I am grateful for all my Zapotec teachers: Felipe Lopez, Rosa Lopéz, Norma Lopéz, Rosa Lopéz Nuñez, Aurelia Martinez, Galilea Lopéz Curiel, Paty Lopéz Curiel, Hermenegildo Antonio, and Moisés García Guzmán. Xtyozén yuad! I would also like to thank Seth Cable, John Kingston, Angelika Kratzer, and Brooke Lillehaugen for their advice and guidance; and the audience of Multi-Verb Constructions 2017 for helpful feedback. This work is funded by the Selkirk Linguistics Outreach Fund and NSF grant BCS-1322770 awarded to Seth Cable.
Andative and venitive constructions are ones in which a motion verb, *ried* ‘comes’ or *ria* ‘goes’, is inserted between the aspect marker and another verb.

1. **Andative:**
   Rata rsily r-i-tyug Lia Petr gyia.
   Every morning HAB-AND-cut Miss Petra flowers
   ‘Every morning Petra goes and cuts flowers.’

2. **Venitive:**
   Rata rsily r-ied-tyug Lia Petr gyia.
   Every morning HAB-VEN-cut Miss Petra flowers
   ‘Every morning Petra comes and cuts flowers.’
Overview:

- Introducing the San Lucas Quiaviní Zapotec andative/venitive construction
- Semantic properties of the andative/venitive construction
- Towards a semantic typology of complex motion verb constructions
- A formal analysis of the semantics of the andative/venitive construction
San Lucas Quiaviní Zapotec (SLQZ) is an endangered Otomanguean language of Oaxaca, Mexico (Pérez Báez 2016).

- Significant syntactic documentation in the form of a print dictionary (Munro & Lopez 1999), talking dictionary (Lillehaugen et al.), and pedagogical grammar (Munro et al. 2002).
- Previous work on the syntax of the language includes Lee (1999), Munro (2006), and Munro (2015).
- Data comes from fieldwork with 8 speakers in the village of San Lucas Quiaviní, as well as previous published work on SLQZ.
aspect  root  (adv)  (subj)
      r-  tyug  -izy    =a
   HAB  cut  only   =1s

‘I only cut’
Andative and Venitive Constructions

Constructions in which a motion verb, *ria* ‘go’ or *ried* ‘come’, is added to another verb to indicate that the subject moved towards or away from the deictic center to perform the action of the main verb.

4. **Rata rsily r-i-tyug Lia Petr gyia.**
   Every morning HAB-AND-cut Miss Petra flowers
   ‘Every morning Petra goes and cuts flowers.’

Andative and venitive constructions cannot take the normal *ca-*progressive aspect marker.

5. **zo-dauw=ën**
   ZPROG.AND-eat=1p
   ‘We are going and eating’ (Munro et al. 2006).
Any time-positional operator, such as tense or temporal adverbials, that locates one subevent entailed by the construction necessarily locates all other subevents in time.
Andative and venitive constructions have only one aspect marker, which applies to both verbs.

Context: Brook came to the market in order to buy a rug, but ended up buying shoes instead.

#Nai chi nu=a logyia, b-i-ed-zi
Yesterday when locate=1s marketplace PERF-VEN-buy
Brook teiby tapet.
Brook one rug
Intended: ‘Brook came to buy a rug.’
Temporal modifiers can only apply to the whole construction.

7 Context: Maria came yesterday but she danced today.
   #B-ied-ya Maria nai.
   PERF-VEN-dance Maria yesterday
   ‘Maria came and danced yesterday.’

8 Context: Maria came the day before yesterday but danced yesterday.
   #B-ied-ya Maria nai.
   PERF-VEN-dance Maria yesterday
   ‘Maria came and danced yesterday.’
Towards a semantic typology of complex motion verb constructions

Points of semantic variation:
- Is the motion real?
- Do the events overlap?
- Is there an entailment of agentivity?
There are some examples of andative/venitive constructions that do not involve real motion.

\[ \text{Z-ied-dica=dihzy nyis ndaa chi} \]
\[ \text{ZPROG-VEN-appear=just water hot when} \]
\[ \text{b-siuw=a zhaa nyis.} \]
\[ \text{PERF-extinguish=1s under water.} \]

‘The hot water had just appeared when I turned off the heat under it’ (Munro & Lopez 1999).
Is the motion real?

Such examples are quite restricted: they must describe a change of state, they only occur in the progressive, and they can only be formed with the venitive marker.

Z-ied-yahb yuu.de
ZPROG-VEN-fall kitchen
‘The kitchen is coming and falling.’
Comment: “It’s not really falling, but it’s leaning. It’s going to fall down.”

Z-i-yahb yuu.de
ZPROG-AND-fall kitchen
‘The kitchen is going and falling.’
Comment: “It’s moving—get out of the way before it collapses.”
Other than the change-of-state uses of the venitive construction, the motion must always be real.

12 #Gu-ro=ëng.
PERF.AND-grow=3s
‘He went and grew up.’

13 Ladi gu-ro=ëng.
Other.side PERF.AND-grow=3s
‘He went and grew up in the States.’
The events of the andative/venitive construction may overlap.

14 Context: Mary will come here and smile.
   z-ied-zhiez Maria
   DEF-VEN-smile Maria
   ‘Maria will come and smile.’

15 Context: Mary will come here smiling.
   z-ied-zhiez Maria
   DEF-VEN-smile Maria
   ‘Maria will come and smile.’
A similar construction in English, the ‘go get’ construction, entails agentivity (Shopen 1971).

16 #Marie will come catch chickenpox. Context: Marie will come over and will accidentally catch chickenpox from one of the very contagious toddlers running around the house.

17 #Jenny will come fall down the stairs. Context: Eve has set a trap that will cause Jenny to fall down the stairs when she arrives.
Is there an agentivity entailment?

The andative/venitive construction does not entail agentivity.

\[Z\text{-}ied\text{-cha} \quad zhyet \quad ni=a \quad per \quad queity\]
\[Z\text{PROG-VEN-warm} \quad cat \quad feet=1s \quad but \quad NEG\]
\[ca\text{-cha}=\ddot{\text{e}}\text{ng} \quad ni=a \quad r\text{-acbe}=di=\ddot{\text{e}}\text{ng}\]
\[\text{PROG-warm} \quad foot=1s \quad HAB\text{-know}=PT=3s\]

‘The cat is coming and warming my feet but it doesn’t know that it warms my feet.’

Context: Juan comes over and puts his book down somewhere in our house. Some time later, he realizes that he has lost it.

\[B\text{-ied-nity} \quad Jwany \quad x\text{-li’ebr}=ni\]
\[\text{PERF-VEN-lose} \quad Juan \quad POSS\text{-book}=3s\]

‘Juan came and lost his book.’
A semantic account of the andative/venitive must account for these three properties.

<table>
<thead>
<tr>
<th>Property</th>
<th>SLQZ Andative/Venitive</th>
<th>English ‘go get’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real motion</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Event overlap</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Agentivity entailment</td>
<td>✓</td>
<td>X</td>
</tr>
</tbody>
</table>
The semantics of the andative/venitive

Desiderata for the semantics of the andative/venitive:

- Event descriptions should be combined into a macro-event description by the level of tense/aspect modification.
- Event description combination mechanism should not be Boolean conjunction.
- No agentivity entailment should be imposed on the macro-event.
- Subject of the construction should saturate a thematic role of each verb.
- Temporal ordering of events should allow for overlap.
COMBINING EVENT DESCRIPTIONS

Evidence from tense/aspect-marking and temporal modification suggests that the andative/venitive construction has only one event description available at the level of temporal modification.

Question: How do the events combine?

One possibility is Boolean conjunction.

b-ied-zi Brook teiby tapet
PERF-VEN-buy Brook one carpet
‘Brook came and bought a carpet.’
Combining event descriptions: Non-Boolean Conjunction

**Strategy**

Use Non-Boolean Conjunction to build a description of a complex event out of descriptions of two distinct events as in Harris (2011).

**Non-Boolean Conjunction Krifka (1990):**
Given a function \( f_{\langle \epsilon, t \rangle} \) and a function \( g_{\langle \epsilon, t \rangle} \), Non-Boolean Conjunction produces a function \( h_{\langle \epsilon, t \rangle} : \)
\[
\lambda e''. \exists e, e'[e'' = e \oplus e' \land [f(e) \land g(e')]]
\]

**[[go and\textsubscript{NB} eat]]** = \( \lambda e''. \exists e, e'[e'' = e \oplus e' \land [go(e) \land eat(e')]] \)
Desiderata for the semantics of the andative/venitive:

- ✓ Event descriptions should be combined into a macro-event description by the level of tense/aspect modification
- ✓ Event description combination mechanism should not be Boolean conjunction
- No agentivity entailment should be imposed on the macro-event
- Subject of the construction should saturate a thematic role of each verb
- Temporal ordering of events should allow for overlap
THE SEMANTICS OF THE ANDATIVE/VENITIVE: THEMATIC ROLES

THREE QUESTIONS

- What thematic roles, if any, does the macro-event have?
- What thematic roles do the events of the two verbs have?
- When are the two event descriptions combined?
THE SEMANTICS OF THE ANDATIVE/VENITIVE: THEMATIC ROLES

**Question 1**
Does the macro-event have any thematic roles of its own?
No, because there is no agentivity entailment.

**Question 2**
What thematic roles are associated with the event of each verb?
The simplest solution is that they are just what they would be ordinarily.

**Question 3**
When are the event descriptions combined?
Three possibilities:
- Before merging thematic roles
- After merging thematic roles but before saturating them
- After saturating the thematic roles
When are the event descriptions combined?

After merging and saturating thematic roles:

b-ied-gaty Maria

PERF-VEN-die Maria

‘Maria came and died.’
When are the event descriptions combined?

Before merging thematic roles:

Context: Maria went and killed someone else.

#Gu-gaty Maria
PERF.AND-die Maria
‘Maria went and died.’

Context: Someone came and killed Maria.

#Gu-gaty Maria
PERF.AND-die Maria
‘Maria went and died.’

Conclusion: the event descriptions combine after their thematic roles are introduced, but before they are saturated.
**Proposal**: the andative/venitive marker is an overt $v$-projection, which combines with an event description of type $\langle e, \epsilon t \rangle$ via Non-Boolean Conjunction.

B-ied-si Brook teiby tapet.

PERF-VEN-buy Brook one carpet

‘Brook came and bought a carpet.’
Non-Boolean Coordination combines two event descriptions of type \( \langle \epsilon, t \rangle \), but the conjuncts in 26 are of type \( \langle e \langle \epsilon, t \rangle \rangle \).

\[
\begin{align*}
[vP_1] &= \lambda x. \lambda e. \text{buy}(e) \& \text{Patient}(e, c) \& \text{Agent}(e, x) \\
[[vP_2]] &= \lambda e. \text{buy}(e) \& \text{Patient}(e, c) \\
[[vP_2]] &= \lambda x. \lambda e. \text{go}(e) \& \text{Patient}(e, x) \\

[[\text{-ied-}]] &= \lambda x. \lambda e. \text{go}(e) \& \text{Patient}(e, x) \\

\end{align*}
\]
Modified Non-Boolean Conjunction:
Given a function $f_{\langle e|\epsilon,t\rangle}$ and a function $g_{\langle e|\epsilon,t\rangle}$, Non-Boolean Conjunction produces a function $h_{\langle e|\epsilon,t\rangle}$:

$$\lambda x. \lambda e''. \exists e, e'[e'' = e \oplus e' \land f(x)(e) \land g(x)(e')]$$

This allows the descriptions of two events to compose regardless of the thematic role that the subject plays.
The transitive verb merges its Agent prior to combining with the venitive marker via Modified Non-Boolean Conjunction.

B-ied-zi Brook teiby tapet.
PERF-VEN-buy Brook one rug
‘Brook came and bought a rug.’
Complex motion verb constructions vary on (at least) three semantic dimensions:

Points of semantic variation:
- Motion entailment
- Temporal overlap of events
- Agentivity entailment

Semantic theories of complex motion verb constructions should specify the mechanism for combining the event descriptions and the relation between the thematic roles of each verb.

Bjorkman, Bronwyn M. 2016. “Go get, come see: Motion verbs, morphological restrictions, and syncretism.” *Natural Language & Linguistic Theory* 34.


Cardinaletti, Anna, and Giuliana Giusti. 2001. “Semi-lexical’ motion verbs in Romance and Germanic.” In Norbert Corver & Henk C. van Riemsdijk, (eds.), *Semi-lexical categories: the function of content words and the content of function words*.


Lillehaugen, Brook Danielle. 2016. “¿Por qué escribir en una lengua que (casi) nadie lee? Twitter y el desarrollo de literatura.” *Coloquio sobre lenguas otomangues y vecinas* VII.


Rata zhi r-ied Lia Petra r-ied-tyug gyia. Every day HAB-come Miss Petra HAB-VEN-cut flower ‘Every day Miss Petra comes and cuts flowers.’ (Lit.: ‘Every day Miss Petra comes and comes and cuts flowers.’)

Z-e=ēng z-e-cudyag=ēng musc. ZPROG-go=3s ZPROG-AND-listen=3s music ‘She is going and listening to music.’ (Lit.: ‘She is going and going and listening to music.’)

These examples involve just one motion event, providing evidence of an ongoing grammaticalization process for the andative and venitive markers.
There are restrictions on the verbs that can occur in andative/venitive constructions, but it is not clear whether they are restrictions on the aktionsarten of the verbs.

<table>
<thead>
<tr>
<th>Status</th>
<th>Munro et al. (2006)</th>
<th>Anderson</th>
</tr>
</thead>
<tbody>
<tr>
<td>And/ven known</td>
<td>116</td>
<td>134</td>
</tr>
<tr>
<td>Lacks and/ven</td>
<td>54</td>
<td>48</td>
</tr>
<tr>
<td>Unknown</td>
<td>82</td>
<td>70</td>
</tr>
</tbody>
</table>

Queity ch-i-gac.xuw=u antes a ch-e=u
NEG IRR-AND-get.sick=2s before already IRR-go=2s
europa
Europe
‘Don’t go and get sick before you go to Europe!’
When the second verb is unaccusative, the derivation proceeds as shown below.

\[
\begin{align*}
\text{B-ied-gaty} & \quad \text{Jwany.} \\
\text{PERF-VEN-die} & \quad \text{Juan} \\
\text{‘Juan came and died.’}
\end{align*}
\]

\[
\begin{align*}
[\text{-gaty}] &= \lambda x \cdot \lambda e \cdot (\text{die}(e) \land \text{Patient}(e, x)) \\
[\text{-ied-}] &= \lambda x \cdot \lambda e \cdot (\text{come}(e) \land \text{Patient}(e, x)) \\
[\text{-iedgaty}] &= \lambda x \cdot \lambda e'' \cdot \exists e' \cdot (e'' = e \oplus e' \land \text{come}(e) \land \text{Patient}(e, x) \\
&\quad \land \text{die}(e') \land \text{Patient}(e', x)) \\
[\text{Jwany} \ -\text{iedgaty}] &= \\
&\lambda e'' \cdot \exists e' \cdot (e'' = e \oplus e' \land \text{come}(e) \land \text{Patient}(e, J) \\
&\quad \land \text{die}(e') \land \text{Patient}(e', J))
\end{align*}
\]