



Superiority Effects with Wh-Adjuncts in Turkish

Sadira Lewis Utku Turk

{slewis29 , utkukurk}@umd.edu

Department of Linguistics
University of Maryland, College Park

What is Superiority?

Superiority describes the ban on crossing a lower *wh* over a higher *wh*

✗ $[[_{XP} \text{ } wh]_j \dots [[_{YP} \text{ } wh]_i \dots t_j \dots]]$

✓ $[[_{XP} \text{ } wh]_i \dots [t_i \dots [_{YP} \text{ } wh]_j \dots]]$

What is Superiority?

Superiority describes the ban on crossing a lower *wh* over a higher *wh*

✗ $[[_{XP} \textit{wh}]_j \dots [[_{YP} \textit{wh}]_i \dots t_j \dots]]$

✓ $[[_{XP} \textit{wh}]_i \dots [t_i \dots [_{YP} \textit{wh}]_j \dots]]$

What is Superiority?

Superiority describes the ban on crossing a lower *wh* over a higher *wh*

✗ $[[_{XP} \textit{wh}]_j \dots [[_{YP} \textit{wh}]_i \dots t_j \quad]]$

✓ $[[_{XP} \textit{wh}]_i \dots [t_i \quad \dots [_{YP} \textit{wh}]_j \quad]]$

Today

- Typology of superiority
- Anti-superiority effects in Turkish
- Novel superiority data from Turkish
- Establishing superiority
- Mitigating superiority

Move 1-wh Languages: English

Only the syntactically higher *wh*-phrase can move to left-periphery.

- (1) a. Harold climbed the mountain.
- b. Who climbed what?
- c. * What who climbed?

Move all-wh Languages: Bulgarian

Strict ordering within *wh*-phrases.

(2) a. John običa Mary.
J loves M
'John loves Mary.'

b. Koj kogo običa?
who whom loves
'Who loves whom?'

(Bošković, 2002, 11a)

c. * Kogo koj običa?
whom who loves
Intended: 'Who loves whom?'

(Bošković, 2002, 11b)

Anti-Superiority Languages: Turkish

No restrictions in ordering.

- (3) a. John Mary-i gör-dü?
J M-ACC see-PST
'John saw Mary.'
- b. Kim kim-i gör-dü?
who who-ACC see-PST
'Who saw whom?'
- c. Kim-i kim gör-dü?
who-ACC who see-PST
'Who saw whom?'

Anti-Superiority Languages: Turkish

No restrictions in ordering.

- (3) a. John Mary-i gör-dü?
J M-ACC see-PST
'John saw Mary.'
- b. Kim kim-i gör-dü?
who who-ACC see-PST
'Who saw whom?'
- c. Kim-i kim gör-dü?
who-ACC who see-PST
'Who saw whom?'

What happens when you scramble?

Superiority effects do not arise in long-distance scrambling, too (Özsoy, 2009)

- (4) Sen [_{CP} kim-in kim-i gör-düğün]-ü sor-du-n.
you who-GEN who-ACC see-that-ACC hear-PST-2SG
'You asked who saw whom.'

What happens when you scramble?

Superiority effects do not arise in long-distance scrambling, too (Özsoy, 2009)

- (4) Sen [_{CP} kim-in kim-i gör-düğün]-ü sor-du-n.
you who-GEN who-ACC see-that-ACC hear-PST-2SG
'You asked who saw whom.'

What happens when you scramble?

Superiority effects do not arise in long-distance scrambling, too (Özsoy, 2009)

- (6) a. Kim-in₁ sen [_{CP} t₁ kim-i gör-düğün]-ü sor-du-n?
 who-GEN you who-ACC see-that-ACC hear-PST-2SG
 ‘Who₁ did you ask t₁ saw whom?’
- b. Kim-i₁ sen [_{CP} kim-in t₁ gör-düğün]-ü sor-du-n?
 who-ACC you who-GEN see-that-ACC ask-PST-2SG
 ‘Whom₁ did you ask who saw t₁?’

Interpretations in Embedded Contexts

A syntactically lower *wh*-phrase can take matrix scope over the higher *wh*-phrase.

- (7) Sen [_{CP} kim-in kim-i gör-düğün]-ü sor-du-n?
you who-GEN who-ACC see-that-ACC ask-PST-2SG
'Who did you ask who saw *t*?'
✓ Pair-list answer | ✓ Object answer | ✓ Subject answer | ✓ Declarative reading

Interpretations in Embedded Contexts

A syntactically lower *wh*-phrase can take matrix scope over the higher *wh*-phrase.

- (7) Sen [_{CP} kim-in kim-i gör-düğün]-ü sor-du-n?
you who-GEN who-ACC see-that-ACC ask-PST-2SG
'Who did you ask who saw *t*?'

✓ Pair-list answer | ✓ Object answer | ✓ Subject answer | ✓ Declarative reading

Interpretations in Embedded Contexts

A syntactically lower *wh*-phrase can take matrix scope over the higher *wh*-phrase.

- (7) Sen [_{CP} kim-in kim-i gör-düğün]-ü sor-du-n?
you who-GEN who-ACC see-that-ACC ask-PST-2SG
'Who did you ask who saw *t*?'

✓ Pair-list answer | ✓ Object answer | ✓ Subject answer | ✓ Declarative reading

Superiority-like effects occur with *wh*-adjuncts.

Our aim is to better understand conditions that ameliorates these questions so that we can explore what “escaping superiority” is.

Superiority-like effects occur with *wh*-adjuncts.

- (8) Kim dün nereye git-ti?
who yesterday where go-PST
'Who went where yesterday?'

Our aim is to better understand conditions that ameliorates these questions so that we can explore what “escaping superiority” is.

Superiority-like effects occur with *wh*-adjuncts.

- (9) * Nereye₁ kim dün t₁ git-ti?
where who yesterday go-PST
Intended: ‘Who went where yesterday?’

Our aim is to better understand conditions that ameliorates these questions so that we can explore what “escaping superiority” is.

In depth look at our data

Ingredients:

- One argument *wh: kim*
- One adjunct *wh: nereye*
- One adjunct: *dün*

In depth look at our data

- (10) Kim dün nereye git-ti?
who yesterday where go-PST
'Who went where yesterday?'

Scrambling between adjuncts:

- (11) Kim nereye₁ dün t₁ git-ti?
who where yesterday go-PST
'Who went where yesterday?'

In depth look at our data

- (10) Kim dün nereye git-ti?
who yesterday where go-PST
'Who went where yesterday?'

Scrambling between adjuncts:

- (11) Kim nereye₁ dün t₁ git-ti?
who where yesterday go-PST
'Who went where yesterday?'

In depth look at our data

- (10) Kim dün nereye git-ti?
who yesterday where go-PST
'Who went where yesterday?'

Scrambling between adjuncts:

- (11) Kim nereye₁ dün t₁ git-ti?
who where yesterday go-PST
'Who went where yesterday?'

In depth look at our data

- (12) Kim dün nereye git-ti?
who yesterday where go-PST
'Who went where yesterday?'

Scrambling between wh-phrases:

- (14) a. Dün₁ kim t₁ nereye git-ti?
yesterday who where go-PST
'Who went where yesterday?'
- b. Dün₁ nereye₂ kim t₁ t₂ git-ti?
yesterday where who go-PST
'Who went where yesterday?'

In depth look at our data

- (12) Kim dün nereye git-ti?
who yesterday where go-PST
'Who went where yesterday?'

Scrambling between wh-phrases:

- (14) a. Dün₁ kim t₁ nereye git-ti?
yesterday who where go-PST
'Who went where yesterday?'
- b. Dün₁ nereye₂ kim t₁ t₂ git-ti?
yesterday where who go-PST
'Who went where yesterday?'

In depth look at our data

- (12) Kim dün nereye git-ti?
who yesterday where go-PST
'Who went where yesterday?'

However, scrambling over a *wh* and an adjunct is not possible.

- (15) * Nereye₂ dün₁ kim t₁ t₂ git-ti?
where yesterday who go-PST.3SG
Intended: 'Who went where yesterday?'

In depth look at our data

- (12) Kim dün nereye git-ti?
who yesterday where go-PST
'Who went where yesterday?'

However, scrambling over a *wh* and an adjunct is not possible.

- (15) * Nereye₂ dün₁ kim t₁ t₂ git-ti?
where yesterday who go-PST.3SG
Intended: 'Who went where yesterday?'

Interim Summary

Order			Judgment
<i>wh</i>	Adj	<i>Awh</i>	✓
<i>wh</i>	<i>Awh</i>	Adj	✓
Adj	<i>wh</i>	<i>Awh</i>	✓
Adj	<i>Awh</i>	<i>wh</i>	✓
<i>Awh</i>	Adj	<i>wh</i>	✗

Is this just about adjunct hierarchy?

→ *When* questions should scramble above location-adjuncts.

(16) * Ne zaman okul-da kim film izledi?
what time school-LOC who movie watch-PST
Intended: 'Who watched a movie at school?'

Establishing Superiority

Is this just about adjunct hierarchy?

→ *When* questions should scramble above location-adjuncts.

(16) * Ne zaman okul-da kim film izledi?
what time school-LOC who movie watch-PST
Intended: 'Who watched a movie at school?'

Establishing Superiority

Is this just about adjunct hierarchy?

→ *When* questions should scramble above location-adjuncts.

- (16) * Ne zaman okul-da kim film izledi?
what time school-LOC who movie watch-PST
Intended: 'Who watched a movie at school?'

Is it about immobility of adjuncts?

→ Without other adjuncts, these sentences should be ungrammatical.

- (17) Nereye dün Mary git-ti?
where yesterday M go-PST
'Where did Mary go yesterday?'

Establishing Superiority

Is it about immobility of adjuncts?

→ Without other adjuncts, these sentences should be ungrammatical.

- (17) Nereye dün Mary git-ti?
where yesterday M go-PST
'Where did Mary go yesterday?'

Establishing Superiority

Is it about immobility of adjuncts?

→ Without other adjuncts, these sentences should be ungrammatical.

- (17) Nereye dün Mary git-ti?
where yesterday M go-PST
'Where did Mary go yesterday?'

Escaping Superiority

Escaping Superiority is possible in Turkish via F-marking.

More importantly, F-marking anything but the Adjunct *wh* will enable escaping superiority.

Is there a connection to "escaping superiority" in English?

Escaping Superiority

Escaping Superiority is possible in Turkish via F-marking.

More importantly, F-marking anything but the Adjunct *wh* will enable escaping superiority.

Is there a connection to "escaping superiority" in English?

Escaping Superiority

Escaping Superiority is possible in Turkish via F-marking.

More importantly, F-marking anything but the Adjunct *wh* will enable escaping superiority.

Is there a connection to "escaping superiority" in English?

Mitigating Superiority: F-marking *wh*

- (18) * Nereye₂ dün₁ kim t₁ t₂ git-ti?
where yesterday who go-PST.3SG
Intended: 'Who went where yesterday?'

- (19) Nereye₂ dün₁ KİM_F t₁ t₂ git-ti?
where yesterday who go-PST.3SG
'Who went where yesterday?'

Mitigating Superiority: F-marking *wh*

(18) * Nereye₂ dün₁ kim t₁ t₂ git-ti?
where yesterday who go-PST.3SG

Intended: 'Who went where yesterday?'

(19) Nereye₂ dün₁ KİM_F t₁ t₂ git-ti?
where yesterday who go-PST.3SG

'Who went where yesterday?'

Mitigating Superiority: F-marking the adjunct

- (18) * Nereye₂ dün₁ kim t₁ t₂ git-ti?
where yesterday who go-PST.3SG
Intended: 'Who went where yesterday?'

- (20) Nereye₂ DÜN_{1,F} kim t₁ t₂ git-ti?
where yesterday who go-PST.3SG
'Who went where yesterday?'

Mitigating Superiority: F-marking the adjunct

- (18) * Nereye₂ dün₁ kim t₁ t₂ git-ti?
where yesterday who go-PST.3SG
Intended: 'Who went where yesterday?'

- (20) Nereye₂ DÜN_{1,F} kim t₁ t₂ git-ti?
where yesterday who go-PST.3SG
'Who went where yesterday?'

Mitigating Superiority: F-marking the adjunct

(21) * Nereye₂ kim dün t₂ git-ti?
where who yesterday go-PST.3SG
Intended: 'Who went where yesterday?'

(22) Nereye₂ kim DÜN_F t₂ git-ti?
where who yesterday go-PST.3SG
Intended: 'Who went where yesterday?'

Mitigating Superiority: F-marking the adjunct

(21) * Nereye₂ kim dün t₂ git-ti?
where who yesterday go-PST.3SG
Intended: 'Who went where yesterday?'

(22) Nereye₂ kim DÜN_F t₂ git-ti?
where who yesterday go-PST.3SG
Intended: 'Who went where yesterday?'

Mitigating Superiority: F-marking *wh*

(21) * Nereye₂ kim dün t₂ git-ti?
where who yesterday go-PST.3SG
Intended: 'Who went where yesterday?'

(23) Nereye₂ KIM_F dün t₂ git-ti?
where who yesterday go-PST.3SG
Intended: 'Who went where yesterday?'

Mitigating Superiority: F-marking *wh*

(21) * Nereye₂ kim dün t₂ git-ti?
where who yesterday go-PST.3SG
Intended: 'Who went where yesterday?'

(23) Nereye₂ KIM_F dün t₂ git-ti?
where who yesterday go-PST.3SG
Intended: 'Who went where yesterday?'

F-marking the adjunct *wh* does not mitigate superiority

- (24) * NEREYE_{2,F} kim dün t₂ git-ti?
where who yesterday go-PST.3SG
Intended: 'Who went where yesterday?'
- (25) * NEREYE_{2,F} dün₁ kim t₁ t₂ git-ti?
where yesterday who go-PST.3SG
Intended: 'Who went where yesterday?'

Answer lies in the nature of scrambling

Scrambling to both A and A' position occurs (Öztürk, 2005). Common test: Reconstruction (Saito and Fukui, 1998).

A-movement is for interpretation, thus cannot be withdrawn.

A'-movement is vacuous, thus can give rise to reconstruction.

Both A and A' Scrambling is possible

- (26) a. Adamlar_i birbirlerini_i gör-müş
men each.other see-PST
'Men saw each other.'
- b. * Birbirlerini_{i,1} adamlar_i t₁ gör-müş
each.other men see-PST
Intended: 'Men saw each other.'
- c. Birbirlerini_{i,1} adamlar_i t₁ DÜN_F gör-müş
each.other men yesterday see-PST
'Men saw each other yesterday.'

Both A and A' Scrambling is possible

- (26) a. Adamlar_i birbirlerini_i gör-müş
men each.other see-PST
'Men saw each other.'
- b. * Birbirlerini_{i,1} adamlar_i t₁ gör-müş
each.other men see-PST
Intended: 'Men saw each other.'
- c. Birbirlerini_{i,1} adamlar_i t₁ DÜN_F gör-müş
each.other men yesterday see-PST
'Men saw each other yesterday.'

- The superiority constraint is known to not apply to Turkish.
- We show that with multiple adjuncts, the superiority constraint **does** apply.
- This illicit *wh*-movement is allowed with F-marking other elements.

Taking Stock

- The superiority constraint is known to not apply to Turkish.
- We show that with multiple adjuncts, the superiority constraint **does** apply.
- This illicit *wh*-movement is allowed with F-marking other elements.

Taking Stock

- The superiority constraint is known to not apply to Turkish.
- We show that with multiple adjuncts, the superiority constraint **does** apply.
- This illicit *wh*-movement is allowed with F-marking other elements.

Some food for thought

- Both Superiority and Binding constraints are escaped via the same mechanism: F-marking other elements.
- Reconstruction ability seems to be the key element.
- Our data suggest that *wh*-phrases in Turkish are variables and they need a variable to bind them (İşsever, 2003; Görgülü, 2006).
- Bigger fish to fry: What connects English D-linking and Turkish F-marking?

Some food for thought

- Both Superiority and Binding constraints are escaped via the same mechanism: F-marking other elements.
- Reconstruction ability seems to be the key element.
- Our data suggest that *wh*-phrases in Turkish are variables and they need a variable to bind them (İşsever, 2003; Görgülü, 2006).
- Bigger fish to fry: What connects English D-linking and Turkish F-marking?

Some food for thought

- Both Superiority and Binding constraints are escaped via the same mechanism: F-marking other elements.
- Reconstruction ability seems to be the key element.
- Our data suggest that *wh*-phrases in Turkish are variables and they need a variable to bind them (İşsever, 2003; Görgülü, 2006).
- Bigger fish to fry: What connects English D-linking and Turkish F-marking?

Some food for thought

- Both Superiority and Binding constraints are escaped via the same mechanism: F-marking other elements.
- Reconstruction ability seems to be the key element.
- Our data suggest that *wh*-phrases in Turkish are variables and they need a variable to bind them (İşsever, 2003; Görgülü, 2006).
- Bigger fish to fry: What connects English D-linking and Turkish F-marking?

English exhibits superiority effects








- (27) a. Harold climbed the mountain.
- b. Who climbed what?
- c. * What who climbed?

However, it is possible to mitigate these effects with D-linking (Pesetsky, 1987)

- (28) a. Which student did you ask to read which novel?
b. Which novel did you ask which student to read?

- We either explain both of these "escape" routes via language-specific rules...
- Or, we can say something more bold:
 - Superiority is a universal constraint, in the case of Turkish Anti-superiority, it is almost always mitigated.
 - Next Question: what connects English D-linking and Turkish F-marking?

References

-  Bošković, Željko (2002). “On multiple wh-fronting”. In: *Linguistic inquiry* 33.3, pp. 351–383.
-  Görgülü, Emrah (2006). “Variable wh-words in Turkish”. MA thesis. Boğaziçi University, İstanbul, Turkey.
-  İşsever, Selçuk (2003). “Information structure in Turkish: the word order–prosody interface”. In: *Lingua* 113.11, pp. 1025–1053.
-  Özsoy, Sumru A (2009). “Turkish as a (non)-wh-movement”. In: *Series B–Skripter*. Vol. 132. Instituttet for Sammenlignende Kulturforskning, pp. 221–232.
-  Öztürk, Balkız (2005). *Case, referentiality and phrase structure*. John Benjamins Publishing Company.
-  Pesetsky, David (1987). “Wh-in-situ: Movement and unselective binding”. In: *The Representation of (In) Definiteness*.
-  Saito, Mamoru and Naoki Fukui (1998). “Order in phrase structure and movement”. In: *Linguistic inquiry* 29.3, pp. 439–474.