Incongruent grammar
Can the model cope?

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Lillo-Martin, Müller de Quadros and Chen Pichler (2016; hereafter LQC) propose the use of the Language Synthesis model in order to account for aspects of bilingual production, in particular production in the context of bimodal bilingualism. In the case of bimodal production, code-blending is the challenge to any model since the bimodal elements, words and signs, are produced simultaneously. LQC provide an interesting account of code-blending which is certainly worth exploring with more data. I wish to raise two considerations here: (i) the challenge of grammatical mismatching where different arguments are produced in the two modalities, and, following from that, (ii) the scope of LQC’s model.

A common type of code-mixing in spoken languages is congruent lexicalisation (Muysken, 2000), and congruent lexicalization is also by far the most frequent in code-blending. An example from our database on the acquisition of Dutch Sign Language (NGT) from one of the deaf parents shows how there can be a very close match, both lexically and grammatically, in the two modalities.

(1) NGT: MISTER STRONG TAKE CANNONBALL
Dutch: meneer sterk pakt kogel
mister strong takes cannonball

(Van den Bogaerde, 2000: 185)

In this example, there are no lexical mismatches, but this possibility is accounted for in the Synthesis model by allowing a choice from different lexical lists. The problematic examples for the model are those in which there is a grammatical mismatch. Some of these involve different forms of grammatical marking, as in (2).

1. This database was collected at the University of Amsterdam between 1990 and 2000. Three deaf children of deaf parents were followed from the diagnosis of deafness until the age of eight years. Three hearing children of deaf parents were also followed.
The question marking in the NGT part of the utterance is in the form of a non-manual with scope over the whole utterance, whereas in the Dutch part the question is marked only in the form of a final tag ‘ok?’. According to the Language Synthesis model, different sets of syntactic operations can be applied to the two lexical lists (LQC, p. 744), thus making (2) possible.

Example (3) is more challenging. Here, the subject (in the form of an index) and the verb are produced in NGT, but the object argument (the ball) is produced in Dutch simultaneously with the subject argument produced in NGT. The word order in NGT sentences is often SOV, while the order in Dutch main clauses is SVO. LQC’s model adopts the late linearization proposal of Donati and Branchini (2013). That is, different parts of the syntactic hierarchy are generated in the two modalities and organized in terms of word order only later in the derivation.

This solution would seem fit within the Language Synthesis model, but the mechanism of the late linearization is not entirely clear. What is the syntactic structure that the two modalities are fitting into? In the case of example (3), the question is whether the structure has the order SOV since the two arguments are produced simultaneously.

Following on from this lack of clarity about the syntactic structure, it is unclear what the model does not allow. In other words, it is unclear what the constraints are. In the following example (4), it seems that in the first clause the grammar of NGT has been followed and applied to Dutch lexical items. However, the Dutch temporal conjunction als ‘when’ is produced, so it is not simply a case of applying NGT syntax. The resulting structure is not target-like in Dutch either. If it were, it should have been als we het boek gelezen hebben, dan gaan we een huis bouwen.

The Language Synthesis model needs to account for such utterances, in which the syntactic constituents do not follow the same target grammar. It is not clear how
the operations for each constituent are constrained. Is it possible in bilingual bimodal production for two grammars to be combined in all possible permutations? LQC (p. 744) claim “However, in most of the cases we have observed, only one set of operations is needed”. This statement needs to be verified and linked to the idea of grammatical constraints. Is it relevant that the examples presented by LQC predominantly come from deaf adults from whom Dutch is a second language?

Several studies have reported code-blended utterances, involving different pairs of signed and spoken languages, such as ASL and English, NGT and Dutch, LIBRAS and Brazilian Portuguese. Nevertheless, the data we have are still quite limited. It is not at all clear how many cases there are that exemplify the outcomes of a so-called “incongruent grammar”. Is it relevant if there are only relatively few cases? A model should be able to deal with them all.

In conclusion, we need a great deal more data from different types of signers/speakers in order to understand the linguistic constraints on this type of mixing.

References


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