Pseudorelatives and L1-Attrition

Alex Cairncross, Margreet Vogelzang, and Ianthi Tsimpli

The University of Cambridge

Given ambiguous strings as in (1), speakers of languages like Spanish (or Italian) resolve this ambiguity by preferentially attaching the non-matrix clause to the first DP ('high attachment') while speakers of languages like English preferentially attach it to the second DP ('low attachment'; Cuetos & Mitchell, 1988).

(1) Pedro se enamoró de la hija₁ del psicólogo₂ que estudió en California.

'Peter fell in love with the daughter1 of the psychologist2 who studied in California.'

Following Grillo and Costa (2014), the difference in biases owes to a structural difference. Namely, Spanish and Italian admit pseudorelatives (PR) but English does not. PRs, while string identical to relative clauses, are a type of small clause and force attachment to the first DP (Grillo & Costa, 2014). When PRs are locally blocked, languages like Italian display a low attachment bias although PRs act as the online parsing default (Grillo & Costa, 2014; Pozniak et al., 2019). Under L2-immersion, these biases have been observed to change i.e. they attrite. Dussias (2003) explored items like (1) with L1-Spanish speakers in the United States (average years of residency = 7.5) via a sentence interpretation task. Results indicated that while monolingual Spanish speakers overwhelmingly selected the first DP (74%), the experimental group selected the first DP at a significantly lower rate (28%). As their experiment did not divide their items by PR availability, it is unclear whether the results indicate an across-the-board effect or a change only in PRs.

To explore this, **an online interpretation task** was conducted in Italian. Sentences were presented written alone and followed by a *who*-question with the 2 possible DP responses. **Critical items** like (2) consisted of 24 sentence pairs from Grillo and Costa (2014) in which PR availability is manipulated by the matrix predicate (PR-Condition: perceptive; non-PR-Condition: stative).

(2) Gianni (ha visto / vive con) il figlio del medico che correva.

'Gianni (saw / lives with) the son of the doctor who was running.'

Participants consisted of a control group (Italians in Italy, N = 25) and an experimental group (N = 32). The experimental group had lived in an English-speaking country for a minimum of 2 year (average > 4.45 years) and were proficient in their L2 English (average self rating = 8.69/10).

Global attachment preferences are presented in Table 1. Responses were coded as \pm high attachment and entered in a mixed effect logistic regression as the dependent variable with *condition* and *group* as predictors. The model also included random effects of *item* and *participant* and is reported in Table 2. **Results** indicated a main effect of condition ($\beta = 3.30$; z = 12.51; p < 0.01) with high attachment being significantly more frequent in PR taking items. They did not indicate an effect of group nor an interaction of group by condition. As such, these results do not replicate the findings in Dussias (2003) in Italian and the role of PRs in attrition remains unclear.

As the average L2-immersion of our participants was less than in Dussias (2003) and 25/32 participants in the experimental group reported recently having visited Italy prior to testing, the absence of a group effect in the present study may be due to attrition having a later onset or a re-exposure effect (cf. Chamorro et al., 2015). In response, a new experimental group is being collected (currently N = 23) who have been immersed in their L2-English for a minimum of 6 years (cf. Tsimpli et al., 2004, currently average = 15.92 years) and have not visited Italy in the 3 months prior to testing. Their global attachment rates are presented in Table 3. This new experimental group is noticeably older than the original control group (new experimental group average: 44.30 years; original control group average: 31.04 years) and the difference is significant under a Welch's t-test (p < 0.01). As such, a new control group is also being collected prior to statistical modelling.

Tables

Group	PR	RC-Only
Control	77.67%	25.67%
Experimental	70.05%	17.72%

Table 1: Experiment A High Attachment Rates

	Estimate	Std. Error	z-value	<i>p</i> -value
Intercept	1.53	0.36	-4.29	<0.01
Condition	3.30	0.26	12.51	<0.01
Group	-0.54	0.45	-1.21	0.23
Condition:Group	-0.16	0.33	-0.48	0.63

 Table 2: Experiment A Regression Output

Group	PR	RC-Only
New Experimental	63.33%	17.73%

Table 3:	Experiment B	High Attachment Rat	tes
		0	

References

- Chamorro, G., Sorace, A., & Sturt, P. (2015). What is the source of L1 attrition? the effect of recent L1 re-exposure on spanish speakers under L1 attrition. *Bilingualism: Language and Cognition*, *19*(3), 520–532. https://doi.org/10.1017/s1366728915000152
- Cuetos, F., & Mitchell, D. C. (1988). Cross-linguistic differences in parsing: Restrictions on the use of the late closure strategy in spanish. *Cognition*, *30*(1), 73–105. https://doi.org/10.1016/0010-0277(88)90004-2
- Dussias, P. E. (2003). Syntactic ambiguity resolution in L2 learners. *Studies in Second Language Acquisition*, 25(4), 529–557. https://doi.org/10.1017/s0272263103000238
- Grillo, N., & Costa, J. (2014). A novel argument for the universality of parsing principles. *Cognition*, 133(1), 156–187. https://doi.org/10.1016/j.cognition.2014.05.019
- Pozniak, C., Hemforth, B., Haendler, Y., Santi, A., & Grillo, N. (2019). Seeing events vs. entities: The processing advantage of pseudo relatives over relative clauses. *Journal of Memory* and Language, 107, 128–151. https://doi.org/10.1016/j.jml.2019.04.001
- Tsimpli, I., Sorace, A., Heycock, C., & Filiaci, F. (2004). First language attrition and syntactic subjects: A study of greek and italian near-native speakers of english. *International Journal of Bilingualism*, 8(3), 257–277. https://doi.org/10.1177/13670069040080030601