# Semantics of the disjunction in Turkish Alternative Questions

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9th Asian Junior Linguists Conference December 13-15, 2024



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# Alternative questions

- (1) Did John drink tea or coffee?
   ≈ Is it the case that John had a warm beverage?
   (Yes/no question)
- (2) Did John drink TEA or COFFEE? ≈ Which one of the following did John drink: tea or coffee? (Alternative question)

(3) Zeynep çay mı iç-ti (yoksa) kahve mi? Zeynep tea mI drink-PST (or<sub>Alt</sub>) coffee mI Did Zeynep drink tea or coffee? ≈ Which one of the following did Zeynep drink: tea or coffee?

- (3) Zeynep çay mı iç-ti (yoksa) kahve mi? Zeynep tea mI drink-PST (or<sub>Alt</sub>) coffee mI Did Zeynep drink tea or coffee? ≈ Which one of the following did Zeynep drink: tea or coffee?
- (4) 太郎が コーヒーを 飲んだ か (それとも)
  Taro-ga koohii-o non-da ka (soretomo)
  Taro-NOM coffee-ACC drink-PST KA (or<sub>Alt</sub>)
  お茶を 飲んだ か
  ocha-o non-da ka
  tea-ACC drink-PST KA
  Did Taro drink coffee or tea?
  ≈ Which one of the following did Taro drink: coffee or tea?

(Uegaki, 2014b)

# Semantics of Questions

 We will assume the formal semantics framework in Heim and Kratzer, 1998 and von Fintel and Heim, 2011 and adopt Hamblin/Karttunen's semantics of questions.



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- Questions are denoted by sets of their semantically congruent answers (propositions).
- (5) Does Mary smile? whether Mary smile  $= \{\lambda w'. \text{ Mary smiles in } w', \ \lambda w'. \text{ Mary does not smile in } w'\}$

# Alternative Questions

- (6) Did Alphonso sing or dance? whether Alphonso danced or sang =  $\{\lambda w'$ . Alphonso danced in w',  $\lambda w'$ . Alphonso sang in w' $\}$
- (Han and Romero, 2004, Beck and Kim, 2006, Uegaki, 2014a, Uegaki, 2014b, cf. Guerzoni and Sharvit, 2014, Wu, 2022)
- Exhaustivity and mutual exclusivity (Biezma & Rawlins, 2012)



• Syntactic analysis of the alternative questions.

# Gračanin-Yüksek, 2016

- Syntactic analysis of the alternative questions.
- Both sides of the disjunction are full CPs with elided material.



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- Syntactic analysis of the alternative questions.
- Both sides of the disjunction are full CPs with elided material.
- (7) Zeynep çay mı iç-ti (yoksa) Zeynep kahve mi Zeynep tea mI drink-PST (or<sub>Alt</sub>) Zeynep coffee mI iç-ti?
  drink-PST

Did Zeynep drink tea or did she drink coffee?



# Atlamaz, 2023

• Bidimensional semantics of questions in Turkish



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- Semantically, the AltQ represents a simple set union of the two disjuncts.



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# Atlamaz, 2023

- Bidimensional semantics of questions in Turkish
- The disjuncts are narrow focus questions. Alternatives are introduced by focus.
- Semantically, the AltQ represents a simple set union of the two disjuncts.
- Gricean reasoning limits the alternatives → exhaustivity
- "Sam said TEA or COFFEE. She stated two alternatives. explicitly. If there was a third option, she would overtly state it. Therefore, there must be only two options." (Atlamaz, 2023)

Further observations

#### Data

(8) Zeynep çay mı iç-ti (yoksa) kahve mi? Zeynep tea mI drink-PST (or<sub>Alt</sub>) coffee mI Did Zeynep drink tea or coffee? ≈ Which one of the following did Zeynep drink: tea or coffee?

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- (8) Zeynep çay mı iç-ti (yoksa) kahve mi? Zeynep tea mI drink-PST  $(or_{A/t})$  coffee mI Did Zeynep drink tea or coffee?  $\approx$  Which one of the following did Zeynep drink: tea or coffee?
- (9)a. Çay iç-ti. tea drink-PST She drank tea.
  - b. Kahve iç-ti. coffee drink-PST She drank coffee.

Further observations

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(10) Zeynep çay mı iç-ti (yoksa) kahve mi? Zeynep tea mI drink-PST (or<sub>Alt</sub>) coffee mI Did Zeynep drink tea or coffee? ≈ Which one of the following did Zeynep drink: tea or coffee?

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- (11) a. #İki-sin-i de iç-ti. two-POSS-ACC too drink-PST She drank both.
  - b. #İki-sin-i de iç-me-di.two-POSS-ACC too drink-NEG-PSTShe drank neither.



(12)Context: I believe it's possible that Zeynep speaks both English and Turkish, or either one of them.

```
#Zeynep Türkçe mı bil-iyor (yoksa) İngilizce
Zeynep Turkish mI know-PROG (or<sub>Alt</sub>) English
mi?
mI
```

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Zeynep Turkish mI know-PROG (or<sub>Alt</sub>) English
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```

Does Zeynep speak Turkish or English?

One of the disjuncts must be true (existence)

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#Zeynep Türkçe mı bil-iyor (yoksa) İngilizce Zeynep Turkish m<br/>I know-PROG (or_{Alt}) English mi? m
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- One of the disjuncts must be true (existence)
- Only one of the disjuncts must be true (uniqueness)
- Exhaustivity under Atlamaz, 2023 covers existence, but does so through implicature.
- → Does not predict infelicity!



# Lexical entry for $OR_{Alt}$ (yoksa)

(13) A 
$$\cup_{ex}$$
 B = { $x : [x \in A \text{ or } x \in B] \text{ and } x \notin A \cap B$ }



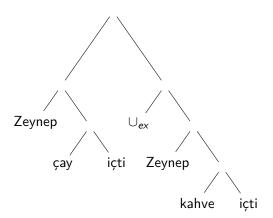
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- (14) Zeynep çay mı iç-ti (yoksa) kahve mi? Zeynep tea mI drink-PST (or<sub>Alt</sub>) coffee mI Did Zeynep drink tea or coffee? ≈ Which one of the following did Zeynep drink: tea or coffee?

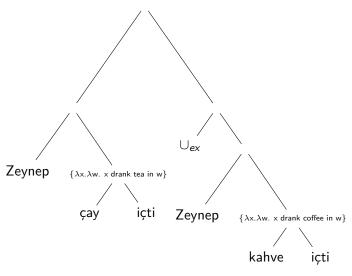


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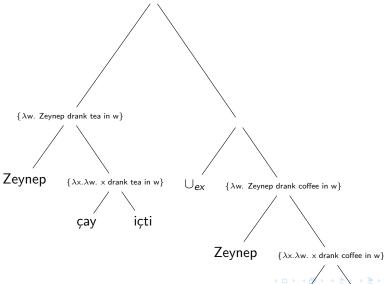
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- (15)  $\{p_1\} \cup_{ex} \{p_2\} = \{p : \forall w \in p, [w \in p_1 \text{ or } w \in p_2] \land w \notin p_1 \cap p_2\}$  {Zeynep drinks coffee}  $\cup_{ex} \{\text{Zeynep drinks tea}\} = \{p : \forall w \text{ such that } p \text{ is true in } w, [\text{Zeynep drinks coffee in } w \text{ or Zeynep drinks tea in } w]$





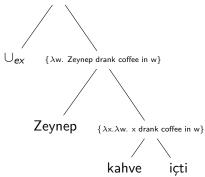








 $\lambda A.\{p: \forall w \in p, [w \in \{\lambda w. Zeynep \text{ drank coffee in } w\} \text{ or } w \in A] \land w \notin \{\lambda w. Zeynep \text{ drank coffee in } w\} \cap A\}$ 



- $\lambda A.\{p : \forall w \in p, [w \in \{\lambda w.Zeynep drank coffee in w\} or w \in A] \land w \notin \{\lambda w.Zeynep drank coffee in w\} \cap A\}$  ({ $\lambda w.Zeynep drank coffee in w}$ )
- $\{p: \forall w \in p, \\ [w \in \{\lambda w. \text{Zeynep drank coffee in } w\} \text{ or } w \in \{\lambda w. \text{Zeynep drank tea in } w\}] \\ \land w \notin \{\lambda w. \text{Zeynep drank coffee in } w\} \cap \{\lambda w. \text{Zeynep drank tea in } w\}\}$

#### ご視聴誠にありがとうございました!

#### Thank you!



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