

## Lessons from a ‘damaged brain’: Language without Executive Functions

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In the literature, the term code-mixing/switching refers to examples such as (1) in which the speaker merges grammatical structures of different languages into one coherent sentence.

- (1) *Dáwè ló nò flín mì qò la vie est un combat.* [Gungbe/French]  
man DET HAB remind 1SG that DET life is DET struggle  
‘The man reminds me that life is a struggle.’

While example (1) is produced by a neuro-typical brain (i.e., that of this author), Fabbro (1999: 153-5) reports example (2) uttered by an aphasic polyglot suffering from pathological code-mixing.

- (2) *In Canada? Co facevo la via? I was working with ce faccio coi .... [...] e dopo di note lavoravo for I martesi.* [Italian/English]

One cannot distinguish between (1) and (2) formally: the cognitive process underlying the selection of the relevant linguistic components of code-mixing appears to be undamaged in this aphasic speaker. The switching points as well as the resulting morphosyntax converge in the minds of the speakers of both examples. What is impaired in the aphasic patient (2), however, seems to be the inhibitory mechanisms responsible for deactivating lexical selection from the competing languages (cf. Abutalebi, Miozzo and Cappa 2000: 54).

Studies on code-mixing generally focus on its form and cross-linguistic commonalities, but not much is known as to how learners acquire this knowledge. How come any speaker having access to more than one externalization channel acquires code-switching even if this linguistic behavior is not favored or allowed in her/his speech community? Likewise, why do speakers produce structurally similar utterances even though they operate on formally different languages (Gungbe/French vs. Italian/English in 1 and 2), and evolve in different speech communities?

In answering these questions, I argue that the fact that the cognitive process underlying code-mixing in (1) is entrenched in speakers, and prevails in absence of relevant executive functions (2), suggests that it is a basic property of the human learning device. I show that this process, *recombination*, is present in all learners (monolinguals and bilinguals alike). During acquisition, recombination allows learners to select relevant linguistic features from heterogeneous inputs and recombine then into a mental grammar whose extensions represent individual idiolects, which Aboh (2015) characterizes as hybrid grammars. This view further suggests that learners develop an array of grammars that are combined during communication. Following this line of thought, I propose a view of the Human Language Capacity in which recombination is fully automated while selection of a relevant vocabulary for spell-out purposes is mediated through Executive Functions.

### References

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