

## Verbal mismatch in French Right-Node Raising: Speeded grammaticality judgments

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In a series of corpus studies and acceptability judgment experiments, Shiraishi et al. (2019) found that, contrary to previous accounts, in cases of verbal mismatch, phonological identity between the missing material and the shared element does not make sentences like (1a) more acceptable than phonological non-identical examples like (1b).

- (1) a. Many people already have, and some soon will **bet** on Catalan independence.  
b. Some new hybrid models already have, and others soon will **appear** in the automobile industry.

They argue that the generally high acceptability of these types of mismatches argues against repair models (Arregui et al. 2006; Frazier 2013), which assume that some mismatches can be easily repaired leading to some kind of grammaticality illusion.

The data presented by Shiraishi et al. only concern off-line acceptability judgments. It has been shown however (Gimenes et al., 2009) that even undisputedly ungrammatical sentences (in this case doubly embedded relative clauses missing a verb) can be judged more acceptable than their grammatical counterparts. Measures like eyetracking on the other hand showed processing cost even when acceptability judgments didn't.

The missing difference between phonological identical and non-identical verbal mismatches found by Shiraishi et al. for English and French is somewhat surprising from what is known about homophone errors in written French. Written errors in French are very common, especially for homophone errors [for example, see Largy, Fayol, & Lemaire, (1996) for verb-noun homophones and Hemforth, Fayol, & Pacton (2010) for verb-adjective homophones]. These errors are often morphosyntactic, for example the use of the plural of nouns (-s) instead of the plural of verbs (-ent) or vice versa. French speakers (both children and adults) not only produce more errors with homophones but are also less sensitive to these types of errors when they read them. From these data, we might have predicted that homophonic mismatches should be easier for RNR as well. Clearly, replication studies using paradigms that tap more directly into processing cost are needed.

In this paper, we will present a series of experiments looking at tense mismatch in sentences like (2a,b) for match, and (2c,d) for mismatch, as well as cases of verbal mismatch in RNR constructions (3a,b) for match and (3c,d) for mismatch, looking at homophonic (2a, c, 3a,c) as well as non-homophonic (2b, d, 3b,d,f) cases. The RNR experiment also includes ungrammatical mismatches like (3e,f) as controls. We will use the speeded grammaticality judgments (SGJ) paradigm, which allows to analyze binary judgments as well as reaction times.

- (2) a. Tu as parlé à ta voisine. / You have talked to your neighbour.  
b. Tu as vu ta voisine. / You have seen your neighbour.  
c. Tu as parler à ta voisine. / You have talk to your neighbour.  
d. Tu as voir à ta voisine. / You have see your neighbour.

- (3) a. Suite aux cambriolages, les policiers auront bientôt ou ont déjà parlé avec tous les voisins.  
Following the burglaries, the police will soon have or have already spoken with all the neighbours.
- b. Suite aux cambriolages, les policiers auront bientôt ou ont déjà vu tous les voisins.  
Following the burglaries, the police will soon have or have already seen all the neighbours.
- c. Suite aux cambriolages, les policiers vont bientôt ou ont déjà parlé avec tous les voisins.  
Following the burglaries, the police will soon or have already spoken with all the neighbours.
- d. Suite aux cambriolages, les policiers vont bientôt ou ont déjà vu tous les voisins.  
Following the burglaries, the police will soon or have already seen with all the neighbours.
- e. Suite aux cambriolages, les policiers vont bientôt sans aucun doute parlé avec tous les voisins.  
Following the burglaries, the police will soon without any doubt spoken with all the neighbours.
- f. Suite aux cambriolages, les policiers vont bientôt sans aucun doute vu tous les voisins.  
Following the burglaries, the police will soon without any doubt spoken with all the neighbours.

For the moment, we only have data for the tense mismatch SPR experiment (96 items, 36 participants). We are currently running the speeded grammaticality RNR experiment (48 items, 25 out of 60 planned participants so far). In the grammaticality judgment task on tense mismatches, we found participants to detect errors in the non-syncretic (non-homophonic) case significantly better and faster (all  $p$ s < .001; Figures 1 and 2). Two possible outcomes can be predicted for the RNR experiment. Similar to Shiraishi et al., we may find that mismatch is only detected as a grammatical error in the ungrammatical cases (3e,f). The more intuitive judgment task as well as reaction time measures obtained in the SGJ paradigm may however show a more fine-grained picture showing differences between homophonic and non-homophonic cases. Applying the SGJ paradigm to Right-node Raising will thus shed some more light on the processing cost of RNR. EEG experiments using the materials of these studies are planned as soon as lab space will be accessible.

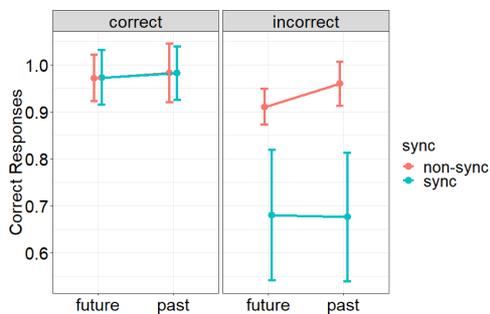


Figure 1

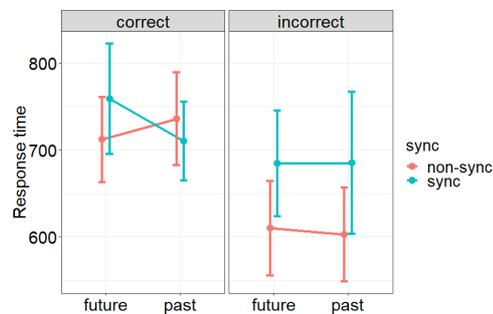


Figure 2

Arregui, Ana, Charles Clifton, Lyn Frazier & Keir Moulton. 2006. Processing elided verb phrases with flawed antecedents: The recycling hypothesis. *Journal of Memory and Language* 55. 232–246. DOI: <https://doi.org/10.1016/j.jml.2006.02.005>

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