrast stative from non-stative are:
imperatives, manner adverbs such as slowly, and various expressions of agency and
volition. Statives should be ill formed with all of the previously described diagnostic
tests, and event situation types should be good.
To distinguish Chatino stative from event situation types, I will test two Chatino situation type sentences on each of the previously described diagnostic tests.

Imperatives

The imperative form in Chatino is achieved by placing the particle *l’a1 or la1* after the verb, the symbol # will be used mark semantically ungrammatical sentences. In (8) I present an example of an imperative sentence in Chatino.

(8) **ya4 l’a1**

   go.2SG IMP

   ‘go!’

We now go through the diagnostic test.

**Stative situation type sentences in an imperative context.**

(9) a. **# s7we3 (*l’a1) t’e32**

   good IMP chest

   ‘be kind hearted!’

b. **#nt7ya24 -lo20 l’a24 ka1 kwa0**

   own IMP cow that

   ‘Own that cow!’

Event situation types sentence in an imperative context.

Activities

(10) a. **na1 l’a1**
D. cry.3SG IMP
‘Cry!’

b. yla1 l’a1 sne3
D. play.2SG IMP guitar
‘Play the guitar!’

Accomplishment situation types

(11) a. nt’ke71 l’a1 ska4 kton724 nda4
D. cook.2 IMP one pot beans
‘cooked a pot of beans!’

b. yku4 l’a1 tkwa24 su4-ke1
A. eat.3 IMP two guavas
‘she ate two guavas.’

Semelfactives: instantaneous, atelic

(12) a. ndu732 l’a24
D. cough.3 IMP
‘cough!’

b. ntkon732 l’a24 t7wa4 nt7an4 kwa1
D. knock.3 IMP mouth house that
‘Knock on the door!!’

Achievements

(13) a. t’7wi4 l’o4 l’a24 7in4 no4 k7yu1 kwa3
D. know.3 to cl. IMP to cl. man that
‘get to know that man!’
When semelfactives are placed in an imperative context, their meaning changes. The imperative brings a sense of durativity for 13(a), and 13(b); this context is questionable in terms of grammaticality. In order to form an imperative with 12(b) I have to change it to an activity situation type. This is illustrated in (13) below.

(14) kya42 na1 l’a1 t’n’i242 kan742
    D.go.2s look IMP money that
    ‘Go look for the money!’.

The distribution of Chatino situation types in an imperative context is as follows: stative situation types are all ungrammatical and some sentences of the achievement situation types are questionable in this environment. Activity, accomplishment, and semelfactive situation types, on the other hand, are grammatical. This is an indication then that imperatives are a good diagnostic tool to distinguish Static/Dynamic temporal features.

**With a manner adverb**

Manner adverbs in Chatino are formed by *t’ya74 ti4* ‘slowly’, *s7we3 ti3* ‘nicely’. An illustration of one of these forms is seen in sentence (14) below.

(15) t’ya74 ti4 yo2
    slowly A.grind.3
    ‘She ground slowly (lit: she made tortillas slowly).’
Next we are going to run all our situation type sentences through this diagnostic test.

**Stative situation type sentences in a manner adverb context.**

(16) a. 

[# s7we3 ti24 t’e32

good EMP chest

‘be kind hearted!’]

b.

[# t’ya74 ti4 nt7ya24 -lo20 ka1 kwaw3

slowly EMP own cow that

‘slowly own that cow.’]

**Events**

**Activities**

(17) a. 

[ t’ya74 ti4 nt7o1 yna1

slowly come out A.cry.3SG

‘S/he slowly began to cry’]

b. 

[s7we4 ti4 kla20 sne3

carefully D.dance guitar

‘Carefully/nicely play the guitar!’]

In this context it appears that the examples provided above are grammatical only in a narrow sense, and I think this is due to the particle *ti3*. Smith (1996) defines narrow and broad sense in the following way:

People can talk about situations from one point of view, and this flexibility is essential to the aspectual component of language. Speakers may present a situation as a whole, with a broad view. Or they may take a narrow view, talking about the
endpoints or the middle of a situation. Languages convey broad and narrow views of a situation in various ways. In English, the broad view is usually given in a simple sentence, e.g., *Mary built a sandcastle*, and the narrower views with verbs or phrases that have the simple sentence as a complement, for instance, *Mary began building a sandcastle* (Smith 1996, p. 235).

Further research needs to happen in this area in order to find out if Chatino activity situation types in this context yield only a narrow reading.

Accomplishment

(18) a. t’ya74 ti4 nt’ke73 ska4 kton724 nda4 slowly A.cook.3 one pot beans ‘s/he slowly cooked a pot of beans’

b. t’ya74 ti4 yku4 tkwa24 su4-ke1 slowly A.eat.3 two guavas ‘she slowly ate two guavas.’

Semelfactive

(19) a. t’ya74 ti4 ndu732 slowly C.cough.3 ‘ s/he slowly cough!!’

b. t’ya74 ti4 ntkon32 t7wa4 nt7an4 slowly A. knock.3 mouth house ‘ s/he slowly knock on the door!!’

Achievement
Expressions of agency and volition.

One way to express agency and volition in English is to use the expression to persuade. A similar expression in Chatino is illustrated with in (21) below.

(21)  \textit{nda3 tsa24} ‘s/he persuaded’

I am going use (21) as a diagnostic test for agency and control in order to distinguish the contrast between stative and event situation types in Chatino.

(22) a.  \# Nda3 tsa24 s7we3 t’e32

\hspace{1cm} A. persuade.3 good chest.3

‘s/he persuaded her to be nice’

b.  \# Nda3 tsa24 jl’o20 ri72

\hspace{1cm} A. persuade.3 know.3 whole/ essence

‘s/he persuaded her to know.’

Events: dynamic

Activities in an agency and control context.
(23) a. Nda3 tsa24 7in24 no4-k7yu1 kwa3 cha73 kna24
   A. persuade.3 to CL man that COMP D.cry.3SG
   ‘s/he persuaded him or her to cry’

b. Nda3 tsa24 7in24 no4-k7yu1 kwa3 cha73 kla242 sne3
   A. persuade.3 to CL man that COMP D.play.3 guitar
   ‘s/he persuaded that man to play the guitar’

It seems that activity situation type sentences in the context of an agency and control results in a narrow reading. Once again, this is an area that needs further research in Chatino.

Accomplishment situation type sentences in an agency and control context.

(24) a. Nda3 tsa24 7in24 no4-k7yu1 kwa3 cha73 ke724 ska1 kton732 nda4.
   A. persuade.3 to CL man that COMP D.cook.3 one pot beans
   ‘s/he persuaded the man to cook a pot of beans’

b. Nda3 tsa24 7in24 no4-k7yu1 kwa3 cha73 ku4 tkwa24 su4-ke1
   A. persuade.3 to CL man that COMP A.eat.3 two guavas
   ‘s/he persuaded her to eat two guavas.’

It seems that accomplishment situation types in this context result in a narrow reading as well. We observe that the simple sentence ends up in the complement position like in English narrow readings described by Smith (1996), and as we observed with the activity situation types in manner adverbs and agency and volition diagnostic test in 17 (a,b) and 23(b) above.
Semelfactives

(25)  a.  Nda3  tsa24  7in24 no4-k7yu1 kwa3  cha73 t’u724
     A. persuade.3  to  CL man that  COMP D. cough.3
     ‘s/he persuaded that man to cough’

     b.  Nda3  tsa24  7in24 no4-k7yu1 kwa3  cha73 tkon742  t7wa nt7an4 kan742
     A. persuade.3  to  CL man that  COMP D. knock.3 mouth house that
     ‘s/he persuaded that man to knock on the door’

In 25 (a) and (b) we see that the simple sentences provided as examples of
semelfactive Situation Types in Chatino ends up in complement position. This is the
same thing we have been observing for some event sentences with manner adverbs and
expressions of agency and volition which are described by (Smith 1996) as a behavior of
narrow reading sentences caused by what she calls superlexical morphemes in English.

Achievements

(26)  a.  *nda3 tsa24 ren724 7in24 cha7  y7wi4  l’o4  7in4 no4 k7yu1 kwa3
     persuade they to COM A. recognize.3 to CL man that
     ‘They persuaded her to get to know that man.’

     b.  ?nda3 tsa24 ren724 7in24 cha7  nt’ja2  t’n’i24
     persuade they to COM C. find.3 money his
     ‘They persuaded him to find the money.’

It seems that this diagnostic test does not work for achievement situation types.
Perhaps because a person cannot control recognizing someone in public, and neither can
we avoid finding money.
**Durativity/Instantaneous temporal features.**

Durativity/Instantaneous temporal semantic feature separates durative events from events that are instantaneous. States are ignored here, since the feature of duration does not distinguish states from other situation types (Smith 1996, p. 237). Smith (1996) states that one way to gauge durative sentence is with durative adverbials such as *for an hour* and *in an hour*. I could not find such contrast in Chatino; therefore, I cannot use this diagnostic devise to test for durativity.

Another diagnostic devise (Smith 1996) proposes for this type of situation are inceptives and terminatives, e.g., *Mary began/finished building a sandcastle*. Smith states that these morphemes give durative event sentences a reading that have beginnings and endings, and Smith states that the use of the same morphemes in instantaneous event sentences in English are ill formed or have a different interpretation.

Inceptives in Chatino are achieved in the following way:

(28) a. nd’i1 sna2 ‘to begin’
   
   b. nd’i1 ‘to begin’
   
   c. nd’i4 ‘finished’
   
   d. nt7o1 ‘come out’

Next I am going to put the sample event sentences I have been working with through the inceptive morphemes to check if this can be a useful test for contrasting Chatino durative from instantaneous situation types.

Activities: durative, atelic

(28) a. nd’i1 sna2 yna3
    
    began   A.cry.3
    
    ‘s/he began to cry’
b. *nd’i1 yna3  
    began cry.3  
    ‘s/he begin to cry’

c. nt7o1 yna3  
    begin .cry.3  
    ‘s/he began to cry’

d. nd’i4 yna3  
    finish A.cry.3  
    ‘s/he finished crying’

Sentences 28 (a and b) above have a gradient degree of grammaticality in this context. The grammaticality of activity situation type sentences then depends on the inceptive morpheme used.

Accomplishments

(29) a. Nd’i4 nt'ke73 ska4 kton724 nda4  
    finish A.cook.3 one pot beans  
    ‘s/he finished cooking a pot of beans’

b. nd’i4 yku4 tkwa24 su4-ke1  
    finish A.eat.3 two guavas  
    ‘s/he finished eating two guavas.’

Semelfactives

Semelfactives are instantaneous, atelic events.

(30) a. # nd’i4 ndu742  
    finish A.cough.3  
    ‘s/he finished coughing’
b. \textit{#nd'i4 ntkon42 t7wa4 nt7an4 kan742}  \textbf{finish A.knock.3 mouth house that}  \\
\hspace{1cm} ‘s/he finished knocking’

Achievements: instantaneous, telic.

(31) a \textit{#nd'i4 y7wi4 l'o4 7in4 no4 k7yu1 kwa3}  \\
\hspace{1cm} \textbf{finish recognize.3 to cl. man that}  \\
\hspace{1cm} ‘s/he finished recognizing that man.’

b. \textit{# nd'i4 nt'ja2 t'n'i24}  \\
\hspace{1cm} \textbf{finish C.find.3 money his}  \\
\hspace{1cm} ‘s/he finished finding the money.’

In conclusion, we have that inceptives are a good diagnostic test for contrasting Durative versus instantaneous situation type events because the expected durative situation types: activity and accomplishment work well with the inceptive morphemes used in this diagnostic test.

\textbf{Features of telicity and atelicity}

Telic situation types are characterized by an end goal and concomitant change of state. Atelic situation types, the other hand, do not have intrinsic final endpoints, so they can terminate at any moment. Smith (1996) states that the difference between telic and atelic events seems to be a fundamental one for humans, from a cognitive point of view. Telicity has grammatical correlates in English and in other languages. One of the
diagnostic tests used to contrast telic from atelic situation type events in English is the
distinction between completion, e.g., in an hour; and simple duration, e.g., for an hour.
However, there are languages like Navajo and Chatino where there is little evidence of a
grammaticized feature of telicity. Smith (1996) reports that Navajo does not distinguish
completion and direct duration in either verbs or adverbials. Smith also states that there
are relatively few direct durative adverbials in Navajo, and no translation equivalent of
the contrast in an hour/for an hour. The terminative forms of Navajo are verb prefixes
which have the meaning of either completion and simple cessation.

It seems that Chatino has some similarities with Navajo with respect to the lack of
a grammaticized feature of telicity. With respect to the distinction between stop/finished
Chatino behaves in the following way:

Chatino expresses duration with expressions such as all day, half the day, etc. This is
illustrated in (31) and (32) below.
(32)  t'kwì24 tsan32
       all    day
       'all day'

The word t'kwì24 cannot be used in isolation.

(33) sa4 7we24 tsan1
     one   half    day
     'half of day'

Below I provide some context for this.

(34) t'kwì24 tsan32 yo2
all day A.grind.3
'she grinded all day long (Lit: she made tortillas all day long).

The reading that I get from (34) is that s/he spent all day making tortillas, but it does not
tell me whether the task had a natural completion or came to an end.

Completion is expressed with the inceptive morpheme ndi4 which I mentioned
previously in (27), but there is no contrast between the duration of the form t'kwis32
and the morpheme ndi4.

Another diagnostic test used to gauge telic events from atelic ones is with the
adverbial almost. Smith (1996) states that its use in a telic durative sentence is
ambiguous: Jane almost built a sandcastle may mean that she almost started to build
one, or that she almost completed the building. In contrast, Jane almost walked in the
park has only one meaning, that the event almost started.

Almost adverbial is achieved in Chatino with the expression chin20 7a24 cha73
‘almost’. Next I am going to run all the event situation types I have been using as
samples in order to gauge the readings of the different situation events in Chatino.

Activities

(34) a. chin20 7a24 cha73 yna3
    almost COMP A.cry.3SG
    ‘she almost cried’

    b. chin20 7a24 cha73 yla3 sne3
    almost COMP A.play.3 guitar
    ‘s/he is almost playing the guitar’
Both of the above sentences have only one reading: the activity almost began.

Accomplishments

(35) a. "chin20 7a24 cha73 nt'ke73 ska4 kton724 nda4
almost A.cook.3 COMP one pot beans
‘s/he almost cooked a pot of beans’

This sentence has an ambiguous reading between s/he almost started to cook the bean, or that s/he almost cooked.

(36) "chin20 7a24 cha73 yku4 tkwa24 su4-ke1
almost COMP A.eat.3 two guavas
‘s/he almost ate two guavas.’

This sentence has an ambiguous reading between s/he almost started to eat two guavas, or that she almost finished eating the two guavas.

Semelfactives

(37) a. "chin20 7a24 cha73 ndu742
almost EMP COMP A.cough.3
‘s/he almost coughed’

b. "chin20 7a24 cha73 ntkon42
almost EMP COMP A.knock.3
‘s/he almost knocked’

The above sentences have only one reading: that she almost began the event.

Achievement
I only get one reading with almost in this context: that s/he almost got to meet the man.

Like in the previous sentence, here I also get only one reading: that she almost found the money. The overall distribution that we find with the adverbial almost as a diagnostic devise for telicity is that it goes along the line to contrast the accomplishment, but not achievement which is another event that is characteristically telic.

Table 3 below presents the distribution of situation type sentences with the different temporal test.

<table>
<thead>
<tr>
<th>Temporal features</th>
<th>Test/feature</th>
<th>statives</th>
<th>activity</th>
<th>accomplishment</th>
<th>semelfactives</th>
<th>achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperatives</td>
<td>*</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Manner adverb</td>
<td>*</td>
<td>Narrow reading</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressions of agency and volition such as to persuade.</td>
<td>*</td>
<td>Narrow reading</td>
<td>√</td>
<td>Narrow reading</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Durative/ instantaneous</td>
<td>test: Inceptions and terminatives began/finished</td>
<td>Not relevant</td>
<td>Some morphemes are ungrammatical with sentences provided.</td>
<td>√</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Telicity/Atelicity</td>
<td>Almost</td>
<td>Not relevant</td>
<td>One reading.</td>
<td>Ambiguous reading.</td>
<td>One reading: that the event almost began</td>
<td>One reading: that the activity almost began.</td>
</tr>
</tbody>
</table>

Table 3 Distribution of situation types and tests.
I conclude this paper by providing some provisional construction rules for situation types in Chatino.

VIII. Construction rules

As I come to the end of this paper, next I would like to present provisional construction rules for each one of the situation type sentences in Chatino.

**States**

(38) s7we3 t’e3 B/C.good chest.3SG
‘s/he is kind (lit: s/he has a good chest)‘

\[ S_{v_{con}} \{ +\text{static}, +\text{dur}, -\text{telic} \} \{ AGR[3] (NP) \} \Rightarrow s[\text{stative}] \]

(39) a. jl’o20 ri72 B/C.know.3 whole essence
‘s/he knows…(lit: her essence knows).’

\[ S_{v_{con}} \{ +\text{static}, +\text{dur}, -\text{telic} \} \{ AGR[3] (NP) \} \Rightarrow s[\text{stative}] \]

b. na3 B.cry.3SG
‘s/he is crying’

\[ S_{v_{con}} \{ \text{View[B]}, -\text{telic}, +\text{dur} \} \{ AGR[3] \} \Rightarrow s[\text{activity}] \]

**Accomplishment**

(40) nt'ke73 ska4 kton724 nda4
A.cook.3 one pot beans
‘s/he cooked a pot of beans’
Semelfactives

(41)  Ndu732
      A.cough.3
      ‘S/he coughed’.
      SVcon [view[B] V[-telic, -dur][AGR[3] \(\Rightarrow\) s[Semelfactive]]

(42)  ntkon42 t7wa4 nt7an4
      A.knocked.3 mouth door
      ‘She is knocking at the door’
      SVcon [view[B] V[-telic, -dur][AGR[3] OBJ[NP[Quant[NP]]] \(\Rightarrow\) s[Semelfactive]]

Achievements

(43)  nt'ja2 t’n’i24
      A.find.3 money his
      ‘s/he found money.’

IX. Conclusion.

In this paper I investigated the temporal classification of situation types in Chatino. One of my main goals was to find grammatical correlates of temporal features that distinguish situation types in Chatino. Some preliminary conclusions that I draw at the end of this paper are that there are correlate grammatical expressions in Chatino for the temporal expressions of dynamicity, durativity and telicity even though Chatino, like Navajo, does not distinguish between simple duration and completion like English and other languages.

The object of this sentence is a relator noun. Rasch (2006, p. 70) states that unlike prepositions of English, relator nouns in Chatino are used only to specify locations of overtly expressed events, and do not specify directly the locations of entities.
X. References.


Mateo-Toledo, Eladio. 2004. Directional Markers in Q’anjob’al (Maya); their syntax and Interaction with Aspectual information. Ms., University of Texas at Austin.


