# Rethinking Exceptional Stress Assignment in Turkish

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#### Introduction to Turkish Stress



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**Exceptions:** Non-final stress occurs in certain contexts due to:



## Regular Final Stress

a. kitáp 'book'
b. kitap-lár 'books'
c. kitaplar-ím 'my books'
d. kitaplarım-dá 'in my books'
e. kitaplarımda-kí 'the one in my books'
f. kitaplarımdaki-lér 'the ones in my books'
g. kitaplarımdakiler-é 'to the ones in my books'

Stress consistently falls onto the final syllable as more suffixes are added.

## Exceptional Stress: Pre-Stressing Suffixes

a. gel-sé- <b>ymiş</b>	'if s/he had arrived'
b. gid-ér- <b>se</b>	'if s/he goes'
c. otur-úr- <b>ken</b>	'while sitting'
d. oku-yacák- <b>tır</b>	's/he will most certainly read'
e. gít- <b>me</b> -dik	'we didn't go'
f. gít- <b>me-</b> di-niz <b>mi</b> ?	'didn't you go?'
g. kíş- <b>ın</b>	'in winter'
h. kadín <b>-ca</b>	'womanly'

Boldfaced suffixes are considered to be prestressing as the don't bear stress.

## Exceptional Stress: Stressed Suffixes

(Goksel & Kerslake 2005: 30)

kaz- <b>árak</b>	'by digging'
bak- <b>máksızın</b>	'without looking'
gel- <b>íyor</b> -lar	's/he is coming'
tut- <b>úver-iyor</b>	'hold'
şaş- <b>ákal</b> -dı-m	'I was astounded'

Boldfaced suffixes are polysyllabic morphemes that bear stress on their first syllable.

### Morphemes that are relevant for this study

- Two classes of morphemes will be relevant from now on.
  - Complex morphemes:
    - PROG –*lyor,*
    - low modality converbials –*Akal, -Iver* etc.
      - Stress is always on the first syllable
  - Prestressing morpheme:
    - NEG.
    - Never stressed always prestressing
  - I am aiming to explain these behaviors syntactically.

### Phonological Accounts

#### • Özçelik's (2014) underlying foot-based approach

Pre-stressing suffixes b. Stressed suffixes (indge)<sub>Ft</sub>  $(me)_{Ft}$ 'when' NEG 'by' 'too'  $(de)_{Ft}$ (erek)<sub>Ft</sub> 'while' (ken)<sub>Ft</sub> (ijor)<sub>Ft</sub> PRES CONT (mi)<sub>Ft</sub> INTERROG

- Kabak & Vogel's (2001) prosodic word adjoiners,
  - a. [sev-il-di-**niz**]<sub>PW</sub> 'You were loved.' love-PASS-PAST-2PL
  - b. [[sev-**íl**]<sub>PW</sub>-me<sub>(PWA)</sub>-di-niz] 'You were not loved.' love-PASS-NEG-PAST-2PL

#### Shortcomings of Phonological Accounts

All these accounts consider exceptional suffixes special in phonology or morphology.

Nothing unifies these morphemes; no natural class They still stipulate that something is exceptional about these morphemes.

## Syntactic Accounts

#### Kornfilt (1996):

#### Newell (2008):

Word-level stress is sensitive to syntactic domains.

Verbal domain is divided into two domains and stress is assigned to smallest domain.

[kal-dí][y-sa-niz] [stay-past] [COP-COND-2PL] 'If you have stayed' Building on Kornfilt (1996), phases determine phonological domains. Stress assignment domain is determined by spell-out.

#### Fenger (2020):

Stress is assigned when the syntactic word is built

 Apply stress on every last syllable of every highest X<sup>0</sup> with a root



### Shortcomings of phase-based stress accounts

- Fenger (2020) does not account for NEG and complex morphemes that bear stress on their first syllable.
- Newell (2008) states NEG can be a phase head and blocks head movement therefore whatever below NEG will be in the first domain.
- PROG is also problematic as second syllable does not bear stress in default assignment.

## Proposal

- First spell-out domain is stress assignment domain. (Newell 2008, Fenger 2020)
- What will spelled out is dependent on the heads in the sub-numeration. Syntax can restart the numeration.(Chomsky 2000, 2001; Harwood 2015)
- NEG and Aspect extends the vP (inner phase) domain. The interpretation of heads below NEG/ASP is suspended until they are merged. (Bobaljik & Wurmbrand 2013).

### What is a Phase in Turkish?

- The highest projection of a domain is a phase
  - The extended thematic domain of vP (inner)
  - The combined T and C domains (outer)
- Phase boundary above aspect

• NEG and Aspect extends the vP domain. vP is not a phase unless NEG or ASP is merged.



#### Interpretation Suspension in Turkish

al-ın take-PASS

al-dır-abil take-CAUS-ABIL

These forms cannot be interpreted propositionally in isolation.

Their interpretation depends on higher material, such as a null imperative morpheme, which yields an imperative reading, thereby forming a complete proposition p:

al-ín-Øtake-PASS-IMP'be taken!'al-dír-Øtake-CAUS-IMP'cause to take!'

#### Interpretation Suspension in Turkish

• Alternatively, the merger of a NEG head licenses a negative imperative  $\neg p$ :

al-ín-matake-PASS-NEG'don't be taken'al-dír-matake-CAUS-NEG'don't cause to take'

• The same pattern holds for ASP, T, and C heads:

al-1n-íyor	take-PASS-PROG	'is being taken'
al-ın-dí	take-PASS-PST	'was taken
al-1n-sá	take-PASS-COND	'would be taken'

Interpretation of V, v, and LowMod are suspended until a propositional layer is formed via NEG, ASP, or higher projections such as T or C.

### **Building Syntactic Domains**

- When vP domain is extended, spell out happens.
- ASP head is spelled out whereas NEG's complement is spelled out.
- (kal-ın-abil-ecék)-ti
   stay-PASS-ABIL-<u>FUT</u>-PST
   "(it) could have been stayed at"

#### [V+v+LM+<u>ASP</u>] [T]

ASP extends the vP domain forms p. Spell-out happens.

• (kal-ın-á)-ma-yacak-tı stay-PASS-<u>ABIL</u>-NEG-FUT-PST "It couldn't have been stayed at"

#### [V+v+**LM**] [NEG+ASP+T]

NEG extends the vP domain, forms ¬p. Spell-out happens.

[[V+v+ASP]<sub>vP</sub> [T]]<sub>CP</sub>
/kal-ın-acak-tı/
stay-PASS-FUT-PST'

[kalınacáktı]

T head falls outside of the stress domain.



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[[V+v+LowMod+ASP]<sub>vP</sub>]<sub>CP</sub>
/kal-in-abil-ir/
stay-PASS-ABIL-AOR
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[kalınabilír]

Right edges of vP and CP domains align.





Morphemes from outer domains fall into the stress domain if there's no NEG or ASP.

No reason to spell out vP domain.

### Prestressing Behavior of NEG

#### **Stress predictions with NEG**

- a. \*[Kal-má]<sub>vP</sub> [-yacak-sa]<sub>CP</sub> [stay-NEG]<sub>1st Spell-out</sub> [FUT-COND]
- b. [kál]<sub>vP</sub> [-ma-yacak-sa]<sub>CP</sub> [stay]<sub>1st Spell-out</sub> [NEG-FUT-COND]
- I stipulate that NEG triggers spell-out of their complements, whereas other heads are spelled together with their complements.
- Not clear if this is phonologically or syntactically conditioned.

### Behavior of Complex Morphemes

Complex morphemes:

- PROG *–lyor,*
- low modality converbials –*Akal, -Iver* etc.
- These morphemes include some sort of a verbal morphology (VM) and a lexical verb that diachronically became a suffix.
  - Iyor  $\rightarrow$  I + yor 'walk'

Therefore, in the syntax  $\rightarrow$  <u>VM+V</u>

- Akal  $\rightarrow$  A + kal 'stay'
- lver  $\rightarrow$  I + ver 'give'
- Stress is always on the first syllable.
- The verb roots do not receive stress (at leas not in default assignment)

### Sub-numeration Restarts

- a.Kal-ákal-ıyor-du'stay-Akal-PROG-PST'[[V+VM] [V+ASP+T]]b.Kál-ma-yakal-ıyor-du'stay-NEG-Akal-PROG-PST[[V] [NEG+VM+V+ASP+T]]c.Kal-abil-íyor-du'stay-ABIL-PROG-PST[[V+LowMod+VM] [V+T]]
- Syntax restarts the sub-numeration once it encounters a lexical verb root (V)
- Once the sub-numeration restarts, previous sub-numeration is obligatorily spelled out.
- This explains why *-lyor, Akal, lver* are always stressed in their first syllable. Their second syllable is a verb root.



Syntax Prosody Mapping

- Split-  $\omega$  in Turkish (from Güneş 2021: 154)
- Spell-out domains are mapped into prosodic words.
- Prosodic phrases (φs) in Turkish can only have two prosodic words maximally
- $[(yap-tir-1l-d_1)_{\omega}(ysa-n_1z)_{\omega}]_{\varphi}$

## Constraints for stress assignment in Turkish

- Culminativity:
  - Assign a violation whenever there is more than one stress in the phonological phrase.
- Ident[Stress]:
  - Assign a violation whenever stress in a prespecified root does not correspond to the stress
- Align-R[Stress,ω]
  - Assign a violation whenever stress is not aligned at the right edge of the  $\omega$ .

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Culm >> Ident[Stress] >> Align-R[Stress,ω].
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#### Syntactic structure to prosodic structure



/kal+in+acak/	Culm	$Ident_{[Stress]}$	Align-R[stress, $\omega$ ]
a. (kalınacak) $_{\omega}$	*		*
b. (kálmacak) $_{\omega}$		*	*!
		*	

$/(\text{kalınacák})_{\omega}+\text{ti}/$	Culm	$Ident_{[Stress]}$	Align-R[stress, $\omega$ ]
a. [(kalınacák) $_{\omega}(ti)_{\omega}]_{\varphi}$	*	*	
b. [(kalınacak) <sub><math>\omega</math></sub> (tí) <sub><math>\omega</math></sub> ] <sub><math>\varphi</math></sub>		*!*	*
IF c. [(kalınacák) <sub>ω</sub> (tı) <sub>ω</sub> ] <sub>φ</sub>			*

- Split-ω structure behaves like phrasal stress in Turkish (Leftmost ω receives stress)
- Spell-out timing determines prosodic structure.

## Conclusion

- Exceptional morphemes are <u>not</u> exceptional.
- Non-final stress is like <u>phrasal stress</u> due to split syntactic and prosodic domains.
- Phonology still assigns <u>final stress to</u> <u>the leftmost domain</u>.
- No need for <u>morphological</u>, <u>underlying</u> or <u>positional</u> specifications.

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