Anastasia Paspali

Humboldt-Universität zu Berlin

Processing gender attraction in Native and Heritage Greek: evidence from self-paced listening

Introduction A growing body of literature explores attraction errors (i.e. agreement violations in the presence of an intervener) which might occur during production and might go undetected in comprehension (e.g. Wagers et al 2009, Vigliocco & Nicol 1998). Up to date most of work on online comprehension of attraction errors focuses on number agreement in English. However, only few studies (e.g. Tucker et al. 2016; for Arabic; and Slioussar and Malko 2016 for Russian) investigate gender agreement showing that when present, gender attraction is weaker than number attraction. Meanwhile, research on **heritage acquisition** has pointed out that gender agreement errors are more robust in production tasks with various groups of Heritage Speakers (HSs) (e.g. Montrul 2008), although highly proficient HSs perform at ceiling.

Aim of the study This study examines the processing of gender attraction by Greek Native Speakers (NSs) and HSs of Greek living in Germany targeting on two structurally different configurations, namely adjectival predication and pronominal reference. The aim is i) to explore how the two groups process gender ungrammaticalities, and ii) whether they are sensitive to attraction manipulations. To address (i), agreement violations between a direct object and a past participle (Experiment 1) or an object clitic (Experiment 2) were tested. To address (ii), the gender value of the attractor was manipulated (see below).

Method & Predictions Participants listen to the sentences (followed by comprehension questions) segment by segment (self-paced listening) by pressing a button on the response box while their Reaction Times (RTs) are measured. Longer RTs on the critical segment reflect sensitivity to grammaticality manipulations. With regard to aim (i), a main effect of grammaticality is expected if participants detect ungrammaticalities (Condition2>Condition1), while for aim (ii), an interaction is expected (Condition2>Condition1 and Condition4=Condition3) if attraction occurs.

The pool of participants comprises 40 adult Greek HSs raised and living in Germany, namely second generation immigrants exposed from birth to Greek at home and sequentially or simultaneously to German (age of onset to bilingualism: 0-4 years old). Additionally, 40 NSs of Greek are currently being tested (data collection for the group of NSs now in progress).

Results Preliminary results from the past participles (Experiment 1) with 38 HSs and 10 NSs suggest that for the neuter head-nouns, HSs detect gender ungrammaticalities on the critical segment when the attractor matches the gender of the head-noun (Condition1<Condition2) (*p.* = 0.027). At the same time, they exhibit temporary attraction effects with equal RTs between Condition3 and Condition4 (marginal interaction, *p.* = 0.089). However, they tend to recover on the post-critical segment, exhibiting longer RTs in Condition4 (*p.* = 0.013). This does not seem to be the case for the feminine head-nouns, where HSs do not process ungrammaticalities with neuter targets at all. On the contrary, NSs seem to react to all ungrammaticalities suggesting that they are not sensitive to gender attraction.

Summary The present study compares the native and the heritage grammar with respect to gender attraction during online comprehension. Its contribution lies in that it tests attraction with *nominal agreement* and not verbal agreement as in previous studies. Moreover, it uses a different modality (i.e. auditory), given that previous studies have only used reading tasks to explore attraction (only one off-line study with auditory task on nominal agreement in Spanish by Scontras et al. under review). This allows us to draw a comparison between the different methods which are used to explore similar phenomena.

Experiment 1: adjectival predication with neuter heads (feminine heads were also tested with the corresponding manipulations)

Condition1: o Janis / vrice / to kutáli / ja to γlikó / leroméno…   (NEUT-NEUT-NEUT)

Condition2: o Janis / vrice / to kutáli / ja to γlikó / *leroméni…   (NEUT-NEUT-*FEM)

Condition3: o Janis / vrice / to kutáli / ja ti súpa /   leroméno…   (NEUT-FEM-NEUT)

Condition4: o Janis / vrice / to kutáli / ja ti súpa /   *leroméni…   (NEUT-FEM-*FEM)

'John found the spoon.NEUT for the cake.NEUT/the soup.FEM stained.NEUT/*FEM'

Selected references

Montrul, S. (2008). *Incomplete Acquisition in Bilingualism. Re-examining the Age Factor.* Amsterdam: John Benjamins. **Scontras, G., Polinsky, M., & Fuchs, S**. (under review). In support of representational economy: Agreement in heritage Spanish. **Slioussar, N. and Malko, A.** (2016). Gender agreement attraction in Russian: production and comprehension evidence. *Front. Psychol.* 7: 1651**. Tucker, Matthew A., Idrissi, A. and Almeida, D.** 2016. Attraction effects for verbal gender and number are similar but not identical: Self-paced reading evidence from Modern Standard Arabic. Ms. (submitted), NYU Abu Dhabi & Qatar University.