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Multiple Accent in Alternative Question Composition

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Disjunctive Questions

Disjunctive Questions have two possible interpretations (Bartels 1999)

(1) a. Are you making PASTA*L*H-* or FISH*H*L-L%*? [Alternative Question]
‘Which of the following things are you making: pasta or fish?’
[[α]] = {are you making pasta, are you making fish}

b. Are you making pasta or FISH*L*H-H%*? [Polar Question]
‘Is it true that you are making pasta or fish?
[[α]] = {are you making pasta or fish}

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'Is it true that you are making pasta or fish?
[[α]] = {are you making pasta or fish}

The interpretation of a disjunctive questions as an **Alternative Question** relies on 2 cues.

(i) The Multiple Accent
Each disjunct gets a pitch accent

(ii) The Final Fall
The question ends with a final falling boundary tone

Alternative Questions

Pragmatic Characteristics of Alternative Questions

(Groenendijk and Stokhof 1984, Roelefosen and Gool 2010, Biezma and Rawlins 2012)

(i) Minimality: At least one of the disjuncts must be true

(2) A: Are you making PASTA*L*H-* or FISH*H*L-L%*?
B: # None of the two.

(ii) Exclusivity: At most one of the disjuncts can be true

(3) A: Are you making PASTA*L*H-* or FISH*H*L-L%*?
B: # Both.

(iii) Exhaustivity: No other alternative is considered

(4) A: Are you making PASTA*L*H-* or FISH*H*L-L%*?
B: # I am making soup.

From Surface to Meaning

What cue is generating what?

In the literature, there is a strong bias towards the final fall.

-Empirically:
If subjects are asked to interpret a disjunctive question with **only the Final Fall**, they interpret the questions as an **Alternative Question** (Pruitt & Roelofsen 2012).

-Theoretically:
Prominent accounts have only modelled the Final Fall (Biezma & Rawlins 2012), or have modelled the contribution of the Multiple Accent as semantically null (Roelofsen & van Gool 2010).

Goal: Vindicate the Multiple Accent!

Claim

A unified theory of Alternative Questions cannot ignore the semantic contribution of the Multiple Accent

Outline

- **Previous Accounts**
  - Biezma & Rawlins (2012)
  - Roelofsen & van Gool (2010)
  - Westera (2017)
- **Question-Particles**
  - Alternative Questions
  - Polar Questions
  - Zooming in on Q-particles in Polar Questions
- **Towards an Analysis**

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- **A Pilot Study**
- **Towards an Analysis**

Previous Accounts

Biezma & Rawlins (2012) – In the spirit of Zimmerman (2001):

Exhaustivity is semantically encoded by means of a **closure operator**, signalled by the **Final Fall**

-Fall applies to a list, indicating that “nothing but the list item has the *property in question*
-*Property in question* for Alternative Questions is being one of the possible answers to QUD

Contraints: *α* must contain a disjunction.
the alternatives are mutually exclusive.

Previous Accounts

Roelofsen & van Gool (2010)

-The Multiple Accent is a reflex of a focus feature in the logical form
-The Final Fall correlates with a closure feature in the logical form.

Role of focus: highlighting possibilities

(5) $[[$ Q-are you making $[\text{pasta}]_F$ or $[\text{fish}]_F]]_H$
$= \{\lambda w.\text{you are making}_w(\text{pasta}), \lambda w.\text{you are making}_w(\text{fish})\}$

(6) $[[$ Q-are you making $[\text{pasta or fish}]_F]]_H =$
$=\{\lambda w.\text{you are making}_w(\text{pasta}) \cup \lambda w.\text{you are making}_w(\text{fish})\}$

Previous Accounts

Westera (2017)

Exhaustivity is a pragmatic effect generated by the final fall, signalling that the speaker believes he listed all the live and relevant alternatives.

(7) a. Are you from Denmark ↑?
b. Are you from Denmark ↓?

This mechanism can be applied to smaller constituents, e.g. NPs

(8) Do you want to go by bike ↑, train ↑, or bus ↓?

Summarized

Biezma & Rawlins (2012):

-All you need is a closure operator (of some form)

Roelofsen & van Gool (2010):

-All you need is a closure feature (of some form)

-Highlighting is a ‘pragmatic extra’

Westera (2017):

-Falling signals having listed everything that’s relevant and possible

-The rise on the second disjunct signals not having listed everything that’s relevant and possible (yet)

All:

-The Final Fall indicates that you are done, and this is the crucial cue for Alternative Question interpretation, generating *minimality*, *exclusivity*, and *exhaustivity*

Outline

- Previous Accounts
  - Biezma & Rawlins 2012
  - Roelofsen & van Gool 2010
  - Westera 2017

- **Question-Particles**
  - Alternative Questions (data)
  - Polar Questions (data)
  - Polar Questions (refinement of the data)

- A Study
- Towards an Analysis

Question-Particles

In certain languages, the Multiple Accent is mirrored by Q-particles

In Turkish and Sinhala, an Alternative Question interpretation relies on:

-the prosodic characteristics (Final Fall + Multiple Accent)

-a Q-particle attached to each disjunct

This obligatory property of Alternative Questions in these languages cannot be accounted for by existing accounts.

Q-Particles in Sinhala

Sinhala (Slade 2011, Weerasooriya 2017)

(9) a. John tee-**da** coopy-**da** biiw-e?
John tea Q coffee Q drank.E
'Did John drink coffee or tea?' [Alternative Question]

b. John tee-hari coopy-hari biiw-**da**
John tea-hari coffee-hari drank Q
'Did John drink coffee or tea?' [Polar Question]

Q-Particles in Alternative Questions

Sinhala (Slade 2011, Weerasooriya 2017)

(9) a. John tee-**da** coopy-**da** biiw-e?
John tea Q coffee Q drank.E
'Which of the following things did John drink: coffee or tea?' [Alternative Question]

b. John tee-hari coopy-hari biiw- **da**
John tea-hari coffee-hari drank Q
'Is it true that John drank coffee or tea?' [Polar Question]

Some terminology:

-**da** attached to the disjuncts: *narrow Q-particle*
-**da** attached to the final verb: *broad Q-particle*

Q-Particles in Alternative Questions

Turkish (Hagstrom 1998)

(10) a. Ali iskambil **mi** (oynadi) yoksa futbol **mu** oynadi?
Ali cards Q play.past or*alt* football Q play.past
'Did Ali play cards or football?' [Alternative Question]

b. Ali iskambil veya futbol oynadi **mu**?
Ali cards or*decl/pol* football play.past **Q**
'Did Ali play cards or football?' [Polar Question]

Q-Particles in Alternative Questions

Macedonian (novel data, with Jordanoska)

(11) a. Meso **li** (sakash), riba **li** sakash? [?AltQ/*PolQ]
Meat Q (want), fish Q want?
'Do you want meat or fish?'

b. Sakash **li** meso ili riba? [*AltQ/PolQ]
want Q meat or fish
'Do you want meat or fish?'

Q-particles

Q-Particles make a semantic contribution in Polar Questions

The position of a Q-particle in a Polar Question plays a crucial role in the interpretation of the sentence.

The semantic contribution of Q-particles to Polar Questions opens a window into their contribution in Alternative Questions.

Q-Particles in Polar Questions

Sinhala (Slade 2011, Weerasoriya 2017)

(12) a. Chitra ee pote kieuwa **de**
Chitra that book read-A **Q**
Did Chitra read that book? [Neutral]

b. Chitra ee pote **de** kiewe
Chitra that book **Q** read.E
'Was it that book which Chitra read?' [Focus]

Q-Particles in Polar Questions

Turkish (Kamali 2011, Kamali & Büring 2011):

(13) a. Ali iskambil oynadi **mi**?
Ali cards play Q
'Did Ali play cards?' [Neutral]

b. [Ali]$_{CT}$ iskambil oynadi **mi**?
Ali cards played Q
'As for Ali, did he play cards?' [Contrastive Topic]

c. Ali **mi** iskambil oynadi?
Ali Q cards play
'Was it Ali who played cards?' [Focus]

d. Ali iskambil **mi** oynadi?
Ali cards Q play
'Was it cards what ali played?' [Focus]

Q-Particles in Polar Questions

Macedonian (Rudin et al 1999)

(14) a. Ima Pepsi? [Neutral]
have.3sg Pepsi
'Is there pepsi?'

b. Dali ima Pepsi? [Neutral]
Q have.3sg Pepsi
'Is there pepsi?'

c. Pepsi **li** ima? [Focus]
Pepsi Q have.3sg
'Is it pepsi what there is?'

d. [Pepsi]CT ima **li**? [Contrastive Topic]
Pepsi have.3sg Q
As for pepsi, IS there any?

Q-Particles in Polar Questions

Generalization

The Q-Particle signals the constituent it attaches to is in focus (Kamali 2011, Rudin 1999, Slade 2011 a.o.)

The Big Questions

-What is it exactly that Focus-marking does here?
-Can we relate this to Alternative Question semantics?

Two possibilities

(i) Focus marking conveys *exclusivity* (uniqueness)
(ii) Focus marking shapes the Question under Discussion (QUD)

Q-Particles and Exclusivity

Pseudoclefts

(15) Ali **mi** iskambil oynadi?
Ali Q cards play
'Was it Ali who played cards?'

Pseudoclefts have an *exclusivity* presupposition (Drenhaus et al 2011)

This could be easily related to Alternative Questions, recall:

(i) Exclusivity: At most one of the disjuncts can be true

(3) A: Are you making PASTA*L*H-* or FISH*H*L-L%*?
B: # Both.

Q-Particles in Polar Questions

A parallel to English

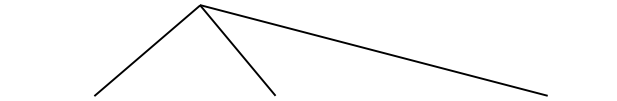
The focal accent in English in Polar Questions

(16) a. Did ALFRED play cards?
b. Did Alfred play CARDS?

Biezma (2009) and Bäuerle argue that (16a) and (16b) are branches of different QUDs

QUD: Who played cards?

QUD: What did Alfred play?



A way to test

Turkish – a Pilot Study (Sarakas 2017):

2 Factors:

Factor 1: Question Type

4 levels: narrow li
broad li
pseudocleft
broad li + CT rise

Factor 2: Context type

4 levels: neutral
epistemic bias
pseudocleft
contrastive topic

Task:

Subjects were presented with a context and were asked what question type they would use

Sarakas (2017)

1: Epistemic bias

Ali usually doesn't play cards. Now Ali's sister is telling her mother that she saw him playing cards. Ali's mother clearly heard what she said, still her reaction is:

2. Pseudo-cleft

In a bar we see multiple friends of Ali playing cards. We can't identify the guy who's back is turned in our direction. Later that night, a friend of Ali is telling us that Ali won three times in a row, based on which I conclude that the guy we couldn't identify was Ali, and I say:

3. CT

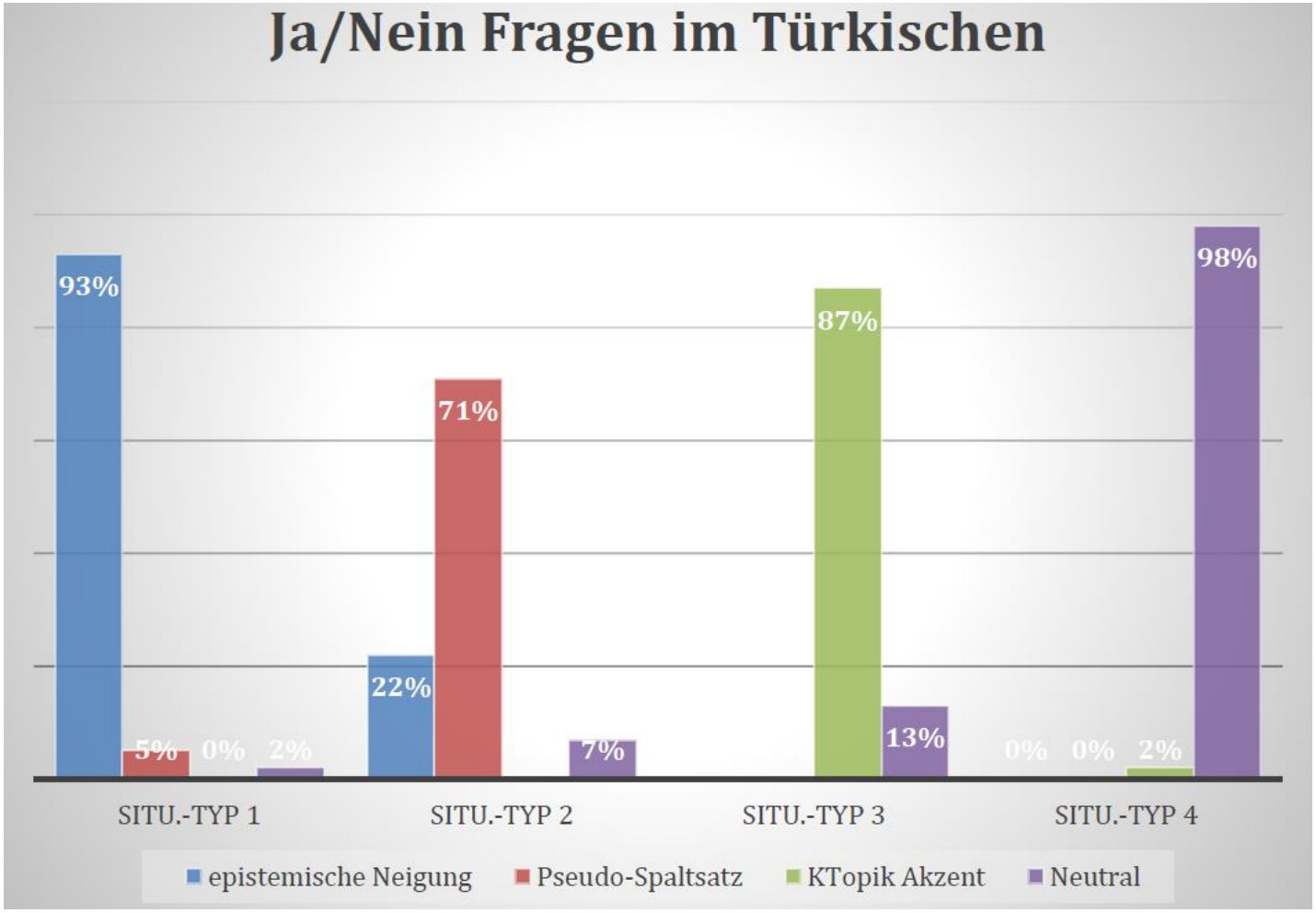
A collegue is telling me that he saw Furkan, Mehmet, Burak and Göhkan play cards. I know that Ali was together with these guys and ask about him, because she didn't mention his name.

4. Neutral

A collegue is telling me that he was in a bar together with Ali. Because Ali plays cards every day, I ask whether he played today.

Sarakas (2017)

Results



Towards an Analysis

Towards an analysis

We propose **3** ingredients:

(i) Closure based on pragmatics (à la Westera 2017)
(ii) Focus Marking (à la Rooth 1992)
(iii) Contrastive Topic (à la Büring 2003)

Towards an Analysis: Focus Marking

The focus semantic value $[[.]]^f$ is defined in (17a), and the focus felicity condition in (17b) (Rooth 1992)

(17) a. $[[\text{Ali}_F \text{ played cards}]]^f = \{\text{a played cards, b played cards, c played cards, …}\}$

b. $[[\phi \sim_f C]]$ is felicitous only if $[[C]] \subseteq [[\phi]]^f$

Towards an Analysis: Contrastive Topic

The CT value $[[.]]^{ct}$ is as in (18a) and the CT felicity condition in (18b) (Büring 2003)

(18) a. $[[\text{Ali}_{CT}\ [\text{played cards}]_F]]^{ct}$ ={{a played cards, b played cards, c played cards,…},{a read a book, b read a book, c read a book,…},…}

b. $[[\phi \sim_{ct} C]]$ is felicitous only if $[[C]] \subseteq [[\phi]]^{ct}$

Towards an Analysis

Propsal

(i) *mi* contributes F-marking of its adjacent constituent at LF
(ii) The squiggle operator ~ checking the felicity conditions above is attached to IP
(iii) [[C]] is taken as a salient Question Under Discussion

Towards an analysis

Polar Question + narrow *mI*

(15) Did Ali ↓ -mi play cards?

a. LF: [Q [$_{IP}$ Ali$_{F}$ play cards] ~$_{f}$ C]

Towards an analysis

Polar Question + narrow *mI*

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a. LF: [Q [$_{IP}$ Ali$_{F}$ play cards] ~$_{f}$ C]

b. [[C]] ⊆ [[Ali$_{F}$ played cards]]^{f} = {a played cards, b played cards, c played cards,…}

Towards an analysis

Polar Question + narrow *mI*

(15) Did Ali ↓ -mi play cards?

a. LF: [Q [$_{IP}$ Ali$_{F}$ play cards] ~$_{f}$ C]

b. [[C]] ⊆ [[Ali$_{F}$ played cards]]^{f} = {a played cards, b played cards, c played cards,…}

c. [[C]] = {a played cards, ~~b played cards, c played cards,…~~} =
‘Who$_{\{a\}}$ played cards?’

Towards an analysis

Polar Question + narrow *mI*

(15) Did Ali ↓ -mi play cards?

a. LF: [Q [$_{IP}$ Ali$_{F}$ play cards] ~$_{f}$ C]

b. [[C]] ⊆ [[Ali$_{F}$ played cards]]^{f} = {a played cards, b played cards, c played cards,…}

c. [[C]] = {a played cards, ~~b played cards, c played cards,…~~} =
‘Who$_{\{a\}}$ played cards?’

d.

‘Who$_{\{a\}}$ played cards?’

|

u: ‘Did Ali ↓ -mi play cards?’

Towards an Analysis

Alternative Question

(16) Did Ali↑ –mi or Beste↓ -mi play cards?

a. LF: [Q [[*IP1* Ali*F* played cards]~$_f$ C or [*IP2* Beste*F* play cards]~$_f$ C]]

Towards an Analysis

Alternative Question

(16) Did Ali↑ –mi or Beste↓ -mi play cards?

a. LF: [Q [[*IP1* Ali*F* played cards]~$_f$ C or [*IP2* Beste*F* play cards]~$_f$ C]]

b. [[C]] $\subseteq$ [[IP1]]^f = [[IP2]]^f {a played cards, b played cards, c played cards,…}

Towards an Analysis

Alternative Question

(16) Did Ali↑ –mi or Beste↓ -mi play cards?

a. LF: [Q [[*IP1* Ali*F* played cards]~$_f$ C or [*IP2* Beste*F* play cards]~$_f$ C]]

b. [[C]] $\subseteq$ [[IP1]]^f = [[IP2]] ^{f} {a played cards, b played cards, c played cards,…}

c. [[C]] = {a played cards, b played cards, ~~c played cards,…~~} =
‘Who$_{\{a,b\}}$ played cards?’

Towards an Analysis

Alternative Question

(16) Did Ali↑ –mi or Beste↓ -mi play cards?

a. LF: [Q [[*IP1* Ali*F* played cards]~$_f$ C or [*IP2* Beste*F* play cards]~$_f$ C]]

b. [[C]] $\subseteq$ [[IP1]]^f = [[IP2]] ^{f} {a played cards, b played cards, c played cards,…}

c. [[C]] = {a played cards, b played cards, ~~c played cards,…~~} =
‘Who$_{\{a,b\}}$ played cards?’

d. ‘Who$_{\{a,b\}}$ played cards?’

u: ‘Did Ali↑ -mi or Beste↓ -mi play cards?’

Towards an Analysis

Polar Question + broad *mI* + CT marking

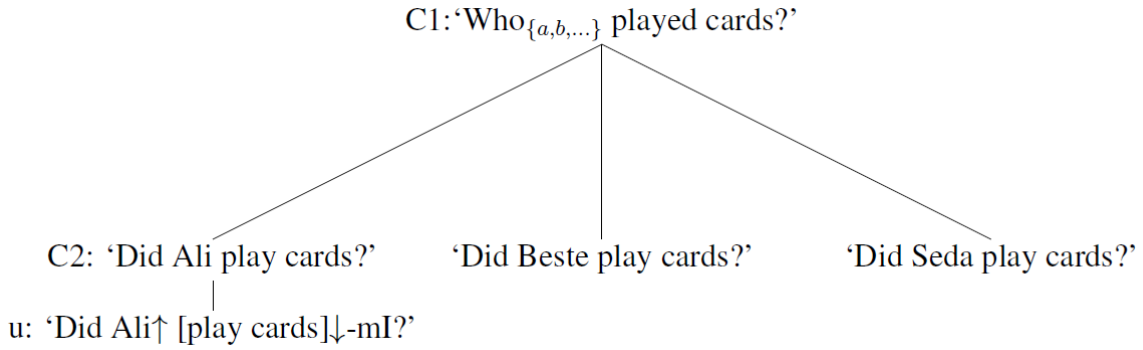
(17) Did Ali↑ [play cards]↓ -mi?

a. LF: [Q[[*IP* Ali*CT* [play cards]*F*]~*f* C1]~*ct* C2]

b. C1 = {a played cards, ~~a smoked a cigar, a read a book,…~~}

c. C2 = {{a played cards},{b played cards},{c played cards},…} = 'Who$_{\{a,b,\ldots\}}$ played cards?'

d



Altogether

Take home message

A unified analysis of Alternative Questions requires modelling of Multiple Q-Particles

Focus-Marking

The Multiple Particles in Turkish and Sinhala contribute Focus Marking, and Pilot data suggests that they serve to shape the QUD

Ideally

We apply the analysis of Q-particles to the Multiple Accent in English

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