Turkish allows covert scrambling   Utku Turk & Aron Hirsch · University of Maryland, College Park

Overview. We present data which challenge the possibility that Turkish exhibits a ban on covert movement beyond that needed for interpretability. Polar questions containing focus marking and *wh*-questions, when embedded under rogative verbs like *merak et* 'wonder', yield an ambiguity between global question and global declarative readings. A natural analysis for the observed global question reading will involve covert scrambling of the focused constituent or *wh*-phrase, previously thought to be banned.

Scope rigidity. Data like (1) show that two quantifiers in Turkish are rigid in their relative scope. The scope relation is set by the surface order of the quantifiers. Other scope relations that could be derived by covert movement are not attested (Özyıldız, 2017; Öztürk, 2005; Kelepir, 2001).
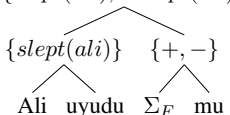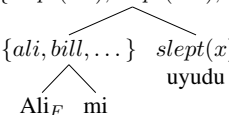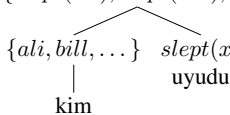
(1) $[_{DP1}$ (*farklı) bi çocuk] $[_{DP2}$ her   kitab-ı]   oku-du.
          different a kid   every book-ACC read-PST.3SG
      ✓ SURFACE ORDER ($\exists > \forall$): 'There was a strange kid who read every book.'
      ✗ INVERSE ORDER ($\forall > \exists$): 'All books were read and each was read by a different kid.'

Further evidence for scope rigidity comes from intervention effects (Beck, 2006). In (2a), a *wh*-phrase intervenes between the negative concord item *hiçkimse* and the higher negation marker *ma*, which results in ungrammaticality. In (2b), this ungrammaticality is obviated by overt scrambling of the *wh*-phrase. If covert movement of the *wh*-phrase were available, the intervention configuration could be obviated in (2a), parallel to (2b), contrary to fact. Demirok (2021) proposes that *wh*-phrases denote quantifiers, and that a ban on covert *wh*-scrambling follows from a general constraint forcing scope rigidity.

(2)   a.   * $[_{DP1}$ Hiçkimse] $[_{DP2}$ kim-le]   konuş-ma-dı?
               anybody   who-with talk-NEG-PST.3SG

      b. $[_{DP2}$ Kimle] $[_{DP1}$ hiçkimse] t_{DP2} konuş-ma-dı?
              who-with   anybody   talk-NEG-PST.3SG
           'Who is such that nobody talked to them at the party?'

In this work, we provide novel data involving embedding of polar questions and *wh*-questions, which argue that covert scrambling is available in Turkish, despite appearances in (1) and (2).

Questions via focus. In Turkish, polar questions are obligatorily produced with a clitic *=mI* whose placement is sensitive to focus. By default, *=mI* appears rightmost, as in (3). But, when a constituent is transparently focused, *=mI* must attach to that. In (5), the subject is focused, and the question has a cleft-like meaning. In addition to the clitic, focus is signaled by prosodic stress (Kamalı 2011). Given the focus-sensitivity of *=mI*, Atlamaz (2023) proposes that polar questions in Turkish are always computed via focus. In (5), *=mI* attaches to the subject *Ali*, tracking the F-marking, which introduces contextually salient alternatives like *Ali*, *Bill*, and so on. In (3), *=mI* is argued to attach to a polarity head (see also Kamalı 2011, Kamalı & Krifka 2020, Laka 1990). As for *wh*-questions, he argues that *wh*-phrases are inherent alternative generators (as in Kotek, 2019; Cable, 2010; Beck, 2006; Kratzer and Shimoyama, 2002). *Wh*-questions, then, are formed with the same compositional mechanisms as the polar questions, as in (8). The focus-based composition can be combined with an operator in C whose role is to shift the alternatives from the focus value to the ordinary value at the last step (as in Kotek, 2019, 2016; Beck, 2006).

(3)   Ali uyu-du   mu?
      Ali sleep-PST Q
      'Did Ali sleep?'

(5)   Ali$_F$ mi uyu-du?
      Ali   Q sleep-PST
      'Did Ali$_F$ sleep?'

(7)   Kim uyu-du?
      who sleep-PST
      'Who slept?'

(4) $\{slept(ali), \neg slept(ali)\}$

(6) $\{slept(ali), slept(bill), \dots\}$

(8) $\{slept(ali), slept(bill), \dots\}$

Ambiguity with embedding. Rogative verbs like *wonder* can only embed interrogative clauses, which denote a set of multiple alternatives, as in (9b), unlike (9a) (Uegaki & Sudo, 2019). The same facts hold for Turkish, too. Declarative clauses are incompatible with verbs like *sor-* or *meraket-*, whereas questions can be embedded, as illustrated with a polar question in (10).

(9) a. wonder $[p]$ → ✗ I wonder that Ali slept

   b. wonder $[\{p, \neg p\}]$

   → ✓ I wonder whether Ali slept

(10) Kemal Ali uyu-du *(mu) diye meraket-ti
   Kemal Ali sleep-PST Q that wonder-PST
   'Kemal wondered (✗that/✓whether) Ali slept.'

The global reading in data with *wonder* is determined by the position of *=mI* relative to C, which can be seen in polar questions. When *=mI* is embedded under C, the sentence is a global declarative (11). By contrast, when *=mI* is higher than C, the sentence only has a global question reading (12). This is expected if *=mI* tracks the highest focus, and focus alternatives propagate up to the local C head.
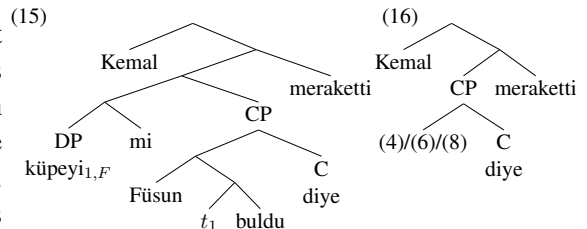
(11) Kemal Füsun küpe-yi bul-du mu diye meraket-ti
   K F earring-ACC find-PST Q that wonder-PST
   ✗Q: 'Did Kemal wonder whether Füsun found the earring?'
   ✓Decl.: 'Kemal wondered whether Füsun found the earring.'

(12) Kemal Füsun küpe-yi bul-du diye mi meraket-ti
   K F earring-ACC find-PST that Q wonder-PST
   ✓Q: 'Did Kemal wonder whether Füsun found the earring?'
   ✗Decl.: 'Kemal wondered whether Füsun found the earring?'

However, when *=mI* is on an F-marked DP in the embedded clause, both global declarative and question readings are permitted (13). The same ambiguity is observed with a *wh*-question (14).

(13) Kemal Füsun küpe-yi mi bul-du diye meraket-ti
   K F earring-ACC Q find-PST that wonder-PST
   ✓Q: 'Did Kemal wonder whether Füsun found the earring$_F$?'
   ✓Decl.: 'Kemal wondered whether Füsun found the earring$_F$'

(14) Kemal Füsun ne-yi bul-du diye meraket-ti
   K F what-ACC find-PST that wonder-PST
   ✓Q: 'What did Kemal wonder whether Füsun found?'
   ✓Decl.: 'Kemal wondered what Füsun found slept.'

Proposal. We argue that Turkish allows for covert movement. To account for the ambiguity in the sentences above, we argue that F-marked DPs and *wh*-phrases can scramble to a higher position above the C head. The sentences in (13) and (14) have two available structures. Without movement, the focused DP or *wh*-phrase introduces alternatives locally below the embedded C head, as in (16). But, when there is covert movement, alternatives are introduced above that C head, and thus propagate to the matrix level, as in (15), akin to (12).

Predictions. (I) Ambiguity should not be available when the focused element *cannot* move. When *=mI* attaches to the polar head, as in (11), the only reading, recall, is a global declarative. Similarly, if the TAM marking were focused via *=mI* in (11) (with stress on the past tense morpheme), the ambiguity is not available. We predict that only phrasal elements targeted by *=mI* should be able to covertly move into the matrix to yield a global question. **(II)** *Overt* scrambling into the matrix should disambiguate to a global question reading. This is borne out in (17), which contains both an F-marked DP and a *wh*-phrase. These generally cannot co-occur, but if one scrambles, the problem is ameliorated. In (17), the DP with *=mI* overtly moves into the matrix, and the sentence is necessarily interpreted as a global question.

(17) Kemal [küpe-yi mi [kim t_1 bul-du diye]] meraket-ti?
   Kemal earring-ACC =Q who find-PST that wonder-PST
   ✗ 'Kemal wondered whether who found the earring$_F$.'
   ✓ 'Who did Kemal whether found the earring$_F$?'

Outlook. Our results suggest that covert movement is *available* in Turkish. Yet, the data in (1) and (2) show that it still must be *restricted*. (1) and (2) involve scope between two DPs, while the ambiguity in the rogative examples involves the F-marked DP or *wh*-phrase covertly moving over C. One possibility is that the problem is not covert movement, but shifting the scope of two DPs (cf. Demirok 2021).