

HEAD-DRIVEN PHRASE STRUCTURE GRAMMAR

Scrambling in Turkish

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Outline:

- Headedness in Turkish
- Scrambling
- Bare object NPs
- Embedded Clauses
- HPSG Account
- Conclusion

Headedness

Nouns and adpositions

- 1a Bayağı sakın bir şehir
Pretty calm one city
'a pretty calm city'
- 1b İstasyon-un arka-sın-da-ki meydan
Station-GEN behind-POSS-LOC-REL.CL square
'the square behind the station'
- 1c Ayşe için
Ayşe for
'for Ayşe'

The VP

- 2 Ayşe harıl harıl çanta hazırlı-yor.
Ayşe zealously bag pack-PRES.PROG
'Ayşe is packing her bag zealously.'

Scrambling

3a	Ali kitab-1 çevir-di Ali book-ACC translate-PST <i>‘Ali translated the book.’</i>	SOV
3b	Kitab-1 Ali çevir-di book-ACC Ali translate-PST	OSV
3c	Kitab-1 çevir-di Ali book-ACC translate-PST Ali	OVS
3d	Ali çevir-di kitab-1 Ali translate-PST book-ACC	SVO
3e	Çevir-di Ali kitab-1 translate-PST Ali book-ACC	VSO
3f	Çevir-di kitab-1 Ali translate-PST book-ACC Ali	VOS

Previous Literature

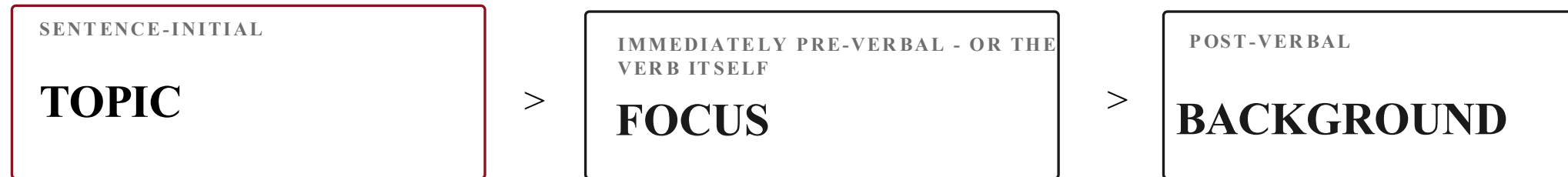
- A large literature (Erkü, 1983; Erguvanlı, 1984; Kural, 1992; Kornfilt, 1997; among others) argues Turkish has a canonical SOV constituent order.
- Güngördü (1997) proposes a flat structure within the HPSG framework.

My Proposal

- In line with the head-final characteristics of Turkish, the binary branching HPSG account proposed here treats SOV and OSV as the two canonical orders and the remaining four as marked.

Positions carry pragmatic functions

Previous research shows that syntactic positions in the Turkish clause are systematically associated with distinct discourse roles. These correlations act as constraints on which constituents may occupy which slots.



Göksel (1993), İşsever (2000, 2003, 2019), Şehitoğlu (1996), Erkü (1983), Vallduví & Engdahl (1996), among others.

- 4 Ayşe dün dön-dü Ankara'dan.
Ayşe yesterday return-PST Ankara-ABL
'It was yesterday when Ayşe came back from Ankara.'

- Turkish topic resides sentence initially. However, focus is more complex: the entire pre-verbal area, including the verbal head itself, can be focused.
- Where no contrastive element or alternative is specified by the context, focus falls on the immediately pre-verbal constituent.
- These roles are assigned syntactically by default, assuming no discourse-related contrast is involved.
- Özsoy (2019) takes prosodic prominence to be the sole indicator of focus, so the syntactic default can be overridden by intonation.

Non-case-marked direct objects

- Turkish scrambling is further restricted by a morphosyntactic constraint involving the encoding of specificity.
- Indefinite and non-specific direct objects typically appear without the overt accusative case marker.
- The absence of case morphology yields a bare NP object or the absolutive form (Erdal 2007).
- This form is argued to be syntactically restricted to the immediately pre-verbal position.

The nominative subject in Turkish carries no overt morpheme. A bare object therefore becomes morphologically indistinguishable from the subject, and the language must fall back on linear order and adjacency to the verb to tell the grammatical roles apart.

5a Mutluluk huzur getir-ir.
 Happiness peace bring-AOR
 'Happiness brings peace of mind.'

5b Huzur mutluluk getir-ir.
 Happiness peace bring-AOR
 'Happiness brings peace of mind.' (unavailable reading)

But bare objects are not always pre-verbal

- 6 Ali oku-du kitap.
Ali read-PST book
'Ali has read a book.'
- 7 Kız-ım-a telefon çok az ver-ir-im.
Daughter-POSS-DAT telephone very little give-AOR-1SG
'I give my daughter very little screen time.'
- 8 Kitap da mı oku-mu-yor?
Book even Q read-NEG-IMPRF
'Does he not even read books?'
- 9 Çiçek kim sat-ıyor?
Flower who sell-PROG
'Who sells flowers?'
- 10 A: Dün hiç fotoğraf ya da video çek-e-me-di-m, sen-de var mı?
yesterday any photograph or video take-ABIL-PST-1SG you-ABL exist Q
'I couldn't take any photographs or videos yesterday, do you have (any)?'
- B: Var, evet. Birkaç fotoğraf ben gönder-ir-im sana
exist yes a.few photograph I send-AOR-1SG you.DAT
'Yes, I do. I'll send you a few photographs'

Embedded Clauses

Long-distance pre-verbal and post-verbal scrambling are both possible.

- 11a** Ayşe'nin_i ben [_i Ali'ye mesaj gönder-diğ-in-i] bil-iyor-um.
Ayşe-GEN I Ali-DAT message send-NOM-POSS-ACC] know-PROG-1SG
'I know that Ayşe has sent Ali a message.'

- 11b** Ben [_i Ali'ye mesaj gönder-diğ-in-i] bil-iyor-um Ayşe'nin.
I Ali-DAT message send-NOM-POSS-ACC know-PROG-1SG Ayşe-GEN
'I know that Ayşe has sent Ali a message.'

But elements cannot scramble to the right of its own predicate.

- 12a** [Hasan'ın _____i yaz-dığ-ın-ı] bil-iyor-um makale-yi.
Hasan-GEN write-NOM-POSS-ACC know-PROG-1SG article-ACC
'I know that Hasan wrote the article.'

- 12b** *[Hasan'ın _____i yaz-dığ-ın-ı makale-yi_i] bil-iyor-um.
Hasan-GEN write-NOM-POSS-ACC article-ACC know-PROG-1SG
'I know that Hasan wrote the article.'

HPSG Account: Güngördü (1997)

The flat-structure account

- Güngördü (1997) analyses Turkish scrambling within HPSG.
- She assumes a flat structure to capture its properties.
- A lexical head combines with all of its complements at once.
- Problem she notes: scrambling adjuncts is a major difficulty for such an analysis.
- Via Kasper (1994) she points to alternatives but leaves the issue unresolved.

The alternatives she cites

Nerbonne (1983)

binary-branching structures: a head combines with one complement at a time

Pollard & Sag (1987)

information-based syntax and semantics

Pollard (1996)

on head non-movement

Reape (1990)

linearization / word order domains

This paper takes the Nerbonne route, following Müller (2024) on German and head-final languages generally.

Analysis

Head-Complement Schema (Müller 2024)

Head-Complement Schema (binary branching):

head-complement-phrase $\Rightarrow$

$$\left[\begin{array}{ll} \text{SYNSEM|LOC|CAT|COMPS} & \boxed{1} \oplus \boxed{2} \\ \text{HEAD-DTR} & [\text{SYNSEM|LOC|CAT|COMPS } \boxed{1} \oplus \langle \boxed{3} \rangle \oplus \boxed{2}] \\ \text{NON-HEAD-DTRS} & \langle [\text{SYNSEM } \boxed{3}] \rangle \end{array} \right]$$

Linearization Constraint

COMPLEMENT < HEAD [initial –]

Post-verbal Scrambling

Extrapolation (Borsley & Crysmann 2024)

Complement Extrapolation Lexical Rule:

$$\left[\begin{array}{l} \text{COMPS } \boxed{1} \oplus \left\langle \left[\text{LOC } \boxed{4} \left[\text{CAT } \left[\begin{array}{l} \text{HEAD } \textit{verb} \vee \textit{prep} \\ \text{COMPS } \langle \rangle \end{array} \right] \right] \right\rangle \oplus \boxed{2} \\ \text{NONLOC|EXTRA } \boxed{3} \end{array} \right] \mapsto \left[\begin{array}{l} \text{COMPS } \boxed{1} \oplus \boxed{2} \\ \text{NONLOC|EXTRA } \boxed{3} \cup \{\boxed{4}\} \end{array} \right]$$

Adjunct Extrapolation Lexical Rule:

$$\left[\begin{array}{l} \text{LOC } \boxed{2} \left[\text{CAT|HEAD } \textit{noun} \vee \textit{verb} \right] \\ \text{NONLOC|EXTRA } \boxed{1} \end{array} \right] \mapsto$$

$$\left[\begin{array}{l} \text{LOC|CONT } \boxed{3} \\ \text{NONLOC|EXTRA } \boxed{1} \cup \left\{ \left[\text{CAT } \left[\begin{array}{l} \text{HEAD } \left[\textit{prep} \vee \textit{rel} \right] \\ \text{MOD|LOC } \boxed{2} \end{array} \right] \right] \right\} \end{array} \right]$$

Two conditions on scrambling a bare object

A discourse link must be created

For topicalization and backgrounding, a discourse link for the absolutive NP has to have been set up previously in the conversation.

Subject and object must stay distinguishable

With two caseless NPs in the clause, grammatical roles are normally assigned by word order, so reordering has to leave the roles recoverable.

Conclusion

A binary-branching HPSG account

The Head-Complement Schema lets the head combine with any one complement at a time, deriving the two canonical orders SOV and OSV.

Framed by head-finality

Linearization constraints with [initial –] keep complements to the left of the head and block local post-verbal scrambling in embedded clauses.

Other orders as extraposition

Post-verbal material is handled by the non-local feature EXTRA.

Bare objects

The environments in which non-case-marked object NPs can scramble are set out: discourse linkage plus recoverable subject–object roles.

Thank you!