

Unaccusatives easier to process than unergatives:

The brains of natives and non-natives of Basque agree.

Unaccusatives versus unergatives: ERP evidence from L1/L2 speakers of Basque

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Introduction

- This study compares the electrophysiological responses of non-native speakers of Basque to native responses when processing intransitive sentences.
- We tested the Unaccusativity Hypothesis (UH) [1] by means of ERPs in Basque, where agents carry ergative case and themes do not.
- Previous behavioral evidence suggests that unaccusatives are harder to process than unergatives [2,3] among others.
- We used subject-agreement (SV) violations in unaccusative and unergative predicates and found different processing signatures for each.

Methods

- 24 native speakers of Basque (m.a. 19,5 years, 7 males) and 24 L2 speakers of Basque (m.a. 20,5 years, 5 males).
- ERPs (32 electrodes), word by word, 350 ms; ISI = 250 ms; an acceptability judgment task.
- Four lists, 416 sentences each (128 unergatives, 128 unaccusatives and 160 fillers).
- Unaccusative sentences and unergative sentences testing person (a) and number (b) agreement violations.

Materials

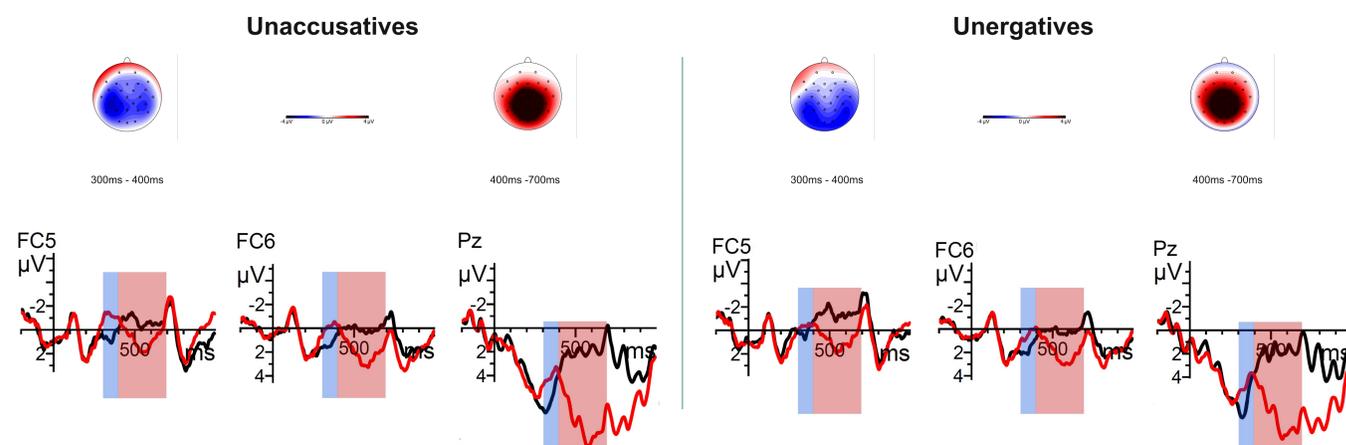
UNACCUSATIVES						UNERGATIVES							
(a) Zu	gaur	goizean	bueltatu	zara/*naiz	Bilbotik.	(PERS)	(a) Zu-k	goizean	biziki	sufritu	duzu/*dut	aurkezpenen.	(PERS)
you	today	morning	returned	aux2SG/1SG	Bilbao.from		you-ERG	morning	enormously	suffered	aux2SG/1SG	presentation.in	
(b) Hura	gaur	goizean	bueltatu	da/*dira	Bilbotik.	(NUMB)	(b) Har-k	goizean	biziki	sufritu	du/*dute	aurkezpenen.	(NUMB)
(s)he	today	morning	returned	aux3SG/3PL	Bilbao.from		(s)he-ERG	morning	enormously	suffered	aux3SG/3PL	presentation.in	

"You_{SG} / (s)he returned from Bilbao this morning."

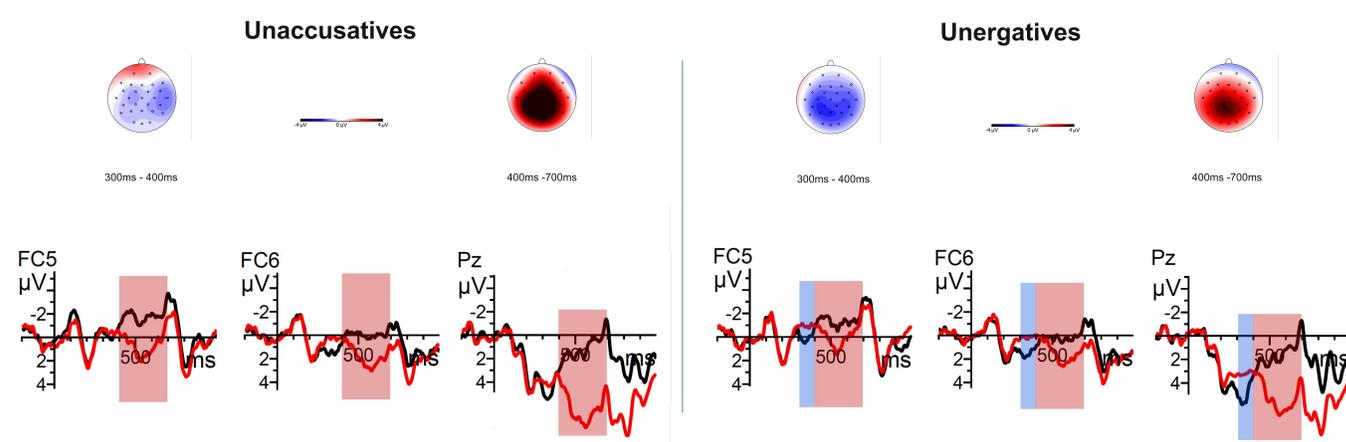
"You_{SG} / (s)he suffered enormously at the presentation this morning."

Results

Natives



Non-natives



Discussion & Conclusions

Overall, all participants showed differences with regard to unaccusatives and unergatives:

- they responded **faster** to unaccusatives than to unergatives.
- they showed **larger P600** for unaccusatives than for unergatives.

Minor native vs. non-native differences were found:

- in the early time window (300-400 ms) grammaticality effects were found in both predicate types for L1 speakers, whereas they only emerged in the unergative condition for L2 speakers.
- in the late time window (400-700 ms), verb agreement violations yielded larger positivity for the ungrammatical unergative condition in L1 than in L2 participants.

In sum, results revealed that (1) unaccusatives are easier to process than unergatives in Basque for both native and non-native speakers contrary to previous evidence [2, 3], and (2) we replicate the non-native effect for ergative marking found in [4, 5].

Acknowledgments

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Reaction Times (ms)

