

Does Grosjean's Language Mode require Variable Language Activation?

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Grosjean (1997, 2008) proposes that variation in the activation of a bilingual's languages – being sensitive to the situation – accounts for differences in observed levels of language mixing. He calls this variation *language mode*. De Groot (2011:293f) writes that the findings of Dewaele (2001) suggest an alternative account of differences in bilingual output, in which a bilingual's languages are equally active at all times and variation is explained by varying degrees of monitoring. She concludes that *it remains to be seen whether ... adaptability concerns fluctuations in the degree of activation of the bilingual's two language subsets or fluctuations in the attentiveness of a mental monitor that watches over the output of the language system* (p. 294). In this talk, we argue that output monitoring - well supported in the literature (see e.g. Levelt 1989, Hartsuiker & Kolk 2001, Severens et al. 2012) - is insufficient on its own to explain all the experimental evidence on bilingual control. We therefore suggest that, rather than being alternatives, differential activation and differential monitoring are both essential components of the spoken language production system.

First, we argue that use of L1 and L2 in bilinguals results in different lexical competitor sets, reflecting different levels of language activation. This argument is based on three event-related potential (ERP) studies. Botvinick et al. (2001, 2004) interpret the ERP factor known as error-related negativity (ERN), as marking the conflict in selecting between incompatible alternatives. Ganushchak & Schiller (2009) show that the ERN in bilinguals using their L2 in a phoneme-monitoring task is much greater than that found by participants using their L1 (Ganushchak & Schiller 2006). Participants in the latter study are referred to as monolinguals, but were most likely Dutch undergraduates who are typically proficient in English. That the L2 of the participants in the 'monolingual' task did not result in additional ERN suggests that lexical competitors from that language were not activated in their response, while in the 'bilingual' task L1 lexical competitors were strongly activated as well as L2 forms. This difference cannot be accounted for by monitoring itself, as the ERN marks conflict in the input to the monitoring process. The conclusion is that the level of activation of L2 relative to L1 varies according to whether speakers are responding in L1 or L2. This supports an activation account of language mode.

Further support comes from Bartolotti & Marian's (2012) eye-tracking study comparing the degree to which monolinguals and bilinguals are distracted by L1/L2 competitors to forms in a newly acquired artificial lexicon. Bilinguals were found to be less prone to distraction than monolinguals. Because this study is about interference in perception, rather than production, the difference in results cannot be accounted for by the action of a production monitor. We interpret this result as reflecting the bilinguals' ability to lower the levels of language activation in non-target languages, as in the activation account of Grosjean's monolingual mode.

These studies show that bilinguals' flexibility in managing lexical competition can only be the result of situation-sensitive shifts in language activation. Consequently, a complete model of language production must include both differential activation and monitoring.

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