

L1 attrition and re-immersion effects on pronoun resolution in Italian

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Abstract

We investigate whether L1 attrition effects on anaphora resolution exist and whether they decrease with L1 re-immersion. In order to address this question we administered an offline sentence comprehension task to a group of 20 Italian-Swedish late bilinguals and a control group of 21 Italian monolinguals. The late bilinguals were adult native speakers of Italian who had left Italy after puberty and had lived in Sweden for at least seven years. The monolinguals were adult native speakers of Italian who had grown up and lived in Italy at the time of the study. The bilinguals were tested once before their summer holidays in Italy (L1 re-immersion) and once directly after. The control group was also tested twice. According to the *Position of Antecedent Strategy* or *PAS* (Carminati, 2002), when interpreting an intra-sentential anaphora, Italian speakers prefer a null pronoun in a topic-continuity context, when there is no change in subject reference while, in a context of topic-shift, they prefer an overt pronoun, which is associated with a change in reference from the subject to the object (1). In Swedish, on the contrary, null pronouns in finite clauses do not exist, which gives rise to ambiguity with respect to the antecedent of the pronoun.

- (1) Andrea_i ha conosciuto Jacopo_j quando *pro_i/lui_j* lavorava in una clinica privata.
 ‘Andrea met Jacopo when he was working in a private clinic.’

Following the *Interface Hypothesis* (Sorace & Filiaci, 2006) we expect the bilinguals to display effects of attrition on anaphora resolution. Moreover, in line with previous studies (i.e., Tsimpli, Sorace, Heycock, & Filiaci, 2004) we expect that attrition effects will be seen on sentences containing an overt pronoun. Secondly, in line with the *Activation Threshold Hypothesis* (Paradis, 1993) we expect that bilinguals display recovery effects after L1 re-immersion (e.g., Chamorro, Sorace, & Sturt, 2015). In order to test these expectations, globally ambiguous sentences such as (1) were presented to the participants on a computer screen; each sentence was followed by a comprehension question. Their task was to choose the antecedent of the pronoun (i.e., either the subject or the object), by pressing button “1” or “2” on the keyboard. The stimuli consisted of 90 sentences: 20 target sentences (10 with null pronouns and 10 with overt pronouns) and 70 fillers. Participants’ choices were measured, as well as their response times and reading times.

Firstly, compared to monolinguals, bilinguals report an overall significant lower degree of consistency with the PAS ($p=0.014$). Secondly, compared to monolinguals, bilinguals assign consistently less often overt pronouns to objects in the first session (Fig. 1), while, after the re-immersion, the difference in antecedent assignment between the two groups almost disappears for the overt pronoun condition. However, Figure 2 shows, for the null pronoun condition, larger variability in the bilinguals’ data compared to the monolinguals, a result that is not consistent with previous findings that attrition effects are limited to overt pronouns. In terms of response times, the bilinguals performed more similarly to monolinguals after the re-immersion (Fig. 3). In fact, while in the first session the bilinguals are faster in the null subject condition than in the overt subject condition, in the second session the opposite pattern is observable, with faster responses for overt pronouns than for null pronouns. On the other hand, the monolinguals are always faster in the overt subject condition.

Finally, for reading times, data show a small difference between sentences containing null pronouns and sentences containing overt pronouns, for both groups (Fig. 3). This outcome suggests that target sentences have the same level of difficulty. These results suggest that L1 attrition effects on anaphora resolution seem to have an impact not only on overt pronouns but on null pronouns as well. The improvement found also in the monolingual group, especially on sentences containing a null pronoun, do not allow us to draw a strong conclusion on the ephemerality of attrition effects.

Figure 1: Response proportions.

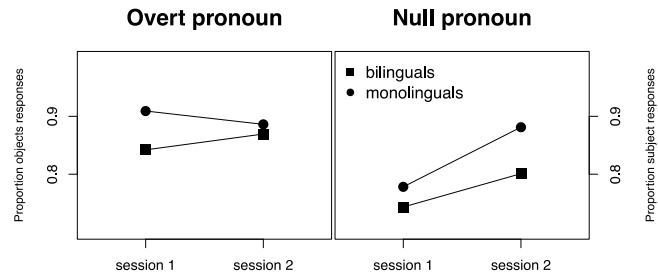


Figure 2: Distribution of preferences.

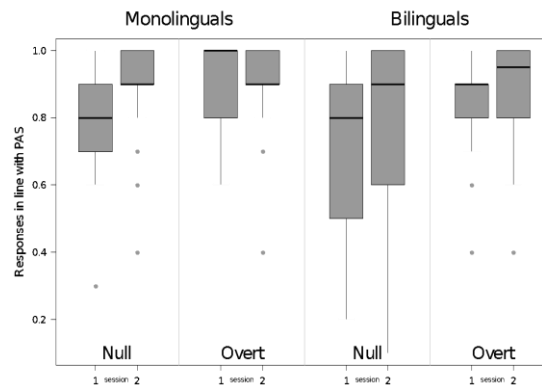
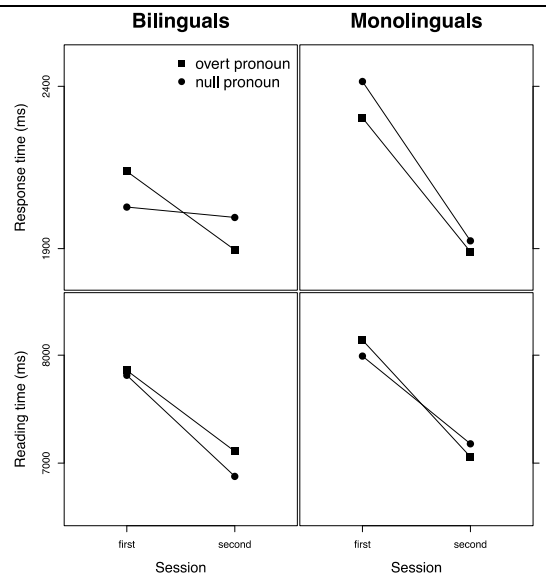


Figure 3: L1 re-immersion effect in reading times and response times.



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