

Interpretation of Anaphors in Verbal Ellipsis: Evidence from Heritage Turkish

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Introduction. Resolving dependencies in verbal ellipsis requires linking the elided information to the prior clause [4,5]. Verbal ellipsis with pronouns (1)-(2) also involves ambiguity between strict (*Noah defended John's friend; Mert defended Ali's friend*) and sloppy (*Noah defended Noah's friend; Mert defended Mert's friend*) interpretations. While VP-Ellipsis (VPE) in English is well-researched, questions remain about similar structures in other languages [5,8,9]. This study thus examines Turkish Heritage Speakers' (HSs) interpretational preferences for verbal ellipsis in their dominant language (DL), English, and their weaker heritage language (HL), Turkish.

(1) John_i defended his_i friend, and Noah_j did <defend his_{i/j} friend> too.

(2) Ali_k [pro_k arkadaş-ı-nı] savun-du, Mert_t de <pro_{k/l} arkadaş-ı-nı savun-du>.
Ali friend-POSS.3-ACC defend-PAST.3 Mert too <friend-POSS.3-ACC defend-PAST.3>
Lit. "Ali defended his friend, and Mert did <defend his friend> too."

Prior work [3,8] suggests that HSs typically struggle with the target-like production and comprehension of null grammatical elements in the HL. This has mainly been provided by studies examining null subjects, which commonly show that HSs tend to prefer overt subjects even when both their HL and DL allow null subjects (e.x.[1,3,10]). Besides null subjects, prior work [9] in this domain also indicates that Russian-English HSs diverge from monolinguals in their interpretation of verb-stranding VPE in Russian. However, questions remain regarding the breadth and generality of this finding [3,8] as the crosslinguistic status and the types of null grammatical elements that HSs have difficulty interpreting still remain unclear.

Aims. To test whether HSs have non-target-like interpretation of verbal ellipsis-type structures, as prior work [3,8] suggests, we examine Turkish HSs' interpretation of strict/sloppy ambiguity in Turkish and English, comparing them to baseline Turkish (TSs) and English (ESs) speakers in their respective languages. We control for verb semantics and possession type [6,11] that prior studies on baseline speakers [2,4,12] failed to incorporate, yielding inconclusive results.

Methodology. We conducted picture-choosing tasks in Turkish (Exp. 1) and English (Exp. 2) and compared elided and unelided structures. (Table 1, 20 targets, 36 fillers, Latin Square, Qualtrics). TSs (n=21) and ESs (n=20) completed the task in their native language. HSs (n=25; average age of English exposure=3;8) were assigned either the Turkish or the English task. Participants heard sentences (Table 1) and saw one picture depicting the strict interpretation and one depicting the sloppy interpretation (Fig. 1). Participants chose which picture they thought best matches the sentence (HSs also completed a post-experimental vocabulary task.)

Exp.1 English. The analysis (glmer, R) shows that ES and HS responses differ (main effect of Group, $\beta=1.52$, $p=0.02$) and interpretational preferences for the elided/unelided sentences differ (main effect of Form, $\beta=4.36$, $p<0.001$, no interaction), Fig. 2. With unelided sentences, ESs and HSs preferred the sloppy interpretation (above chance, $p<0.001$). With elided structures, ESs preferred the strict interpretation (sloppy choices below chance, $p<0.001$), but HSs exhibited no preference (at chance performance, $p=0.54$).

Exp. 2 Turkish. As in English, TS and HS responses differ (main effect of Group, $\beta=1.22$, $p=0.03$), and interpretational preferences for the elided/unelided sentences differ (main effect of Form, $\beta=3.21$, $p<0.001$; no interaction). With unelided sentences, both TSs and HSs preferred the sloppy interpretation (above chance, $p<0.001$), akin to Exp. 1. However, elided structures reveal differences: TSs preferred the *sloppy interpretation* (above chance, $p<0.001$) – unlike ESs with English VPE – while HSs showed no preference (at chance performance $p=0.23$).

Conclusions. Baseline speakers interpret English and Turkish verbal ellipsis differently: ESs prefer strict interpretation, and TSs prefer sloppy interpretation, suggesting structural differences between English and Turkish (e.x.[5,7]). HSs diverge from baseline groups, not only in HL but also in DL, offering novel evidence for HSs' divergence in their interpretation of null grammatical elements beyond subject pro-drop and highlighting the complex interplay between languages.

Table 1. Elided and Unelided Sentence Forms in English and Turkish Tasks.

	English	Turkish
Elided	John defended his friend, and Noah did too.	Ali arkadaşını savundu, Mert de.
Unelided	John defended his friend, and Noah defended his friend too.	Ali arkadaşını savundu, Mert de arkadaşını savundu.

Fig. 1. Example (from English version; Turkish version is analogous). Audio and pictures were presented concurrently.

Audio: 🗣️ “John defended his friend, and Noah did too.” OR
 “John defended his friend, and Noah defended his friend too.”

Sample screenshot:
 (characters' names were shown on all screens)

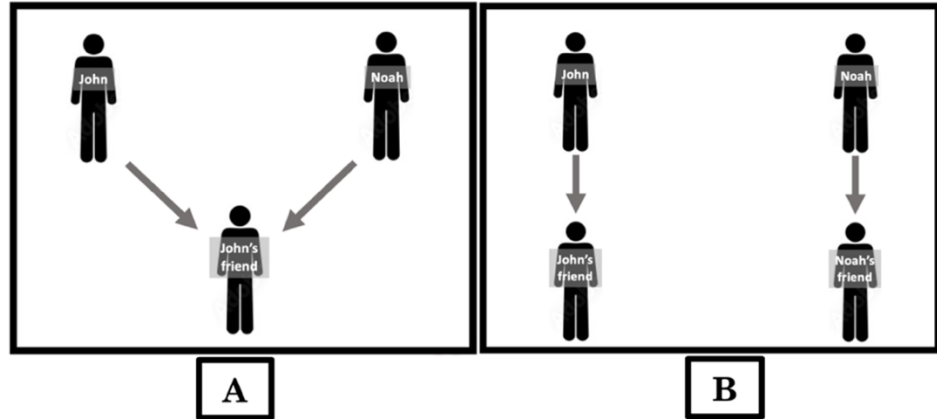
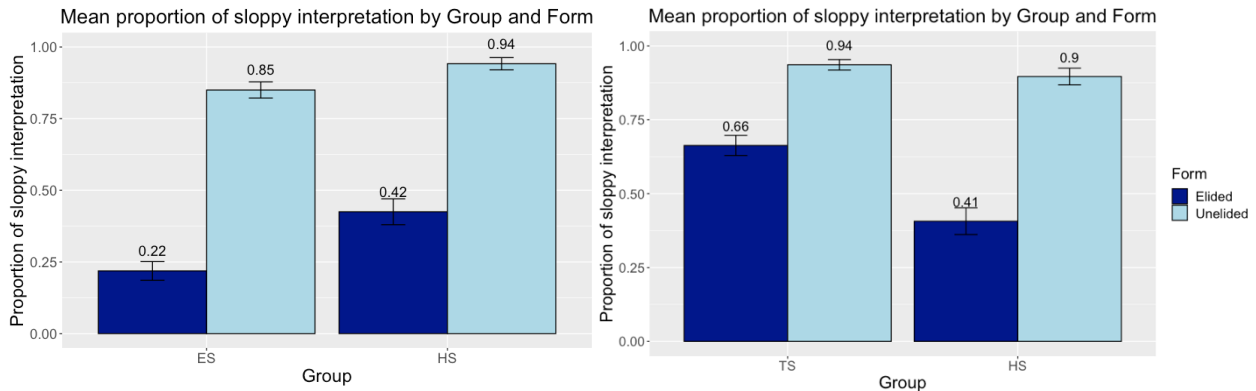


Fig. 2. (English, left) and Fig. 3. (Turkish, right). How often did participants choose the picture showing the *sloppy interpretation*? (Proportion of strict interpretations is the inverse)



References: [1] de Prada Pérez 2009. *Subject expression in Minorcan Spanish*. PhD thesis, Penn State Univ. [2] Eren Gezen 2022. *Vehicle Change in RNR and VPE in English and Turkish*. PhD thesis. METU. [3] Laleko & Polinsky 2017. Silence is difficult. *ZfS*. [4] Matsuo 2007. Differing Interpretations of Empty Categories in English and Japanese VP Ellipsis Contexts, *Lang Acq*. [5] Merchant 2001. *The Syntax of Silence*. Oxford Univ. Press. [6] Ong & Brasoveanu 2014. Strict and Sloppy Reflexives in VP Ellipsis. *Empirical Issues in Syntax and Semantics*. [7] Öztürk 2006. Null arguments and case-driven Agree in Turkish. *Minimalist essays*. [8] Polinsky & Scontras 2020. Understanding heritage languages. *BLC*. [9] Polinsky 2016. Structure vs. use in heritage language. *Ling vang*. [10] Sorace & Serratrice 2009. Internal and external interfaces in bilingual language development. *IJB*. [11] Storbeck & Kaiser 2018. Possession type affects resolution of possessive pronouns in English VPE. *Proceedings of the LSA*. [12] Ying 2005. L2 Learners' Reading of Reflexive Anaphora in VP-ellipsis. *Lang. Sci*.