

SYNTACTIC PREDICTION IN CHINESE-ENGLISH BILINGUALS: EVIDENCE FROM *EITHER/HUÒZHĚ*

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Language users can predict the upcoming information during comprehension. It remains unclear, however, whether bilingual and second language (L2) speakers could predict to the same extent as native speakers do. Up till now, most studies have focused on lexico-semantic prediction, comparing L2 speakers with first language (L1) speakers. These studies have yielded conflicting results (see Kaan & Gruter, 2021, for a review).

In the current study, we reexamined whether bilinguals can predict upcoming syntactic information similarly in their L1 and L2 using a within-participants design. In a self-paced reading experiment, we explored whether C-E bilinguals could predict the upcoming conjunction “or/huòzhě” upon encountering the sentence-initial “either/huòzhě” in both English and Chinese. Sixty-four intermediate to advanced C-E bilinguals (mean age=21.3, $SD=2.9$) were paid to participate. They were randomly assigned to one of four lists, yielded by crossing experimental conditions (“either/huòzhě” vs. no “either/huòzhě”) with language (English vs. Chinese). Each list contained 32 critical sentences and 96 fillers of unrelated structures. Half of the critical and filler sentences were in Chinese and half in English. Within each list, the Chinese and English sentences were presented in two separate blocks, with the presentation order (Chinese first vs. English first) counterbalanced across lists. Sentences were read in a word-by-word, self-paced moving window display.

The prediction effect was based on measuring participants' RTs on sentences like (1-2). For each item, we analyzed RTs on the *or/huòzhě* NP region (e.g., *or John* in 1, *huòzhě péngyou* in 2), the immediately preceding NP (*a cake, fángzi*), and the two following words (*will make; jiègěi, le*). For multi-word regions, RTs were summed across the words in that region.

(1) [*Either*] *Peter will bake a cake or John will make some cookies*

(2) [或者] 小李 卖掉了 房子 或者 朋友 借给了 他 钱。

[*Either*] Xiao Li sell LE (Perfective) house or friend lend LE him money

Trans: [*Either*] Xiao Li sold the house or his friend lent him money.

Data were analyzed with linear mixed-effect regression models. Raw RTs were log-transformed for statistical modeling. The critical predictors were the presence of “either/huòzhě” and language (L1 vs. L2). All categorical predictors were centered using contrast coding. The results showed that at the critical *or/huòzhě* NP region, the effect of “either/huòzhě” was significant, $b=-0.043$, $SE=0.012$, $t=-3.698$, $p=.000$, indicating that participants read faster when “either/huòzhě” was present. The effect of language was also significant, $b=-0.593$, $SE=0.012$, $t=-50.840$, $p=.000$, indicating that participants read Chinese faster than English. Crucially, the interaction between “either/huòzhě” and language was not significant, $b=0.038$, $SE=0.023$, $t=1.611$, $p=.107$, indicating that syntactic prediction in the L1 and L2 didn't significantly differ from each other.

Our findings suggest that at the syntactic level, bilinguals can predict to a similar extent in the L2 as in the L1, supporting the view that the mechanisms underlying L1 and L2 sentence processing are fundamentally the same (Kaan, 2014).