

# The cartography of tense, aspect and modality in Turkish

M. Taha Yangın – Dokuz Eylül University

WoSSP 19 – Nantes Université



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# Introduction

## What is the cartography?

- ▶ Cartographic syntax belongs to Principles and Parameters theory in the generative grammar and basically assumes that all languages have a universal structure of hierarchical projections. Hence, cartography mainly aims to draw the structural maps of the functional categories.

## How does the cartography work?

- ▶ It is assumed that the functional heads are rigidly ordered by transitivity, which is affirmed through a systematic comparison of the order of functional heads.

$$(1) (A < B) \wedge (C > B) \Rightarrow (A < C)$$

'A' precedes 'B' AND 'C' follows 'B' SO 'A' precedes 'C'

$$(2) X > B \Rightarrow (X > C) \vee (X < C)$$

G follows B SO 'X' follows OR precedes 'C'

# 1. TAM in Turkish

- ▶ In the literature, there exist conflicting analysis on tense, aspect and modality in Turkish:

(3) a. Ali yarın okula gid-**ecek**-miş.  
Ali tomorrow school.DAT go-FUT-EVI

(Sezer, 2001: 11)

b. Ali eve gid-**ecek**-ti.  
Ali home.DAT go-POS-PST

(Uzun, 2004: 160)

- ▶ Some studies (Erguvanlı-Taylan, 2018; Sezer, 2001; Uzun, 1998) show that TAM in Turkish occurs in an order:

(4) a. Taha eve gel-miş-ti.  
Taha home.DAT come-mIş-DI  
'Taha had come home'

b. \*Taha eve gel-di-y-miş.  
Taha home.DAT come-DI-y-mIş

(5) DI : PST (A) or PER (B) / mIş : EVI (C) or PER (B)

a. Ali eve gel-**di-y-di** (PER < PST) or (PST < PER)

Ali home.DAT come-**DI-y-DI**

b. Ali eve gel-**miş-miş** (PER < EVI) or (EVI < PER)

Ali home.DAT come-**mIş-mIş**

**Conclusion:** if (B < A) and (B < C)  $\Rightarrow$  B < (C > A  $\vee$  A < C)

if (A < B) and (C < B)  $\Rightarrow$  A < (B > C  $\vee$  C < B)

if (B < A) and (C < B)  $\Rightarrow$  C < A

if (A < B) and (B < C)  $\Rightarrow$  A < C

(5) DI : PST (A) or PER (B) / mIş : EVI (C) or PER (B)

a. Ali eve gel-**di-y-di** (PER < PST) or (PST < PER)

Ali home.DAT come-**DI-y-DI**

b. Ali eve gel-**miş-miş** (PER < EVI) or (EVI < PER)

Ali home.DAT come-**mIş-mIş**

(4) a. Ali eve gel-**miş-ti** (PER < PST) or (EVI < PST) or (EVI < PER)

Ali home.DAT come-**mIş-y-DI**

b. \*Ali eve gel-**di-y-miş** (PST < PER) or (PST < EVI) or (PER < EVI)

Ali home.DAT come-**DI-mIş**



(6) DI : PST or PER / mIş : EVI or PER

mAll : OBL or NEC or POS / AbIl : POS or ABI

a. Ali sınavı geç-ebil-miş ol-malı-y-dı

Ali exam.ACC pass-AbIl-mIş AUX-mAll-y-DI

‘Ali should have been able to pass the exam’

b. Ali sınavı geç-miş ol-abil-meli-y-di

Ali exam.ACC pass-mIş AUX-AbIl-mAll-y-DI

‘It was a must that Ali might have passed the exam’

## 2. TAM and Adverbs

- ▶ Adverbs can be determiner for TAM on the verbs:

(7) a. Taha **çoktan** eve gel-di.  
Taha already home.DAT come.PST

b. \*Taha **çoktan** eve gel-ecek-miş.  
Taha already home.DAT come.POS.EVI

c. \*Taha **çoktan** eve gel-ecek-ti.  
Taha already home.DAT come.POS.EVI

(8) a. Taha kapıyı **muhtemelen** aç-acak  
Taha door.ACC possibly open-POS

b. Taha kapıyı **muhtemelen** aç-tı  
Taha door.ACC possibly open-PST

c. Taha kapıyı **muhtemelen** aç-abilir  
Taha door.ACC possibly open-ABL

(9)

Mood<sub>speech act</sub>

Mood<sub>evaluative</sub>

Mood<sub>evidential</sub>

Mod<sub>epistemic</sub>

Tense<sub>past/future</sub>

Mod<sub>necessity</sub>

Mod<sub>possibility</sub>

Aspect<sub>habitual</sub>

Aspect<sub>delayed</sub>

Aspect<sub>predispositional</sub>

Aspect<sub>repetitive</sub>

Aspect<sub>frequentative</sub>

Mod<sub>volition</sub>

Aspect<sub>celerative</sub>

Tense<sub>anterior</sub>

Aspect<sub>terminative</sub>

Aspect<sub>continuative</sub>

Aspect<sub>continuous</sub>

Aspect<sub>retrospective</sub>

Aspect<sub>proximative</sub>

Aspect<sub>durative</sub>

Aspect<sub>prospective</sub>

Mod<sub>obligation</sub>

Aspect<sub>frustrative</sub>

Aspect<sub>completive</sub>

Voice<sub>passive</sub>

**Verb**

AdvP<sub>speech act (frankly,...)</sub>

AdvP<sub>evaluative (oddly,...)</sub>

AdvP<sub>evidential (allegedly,...)</sub>

AdvP<sub>epistemic (probably,...)</sub>

AdvP<sub>past/future (then,...)</sub>

AdvP<sub>necessity (necessarily,...)</sub>

AdvP<sub>possibility (possibly,...)</sub>

AdvP<sub>habitual (usually,...)</sub>

AdvP<sub>delayed (finally,...)</sub>

Aspect<sub>predispositional (tendentially,...)</sub>

AdvP<sub>repetitive (again,...)</sub>

AdvP<sub>frequentative (frequently,...)</sub>

AdvP<sub>volition (willingly,...)</sub>

AdvP<sub>celerative (quickly,...)</sub>

AdvP<sub>anterior (already)</sub>

AdvP<sub>terminative (no longer,...)</sub>

AdvP<sub>continuative (still,...)</sub>

AdvP<sub>continuous (always,...)</sub>

AdvP<sub>retrospective (just,...)</sub>

Aspect<sub>proximative (soon,...)</sub>

AdvP<sub>durative (briefly,...)</sub>

AdvP<sub>prospective (imminently,...)</sub>

AdvP<sub>obligation (obligatorily,...)</sub>

AdvP<sub>frustrative (in vain,...)</sub>

AdvP<sub>completive (partially,...)</sub>

AdvP<sub>manner (well,...)</sub>

**Verb**

(Cinque and Rizzi, 2016)

(10) **Speech Act > Evaluative Adverbs**

- a. Honestly I am unfortunately unable to help you.
- b. \*Unfortunately I am honestly unable to help you.

(Cinque, 1999: 33)

(11) **Speech Act > Evaluative Mood**

ne coh-un os ip-ess-kwun-a.  
you nice-RL dress wear-PER-EVA-SPE  
'You are wearing a beautiful dress!'

(Sohn, 1999: 363)

(12) **Time > Necessity Adverbs**

(Italian)

a. *Probabilmente ora ci ascolterà.*

Probably now us listen.FUT.3SG

b. *Ora probabilmente ci ascolterà.*

Now probably us listen.FUT.3SG

(Cinque, 1999: 13)

(13) **Tense > Necessity Mod**

(Ngiyambaa)

yana-buna-biya-y-aga

go-back-NEC-VS-FUT

‘It is a necessity we go back (in the future)’

(Donaldson, 1977: 227)

## 4. Mapping TAM in Turkish

- ▶ It is checked whether the hierarchical order of the adverbs proposed by Cinque (1999, 2006), Cinque and Rizzi (2016) work in the same way.
- ▶ The positions of the adverbs are compared with TAM suffixes in Turkish, which are given and discussed mostly in generative and theoretical grammar studies.
- ▶ After the functions of TAM suffixes which are not coordinated to the adverbs are defined and their positions are determined.

- ▶ Misordering depending on the translation of adverbs and change on the meaning:

(15) **Anterior** ‘*zaten*’ > **Terminative** ‘*artık*’

a. Siz konuyu *zaten* *artık* anladınız.

You subject.ACC *already* no longer understand.PST.3PL

b. \*Siz konuyu *artık* *zaten* anladınız.

You subject.ACC no longer already understand.PST.3PL

(16) **Terminative** ‘*artık*’ > **Anterior** ‘*çoktan*’

a. Siz konuyu *artık* *çoktan* anladınız.

You subject.ACC no longer already understand.PST.3PL

b. \*Siz konuyu *çoktan* *artık* anladınız.

You subject.ACC already no longer understand.PST.3PL



- ▶ The comparison of adverbs one by one can give different results on their hierarchical order:

(17) \***Ability** > **Frustrative Adverbs**

a. \*Ali *aptalca boşuna* konuştu.

Ali stupidly uselessly talk.PST

b. Ali *boşuna aptalca* konuştu.

Ali uselessly stupidly talk.PST

‘Ali uselessly stupidly talked’

(18)	<b>Mood</b> <sub>Speech Act</sub>	<b>Adv</b> <sub>Speech Act</sub>
	<b>Mood</b> <sub>Evidential</sub>	<b>Adv</b> <sub>Evidential</sub>
	<b>Tense</b> <sub>Past</sub>	<b>Adv</b> <sub>Past</sub>
	<b>Mod</b> <sub>Possibility</sub>	<b>Adv</b> <sub>Possibility</sub>
	<b>Mod</b> <sub>Volition</sub>	<b>Adv</b> <sub>Volition</sub>
	<b>Aspect</b> <sub>Continuous/Perfective</sub>	<b>Adv</b> <sub>Continuous/Perfective</sub>
	<b>Mod</b> <sub>Obligation</sub>	<b>Adv</b> <sub>Obligation</sub>
	<b>Mod</b> <sub>Ability</sub>	<b>Adv</b> <sub>Ability</sub>
	<b>Voice</b> <sub>Passive</sub>	<b>Adv</b> <sub>Passive</sub>

- The hierarchy of TAM and coordinated adverbs in Turkish - I

- ▶ To examine the functions of the markers proposed in the literature, all are used in preceding order to each other:

(19) Mood<sub>Speech Act</sub> > Mood<sub>Evidential</sub>

a. Ali okula git-miş-tir.

Ali school.DAT go-EVI-SPA

b. \*Ali okula git-tir-miş.

Ali school.DAT go-SPA-EVI

(20) Mod<sub>Possibility</sub> > Aspect<sub>Perfective</sub>

Ali uyu-*muş* ol-*abilir*.

Ali sleep-PER AUX-POS

- ▶ The functions of TAM markers that given in the litreature but not coordinated to the order of adverbs were revised:

(21) *-mIş*: PER or EVI / *-(I)yor*: Continuous

Eve geldiğimde, Ali uyu-*muş* ol-*uyor*-du.

home.DAT come.ADV.1SG Ali sleep-*mIş* AUX-*yor*-PST

a. \*Aspect<sub>Continuous</sub> > Mood<sub>Evidential</sub>

b. \*Aspect<sub>Perfective</sub> > Aspect<sub>Continuous</sub>

c. Aspect<sub>Habitual</sub> > Aspect<sub>Perfective</sub>

‘When I came home, Ali was used to be sleeping.’

# Conclusion

- ▶ It is seen that the orders of adverbs should be examined one by one considering the fact that the meaning through translation can change the order.
- ▶ TAM markers in Turkish given in the literature were not coordinated to the order of adverbs. Therefore, the functions of these markers were reconsidered and in what constructions their functions occur. Also, their positions were verified according to coordinated adverbs.

(22)	Mood <sub>Speech Act</sub>	Adv <sub>Speech Act</sub>
	Mood <sub>Evidential</sub>	Adv <sub>Evidential</sub>
	Tense <sub>Past</sub>	Adv <sub>Past</sub>
	★Mod <sub>Necessity</sub>	Adv <sub>Necessity</sub>
	Mod <sub>Possibility</sub>	Adv <sub>Possibility</sub>
	★Aspect <sub>Habitual</sub>	Adv <sub>Habitual</sub>
	Mod <sub>Volition</sub>	Adv <sub>Volition</sub>
	Aspect <sub>Continuous/Perfective</sub>	Adv <sub>Continuous/Perfective</sub>
	★Aspect <sub>Prospective</sub>	Adv <sub>Prospective</sub>
	Mod <sub>Obligation</sub>	Adv <sub>Obligation</sub>
	Mod <sub>Ability</sub>	Adv <sub>Ability</sub>
	★Aspect <sub>Resultative</sub>	Adv <sub>Resultative</sub>
	Voice <sub>Passive</sub>	Adv <sub>Manner</sub>

## The hierarchy of TAM and coordinated adverbs in Turkish - II

# References

- Cinque, G. (1999). *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. New York: Oxford University Press.
- Cinque, G. (2001). A note on mood, modality, tense and aspect affixes in Turkish. *The Verb in Turkish* (47-60). Amsterdam: John Benjamins.
- Cinque, G. (2006). *Restructuring and Functional Heads*. New York: Oxford University Press.
- Donaldson, T. (1977). *A Description of Ngiyamba: the Language of the Waŋa:ybuwan People of Central Western New South Wales*. Australian National University: Canberra
- Erguvanlı-Taylan, E. (2001). On the relation between temporal/aspectual adverbs and the verb form in Turkish. *The Verb in Turkish* (97-128). Amsterdam: John Benjamins.
- Rizzi, L. and Cinque, G. (2016). Functional Categories and Syntactic Theory. *Annual Review of Linguistics*. 2: 139-163.
- Sezer, E. (2001). Finite inflection in Turkish. *The Verb in Turkish* (1-45). Amsterdam: John Benjamins.
- Sohn, H. (1999). *The Korean language*. Cambridge: Cambridge University Press.
- Sezer, E. (2001). Finite inflection in Turkish. *The Verb in Turkish* (1-45). Amsterdam: John Benjamins.
- Uzun, N. E. (1998). Türkçe'de Görünüş/Kip/Zaman Üçlüsü. *Dil Dergisi*. 68: 5-22.
- Uzun, N. E. (2004). *Dünya Dillerinden Örnekleriyle Dilbilgisinin Temel Kavramları: Türkçe Üzerine Tartışmalar* (2. Baskı). İstanbul: Pandora Kitap Evi.