Interface properties of subject clitics: a study on antecedent selection

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What this talk is about

• Venetan, a northern Italo-Romance language
  • Italian Venetan: ‘homeland’ variety, spoken in North-Eastern Italy
  • Argentinian and Brazilian Venetan: ‘heritage’ varieties, spoken by communities of descendents of Venetan immigrants

• Different types of subject pronouns and their interpretation
  • Tonic, clitic and null subjects

• Antecedent selection
  • Anaphoricity and referentiality

• Discourse features and agreement
What this talk is not about

• Heritage languages and speakers
  • ‘There is no baseline for comparison’
  • Baseline = the monolingual standard of the language that served as the input for the acquisition of the heritage language (Polinsky and Scontras 2019)
  • The ‘homeland variety’ has undergone the most intensive and extensive contact with another language

• Effects of language contact and bilingualism
  • It is impossible to define quantitative and qualitative differences in the input
Previous studies on pronoun interpretation

• Montalbetti’s Overt Pronoun Constraint (OPC)
  • A null subject can be construed as a bound variable, an overt subject cannot

a. Muchos estudiantes_j creen que ___j/k son inteligentes.
   Many students think that ___ are intelligent

b. Muchos estudiantes_j creen que ellos_j/*k son inteligentes.
   Many students think that they are intelligent
   ‘Many students think that they are intelligent.’
Previous studies on pronoun interpretation

• Carminati’s Position of the Antecedent Hypothesis (PAH)
  • The null pronoun prefers an antecedent which is in the Spec-IP position, while the overt pronoun prefers an antecedent which is not in the Spec-IP position
  • The relevant syntactic positions are linked to a notion of prominence: an element in Spec-IP is more prominent than an element in a lower position.

  a. Roberto\textsubscript{j} ha insultato Ugo\textsubscript{k} quando ___\textsubscript{j} era ubriaco.
     Roberto has insulted Ugo when ___ was drunk
  b. Roberto\textsubscript{j} ha insultato Ugo\textsubscript{k} quando lui\textsubscript{k} era ubriaco.
     Roberto has insulted Ugo when he was drunk
     ‘Robert insulted Hugh when he was drunk.’
Prominence as accessibility

• Accessibility theory (Ariel 1990)
  • Different referring expressions mark different degrees of accessibility
  • Accessibility = prominence and salience in the discourse
  • Referring expressions are accessibility markers pointing to different degrees of memory availability
    • “Bigger” referring expressions evoke a new representation in the current discourse
    • “Smaller” referring expressions evoke an old representation in the current discourse

\[
\text{stressed pronoun} \rightarrow \text{clitic pronoun} \rightarrow \text{null} \rightarrow \text{null} \rightarrow +
\]

accessibility
Formal accessibility and salience

• Salience and accessibility as a context-dependent choice functions (Peregrin & von Heusinger 2004; von Heusinger 2006)
• Reference to an element $d$ of a set $D = \{d_1, \ldots, d_n\}$ of possible discourse referents associated with the descriptive content
• Some expressions can update the actual accessibility and salience of a discourse referent
Pronoun interpretation and discourse

• Antecedent selection by different pronominal forms depends on different combinations of syntactic and pragmatic factors
  • Finnish (Kaiser and Trueswell 2008), Dutch (Van Kampen 2012), Catalan (Mayol 2009), Italian (Frana 2007)

• Frana’s Discourse-Prominence Hypothesis (DPH)
  • In case of referential ambiguity, the preferred antecedent for null subjects is the most prominent discourse referent available
The discourse features

• Miyagawa’s (2010) Strong Uniformity

• All the languages share the same set of φ- and discourse- features and every language overtly manifests these features in some fashion

• All pronominal forms manifest both φ- and discourse- features

• There may be more than one discourse-feature
  • Different interpretive properties
The study

• Previous studies: varieties with two competing pronominal forms
  • Overt and null pronoun: Catalan, Italian, Spanish
  • Demonstrative and personal pronoun: Dutch, Finnish

• Venetan: three competing forms
  • Full pronouns, subject clitics, null subjects
The Venetan pronominal system

• Venetan has both tonic and clitic subject pronouns
  • Tonic pronouns are strong, clitic pronouns are deficient
  • Cardinaletti and Starke 1999

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<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
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<tbody>
<tr>
<td></td>
<td>Strong</td>
<td>Clitic</td>
</tr>
<tr>
<td>1</td>
<td>mi</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>ti</td>
<td>te</td>
</tr>
<tr>
<td>3</td>
<td>M: lu; F: ela</td>
<td>M: el; F: la</td>
</tr>
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</table>
Anaphoricity and referentiality

• Deficient elements must have an antecedent which is prominent in discourse (C&S, 1999: 50)
  • Recoverability conditions on the antecedent of deficient pronouns
  • Old information, information already introduced in discourse, familiarity, being **anaphoric in discourse**

• Strong elements refer to non prominent discourse antecedents (C&S, 1999: 52)
  • They can be **referential** without being associated with a prominent antecedent in discourse
  • Unlike deficient elements, they are not dependent on the presence of an antecedent (=they have a range)
The discourse-features on pronouns

• An element carrying the **anaphoric** feature is deficient:
  • It is obligatorily linked to an antecedent
  • It is linked to the most prominent/familiar/accessible antecedent
  • Cases of topic continuity, familiar/given topic

• An element carrying the **referential** feature is strong:
  • It must be referential
  • It can introduce or switch the reference to a non-prominent antecedent
  • Cases of obviation, switch reference, topic shift
Properties of Venetan strong pronouns

• Not obligatory
  • Venetan is a null subject language

• Normally realised when they serve some discourse function

• Their interpretation depends on a [referential] feature
Syntax of subject clitics: traditional analysis

• They are not real pronouns
  • Inflectional heads, on a par with verbal morphology

• Roberts (2010)
  • Subject clitics are φP cliticised on a T-head
  • Obligatory markers of φ-agreement

• Subject position is empty
  • Venetan is a null subject language
The distribution of subject clitic

• Subject clitics are obligatorily realised with finite verbs
  - They double lexical subjects, when present
    La Maria la ga cronpà el pan.
    the Mary she.scl has bought the bread
    ‘Mary bought bread.’

• Subject clitics must be adjacent to the verb
  - They cannot be separated from the verb by clitic or non-clitic material
    El (*senpre) dizea (senpre) cussì.
    he.scl always said always this
    ‘He always talked like this.’
The interpretation of subject clitics

• The element in the subject position (Spec-TP) can be a null *pro*

• Null *pro* is a deficient pronoun (Cardinaletti and Starke 1999)
  • It always selects a prominent antecedent in the discourse
  • It has an [anaphoric] feature (Lopez 2009)

• Subject clitics in Venetan should not interfere with this interpretation
  • They are not pronouns
Subject clitics in Brazilian Venetan

• Subject clitics are not obligatorily realised with every finite verb

  __ ga  cronpà  el  pan.
  has.3sg bought  the bread
  ‘She bought bread.’

• Subject clitics don’t have to be adjacent to the verb

  El  senpre  dizea cussì.
  he.scl always  said  this
  ‘He always talked like this.’
Other issues with the traditional analysis

• Venetan: subject clitics do not double non-dislocated subjects
  Giorgio (*el) ride senpre.  
  George he.scl laughs always
  ‘George always laughs.’

  (Benincà 1994)

• Piedmontese: subject clitics are optional

• Friulian: subject clitics are realised only when adjacent to the verb
Other issues with the traditional analysis

• Venetan: subject clitics do not double non-dislocated subjects

• Piedmontese: subject clitics are optional
  
  (A) va e (a) ven tui i moment.  
  she.scl goes and she.scl comes all the moments
  ‘She comes and goes all the time.’  

• Friulian: subject clitics are realised only when adjacent to the verb
Other issues with the traditional analysis

• Venetan: subject clitics do not double non-dislocated subjects

• Piedmontese: subject clitics are optional

• Friulian: subject clitics are realised only when adjacent to the verb

\[
(*\text{Al}) \text{ lu cjante.} \quad \text{(Benincà and Vanelli 2016)}
\]
\[
\text{he.scl it.ocl sings}
\]
\[
\text{‘He sings it.’}
\]
Subject clitics are pronouns

• They are realised in Spec-TP, as evidenced by the constraints on doubling
  Giorgio (*el) ride senpre.  
  George he.scl laughs always
  ‘George always laughs.’  
  (Benincà 1994)

• Condition of Morphological Identification (Baker, 1988)
  • Subject clitics must be adjacent to the verb in order to be morphologically realised
    (*Al) lu cjante.  
    he.scl it.ocl sings
    ‘He sings it.’  
    (Benincà and Vanelli 2016)
Subject clitics are pronouns

• Cardinaletti and Starke’s model cannot be maintained for subject clitics (Pescarini 2020)

• The alternation between different pronominal forms depends on external factors
  • Syntax-discourse interface factors

• How are subject clitics interpreted? (Carminati 2002)
  • As null subjects, selecting the most prominent possible antecedent
  • As strong subject pronouns, selecting the least prominent possible antecedent
Research question 1

• Subject clitics pattern with null subjects
  • Subject clitics select a preverbal (prominent) antecedent

• Subject clitics pattern with overt subjects
  • Subject clitics select a postverbal (less prominent) antecedent
  • This would support the idea that they are not simple agreement markers

• Subject clitics can pattern with overt or null subjects given the right interpretation
  • In order to be correctly interpreted at the interfaces, subject clitics can select either prominent or less prominent antecedents
Research question II

• All pronominal forms make use of the same features in the same way
  • The distribution of strong pronominal, clitic and null subjects depends on the same factors

• Different pronominal forms use the same features in different ways
  • The same features are involved in the distribution of overt and null forms but their contribution is different

• Different pronominal forms use different features
  • e.g. not all forms make use of discourse-features
The experiment: informants

- 68 native speakers of Venetan
  - Argentina: 3
  - Brazil: 25
  - Italy: 37

<table>
<thead>
<tr>
<th>Age group</th>
<th>Number of informants</th>
</tr>
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<tbody>
<tr>
<td>18-30</td>
<td>11</td>
</tr>
<tr>
<td>30-50</td>
<td>20</td>
</tr>
<tr>
<td>50-70</td>
<td>30</td>
</tr>
<tr>
<td>71+</td>
<td>7</td>
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</table>
The experiment: preference task

• 36 items
  • One proposed sentence (matrix clause + subordinate clause) and three possible answers

• Indicate the interpretation of the proposed sentence
  • The pronoun in the subordinate states something about the matrix subject
  • The pronoun in the subordinate states something about the matrix object
  • The sentence is ungrammatical
The task: contexts

• Temporal subordinate clauses (*when*-clauses)
  • The potential referents of the pronoun are introduced in the matrix clause and the pronoun appears as the subject of the subordinate clause.

Marco el scrivea senpre a Luca quando che lu el __ j stea mal.
Mark he.scl wrote always to Luke when that he.pron he.scl __ was sick.
‘Mark always wrote to Luke when he was sick.’
The task: contexts

• Complement clauses introduced by “that” (*that*-clauses)
  • The potential referents of the pronoun are introduced in the matrix clause and the pronoun appears as the subject of the subordinate clause.

La Maria\textsubscript{j} la \textsubscript{ga} dito a la Bruna\textsubscript{k} che \textsubscript{ela} \textsubscript{k}/ \textsubscript{la} \textsubscript{?}/ \textsubscript{___} \textsubscript{ga} da cronpar el pan.

the Maria she.SCL has said to the Bruna that she.PRON she.SCL ___ has to buy the bread

‘Maria told Bruna that she has to buy bread.’
Sentences without subject clitics

→ Recall that subject clitics should always be obligatorily realised in the proposed contexts

• Argentinian and Brazilian Venetan: always accepted

• Italian Venetan: the difference between accepted and non-accepted sentences without subject clitics is not significant
  • One-way ANOVA, *when*-clauses: F (3.08) = 0.12, p = >.05
  • One-way ANOVA, *that*-clauses: : F (3.08) = 1.42, p = >.05
Italian Venetan: Results

*When*-clauses

*That*-clauses
Italian Venetan: One-way ANOVA

• The PAH holds in both contexts: the difference in the interpretation of strong and null subjects is significant
  • *When*-clauses: $F (3.89) = 18.32, p = <.05$
  • *That*-clauses: $F (3.89) = 24.33, p = <.05$

• Subject clitics are generally interpreted as null subjects in *when*-clauses and as strong pronouns in *that*-clauses
  • *When*-clauses: $F (3.88) = 18.93, p = <.05$
    • The difference in the interpretation of pronouns and subject clitics is significant
  • *That*-clauses: $F (3.88) = 0.01, p = >.05$
    • The difference in the interpretation of pronouns and subject clitics is not significant
Brazilian Venetan: Results

When-clauses

That-Clauses
Brazilian Venetan: One-way ANOVA

• The PAH holds in both contexts: the difference in the interpretation of strong and null subjects is significant
  • *When*-clauses: $F(3.90) = 84.75$, $p = <.05$
  • *That*-clauses: $F(3.90) = 31.46$, $p = <.05$

• Subject clitics are generally interpreted as pronouns
  • *When*-clauses: $F(3.90) = 1.57$, $p = >.05$
    • The difference in the interpretation of pronouns and subject clitics is *not significant*
  • *That*-clauses: $F(3.90) = 0.33$, $p = >.05$
    • The difference in the interpretation of pronouns and subject clitics is *not significant*
Argentinian Venetan: Results

**When-Clauses**

- **Pronoun**: Spec-TP (100%), Non Spec-TP (0%), Impossible (0%)
- **Clitic**: Spec-TP (80%), Non Spec-TP (20%), Impossible (0%)
- **Null**: Spec-TP (40%), Non Spec-TP (60%), Impossible (0%)

**That-Clauses**

- **Pronoun**: Spec-TP (100%), Non Spec-TP (0%), Impossible (0%)
- **Clitic**: Spec-TP (50%), Non Spec-TP (50%), Impossible (0%)
- **Null**: Spec-TP (20%), Non Spec-TP (80%), Impossible (0%)
Argentinian Venetan: One-way ANOVA

• The PAH holds in both contexts: the difference in the interpretation of strong and null subjects is significant
  • When-clauses: F (4.49) = 65535, p = <.05
  • That-clauses: F (4.49) = 7.69, p = <.05

• Subject clitics are generally interpreted as strong pronouns
  • When-clauses: F (4.49) = 2.28, p = >.05
    • The difference in the interpretation of pronouns and subject clitics is not significant
  • That-clauses: F (4.49) = 0, p = >.05
    • The difference in the interpretation of pronouns and subject clitics is not significant
When-clauses

• Italian Venetan

Marcoj el scrivea senpre a Luca_k quando che lu_k / el_j / _j stea mal.
Mark he.scl wrote always to Luke when that he.pron he.scl _ was sick.
‘Mark always wrote to Luke when he was sick.’

• Argentinian and Brazilian Venetan

Marcoj el scrivea senpre a Luca_k quando che lu_k / el_k / _j stea mal.
Mark he.scl wrote always to Luke when that he.pron he.scl _ was sick.
‘Mark always wrote to Luke when he was sick.’
That-clauses

• All varieties:
La Maria, la _ga dito a la Bruna, k che elak/ _la,k/ __j ga da cronpar el pan.
the Maria she.SCL has said to the Bruna that she.PRON she.SCL __ has to buy the bread
‘Maria told Bruna that she has to buy bread.’
Summary of the results

• Carminati’s PAH holds in all tested contexts and varieties
  • A null subject always prefers an antecedent in Spec-TP
  • An overt subject pronoun always prefers an antecedent that is not in Spec-TP

• Subject clitics can be interpreted as strong pronouns
  • Subject clitics generally prefer an antecedent that is not in Spec-TP
  • Unexpected, if we assume that they are agreement markers and the subject position is empty
Towards an analysis

• The distribution and the interpretation of different subject types depends on two discourse-features (Lopez 2009)
  • Anaphoric → [A]
  • Referential → [R]

• Subject clitics allow for a referential interpretation

• Two-step model for antecedence (Sundaresan 2013)
What and where are discourse-features?

• A null operator in the Spec-CP of the clause containing the pronoun carries the relative discourse-features
  • Frascarelli (2007) → null AT Topic in ShiftP
  • Sigurdsson (2011) → C/Linker in CP
  • Sundaresan (2013) → null operator in PerspP
  • Arregi and Hannink (2020) → index feature in CP

• Agreement
  • Pronominal forms have a discourse-feature that needs to match the discourse-feature carried by the null operator in Spec-CP
A two-step model for antecedence

• First step: relationship between the antecedent and the null operator
  • Conceptual; it involves interface properties
  • The null operator has valued discourse features

• Mapping to antecedent: the assignment function (Sundaresan 2013)
  • The antecedent must match the phi-feature values of the null operator
  • The antecedent must hold a mental, spatial and/or temporal perspective towards the clause containing the pronoun
  • Context scanning (Sigurdsson 2011)
A two-step model for antecedence

• Second step: agreement between the null operator and the pronoun
  • Syntactic; the pronoun probes upward and has its discourse-features valued by the null operator

• There is no direct link between the antecedent and the pronoun
  • The silent operator in Spec-CP mediates between the two
[A]: The anaphoric feature

- Null subjects encode [A]:
  - They refer to the most prominent antecedent
  - Cases of topic continuity, familiar/given topic

\[ [\text{CP} [\text{TP} \text{La Maria} \ldots [\text{VP} \ldots \text{la Bruna} [\text{CP} \text{OP}[A] \text{che} [\text{TP} \text{pro}[A] \text{ga} [\text{VP} \ldots]]] \text{that}_\text{pro} \text{has.3SG} \]

mapping to antecedent / context scanning
[R]: the referential feature

• Strong pronouns carry [R]:
  • Reference is switched to the least prominent antecedent
  • Cases of obviation, switch reference, topic shift

\[
\text{[CP [TP La Maria ... [VP ... la Bruna [CP op[R] che [TP ela[R] ga [VP ...]]}}} \quad \text{that she has.3SG}
\]

mapping to antecedent / context scanning
What about subject clitics?

• Two possible interpretations

  • Anaphoric

\[
\begin{align*}
\text{[CP [TP Marco ... [VP Luca ... [CP OP[A] quando che [TP el[A] stea [VP ...]]] when that he.SCL was}\\
\end{align*}
\]

  • Referential

\[
\begin{align*}
\text{[CP [TP Marco ... [VP Luca ... [CP OP[R] quando che [TP el[R] stea [VP ...]]] when that he.SCL was}\\
\end{align*}
\]
Summary: Subject pronouns in Venetan

- [A] refers to the most prominent element of a set of possible discourse referents associated with the descriptive content.
- [R] updates the current prominence of a discourse referent.

<table>
<thead>
<tr>
<th>Subject type</th>
<th>Feature</th>
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<tbody>
<tr>
<td>Pronoun</td>
<td>[R]</td>
</tr>
<tr>
<td>Clitic</td>
<td>[A] / [R]</td>
</tr>
<tr>
<td>Null</td>
<td>[A]</td>
</tr>
</tbody>
</table>
Remaining issues

• A more refined system
  • Difference between null subjects and anaphoric subject clitics
  • Difference between tonic subject pronouns and referential subject clitics

• How many discourse features do we need?

• Binary discourse-features
  • *E.g.*: Lopez (2009): [±anaphoric]; [±contrast]
Lopez (2009): [±anaphoric]

• [+anaphoric]
  • Null subjects
  • Obligatorily linked to the most prominent antecedent
  • (Cole 2009, 2010; Frana 2007)

• [-anaphoric]
  • Subject clitics
  • The link to the most prominent antecedent is not obligatory or ‘casual’
Conclusion

• Subject clitics can pattern with overt or null subjects given the right interpretation
  • In order to be correctly interpreted at the interfaces, subject clitics can select either the most prominent or the least prominent antecedent available

• Different pronominal forms use different features
  • Null subjects encode [A] (anaphoric)
  • Strong subject pronouns encode [R] (referential)
  • Subject clitics can encode both [A] and [R]
Thank you!