

Acceptability of active vs. pronominal voice

with Spanish and Catalan psych verbs

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- In Spanish, object-experiencer verbs are accepted in three constructions. (DAT, ACC, REFL)
- Pronominal constructions tend to be more frequent with verbs tending to a dative experiencer in their active construction. (Kailuweit & Wiskandt 2021)
- It is unclear whether these constructions carry the same acceptance in Catalan. (Royo 2020, 2021)

RQ1: How do acceptability ratings differ in Catalan and Spanish utterances containing an object experiencer verb?

- Experiencer verbs are “[a] critical area for the study of the interaction between [animacy] and [...] the thematic hierarchy [...]” (Verhoeven, 2014:130)
- Stimulus animacy predicts case marking in Spanish. (Miglio et al., 2013; taken from Ganeshan, 2019:5)
→ If animate, ACC preferred case marking for experiencer argument.
- Pijpops & Speelman (2015) have shown that Dutch OE verbs tend to prefer transitive constructions when the stimulus is animate, and reflexive constructions when the stimulus is inanimate.

RQ2: To what extent does stimulus animacy influence the voice acceptability of Catalan utterances containing an object experiencer verb?

1. Introduction - Expectations

- **RQ1:** How do the acceptability ratings differ in Catalan and Spanish utterances containing an object experiencer verb?
 - OE verbs which allow for dative and accusative experiencers will be more likely judged as acceptable in pronominal voice constructions than verbs which allow for accusative only.

- **RQ2:** To what extent does stimulus animacy influence the voice acceptability of Catalan utterances containing an object experiencer verb?
 - Animate stimuli will prefer active voice constructions, whereas inanimate stimuli will prefer pronominal constructions.

2. Methodology - Experimental Design

- Acceptability study conducted on campus on Mallorca.
- 120 experimental items: 80 filler items, 40 critical items.
- Critical items: 8 verbs with 5 voice-animacy levels each.
- Ratings on a seven point scale.
 - 1 (very bad) - 7 (perfect)

2. Methodology - Verb Selection

Verbs selected for the study by Rolf Kailuweit:

- 5 basic emotions: Happiness, Sadness, Anger, Fear, Disgust

Catalan

- 4 verbs that are accepted in ACC & DAT constructions
- 4 verbs for which DAT constructions are not as accepted



Spanish

- Cognates of the Catalan verbs
- All verbs are accepted in dative constructions according to Royo (2020)

2. Methodology - Verb Selection

Catalan	Spanish
Estranyar	Turbar
Encantar	Encantar
Molestar	Molestar
Preocupar	Preocupar
Divertir	Divertir
Espantar	Espantar
Sorprendre	Sorprender
Entristir	Entristir

Legend

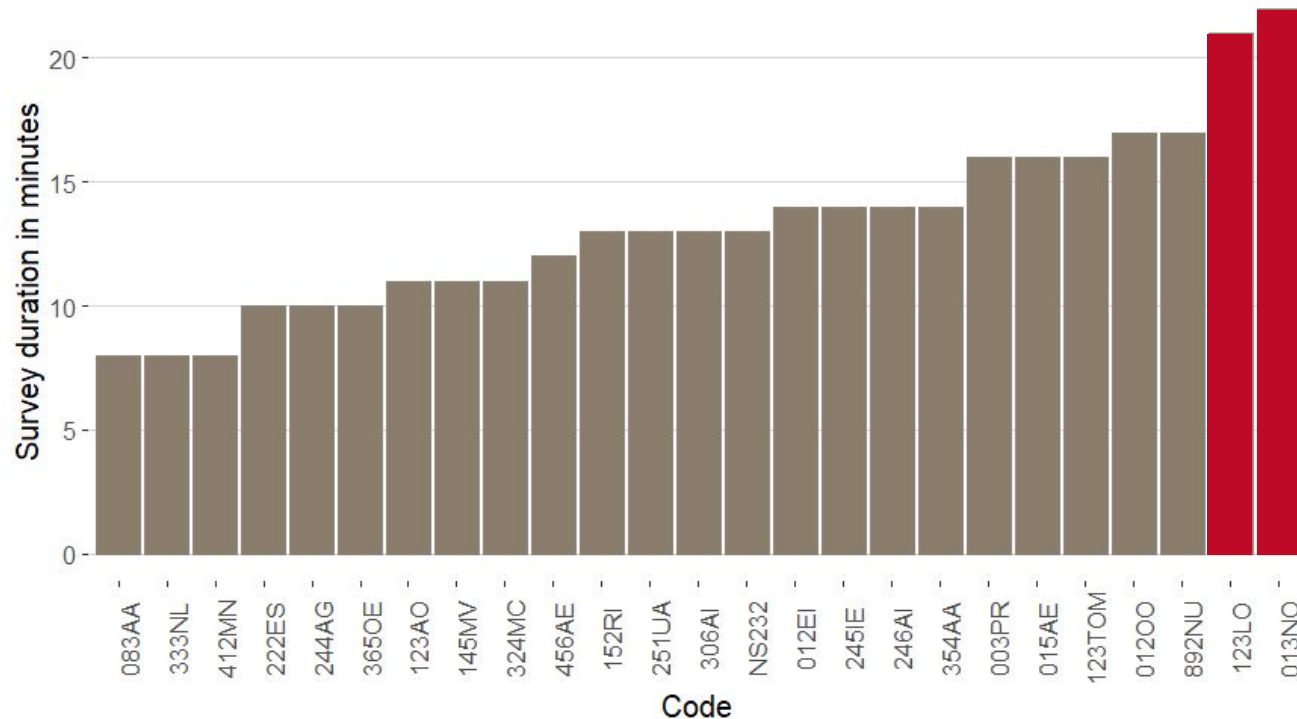
-  DAT &
ACC
accepted
-  only ACC
accepted

2. Methodology - Participants

- 25 (Catalan) & 26 (Spanish)
- Ages 19 - 43 years old (mean: 21.8; SD: 4.1)
- 5 participants excluded based on survey completion time (1.5 SD from mean)
- Resulted in 23 participants for Catalan and 23 for Spanish

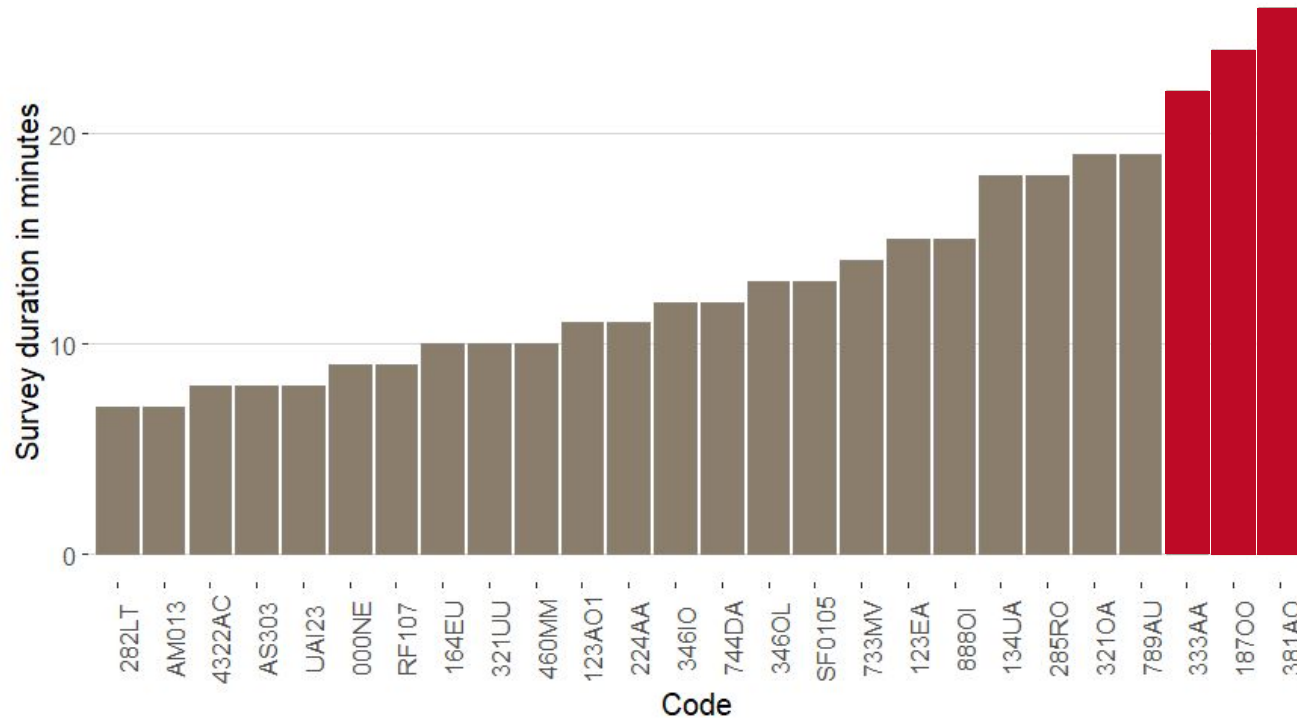
2. Methodology - Survey Completion Time

Survey duration per participant - Catalan



2. Methodology - Survey Completion Time

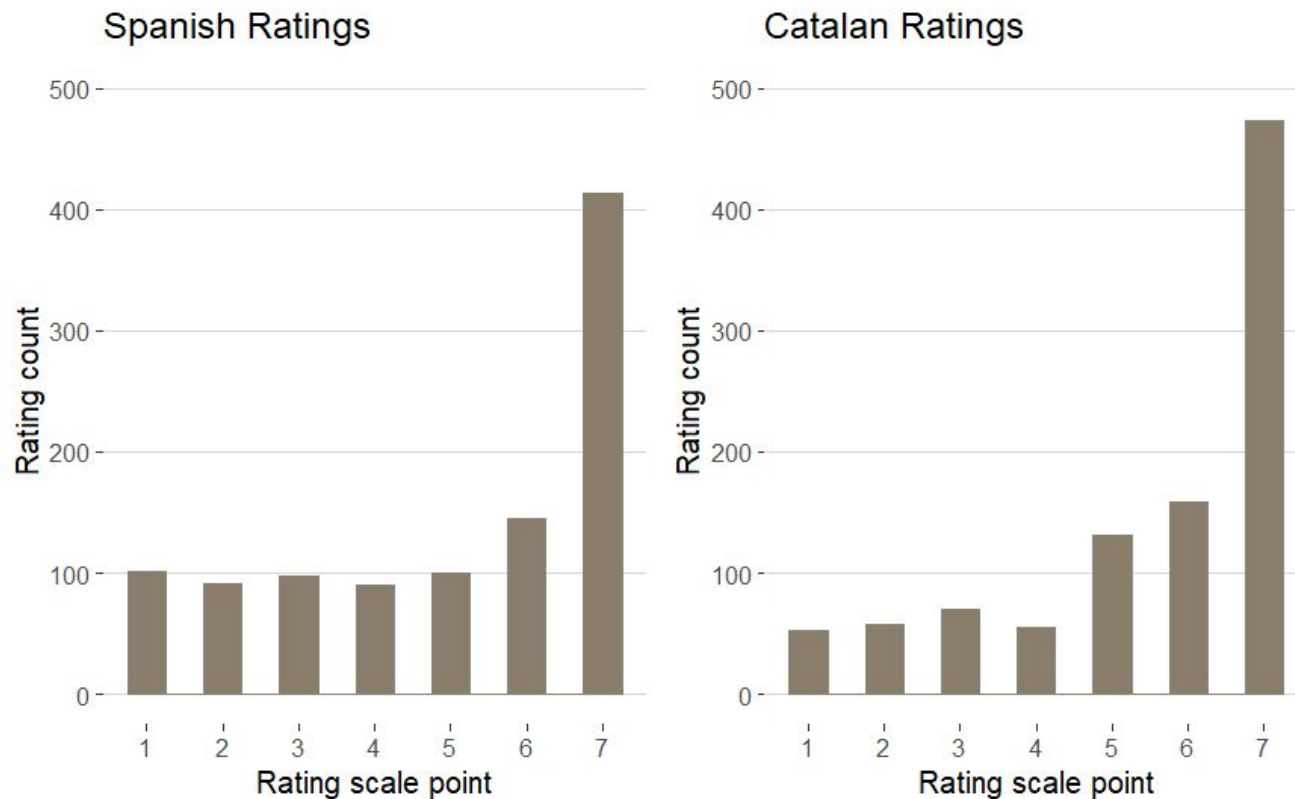
Survey duration per participant - Spanish



RQ1: How do the acceptability ratings differ in Catalan and Spanish utterances containing an object experiencer verb?

- Descriptive analysis: comparing distributions of the judgements on the Spanish and Catalan items
- Observations in our data:
 - Catalan items are more often accepted than their Spanish counterparts
 - Most items are not unanimously rated as accepted or not accepted

3. Results - RQ1



3. Results - RQ1

Ratings	1 - 3 (ESP)	4 (ESP)	5 - 7 (ESP)	1 - 3 (CAT)	4 (CAT)	5 - 7 (CAT)
Turbar / Estranyar	65.8%	8.8%	25.4%	34.8%	6.1%	59.1%
Encantar	64.3%	8.7%	27.0%	45.2%	6.1%	48.7%
Molestar	33.9%	8.7%	57.4%	17.4%	11.3%	71.3%
Preocupar	13.0%	2.6%	84.3%	2.6%	0.9%	96.5%
Divertir	10.4%	7.8%	81.7%	11.3%	7.0%	81.7%
Espantar	14.8%	14.8%	70.4%	13.0%	2.6%	84.3%
Sorprender / Sorprendre	15.7%	9.6%	74.8%	15.7%	4.3%	80.0%
Entristir	13.0%	11.3%	75.7%	13.0%	7.0%	80.0%

Observations in our data:

- Catalan items are more often accepted than their Spanish counterparts
- Most items are not unanimously rated as accepted or not accepted
- Greater difference between the two languages in overall acceptability for the pairs for which the Catalan verb accepts **both ACC & DAT** (turbar / estranyar, encantar, molestar, preocupar) than for the verbs which accept **ACC only** (divertir, espantar, sorprender / sorprendre, entristir)

Example items for the 5 voice levels in the study (encantar - ESP):

- Active voice - animate stimulus (AA): *El orador encanta al público con su discurso.*
- Active voice - inanimate stimulus (AI): *El paseo encanta al perro.*
- Pronominal voice - PP, animate stimulus (PA): *Mi amigo se encanta de la cantante.*
- Pronominal voice - PP, inanimate stimulus (PI): *Este hombre se encanta de su coche.*
- Pronominal voice - no PP (PN): *La jardinera se encanta.*



On Means and Variance:

- Mann-Whitney-U-Tests show **no significant difference in the mean ratings** between Spanish and Catalan cognates for any pair of items with the same voice level ($\alpha = 0.05$)
- Levene tests (L) and Brown-Forsythe tests (B-F) show **significant differences in the variance of ratings** between Spanish and Catalan cognates with the same voice level mostly on pronominal voice items ($\alpha = 0.05$)

3. Results - RQ1

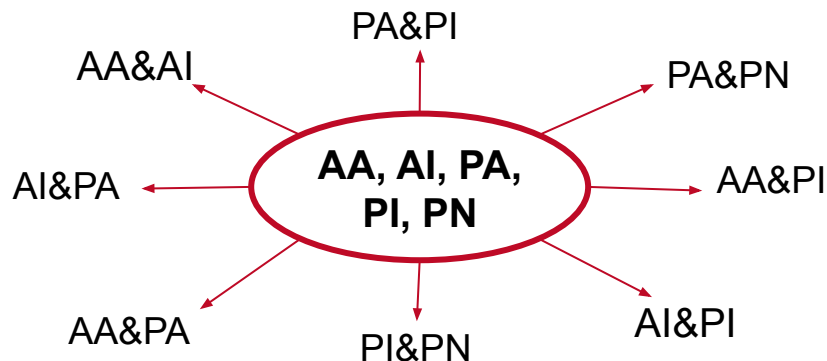
VAR DIFF	AA	AI	PA	PI	PN
Turbar / Estranyar			CAT > ESP	ESP > CAT	ESP > CAT
Encantar	CAT > ESP		CAT > ESP	CAT > ESP	
Molestar		ESP > CAT	CAT > ESP	ESP > CAT	
Preocupar		ESP > CAT	ESP > CAT	ESP > CAT	ESP > CAT
Divertir					CAT > ESP
Espantar					ESP > CAT
Sorprender / Sorprendre			ESP > CAT		
Entristir			ESP > CAT	ESP > CAT	CAT > ESP

Legend

-  not significant ($p > 0.05$)
-  both L and B-F significant ($p < 0.05$)
-  only one of L or B-F significant ($p < 0.05$)
-  missing data

RQ2: To what extent does stimulus animacy influence the voice acceptability of Catalan utterances containing an object experiencer verb?

- Tested for differences in **variance** (Levene) and **means** (Mann-Whitney-U)
 - $\alpha = 0.05$



3. Results - RQ2

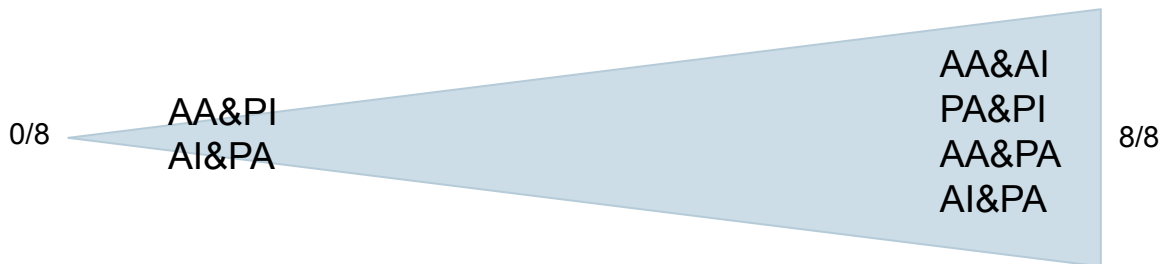
What we expected:

Least significant	Most significant	Potentially significant
AA&PI AI&PA	AA&AI PA&PI AA&PA AI&PA	PA&PN PI&PN

3. Results - RQ2

What we expected:

Least significant	Most significant	Potentially significant
AA&PI AI&PA	AA&AI PA&PI AA&PA AI&PA	PA&PN PI&PN

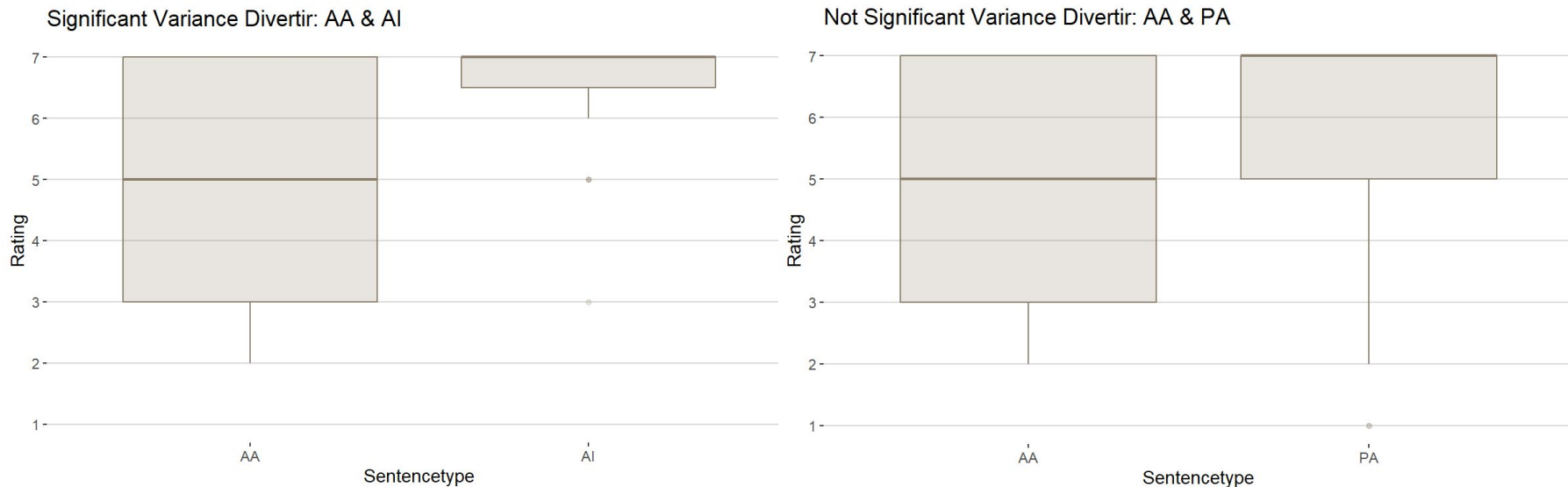


On means and variance:

- Levene tests and Mann-Whitney-U tests show **significant differences between certain voice-animacy pairs**.
- ≥ 4 verbs showed significant difference in **variance**:
→ AA&PA, AA&PI, (PA&PN, AI&PA → Tendency)
- ≥ 4 verbs showed significant difference in **means**:
→ AA&PI, AI&PA, (AA&PA → Tendency)
- But: no clear trend visible with regard to our expectations.

3. Results - RQ2

Visualization of variance:

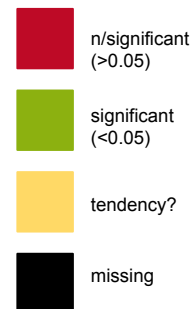


3. Results - RQ2

	AA&AI	PA&PI	AA&PA	AI&PI	PA&PN	PI&PN	AA&PI	AI&PA
All verbs								
Estranyar								
Encantar								
Molestar								
Preocupar								
Divertir								
Espantar								
Sorprender								
Entristir								

3. Results - RQ2

Legend



VAR DIFF	AA&AI	PA&PI	AA&PA	AI&PI	PA&PN	PI&PN	AA&PI	AI&PA
All verbs				0.06906				0.05559
Estranyar						0.06319	0.05282	0.06319
Encantar								
Molestar								
Preocupar								
Divertir								0.07034
Espantar								0.08667
Sorprender								
Entristir					0.0501			

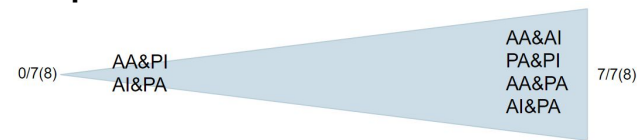
3. Results - RQ2

- 21/64 significant results for **variance** (+6 tendency cases)
- *Encantar* and *sorprendre* yielded no significant results

Number of significant results:

AA&AI	PA&PI	AA&PA	AI&PI	PA&PN	PI&PN	AA&PI	AI&PA
3	2	4	1	3(4)	2(3)	4(5)	2(5)

Expectations:



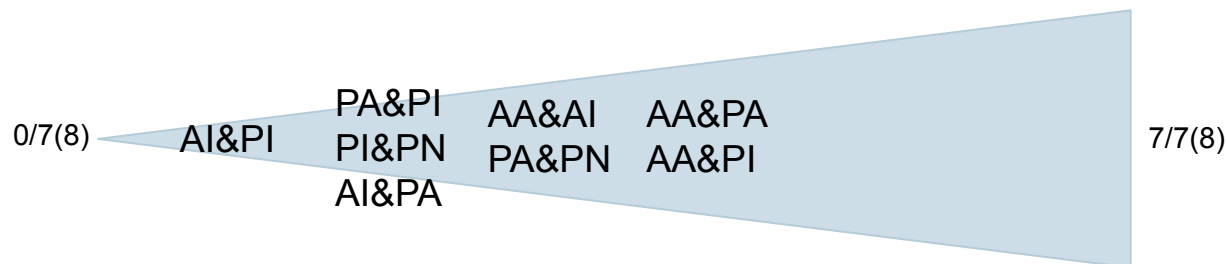
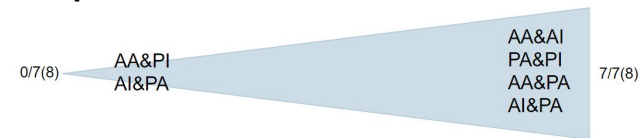
3. Results - RQ2

- 21/64 significant results for **variance** (+6 tendency cases)
- *Encantar* and *sorprendre* yielded no significant results

Number of significant results:

AA&AI	PA&PI	AA&PA	AI&PI	PA&PN	PI&PN	AA&PI	AI&PA
3	2	4	1	3(4)	2(3)	4(5)	2(5)

Expectations:



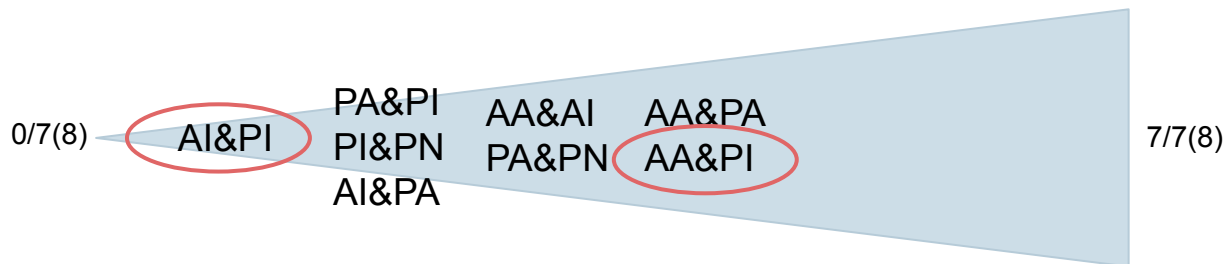
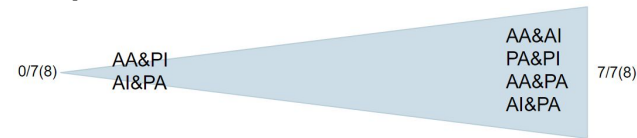
3. Results - RQ2

- 21/64 significant results for **variance** (+6 with tendency cases)
- *Encantar* and *sorprendre* yielded no significant results

Number of significant results:

AA&AI	PA&PI	AA&PA	AI&PI	PA&PN	PI&PN	AA&PI	AI&PA
3	2	4	1	3(4)	2(3)	4(5)	2(5)

Expectations:



3. Results - RQ2

MEAN DIFF	AA&AI	PA&PI	AA&PA	AI&PI	PA&PN	PI&PN	AA&PI	AI&PA
All verbs	0.05504							0.07399
Estranyar								
Encantar			0.05673					
Molestar								
Preocupar								
Divertir								
Espantar								
Sorprender								
Entristir								

Legend

- n/significant (>0.05)
- significant (<0.05)
- tendency?
- missing

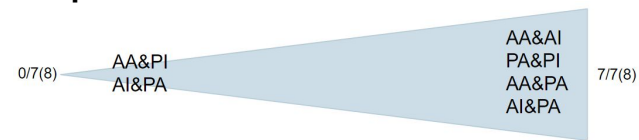
3. Results - RQ2

- 27/64 significant results for **means** (+1 with tendency case)
- *Sorprendre* yielded no significant results

Number of significant results:

AA&AI	PA&PI	AA&PA	AI&PI	PA&PN	PI&PN	AA&PI	AI&PA
2	3	3(4)	3	2	3	6	5

Expectations:



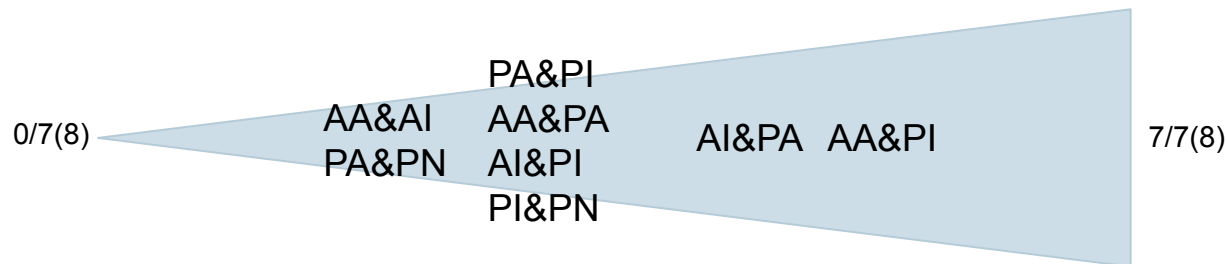
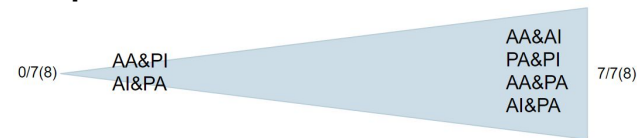
3. Results - RQ2

- 27/64 significant results for **means** (+1 tendency case)
- *Sorprendre* yielded no significant results

Number of significant results:

AA&AI	PA&PI	AA&PA	AI&PI	PA&PN	PI&PN	AA&PI	AI&PA
2	3	3(4)	3	2	3	6	5

Expectations:



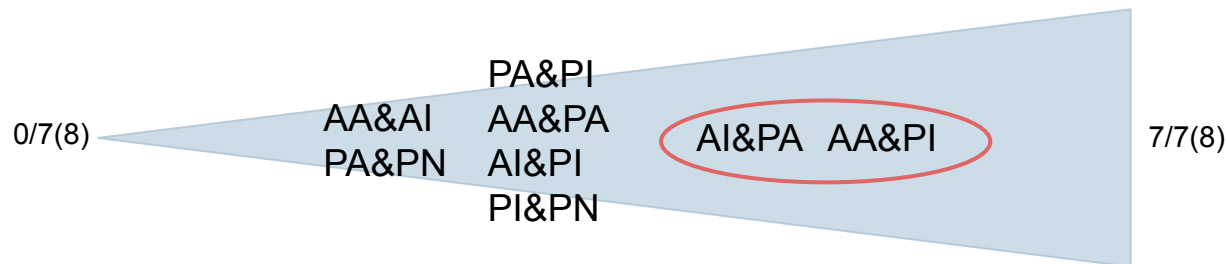
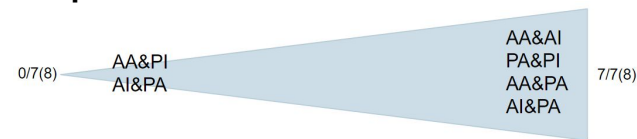
3. Results - RQ2

- 27/64 significant results for **means** (+1 tendency case)
- *Sorprendre* yielded no significant results

Number of significant results:

AA&AI	PA&PI	AA&PA	AI&PI	PA&PN	PI&PN	AA&PI	AI&PA
2	3	3(4)	3	2	3	6	5

Expectations:



4. Conclusion - RQ1

OE verbs which allow for dative and accusative experiencers will be more likely judged as acceptable in pronominal voice constructions than verbs which allow for accusative only.

- No such effect visible in pronominal voice constructions in Catalan data alone.
- OE verbs in Catalan which accept ACC & DAT experiencers tend to be more accepted in pronominal voice constructions than their Spanish counterparts.
- OE verbs in Catalan which accept ACC experiencers only generate similar acceptability ratings to their Spanish counterparts in both active and pronominal voice constructions.

4. Conclusion - RQ2

Animate stimuli will prefer active voice constructions, whereas inanimate stimuli will prefer pronominal constructions.

- No clear answer regarding initial assumption.
- No independent animacy effect.

What could be done:

- Expand analysis and take into account different parameters.
 - Interaction between agentivity and animacy regarding the test items.
- Relate our results to thematic hierarchies and agentivity of the stimuli.
 - Preferences for ES- vs EO constructions (see. Verhoeven, 2014:134)
- Rating distribution considering just stimulus animacy.

5. Acknowledgements

- We would like to thank Elga for her continued support during the project!
- Many thanks to the rest of the Linguistics Team!

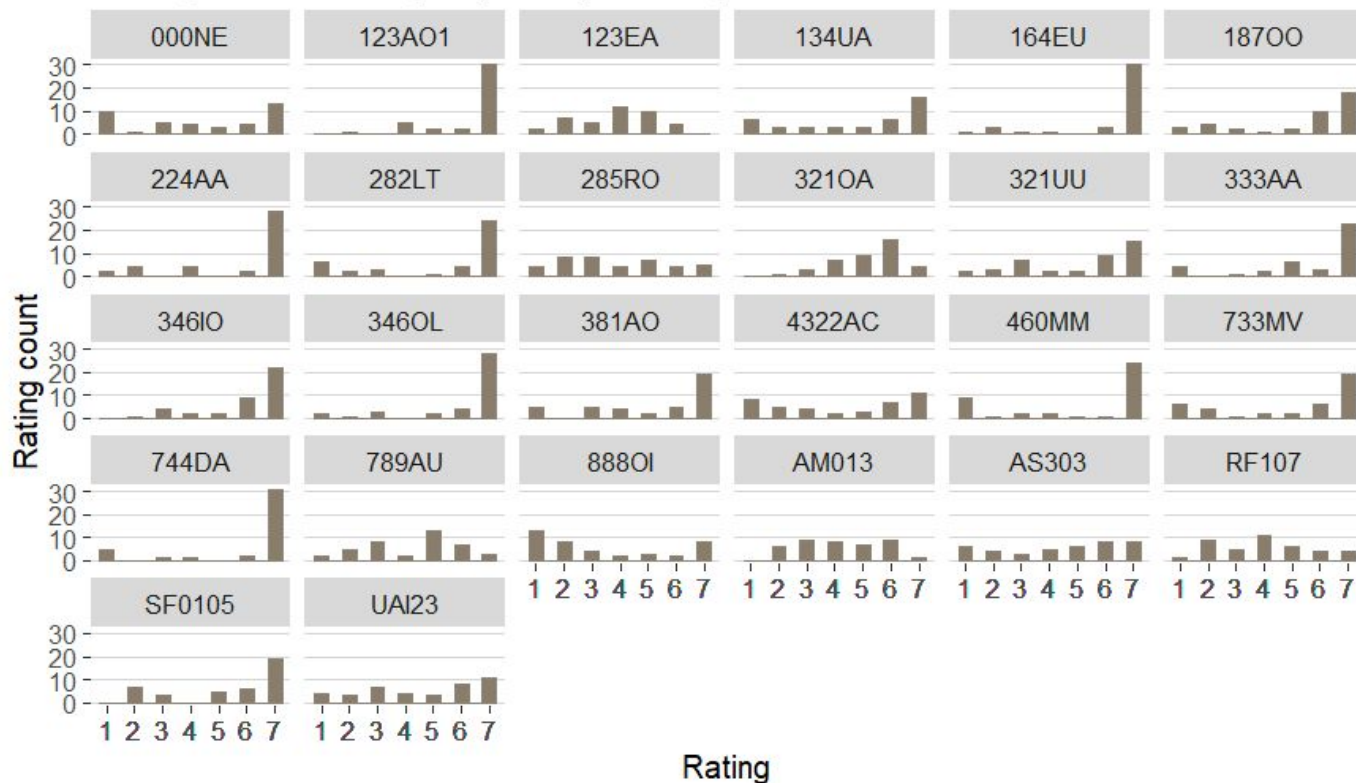
- Code & Data will be available here: <https://github.com/ansost/CaSpaSyn>

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Appendix

Rating distribution per participant - Spanish



Appendix

Rating distribution per participant - Catalan

