

Case marking influences the apprehension of briefly exposed events

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When preparing to describe an event depicted in a picture, speakers can apprehend the who-does-what-to-whom of the event rapidly, in merely 100–300 ms (Dobel et al., 2007). Event apprehension has been argued to be a prelinguistic process (Griffin & Bock, 2000), operating before grammatical and linguistic encoding. I will present two brief exposure experiments (cf. Sauppe & Flecken, 2021) that test whether case-marking differences in Basque and Spanish can impact event role apprehension. In Basque, agentive subjects are marked by ergative and patients by absolutive case, whereas in Spanish all subjects carry the unmarked nominative case. This may require Basque speakers to commit to a subject case-mark early during planning (cf. Sauppe et al., 2021). We hypothesized that the early commitment to case-marking in Basque affords heightened attention to agents in event apprehension, as compared to Spanish.

In Experiment 1, native speakers of Basque (N=90) and Spanish (N=88) participated online and saw photographs of events (e.g., a man watering a plant) for 300 ms, followed by a description or recognition task. Experiment 2 (N=32 each) was the in-lab version and additionally measured gaze allocations to pictures. Accuracy in tasks and fixations to event pictures were analyzed with Bayesian hierarchical regression models. Results showed that Basque speakers named and recognized agents more accurately and fixated more often on agents than Spanish speakers. By contrast, Spanish speakers fixated more on patients and actions and recognized them more accurately than Basque speakers. I will discuss these results by comparing them to previous studies on event apprehension and sentence production, and I will propose that the grammatical features of a language can modulate early processes, such as event apprehension.

References:

- Dobel, C., Gumnior, H., Bölte, J., & Zwitserlood, P. (2007). Describing scenes hardly seen. *Acta Psychologica*, 125(2), 129–143. <https://doi.org/10.1016/j.actpsy.2006.07.004>
- Griffin, Z. M., & Bock, K. (2000). What the Eyes Say About Speaking. *Psychological Science*, 11(4), 274–279. <https://doi.org/10.1111/1467-9280.00255>
- Sauppe, S., & Flecken, M. (2021). Speaking for seeing: Sentence structure guides visual event apprehension. *Cognition*, 206, 104516. <https://doi.org/10.1016/j.cognition.2020.104516>
- Sauppe, S., Choudhary, K. K., Giroud, N., Blasi, D. E., Norcliffe, E., Bhattamishra, S., Gulati, M., Egurtzegi, A., Bornkessel-Schlesewsky, I., Meyer, M., & Bickel, B. (2021). Neural signatures of syntactic variation in speech planning. *PLOS Biology*, 19(1), e3001038. <https://doi.org/10.1371/journal.pbio.3001038>