**Within- versus between-language selection in bilinguals**

After several decades of research on bilingualism, many studies have shown that the two languages of a bilingual speaker (extended to all languages of a multilingual speaker) are constantly co-activated during language production (Costa, 2005; Kroll et al., 2006; Kroll & Gollan, 2014). This means that when an English-Spanish bilingual is speaking in English, English words are activated from the lexicon and selected for production, but Spanish words are also co-activated. Once acknowledged the co-activation of words from both languages/lexicons for language production, it remained to explain how bilingual speakers can efficiently select a word in the intended language without frequent intrusions from the unattended language (i.e., capacity of producing 'cat' and not 'gato' when speaking in English).

Most non-selective models propose that the word in the unattended language is inhibited in order to reach the intended word selection and production (Green, 1998; Kroll et al., 2008). When an English-Spanish bilingual intend to produce the word 'cat', the translation equivalent in Spanish 'gato' is co-activated in the brain. This co-activation of a translation equivalent similar in form makes production faster, but a mechanism of inhibition has to be at place to resolve lexical competition and to select the word in the intended language (i.e., so that the word 'gato' is inhibited, and the selected word is the word in the appropriate language, 'cat').

Interestingly, this mechanism of "selection by inhibition" has been recently challenged by a new proposal claiming that no inhibitory mechanism is needed to produce words in the intended language, and that word selection is identical in bilinguals and monolinguals (Blanco-Elorrieta & Caramazza, 2021). The authors suggest that selecting a word in the appropriate language is similar (and is achieved through the same mechanisms) to selecting a word in the appropriate register. For instance, if one wants to speak about their pet in a formal register (and not an informal one), they have to select the word 'dog' and not the co-activated word 'pooch'. The authors argue that similar mechanisms are at play when one wants to speak about their pet in the L1 (and not in the L2), and thus selects the word 'dog' and not the co-activated word 'perro'.

This recent proposal is of high interest and relevance, and challenges the current opinion on inhibition in bilingual language production. Despite its merits, this proposal can still be challenged, and it is unclear whether and how it could explain some effects typically observed in bilingual language production, such as, for instance, the 'Reversed language dominance effect' (Goldrick & Gollan, 2023) and the 'n-2 repetition cost' (Declerck & Philipp, 2018).

The present research project aims to compare within- and between-language control in bilinguals, to test this recent alternative proposal. Bilingual participants will be asked to switch between languages or between registers depending on a cue (1 and 2 for dominant language/register versus non-dominant language/register). The main goal of this project will thus be to develop an experiment directly aimed at testing whether word access and selection is similar within- and between-language, i.e., whether mechanisms of word access and selection are the same in a monolingual- and bilingual-mode, with no specific selection/inhibition mechanisms at play in the bilingual mind.

The selected candidate will build the material, program the experiment, collect and analyze behavioral data. They will interpret these data in light of predictions made by the standard vision of language selection and the new proposal tested.

Applicants should be comfortable programming with Python and/or R, with basic to advanced knowledge of statistics.

The experiment can be developed in English, French or Spanish and be run onsite (if in Spanish) or online. Applicants should speak at least one of those 3 languages to build materials and interact with participants.

The work will take place at the *Basque Center on Cognition, Brain and Language (BCBL)* in San Sebastian, Spain.

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