## **Binding through Agree in Turkish**

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In Turkish, genitive Case renders certain complex pronominals opaque for agreement. However, binding overrides this Case-induced opacity: these genitive-marked pronominals can agree only if they bind. We argue that these facts provide striking evidence in favor of binding as phi-feature transmission mediated by a functional head (Reuland 2001; Kratzer 2009 *i.a.*). **Generalization 1: Genitive** Simple pronouns contrast with a set of structurally larger pronominals which we call *Default-Triggering NPs* (DTNs). DTNs include the reflexive *kendi* and reciprocal *birbir*; adnominal pronouns (e.g. *biz Türkler* 'we Turks'); the 'multi-plural' pronouns *biz-ler* 'we-PL' and *siz-ler* 'y'all-PL'; and partitives (e.g. *ikimiz* 'two of us'). In verbal clauses, both root and embedded, both pronouns (1) and DTNs (2) trigger co-varying verbal agreement. But in nominalized embedded clauses, pronouns continue to trigger full agreement (3), while DTNs trigger default 3sG agreement (4) (cf. Kornfilt 2007; Sattk 2020).

- (1) Biz oraya git-ti- { k /\*Ø }.
  (2) Iki-miz oraya git-ti- { k /\*Ø }.
  we there go-PST- 1PL 3sG
  'We went there.'
  (2) Iki-miz oraya git-ti- { k /\*Ø }.
  two-1PL.POSS there go-PST- 1PL 3sG
  'The two of us went there.'
- (3) Kemal [ biz-im oraya git-tiğ- { imiz / \*in } ]-i san-dı-Ø. Kemal we-GEN there go-NMLZ- 1PL.POSS 3SG.POSS -ACC think-PST-3SG 'Kemal thought that we went there.'
- (4) Kemal [ ikimiz-in oraya git-tiğ- { \*imiz / in } ]-i san-dı-Ø.
   Kemal two.of.us-gen there go-NMLZ- 1PL.POSS 3sg.POSS -ACC think-PST-3sg 'Kemal thought that the two of us went there.'

The factor responsible for this asymmetry is genitive Case, which makes DTNs opaque for agreement. Consider the independent fact that the subjects of nominalized clauses must be nominative when the clause is an adjunct, (6) versus (5) (Kornfilt 2003). When a DTN is the nominative subject of an adjunct nominalized clause, it triggers co-varying agreement (7).

- (5) Ben [ Ali-\*(nin) cam-1 kır-dığ-1 zaman ]-1 bil-iyor-du-m. I Ali-GEN glass-ACC break-NMLZ-3sG.POSS time -ACC know-PROG-PST-1sG 'I knew when Ali broke the glass.' *(argument)*
- (6) Ben [ Ali-(\*nin) cam-1 kır-dığ-1 zaman ] gerçeğ-i bil-iyor-du-m. I Ali glass-ACC break-NMLZ-3sg.Poss time truth-ACC know-PROG-PST-1sg 'I knew the truth when Ali broke the glass. *(adjunct)*' (Aygen 2007: 2)
- (7) [Ikimiz yemek pişir-diğ- { imiz / \*in } ]-den dolayı konser-e gidemedim.
   two.of.us food cook-NMLZ- 1PL 3sg -ABL because concert-DAT could.not.go
   'Because the two of us cooked, I was unable to go to the concert.'

**Generalization 2: Binding** Importantly, however, a genitive-marked DTN subject can trigger co-varying agreement in exactly one configuration, namely, when it is a binder; in all such cases, default agreement remains possible alongside full agreement. Contrast (8), where the embedded object is non-anaphoric, with (9), where it is a reciprocal bound by the DTN subject (the same facts obtain with the reflexive). Note that, although agreement on the nominalized verb varies between 1PL and 3sG, the bound element itself always bears the phi-features of its antecedent; (9) versus (10). Crucially, the same pattern obtains with bound pronouns (11).

- (8) Ali [ ikimiz-in <u>kitab-1</u> sev-diğ- { \*imiz / in } ]-i söyle-di. Ali two.of.us-gen book-acc like-nmlz- 1pl.poss 3sg.poss -acc say-pst 'Ali said that the two of us like the book.'
- (9) Ali [ ikimiz-in <u>birbir-imiz-i</u> sev-diğ- { **imiz** / **in** } ]-i söyledi. Ali two.of.us-gen each.other-1pl.poss-acc like-nmlz- 1pl 3sg -acc said 'Ali said that the two of us like each other.'
- (10) \*Ali [ ikimiz-in <u>birbir-in-i</u> sev-diğ- { imiz / in } ]-i söyledi. Ali two.of.us-gen each.other-3sg.poss-acc like-nmlz- 1pl 3sg -acc said

(11) Ali [ ikimiz-in <u>tez-ler-imiz-i</u> bitir-diğ- { imiz / in } ]-i söyledi.
 Ali two.of.us-gen thesis-pl-1pl.poss-acc finish-nmlz- 1pl 3sg -acc said
 'Ali said that the two of us finished our theses.'

Analysis We develop the intuition that binding takes place early in the derivation, before genitive assignment renders the DTN subject opaque. At the first stage of the derivation, the Voice head attempts to license a phi-underspecified minimal pronoun (Kratzer 2009; Reuland 2011) through Agree (12). Following Murphy and Meyase (2020), we assume that this state of affairs leads to feature-sharing (Frampton and Gutmann 2000) between Voice and the anaphor. This shared feature is subsequently valued by the phi-features of the DTN antecedent (13), through Voice probing upwards to its specifier (Řezač 2003; Béjar and Řezač 2009); cf. Kratzer's (2009) Feature Transmission or Murphy and Meyase's (2020) Valuation by Selection. The DTN subject subsequently moves to receive genitive in spec, n, and the phi-features on Voice percolate to VoiceP (14). A nominal probe D attempts and fails (Preminger 2011) to Agree with the genitive-marked DTN (15); if no further probing takes place, the unvalued D receives default 3sG at PF. But D can also attempt a second cycle of probing, this time finding the phi-features on VoiceP, resulting in successful valuation (16).



We also argue that the internal structure of pronouns vs DTNs interacts with genitive assignment to ensure that only DTNs become opaque when marked with genitive. Our analysis is based on two independently motivated assumptions. Firstly, number is bundled with person in pronouns, but placed on a separate head in DTNs (Ghomeshi and Massam 2020); and secondly, the genitive is the realization of a P head (Řezač 2008).

**Implications** These facts strongly support an Agree-based conception of the binding of anaphors and (some) bound pronouns (Reuland 2001; Reuland 2011; Hicks 2009 *i.a.*, and *contra* Charnavel and Sportiche 2016; Preminger 2019). Importantly, binding must be mediated by a functional head, rather than being a direct DP-DP dependency: to account for the Turkish facts, binding must 'leave its signature' on a functional head, in a way that is visible for realization at PF. Our results also bear on the mapping between syntax and morphology with respect to case features; notably, the genitive on the subjects of Turkish nominalized clauses cannot be treated as the nominal spellout of nominative (*pace* Levin and Preminger 2015 for Sakha), as genitive and nominative have manifestly different effects on whether DTNs are able to agree. Finally, we address the apparent incompatibility between Agree-based binding and the observation that anaphors generally resist being agreed with (the Anaphor Agreement Effect; Rizzi 1990). We adopt Murugesan's (2019) proposal that the AAE holds whenever a probe attempts to Agree with an anaphor before the anaphor's antecedent has been merged. Turkish supports

this timing-based account, since it provides morphological evidence that the crucial step of 'true' agreement is between the mediating head and the antecedent, with phi-matching between antecedent and anaphor following only as a side-effect of this agreement relationship. **Note:** data from 13 native speakers incl. the second author.

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