The Ecuadorian Siona tripartite DOM system
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1 Introduction

• We will present an overview of the Ecuadorian Siona Differential Object Marking (DOM) system, that is particular in that it is sensitive to two main dimensions, observed morphologically, as shown in Table 1:

<table>
<thead>
<tr>
<th>[-marked]</th>
<th>[+]marked</th>
</tr>
</thead>
<tbody>
<tr>
<td>[+intensional]</td>
<td>[+partitive]</td>
</tr>
<tr>
<td>[+animate]</td>
<td>-ni</td>
</tr>
<tr>
<td>[-animate]</td>
<td>-∅</td>
</tr>
</tbody>
</table>

Table 1: The Siona DOM paradigm

• There appear to be three case-marking possibilities for direct object marking: -∅, -ni, -re
  – -∅ and -ni differentiate between inanimate and animate objects that are [-marked],
  – -re contrasts with -∅ and -ni, and marks, roughly:
    * intensionality in animate objects
    * partitivity in inanimate objects

• There appears to be a mismatch between the morphology and the semantics:
  – Morphologically, the [+marked] dimension is insensitive to animacy
  – Semantically, the [+marked] dimension is sensitive to animacy

Goals for this presentation:
• situate the Siona DOM system by giving a cross-linguistic overview of DOM
• present a morpho-semantic description of the Siona DOM system, focusing on preliminary results of an investigation into the semantic distribution of -re-marking
• discuss possible directions for a morpho-semantic analysis of the -re marker

2 Ecuadorian Siona

• Western Tukanoan branch of the Tukanoan family
• Severely endangered language that has less than 200 speakers
• Spoken in six communities in the Cuyabeno reserve and on the banks of the Aguarico in North-Eastern Ecuador
• Under-documented; main work by Bruil (2014)
• Basic word order SOV, though quite free

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3 Differential Object Marking

- Differential Object Marking refers to alternations in the overt (dependent-) marking of objects as sensitive to certain semantic or pragmatic factors.

- Two subtypes of DOM systems arise (see de Hoop & Malchukov, 2007): (i) symmetric systems, which display alternations between overt case forms, and (ii) asymmetric systems, where an overtly marked form alternates with an unmarked form.

- The most typologically common (Iemmolo, 2013) and most studied cases of DOM involve an asymmetric system which exhibits sensitivity to referential properties of the direct object; as reflected in the animacy and definiteness scales (Comrie, 1989; Croft, 2003):
  - "animacy scale": human > animate > inanimate
  - "definiteness scale": definite > specific > non-specific

  Cross-linguistically, the higher the object referent is on these hierarchies, the less prototypical it is as a direct object, and the more likely it will be to be overtly case-marked.

  (1) Spanish object marking is sensitive to animacy
  a. ví a tu perro  
     saw.1sg DAT your dog
     I saw your dog.
  b. ví tu lapiz
     saw.1sg your pencil
     I saw your pencil.

  (2) Turkish object marking is sensitive to specificity
  a. herkes kitab-ı oku-d-u.
     everyone book-ACC read-PAST.3
     Everyone read a (particular) book.
  b. herkes kitap oku-d-u.
     everyone book read-PAST.4
     Everyone read a book.

- There are other attested pragmatic and semantic properties in the DOM systems of the world: information structure, kinship terms, proper/common distinction, tense/aspect, and these appear to be area- and family-independent (cf. Sinnemäki, 2014)

Figure 1: Typological Map of DOM systems
• Figure 1 only represents these more typical asymmetric systems, whereas symmetric DOM is considered a subtype of non-restricted systems (*ibid*). According to Iemmolo (2013, pp. 381-7), although symmetric systems are much less common, they tend to encode alternations in object-predicate interactions - e.g. "verbal aspect/actionality, polarity and quantification"

• What is Siona DOM sensitive to? Does it behave like a typological asymmetric, symmetric or some type of hybrid system?

### 4 DOM in Ecuadorian Siona

In what follows, we present data originates from our own fieldwork in the Siona village of Sototsiaya; we use the Siona’s established orthography.

• To reiterate: there are three case-marking possibilities on Siona direct objects: -∅, -ni, -re; their distribution is captured in Table 1

<table>
<thead>
<tr>
<th>[−marked]</th>
<th>[+marked]</th>
</tr>
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<tbody>
<tr>
<td>[+animate]</td>
<td>-ni</td>
</tr>
<tr>
<td>[−animate]</td>
<td>-∅</td>
</tr>
</tbody>
</table>

Table 1: The Siona DOM paradigm

• Along the vertical axis, there is clear sensitivity to the animacy of the object in the unmarked domain. There is an asymmetric-type alternation, which is typical of referentially-triggered variation:

(3) yë’ë hueco -{re, ni, *∅}  ña-huë.
    I    parrot -{RE, OBJAN, *OBJIN} see-PAST.
    I saw a parrot.

(4) yë’ë sâquëñë -{re, *ni,  ∅}  ña-huë.
    I    tree  -{RE, *OBJAN, OBJIN} see-PAST.
    I saw a tree.

• As (3) and (4) demonstrate, the animacy-driven alternation (glossed as obj) varies with -re marking, which exhibits underspecification to the [+/- animacy] feature causing surface syncretism

• This observation is in keeping with the fact that the marker -re has a wider distribution generally - i.e., it is used to mark *experiencer objects* (Bruil, 2014) and is homophones with a locative adpositional marker. Usage of object case-markers that are homophones locative markers is noted for other languages (Bodo, see Haokip and Brahma (2018); Warlpiri, see Legate (2008); *inter alia*.)

• On the basis of the surface distributional facts, a case-marking hierarchy might be posited for objects: -re > -ni > ∅ which reflects their degree of relative markedness - i.e. a type of gradient iconicity, as an amendment to the classical functionalist terminology
• Is the straight-forwardly tripartite DOM system on the surface supported transparently in the underlying semantics of these morphemes as a three-way distinction in markedness?
• What semantic or pragmatic properties does the Siona [+marked] feature correspond to? Are there two different -re markers for animates and inanimates, or can they be unified (as syncretism might suggest)?

5 The distribution of the -re marker

• We present work in progress in describing the distribution of the -re marker, attempting to identity the semantic-pragmatic factors that affect it
• The picture emerging shows the semantics of -re is not uniform, and differs between animates and inanimates:
  – on inanimates, it encodes partitivity
  – on animates, it encodes intensionality (the object referent exists at a time or world other than the time or world of utterance)

5.1 Inanimates and partitivity effects

• A partitive object is denoted by a subpart of an individual in the domain
• Partitivity effects appear in object case-marking in Finnish, Estonian, Russian
• In Finnish (Huumo, 2010), direct objects bear partitive case if they:
  1. refer to an open, indefinite quantity
  2. are in negated sentences
  3. are in aspectually unbounded sentences
• Points 1 and 2 are observed in Siona (no clear data yet for 3)

Indefinite number

(5) a. sia mose queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño that egg.

a. all day weaving -obj
   All day I am weaving a bag.

b. sia mose queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño queño that egg.

   b. all day weaving -re
     All day I am weaving bags.

(6) a. yeye tiabē -∅ -∅
     I egg -obj eat -obj
     I want to eat that egg.

b. yeye tiabē -re -∅
     I egg -re eat -obj
     I want to eat (some of) that egg.
consultant’s comment: and share it with someone

(7)  a. yë'ë añe yëyë noca -∅.
I eat want banana -OBJ
I want to eat a banana.
consultant’s comment: one, prepared
b. yë'ë añe yëyë noca -re.
I eat want banana -RE
I want to eat bananas.
consultant’s comment: many; the whole bunch of bananas, not prepared

Negation

• There is a contrast between (7), in which -re is optional on the object, and (8), in which it is obligatory:

(8) yë'ë bâsi’i añe noca -*(re).
I neg.want eat banana -*(RE)
I don’t want to eat banana.

• The presence of -re is not about specificity or definiteness:
  – (8) can be talking about a particular banana;
  – -re is still necessary with demonstratives, as in (9):

(9) yë'ë bâsi’i añe hā noca -*(re).
I neg.want eat this banana -*(RE)
I don’t want to eat this banana/these bananas.

5.2 Animates and intensionality effects

• Tense seems to matter: far from the time of utterance, animate objects are -re-marked; around the time of utterance, animate objects are -ni-marked

Past

(10) Animates
a. cojemuse yai -re ña-huë.
yesterday panther -RE see-PAST.
Yesterday I saw a panther.
b. #cojemuse yai -ni ña-huë.
yesterday panther -OBJ see-PAST.
int. Yesterday I saw a panther.

(11) Inanimates
a. cojemuse sâquënë -re ña-huë.
yesterday tree -RE saw-PAST.
Yesterday I saw a tree.
b. cojemuse sâquënë -∅ ña-huë.
yesterday tree -OBJ saw-PAST.
Yesterday I saw a tree.

Future
(12) Animates
   a. ſaminá yai -re ſa-siyé.
      tomorrow panther -RE see-FUT.
      Tomorrow I will see a panther.
   b. #ſaminá yai -ni ſa-siyé.
      tomorrow panther -OBJ see-FUT.
      *int. Tomorrow I will see a panther.

(13) Inanimates
   a. ſaminá ſaquéñë -re ſa-siyé.
      tomorrow tree -RE see-FUT.
      Tomorrow I will see a tree.
   b. ſaminá ſaquéñë -∅ ſa-siyé.
      tomorrow tree -OBJ see-FUT.
      *int. Tomorrow I will see a tree.

Present

(14) Animates
   a. (jure) hueco -ni ſa-ñë.
      (now) parrot -OBJ see-PRES.
      I see a parrot.
   b. (jure) #hueco -re ſa-ñë.
      (now) parrot -RE saw-PRES.
      *int. I see a parrot.

(15) Inanimates
   a. (jure) saquéñë -∅ ſa-ñë.
      (now) tree -OBJ saw-PRES.
      I see a tree.
   b. (jure) saquéñë -re ſa-ñë.
      (now) tree -RE saw-PRES.
      *int. I see a tree.

Near past

(16) Animates
   a. jure hueco -ni ſa-huë.
      now parrot -OBJ saw-PAST.
      I just now saw a parrot.
   b. #jure hueco -re ſa-huë.
      now parrot -RE saw-PAST.
      *int. I just now saw a parrot.

(17) Inanimates
   a. jure saquéñë -∅ ſa-huë.
      now tree -OBJ saw-PAST.
      I just now saw a tree.
   b. jure saquéñë -re ſa-huë.
      now tree -RE saw-PAST.
      *int. I just now saw a tree.

• It is not just about tense: in the immediate future, both -ni and -re are possible, but while the referent exists at the time of utterance, -re seems to encode that it has to exist in a world other than the actual world

Immediate future

(18) jure hueco -ni ſa-siyé.
    now parrot -OBJ see-FUT
    (right now) I am about to see a parrot (I know where it is).

(19) jure hueco -re ſa-siyé.
    now parrot -RE see-FUT
    (right now) I am about to see a parrot (I don’t know where it is).

Note:

• There are no partitivity effects, or no clear effect whatsoever, observed for inanimates in equivalent sentences;
• While sensitivity to the nature of the predicate is often observed in DOM systems, it usually does not involve optionality in object marking.

6 Discussion: one or two -re markers?

• While not visible morphologically, the distribution of -re shows that there is an animacy split among [+marked] objects:
  – semantics of partitivity appears on inanimates for a particular set of predicates
  – semantics of intensionality appears on animates for a different set of predicates
• This suggests that while the [−/+animate] features are not represented morphologically, they are present underlyingly, affecting the semantic distribution of -re
• Possible directions for an analysis:
  – Polysemy: there are two -re markers, one restricted to animates, and marking intensionality, the other to inanimates, marking partitivity
  – Underspecification: the semantics of the unique -re morpheme is sensitive to animacy features
  – Unification of the semantics of partivity and intensionality: "the object referent is not a unique individual at $t_0$ and $w_0$"; but how should this interact with animacy to yield the observed distribution?

References