# Right Edge Restriction is non-uniform in Turkish 

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## Main Claims

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Epiphenomal, resulting from two mechanisms:

- Constituent-sharing structures (syntactic movement)
- String-sharing structures (post-syntactic linearization)


## Proposal

- Constituent-sharing structure: Across-the-board rightward extraposition (Ross, 1967; Sabbagh, 2007)
- String-sharing structure: Post-syntactic linearization of in-situ multidominance


## Roadmap

(1) Right Edge Sharing
(2) Constituent-sharing structure
(3) String-sharing structure

4 Linearization

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## Right Edge Sharing

(4) Sharing finite verb

Ali çay _ , Veli kahve __, (ve) Ayşe de gazoz iç-ti.
A. tea V. coffee and Ay. Contr soda drink-past 'Ali (drank) tea, Veli (drank) coffee, and Ayșe drank soda.'

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Ali çay iç-miş _ , (ve) Ayşe de gazoz iç-ecek=ti.
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'Ali (had) drank tea, and Ayșe was going to drink soda.'

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(6) Sharing scrambled argument

Ali bugün gid-ecek _ , (ve) Veli de yarın gid-ecek
A. today go-FUT and V. CONTR tomorrow go-FUT

Ankaraya.
An.-dat
'Ali will go (to Ankara) today, Veli will go to Ankara tomorrow.

## Right Edge Sharing

## String Sharing Structure

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(8)


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(10)


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- Tense+person Inflection (+predicate/copula) occupies T (Kelepir, 2001; Kornfilt, 1996; Zanon, 2014).
(11) Conjunct-internal $T$ in Constituent-Sharing Structure Ali _ demle-di __, (ve) Veli __ iç-ti çayı. A. brew-past and V. drink-past tea-ACC
'Ali brewed and Veli drank the tea.'


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- Tense+person Inflection (+predicate/copula) occupies T (Kelepir, 2001; Kornfilt, 1996; Zanon, 2014).
- Each conjunct contains positions above TP.
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A. brew-PaSt and V. drink-PAST tea-ACC
'Ali brewed and Veli drank the tea.'
(12) Specific agent (spec.TP) in String-Sharing Structure Ali çayı __, (ve) Veli kahveyi iç-ti.
A. tea-ACC and V. coffee-ACC drink-PAST
'Ali drank the tea and Veli drank the coffee.'


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(11) Scrambling above high subject in Constituent-Sharing Structure Dün Ayşe _ getirdi, bugün de Gülin _ getirdi kitapları. yesterday A. brought today CONTR G. brought books
'Yesterday Ayşe brought, and today Gülin brought the magazines.'
(12) Scrambling above high subject in String-Sharing Structure Dün kitapları Ayşe _, dergileri de Gülin getirdi. yesterday books A. magazines CONTR G. brought 'Yesterday Ayșe (brought) the books, and Gülin brought the magazines.'


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Kitapları bana Ayşe __, dergileri =de bana Gülin getirdi.
books 1SG-DAT A. magazines CONTR 1SG-DAT G. brought
'Ayșe brought the books, and Gülin brought the magazines to me.'

## Not Low Coordination



- Tense+person Inflection (+predicate/copula) occupies T (Kelepir, 2001; Kornfilt, 1996; Zanon, 2014).
- Each conjunct contains positions above TP.


## Takeaway

$$
\text { conjunct size } \geq \text { ContrTopP }
$$

## Conjunct-internal Generation

(11) Lexical Selection in Constituent-Sharing Structure Ali bıktı _ , (ve) Veli de nefret etti __, ben-den/*-i. Ali got_fed_up and Veli CONTR hate did 1SG-abl/*-aCC 'Ali got fed up with __, and Veli came to hate me.'

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Ali ben-den/*-i __, (ve) Veli de sen-den/*-i
Ali 1SG-abl/-*ACC and Veli CONTR 2SG-abl/*-aCC
biktı.
got_fed_up
'Ali got fed up with me, and Veli got fed up with you.'

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'Ali got fed up with me, and Veli got fed up with you.'

## Takeaway

shared element originates conjunct-internally

## Right Edge Restriction (RER)

(13) a. [Ali _ içti çay-1].
A. drank tea-ACC
b. *[Ali _ demledi] ve Veli çay-ı içti.
A. brewed and V. tea-ACC drank
c. [Ali __ demledi] ve Veli __ içti çay-ı.
A. brewed and V. drank tea-ACC int'd: 'Ali brewed, and Veli drank the tea.'

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b. *[Ali __ demledi] ve Veli çay içti.
A. brewed and V. tea drank
c. *[Ali __ demledi] ve Veli __ içti çay.
A. brewed and V. drank tea
int'd: 'Ali brewed, and Veli drank the tea.'

## Taking Stock

|  | String-sharing | Constituent-sharing |
| :--- | :---: | :---: |
| ContrTopP-size coordination | $\checkmark$ | $\checkmark$ |
| Conjunct-internal generation | $\checkmark$ | $\checkmark$ |
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- Let us start with analysing the constituent-sharing structure
- The predictions of this analysis do not hold for the string-sharing structure
- String-sharing structures are in situ parallel merge.


## Roadmap

(1) Right Edge Sharing
(2) Constituent-sharing structure
(3) String-sharing structure
(4) Linearization

## Targeting Constituents

- Can target any constituent, regardless of category.


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(15) Ali bağışladı __, (ve) Veli de sattı defter-ler-in-i.

Ali donated and Veli CONTR sold notebook-PL-Poss-aCC
'Ali donated, and Veli donated his notebooks.'

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(16) *Ali bağışladı kitap-__, (ve) Veli de bağışladı

Ali donated book and Veli CONTR donated
defter-ler-in-i.
notebook-PL-POSS-ACC
int'd: 'Ali donated his books, and Veli donated his notebooks.'

## Island Bounded

(17) Control: unshared sentence Ali bulmuş [yaz-dığ-1m mektubu Ayşe-ye] $]_{\text {RC }}$, A. found write-REL-1.POSS letter Veli de yakmış [ada-dığ-ın Ay.-dat
V. CONTR burned dedicate-REL-2.poss poems J.-dat 'Ali found [the letter that I wrote to Ayșe], and Veli burned [the poems you dedicated to Jale].'

## Island Bounded

(17) Test: sharing of relative clause-internal argument *Ali bulmus [yaz-dığ-ım mektub-u __ $]_{\mathrm{RC}}$,
A. found write-REL-1.POSS letter

Veli de yakmış [ada-dığ-1n şirleri __] RC
V. CONTR burned dedicate-REL-2.Poss poems

Ayşe-ye.
Ay.-dat
int'd: 'Ali found [the letter that I wrote to Ayșe], and Veli burned [the poems you dedicated to Ayșe].

## Analysis: Across-the-board Extraction

- Across-the-board movement (Ross, 1967; Sabbagh, 2007)
- category-agnostic, targets any argument/adjunct $\Rightarrow \overline{\mathrm{A}}$-movement triggered by $\left[\mathrm{F}_{\text {extr }}\right]$.
- Assuming rightward extraposition, but remnant movement account also possible.


## Analysis: Across-the-board Extraction



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## Deriving the RER

(18) a. $\stackrel{* \text { Ali }}{\text { A. }} \underset{\text { iccti çay }}{\text { drank tea }}$.
b. *[Ali _ demledi] ve Veli çay içti.
A. brewed and V. tea drank
c. *[Ali __ demledi] ve Veli __ içti çay.
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(20)


## Predictions

- only constituents can move
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| Bound by islands | $x$ | $\checkmark$ |

## Roadmap

(1) Right Edge Sharing
(2) Constituent-sharing structure
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4 Linearization

## Targeting Strings

(21) Ali ünlü bir şair-in kitab-ın-1 al-mak Ali famous one poet-GEN book-3.POSS-ACC buy-INF
isti-yor $=$ Ø-du, want-PROG $=\mathbf{C O P}$-PAST
Veli de ünlü bir tarihçi-nin kitab-ın-1
Veli CONTR famous one historian-GEN book-3.POSS-ACC al-mak isti-yor $=$ Ø-du. buy-INF want-PROG=COP-PAST
'Ali wanted to buy the book of a famous poet, and Veli wanted to buy the book of a famous historian.'

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## Targeting Strings

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## Targeting Strings

## Takeaway

can share any string of (identical) adjacent morphemes from right edge

## Unbounded by Islands

(21) Control: unshared sentence

Ali $\left[[\text { Fransız yazar-lar-ın yaz-dığ-1 }]_{\mathrm{RC}} \text { roman-lar-1 }\right]_{\mathrm{DP}}$
A. French writer-PL-GEN write-REL-Poss novel-PL-ACC
sev-iyor, ve
like-prog and
Veli de [[Alman yazar-lar-ın yaz-dı̆̆-1 $]_{R C}$
V. CONTR german writer-PL-GEN write-REL-POSS
roman-lar-1 $]_{\text {DP }}$ sev-iyor.
novel-pl-acc like-PRog
'Ali likes (novels that) French (authors wrote), and Veli likes novels that German authors wrote.'

## Unbounded by Islands

(22) Test: sharing material crossing relative clause boundary Ali [[Fransiz _ _ $\left.]_{\mathrm{RC}} \ldots\right]_{\mathrm{DP}} \ldots$, ve
A. French
and

Veli de [[Alman yazar-lar-1n yaz-dığ-1] $]_{\mathrm{RC}}$
V. CONTR german writer-PL-GEN write-REL-Poss
roman-lar-1] ${ }_{\text {DP }}$ sev-iyor.
novel-pl-Acc like-prog
'Ali likes (novels that) French (authors wrote), and Veli likes novels that German authors wrote.'

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- Right Edge Restriction is derived from linearization of parallel-merged nodes (Bachrach and Katzir, 2009, 2017; Citko, 2017, 2018; Gračanin-Yüksek, 2007).


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I propose:

- Shared elements are parallel merged nodes,
- Parallel merged nodes stay in-situ,
- Linearization of sisters is controlled by a direction-sensitive Sister Linearization Principle.


## Analysis: In-situ Parallel Merge

(23) Ali çay __ ve Veli de kahve içti.
A. tea and V . CONTR coffee drank


## Roadmap

(1) Right Edge Sharing
(2) Constituent-sharing structure
(3) String-sharing structure

4 Linearization

## Sister Linearization Principle

(24) a. Sister Linearization Principle:

Given the structure in (b), all terminal nodes completely dominated by A in C , precede all terminals dominated by B .
b.


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(25) Complete Domination: A node $\alpha$ completely dominates a node $\beta$ in $\gamma$ iff
a. $\quad \gamma$ dominates $\alpha$ and $\beta$,
b. and every path from $\beta$ to $\gamma$ contains $\alpha$.

## Example Derivation



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$$
\begin{aligned}
\qquad c ̧ a y & <i c- \\
\text { kahve } & <i c ̧-
\end{aligned}
$$


$\{c, a y, k a h v e\}<i c-$

## Example Derivation

$$
\begin{aligned}
& \{\text { cay, iç- }\}<-\varnothing \\
& \{\text { kahve, iç- }\}<-\varnothing
\end{aligned}
$$


$\{c a y$, kahve $\}<i c ̧-<-\varnothing$

## Example Derivation

$$
\begin{aligned}
&\{c a y, ~ i c-,- \\
&\{\text { kahve, } i c-,-\varnothing\}<-D I \\
&<-D I
\end{aligned}
$$


$\{c$ cay, kahve $\}<i c-<-\varnothing<-D I$

## Example Derivation

$$
\begin{gathered}
\text { Ali }<\{\text { \{cay, ic--, - } \varnothing,-D /\} \\
\text { Veli }<\{\text { kahve, ic-, }-\varnothing,-D /\}
\end{gathered}
$$


$\{$ Ali, Veli, çay, kahve $\}<i c-<-\varnothing<-D I$
Ali < çay, Veli < kahve

## Example Derivation

$$
\text { ve }<\{\text { Veli, kahve, ic-, }-\varnothing,-D /\}
$$


$\{$ Ali, Veli, ve, çay, kahve $\}<i c ̧-<-\varnothing<-D I$

$$
\text { Ali < çay, ve }<\text { Veli }<\text { kahve }
$$

## Example Derivation


$\{$ Ali, çay $\}<\{$ ve, Veli, kahve, $i c-,-\varnothing,-D /\}$

Ali $<$ çay $<$ ve $<$ Veli $<$ kahve $<i c ̧-<-\emptyset<-D I$

## Why is the right sister special?

- no Left Edge String-Sharing structures in Turkish, contra Bachrach and Katzir, 2009, 2017
(26) a. *kitap-çı ve __-lık
book-seller and __-thing int'd: 'the bookseller and the bookcase'
b. *Kitap-çı __-lık-lar-1 sildi.
book-seller __-thing-PL-ACC wipe-PAST int'd: 'The bookseller wiped the bookcases.'
c. *na:-mümkün ve __-mükemmel

NEG-possible and __-perfect int'd: 'impossible and imperfect'

- Empirically, right edge appears to be special.
- Why? Still mysterious... but for later work.


## References

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## Roadmap

(1) Right Edge Sharing
(2) Constituent-sharing structure
(3) String-sharing structure

4 Linearization

## Cannot Move Right + Parallel Merge!

(27) Ungrammatical suffix sharing on extraposed argument *Ali __i satın aldı $[$ kitap-__j] , Veli de kaybetti A. buy-PAST book V. CONTR lose-PAST kitab- $\mathbf{1}_{j}$.
book-ACC.
'Ali bought, and Veli lost the book.'

- Claim: Elements strictly containing parallel merged elements cannot (overtly) move
- Solution: Internal merge has to reconstruct for elements containing parallel merged nodes (cf. low copy spellout).

Move Right + Parallel Merge?

Move Right + Parallel Merge?

- Until now:


## Move Right + Parallel Merge?

- Until now:
- Predicate + adjacent $=$ string sharing


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- Until now:

■ Predicate + adjacent $=$ string sharing

- Argument $=$ constituent sharing


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- Hypothetical: What about parallel merged affixes on an argument + conjunct-internal rightward extraposition?


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- Until now:

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- Hypothetical: What about parallel merged affixes on an argument + conjunct-internal rightward extraposition?



## Linearization of Internal Merge

(28) Branch Pruning (1st pass, cf. basic copy deletion) Sever a connection from an internally moved node to immediately dominating node(s) in the PF-interface representation for:
a. covert movement: all branches expect the mother on the longest path to the root,
b. overt movement: all branches expect the mother on the shortest path to the root.


## Linearization Definitions

(29) a. Sister Linearization Principle:

Given the structure in (b), all terminal nodes completely dominated by $A$ in $C$, precede all terminals dominated by B .
b.

(30) Domination: A node $\alpha$ dominates a node $\beta$ iff
a. $\alpha$ is the mother of $\beta$, or
b. $\alpha$ dominates a node $\gamma$ such that $\gamma$ dominated $\beta$, or
c. $\quad \alpha=\beta$.
(31) Complete Domination: A node $\alpha$ completely dominates a node $\beta$ in $\gamma$ iff
a. $\gamma$ dominates $\alpha$ and $\beta$,
b. and every path from $\beta$ to $\gamma$ contains $\alpha$.

## Example RER-Violation Derivation

(32) *Ali çay __=ti, ve Veli kahve iç-ecek=ti.
A. tea $=$ PAST and V. coffee drink-FUT=PAST


## Example RER-Violation Derivation

(32) *Ali çay __=ti, ve Veli kahve iç-ecek=ti.
A. tea $=$ PAST and V. coffee drink-FUT=PAST
$\{$ çay, ic--, $-A c A K\}<=D I$
$\{$ kahve, iç-, $-A c A K\}<=D I$


## Example RER-Violation Derivation

(32) *Ali çay __=ti, ve Veli kahve iç-ecek=ti.
A. tea $=$ PAST and V. coffee drink-FUT=PAST


## Linearization of Parallel Merge



## Why not LCA Linearization?

- Citko, 2017, 2018; Gračanin-Yüksek, 2007 require remnant movement of all arguments to positions above parallel merged predicate (asymmetric c-command $\Rightarrow$ precedence).
- bare objects cannot move without pragmatic \& phonological effects in Turkish (Öztürk, 2005, a.o.)
- bare objects can survive in string-sharing structure without such effects $\Rightarrow$ no remnant movement
(33) Ali çay __, ve Veli de kahve iç-ti.

A . tea and V . CONTR coffee drink-PAST
'Ali tea-drank, and Veli coffee-drank.'

