



## CONFERENCE

Thursday April 4 2024, 16:00h-17:00h

Facultad de filosofía y letras

English department seminar

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### *Task-evoked pupil response for voluntary, incentivised, and cued language switching in Spanish-Basque bilinguals*



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Switching between languages has been shown to incur cognitive costs for bilinguals. The extent of such costs, however, seems to at least partly depend on whether speakers are forced to switch languages or given the choice of when to switch. While prior research has primarily focused on language-switching in production, studies on language-switching in comprehension remain scarcer. Additionally, the potential effect of reward incentives on language-switching costs remains unknown, with just a few studies on how monetary rewards impact allocation of cognitive resources in a monolingual listening setting. We addressed these gaps by exploring language-switching costs among Spanish-Basque bilinguals in a two-sentence perception task. Participants were presented with different language combinations under cued (i.e., forced), voluntary, and incentivised (i.e., different language combinations rewarded with bonus money each trial) switching conditions. Language switching costs were measured using the task-evoked pupil response, a well-known index of cognitive effort. Preliminary data indicates that the greatest pupil response was elicited in the cued condition, followed by the incentivised and voluntary conditions. Moreover, only the cued block appears to incur a language-switching cost (i.e., a difference in pupil response between switch and no-switch trials). These results are consistent with production studies finding greater difficulty (here reflected as higher cognitive effort) when language-switching is cued as compared to voluntary. Further, we interpret the reduced language-switching costs in the incentivised block as reflecting a boost in motivation related to the monetary incentives. By shedding light on the cognitive mechanisms underlying language switching and the potential effect of reward incentives, this study will contribute to our understanding of bilingual language processing.

