



Utrecht University

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_j ha insultato Ugo_k quando ____j era ubriaco.
Roberto has insulted Ugo when ___ was drunk
 - b. Roberto_j ha insultato Ugo_k quando lui_k era ubriaco.
Roberto has insulted Ugo when he was drunk
'Robert insulted Hugh when he was drunk.'

Formal accessibility and salience

- Salience and accessibility as a context-dependent choice functions (Peregrin & von Stechow 2004; von Stechow 2006)
- Reference to an element d of a set $D = \{d_1 \dots d_n\}$ 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

	Singular		Plural	
	Strong	Clitic	Strong	Clitic
1	mi	-	noaltri	-
2	ti	te	voaltri	-
3	M: lu; F: ela	M: el; F: la	M: lori; F: lore	M: i; F: le

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

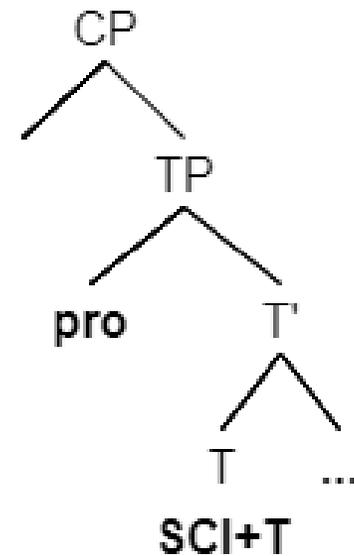


Properties of Venetan strong pronouns

- 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 ϕ P 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. *(Benincà 1994)*
George he.SCL laughs always
'George always laughs.'
- 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. *(Goria 2004)*
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
(*Al) lu cjante. *(Benincà and Vanelli 2016)*
he.SCL it.OCL sings
'He sings it.'

Subject clitics are pronouns

- They are realised in Spec-TP, as evidenced by the constraints on doubling
Giorgio (*el) ride senpre. *(Benincà 1994)*
George he.SCL laughs always
'George always laughs.'
- Condition of Morphological Identification (Baker, 1988)
 - Subject clitics must be adjacent to the verb in order to be morphologically realised
(*Al) lu cjante. *(Benincà and Vanelli 2016)*
he.SCL it.OCL sings
'He sings it.'

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 I

- 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

Age group	Number of informants
18-30	11
30-50	20
50-70	30
71+	7

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_j el _____ scrivea senpre a Luca_k quando che lu_k/ _____ el_?/ _____ 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_j la _____ ga dito a la Bruna_k che ela_k / la_? / ______i 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

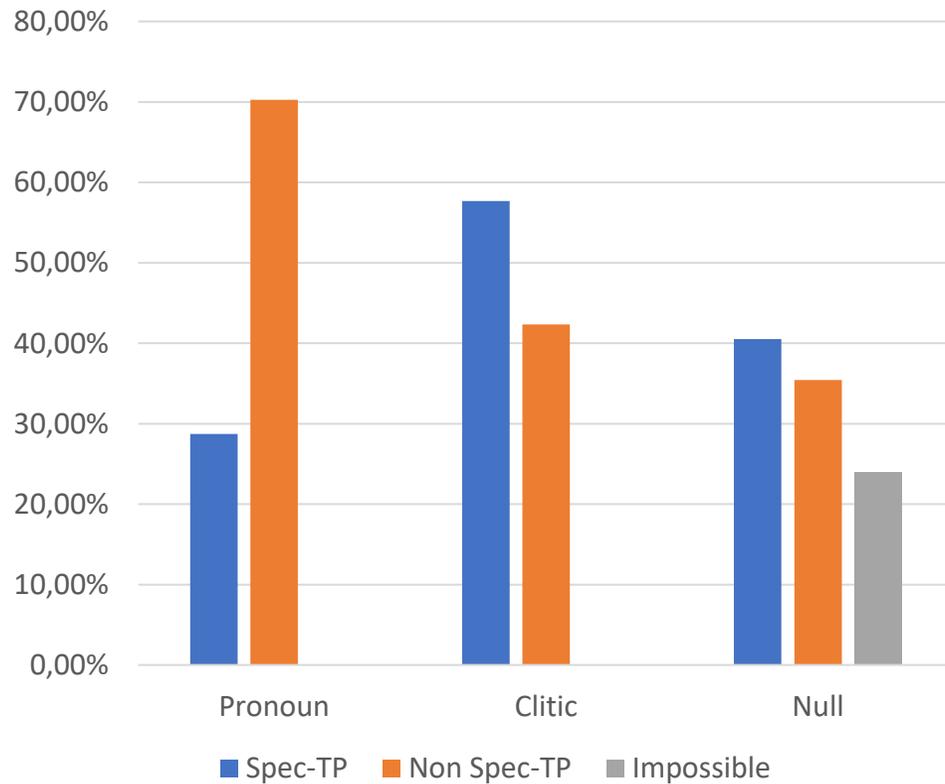
→ Recall that subject clitics should always be obligatorily realised in the proposed contexts

- 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: $F(3.08) = 1.42, p = >.05$

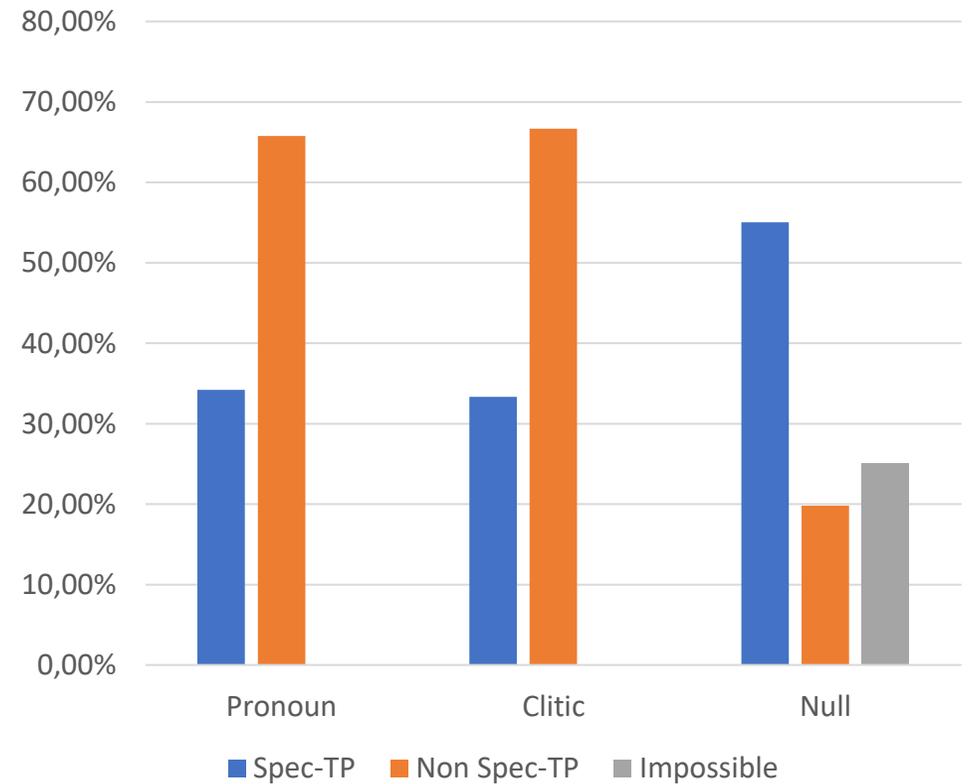


Italian Venetan: Results

When-clauses



That-clauses

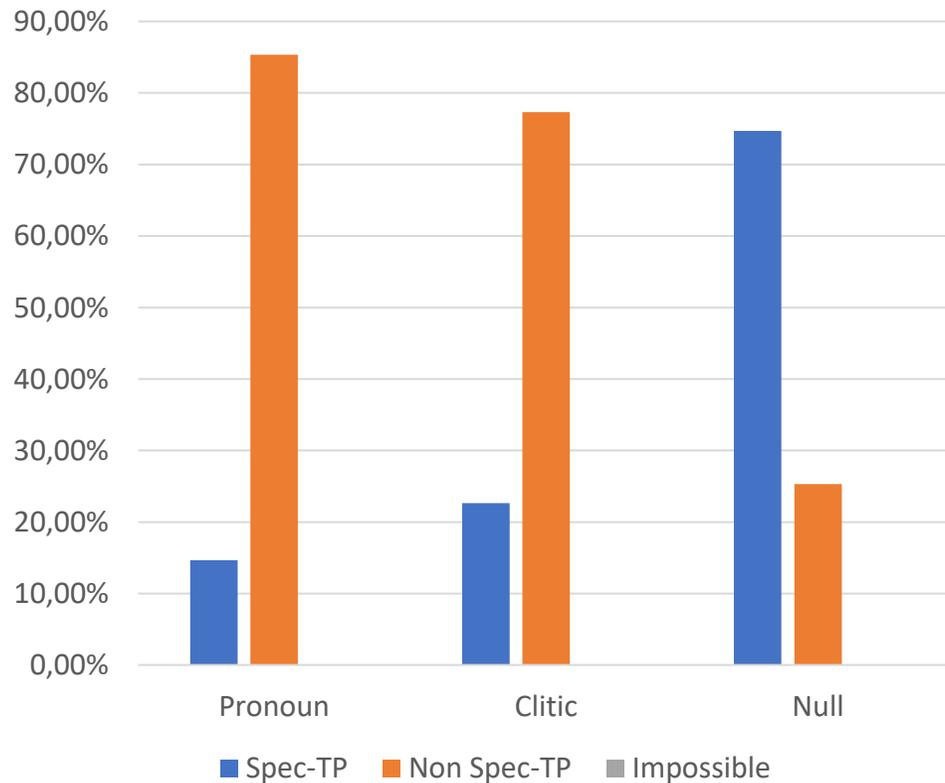


Italian Venetan: One-way ANOVA

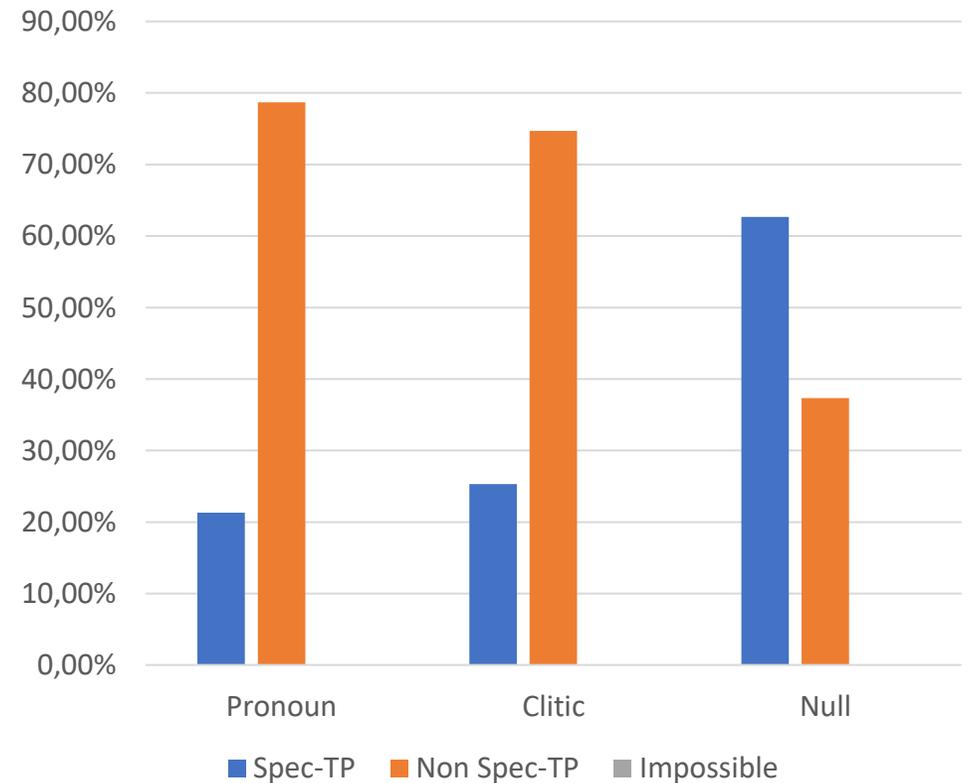
- The PAH holds in both contexts: the difference in the interpretation of strong and null subjects is significant
 - *When*-clauses: $F(3.89) = 18.32, p = <.05$
 - *That*-clauses: $F(3.89) = 24.33, p = <.05$
- Subject clitics are generally interpreted as null subjects in *when*-clauses and as strong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

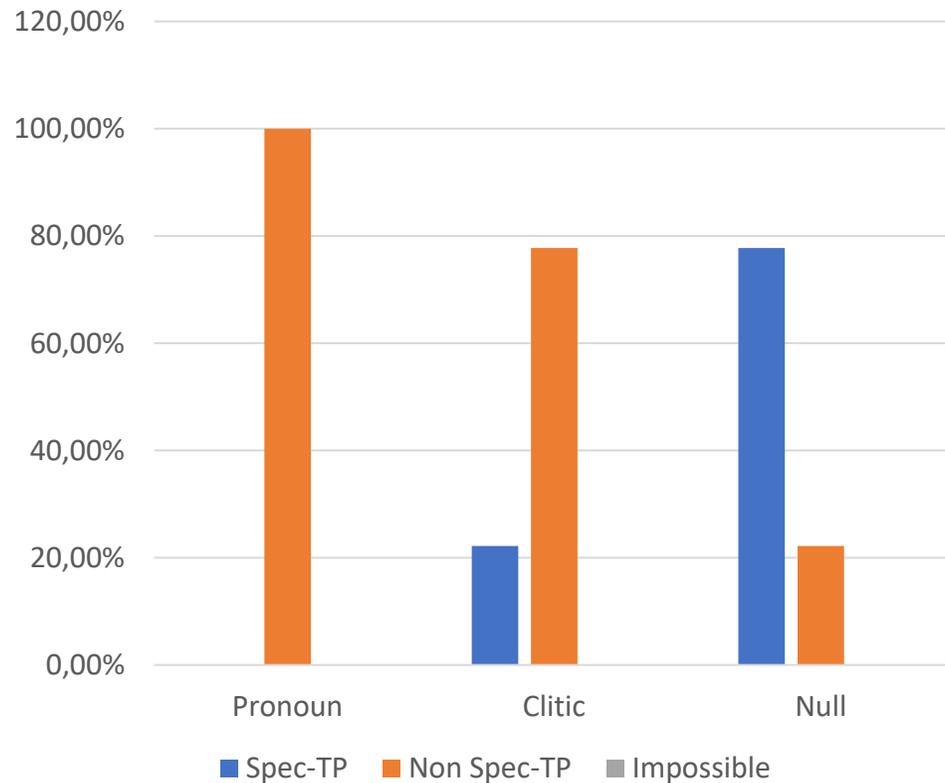


Brazilian Venetan: One-way ANOVA

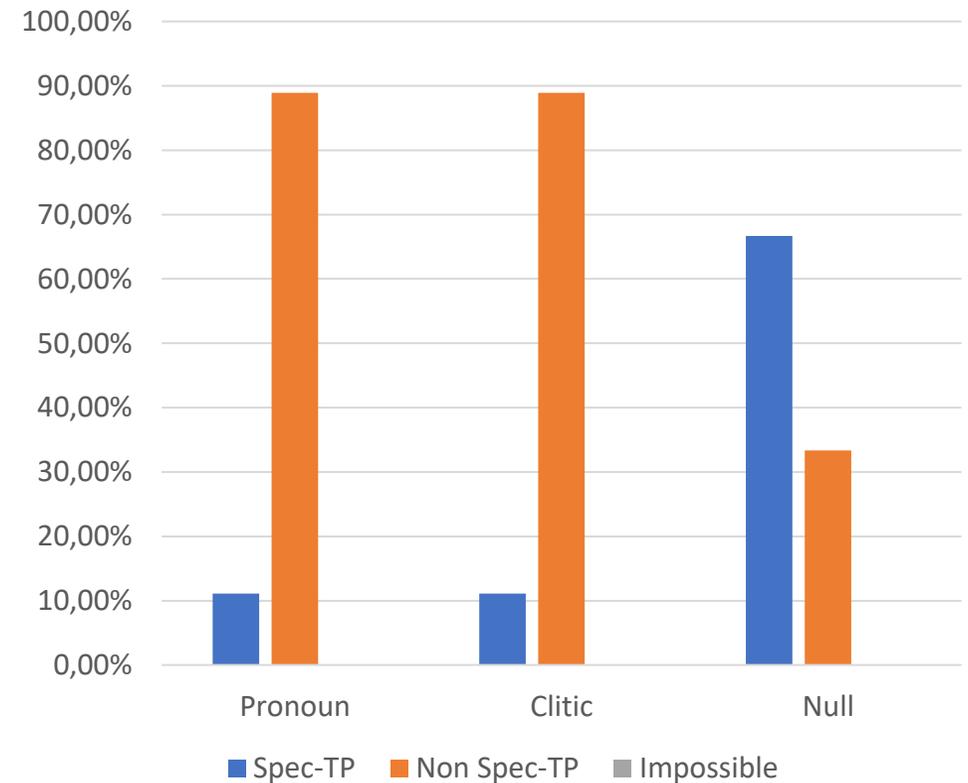
- The PAH holds in both contexts: the difference in the interpretation of strong and null subjects is significant
 - *When*-clauses: $F(3.90) = 84.75$, $p = <.05$
 - *That*-clauses: $F(3.90) = 31.46$, $p = <.05$
- Subject clitics are generally interpreted as pronouns
 - *When*-clauses: $F(3.90) = 1.57$, $p = >.05$
 - 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



That-Clauses



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

Marco_j 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

Marco_j 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_j la ga dito a la Bruna_k che ela_k / 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

[_{CP} [_{TP} La Maria ... [_{VP} ... la Bruna [_{CP} **OP**_[A] che [_{TP} **pro**_[A] ga [_{VP} ...]]]

that pro 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

[_{CP} [_{TP} La Maria ... [_{VP} ... la Bruna [_{CP} **OP**_[R] che [_{TP} **ela**_[R] ga [_{VP} ...]]]]]
that she has.3SG

mapping to antecedent / context scanning

What about subject clitics?

- Two possible interpretations

- Anaphoric

[_{CP} [_{TP} Marco ... [_{VP} Luca ... [_{CP} **OP**_[A] quando che [_{TP} **el**_[A] stea [_{VP} ...]]]
when that he.SCL was



- Referential

[_{CP} [_{TP} Marco ... [_{VP} Luca ... [_{CP} **OP**_[R] quando che [_{TP} **el**_[R] stea [_{VP} ...]]]
when that he.SCL was



Summary: Subject pronouns in Venetan

Subject type	Feature
Pronoun	[R]
Clitic	[A] / [R]
Null	[A]

- [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

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): [\pm anaphoric]; [\pm contrast]

Lopez (2009): [\pm 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]





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Thank you!