### The Specific vs. Generic Duality of Wh-words

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> MLC talk, ILLC 28 March 2025







(1) a. ME: Who cheated at Maria's exam?

→ Someone cheated.

(existential inference : EI)

(1) a. ME: Who cheated at Maria's exam?

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b. TOM: Nobody cheated.

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- (1) a. ME: Who cheated at Maria's exam?
  - → Someone cheated.
- b. TOM: Nobody cheated.
- (2) a. ME: Which student cheated?
  - → Some student cheated.b. TOM: Wait a minute, nobody cheated.

(existential inference : EI)

(existential presupposition)

- (1) a. ME: Who cheated at Maria's exam?
  - → Someone cheated.
- b. TOM: Nobody cheated.(2) a. ME: Which student cheated?
  - a. ME: Which student cheated?
     → Some student cheated.
    - b. TOM: Wait a minute, nobody cheated.

#### Questions:

- What is the status of the El of who-questions
- When is it triggered? / What triggers it?

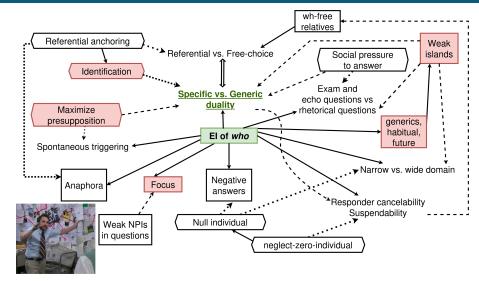
(existential inference : EI)

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## The Specific vs. Generic theory



### The Specific vs. Generic theory



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- Properties of the EI
- Dependence on semantic and pragmatic contexts
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### A weak and volatile El

Arguments in favor of an existential presupposition :

- The El is spontaneously triggered
- (3) Who cheated at Maria's exam? → Somebody cheated.

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# A weak and volatile El

Introduction

Arguments in favor of an existential presupposition:

- The El is spontaneously triggered
- Who cheated at Maria's exam? → Somebody cheated. (3)
  - The speaker cannot cancel the El
- (4) Who cheated at Maria's exam? #I know that nobody cheated at Maria's exam.

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Arguments against an existential presupposition:

- The responder can cancel the EI (without background disagreement)
- (5)ME: Who cheated at Maria's exam? TOM: Nobody cheated at Maria's exam.

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- The responder can cancel the EI (without background disagreement)
- (5) ME: Who cheated at Maria's exam? TOM: Nobody cheated at Maria's exam.
  - The speaker can suspend the EI
- (6) Who cheated at Maria's exam? Maybe nobody.

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### Properties of the El

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- (4) Who cheated at Maria's exam? #I know that nobody cheated at Maria's exam.

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  - The speaker can suspend the El
- (6) Who cheated at Maria's exam? Maybe nobody.
  - Negative responses are truth-conditional answers
- (7) Sonia and Marco believe that nobody cheated at Maria's exam, and so agree on who cheated.

## Dependent on semantic environments

Some environments license free-choice items, e.g. any :

- (8)\*Mary read any book yesterday.
  - When she was young, Mary used to read any comic book. b.
  - Tomorrow, we'll take advantage of any situation.
  - Any student knows that.

(habitual) (future)

(generic)

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  - c. Tomorrow, we'll take advantage of any situation.
  - d. Any student knows that.

In these environments, the El seems weaker:

- (9) a. What do you usually read when you relax?
  - b. What will you read during that meditation retreat?
  - c. What did you read when you were relaxing yesterday?
- (10) a. What do Dutch people eat for dessert?
  - b. What did Guido eat for dessert yesterday?

(aeneric)

(habitual)

(future)

(generic)

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### Weak islands

Introduction

#### Some wh-words cannot escape weak islands:

- (11) a. [Which car]<sub>i</sub> are you wondering [how to fix  $t_i$ ]?
  - b. \*How<sub>i</sub> are you wondering [whether to fix my car  $t_i$ ]?

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  - b. \*How<sub>i</sub> are you wondering [whether to fix my car  $t_i$ ]?
- (12) Who<sub>i</sub> were you wondering [whether to visit  $t_i$  on your vacation]?

### Weak islands

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  - \*How; are you wondering [whether to fix my car  $t_i$ ]? b.
- (12)Who; were you wondering [whether to visit  $t_i$  on your vacation]?

#### Weak island constraint stronger with free-choice environments:

- (13)?What do you usually wonder whether to visit? a.
  - h. ?What will you wonder whether to visit?
  - ?What do Dutch people wonder whether to eat? C.

(habitual)

(future)

(generic)

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Dependence on semantic and pragmatic contexts

Introduction

## Dependent on the asker's goal

(14) a. CONTEXT: John went in the cellar two days ago. There was no socks on the floor and no weird smell. Today, he went back in the cellar.

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- (14) a. CONTEXT: John went in the cellar two days ago. There was no socks on the floor and no weird smell. Today, he went back in the cellar.
  - b. SITUATION A: A sock was on the floor.

    JOHN: Who went in the cellar yesterday?

(specific)

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  - b. SITUATION A : A sock was on the floor. JOHN : Who went in the cellar yesterday?

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(generic: MA or MS)

- c. SITUATION B: The cellar smelled weirdly. John suspects that it might be a gaz leakage. He wants to know when it started.
  - JOHN: Who went in the cellar yesterday?



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Specificity test: rephrasing with an existential

- Somebody was in the cellar yesterday. Who was it?
- SITUATION A
- #SITUATION B

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### Specificity test: rephrasing with an existential

- Somebody was in the cellar yesterday. Who was it?
- SITUATION A
- #SITUATION B

#### Pragmatics of responder cancellation:

- How would the negative response "Nobody" be taken?
- SITUATION A: as non-cooperative, the asker need to revise their sentence
- SITUATION B: as cooperative, helps the asker to achieve his goal

# Interim summary

#### The EI:

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- neither a presupposition
- nor an implicature

#### Weaker / suspended :

- in free-choice-licensing environments
- in general questions
- when not talking about a specific individual

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#### Idea: two readings

- a specific reading whos: with an existential presupposition
- a generic reading who<sub>G</sub>: with no existential presupposition

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  - Focus movement and specificity
  - Non-interrogative wh-items
  - Anaphoric properties
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Focus movement and specificity

# Focus movement in Mongolian

### Mongolian SOV with in situ questions:

(15) Tuya who-COM marry be-PST Q? 'Who did Tuya marry?'

(ONEA et GUNTSETSEG 2011)

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A focused object moves before the object : ex situ question :

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## Focus movement in Mongolian

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- responding "Tuya married nobody." to (16) is taken as hiding the truth

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- (15) open to "Tuya married nobody."
- responding "Tuya married nobody." to (16) is taken as hiding the truth
- (15) acceptable as a general question with no salient event
- (16) only felicitous with a specific individual in mind, e.g.
- (17) a. I just saw that Tuya married a boy, but I didn't recognize him.
  - b. I'm sure Tuya married some boy or another in her life.

## Focus movement in Mongolian

#### Mongolian SOV with in situ questions:

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A focused object moves before the object : ex situ question :

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Similar focus movement in Ngamo (West Chadic)

(GRUBIC 2015)

⇒ S/G ambiguity grammatically mediated in some languages

Non-interrogative wh-items

### Referential vs. attributive

Some attributive readings of (in)definites don't trigger an EI:

- (18) a. A golden coin was given to the sailors who captured a pirate. (referential) 
  → Some sailors captured a pirate.
  - A golden coin will be given to the sailors who capture a pirate. (attributive)

     √ Some sailors will capture a pirate.

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### Referential vs. attributive

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  - A golden coin will be given to the sailors who capture a pirate. h. (attributive)

#### Same for free-relatives based on wh-items:

- (19)Lordered what John ordered for dessert. → John ordered something for dessert.
  - John will read whatever Bill assigns. b. (attributive : free-choice)
    - → Bill will assign something.

(referential)

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### Referential vs. attributive

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   ← Some sailors captured a pirate.

Same for free-relatives based on wh-items :

(19) a. I ordered what John ordered for dessert.→ John ordered something for dessert.

(referential)

b. John will read whatever Bill assigns.

(attributive : free-choice)

→ Bill will assign something.

VON HEUSINGER 2002 : specific vs. non-specific readings

⇒ S/G ambiguity in non-interrogative wh-items

Puzzles Motivations Applications Alternative analysis 00000 Anaphoric properties

## Generic anaphora to a wh-word

Introduction

#### Wh-words introduce discourse referents:

- (20)A: Who<sup>u</sup> went to the party? And what did they<sub>u</sub> bring as a present? a. (van Rooij 1998)
  - A: Who<sup>u</sup> knows how to model free choice effects in questions? b.
  - B: I don't know, but that u person would probably work at ILLC. C.

# Generic anaphora to a wh-word

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  - A: Who<sup>u</sup> knows how to model free choice effects in questions?
  - B: I don't know, but that u person would probably work at ILLC.
  - d. #I don't know, but that, person works at ILLC.

#### Default modal subordination

- (21)A<sup>u</sup> wolf might come in.
  - $\#It_u$  is grey.
  - $It_{ij}$  would eat you first.
  - Probably linked to the *modal behavior* of free-choice / generic items

(DAYAL 1998)

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# Anaphoric properties

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# Specific reference to wh-words

Specific questions make the wh-referent accessible :

- (22) a. Who<sup>u</sup> was sitting here? She<sub>u</sub> forgot her<sub>u</sub> bag.
  - b. Which<sup>u</sup> writer won the Nobel Prize in Literature in 1969? To give you a hint, he<sub>u</sub> is Irish. (HAIDA 2007)

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Some wh-word used as deictic:

- (23)What<sub>u</sub> were you talking about?
  - Pointing signs for interrogative words

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Some wh-word used as deictic:

- (23)What<sub>u</sub> were you talking about?
  - Pointing signs for interrogative words
- ⇒ Specific and Generic readings have different dynamic effects

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  - Specific vs. Generic : identification
  - Null answers
  - Explaining spontaneous triggering
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Specific vs. Generic : identification

# Epistemic determiners

Determiners and pronouns sensitive to the knowledge of the speaker: (HASPELMATH 1997)

- (24) a. Gianni walked into the classroom and addressed a certain boy.
  - Gianni è entrato in classe e si è rivolto ad un ragazzo qualunque.
     'Gianni walked into the classroom and addressed a (random) boy'

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     'Gianni walked into the classroom and addressed a (random) boy'

### Speaker identification:

(JAYEZ et TOVENA 2005)

- [(24-a)] = there exists an individual d identified in some way (e.g. by his name) such that Gianni addressed d
- [(24-b)] = Gianni addresses a boy that is not / cannot be identified by the speaker

Specific vs. Generic : identification

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# Wh-words are epistemic pronouns

### Same duality for who/what:

- (25) a. Who<sup>u</sup> was sitting here?
  - b. Someone was sitting here. I request to know her name.

#### Identification:

(25-a) asks about the name of u

# Wh-words are epistemic pronouns

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- the person who was sitting here
- Possible model with conceptual covers

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- $\blacksquare$  who<sub>S</sub> comes equipped with an extra identification method for u:
- the person who was sitting here
- Possible model with conceptual covers
- (26) a. What do you usually do in the weekend?
  - (i) #You usually do things during your weekend. I request to know these things.
  - (ii) If you usually do things in the weekend, whatever it is, could you share with me examples of these things?

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# Negative answers with null individuals

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Null answers

Negative responses are truth-conditional answers What negative answers?

■ D∪ží et al. 2015 : as the negation of positive answers / the EI



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Issue with quantified questions:

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Null answers

- (27) a. A: What did every student read?
  - B: John read Ulysses, Anne read Moby Dick, and Tijn read Madame Bovary.
  - c. EI: Every student read something.

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#### Better model:

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Null answers

- Any negative answer allows for the null individual \* in the domain of the wh-word
- f: student  $\rightarrow$  book  $\cup \{\star\}$  such that  $f(a) = \star$  for at least one  $a \in$  student

### Domain effects

Introduction

Null answers

### An additional property:

- Free-choice items : domain widening
  - in particular : includes \*
- Domain narrowing : wide-scope of specific NPs

(SCHWARZSCHILD 2002)

Null answers

Introduction

### Domain effects

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  - in particular : includes \*
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Consistent with observations:

- (28) a. What do Dutch people eat for dessert?
  - b. What did you do during your weekend?

(SCHWARZSCHILD 2002)

Explaining spontaneous triggering

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## Consequence of the semantic ambiguity

The two readings  $who_S$  and  $who_G$  are homophonic :

- same semantic content
- whos has a presupposition
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But who<sub>G</sub> can always be reinterpreted :

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### (29) Ignorance Principle

A speaker can only ask an information-seeking question if he or she does not know the answer(s).

(FITZPATRICK 2005)

No speaker cancelability

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  - Weak NPIs in questions
  - Question types and likelihood gradient
  - Weak islands
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## NPIs in questions : the common picture

Weak NPIs are licensed in downward-entailing environments :

- (30) a. \*John bought any books. \*John ever bought books.
  - b. John didn't buy any books. It is false that John ever bought books.

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Weak NPIs are licensed in wh-questions:

- (31) a. Who has ever been to Paris?
  - John wonders who has ever been to Paris.

Puzzles Motivations Theory Alternative analysis Applications 00000 Weak NPIs in questions

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### Scope effects:

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- (32)What, did anybody say  $t_i$  at the semantics seminar?
  - \*Who read the book which has any missing pages?

(rhetorical only)



Puzzles Motivations Theory Alternative analysis Applications denonc Weak NPIs in questions

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HAN et SIEGEL 1996: NPI licensed iff the negative answer licenses it

- (33)Nobody has ever been to Paris. a.
  - \*Anybody said nothing at the semantics seminar.

Weak NPIs in questions

### Puzzle with NPIs

### Correct prediction for be surprised:

- be surprised blocks negative answers
  - (34) \*It surprises John who, if anybody, went to Paris this year.
- be surprised does not license NPIs
- (35) \*It surprised John who has ever been to Paris.

Weak NPIs in questions

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#### But:

(36) a. SITUATION: Each student said which movies they thought merited their success. Mary is an outstanding student and knows a lot about movies. However, this time, she mentioned very bad or controversial movies. Therefore, John is surprised that Mary, in particular, mentioned these movies.

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Introduction

### Puzzle with NPIs

### Correct prediction for be surprised:

- be surprised blocks negative answers
  - \*It surprises John who, if anybody, went to Paris this year. (34)
- be surprised does not license NPIs
- (35)\*It surprised John who has ever been to Paris.

#### But:

- (36)a. SITUATION: Each student said which movies they thought merited their success. Mary is an outstanding student and knows a lot about movies. However, this time, she mentioned very bad or controversial movies. Therefore, John is surprised that Mary, in particular, mentioned these movies.
  - It surprises John [which movies],  $Mary_E$  thinks [t, have any merit]. b.

# Explaning be surprised + weak NPIs

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### Established (Mongolian, Ngamo):

- who<sub>S</sub> is / can be focused
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Prediction: NPIs bad in specific questions

- (38) a. SITUATION: John cooked 20 cookies. Now there are only 19 cookies left.
  - b. JOHN #Who took any cookie(s)?

Puzzles Motivations Theory Applications Alternative analysis Conclusio

Question types and likelihood gradient

## Question types

Introduction

Existential presupposition with exam and echo questions :

- (39) a. PROF. A: When did the Belgian monarchy end?
  - b. STUDENT B: I don't know.
  - c. PROF. A: Never. Belgium is still a monarchy.
  - d. STUDENT B: Wait a minute, that was a trick question!
- (40) I didn't hear well, WHO cheated?

Puzzles Motivations Theory Alternative analysis Applications Question types and likelihood gradient

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Bias towards negative answer in rhetorical and reflexive questions:

- (41)Which sane human being would ever vote for Prof. Jones? a.
  - Dove sarà Anna? Non la vedo. b. 'Where might Ann be? I do not see her.'

(MARI 2024)

- Qui a bien pu ouvrir la porte?
  - 'Who (the hell) might have opened the door?'

Motivations Theory Alternative analysis Puzzles Applications Question types and likelihood gradient

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Correlated with answer expectation

(MARI 2024)

Motivations Theory Alternative analysis Puzzles Applications Question types and likelihood gradient

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'Who (the hell) might have opened the door?'

### Observation:

Correlated with answer expectation

### Hypothesis:

■ who<sub>S</sub> puts a (higher) social pressure to answer than who<sub>G</sub>

#### Prediction:

■ who<sub>S</sub>/who<sub>G</sub> likelihood gradient correlated with answer expectation

The Specific vs. Generic Duality of Wh-words

26 / 31

(MARI 2024)

## Back on weak islands

Introduction

Weak islands

- (42) a. Who were you wondering whether to visit on your vacation?
  - b. ?What do Dutch people wonder whether to eat?

(generic)

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Introduction

Weak islands

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#### Weak islands:

■ Specific wh-words can escape

(CINQUE 1990; RIZZI 1990)

 Wide, not well-behaved domains have a harder time escaping weak islands (SZABOLCSI et ZWARTS 1993)

### Consequence:

Only who is affected by weak islands: bad at taking wide scope

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## Back on weak islands

Introduction 0000 Weak islands

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Only who<sub>G</sub> is affected by weak islands: bad at taking wide scope

### Redeeming (42-b):

- (43) a. What is it that Dutch people wonder whether to eat at breakfast? (cleft)
  - b. According to a Dutch study conducted in 2025, what do Dutch people wonder whether to eat at breakfast?
  - c. Sorry, WHAT do Dutch people wonder whether to eat at breakfast? (echo)

- 6 Alternative analysis A pragmatic ambiguity?

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A pragmatic ambiguity?

# A pragmatic ambiguity?

Instead of a semantic ambiguity : maybe a pragmatic effect

- Dekker 1998 : any attributive description can get a referential reading
- who<sub>G</sub> as default, and possible referential anchoring

(Von Heusinger 2002)

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# A pragmatic ambiguity?

Instead of a semantic ambiguity : maybe a pragmatic effect

- DEKKER 1998 : any attributive description can get a referential reading
- who<sub>G</sub> as default, and possible referential anchoring (Von HEUSINGER 2002)

What about spontaneous triggering?

- Pragmatic tendency to avoid null individuals
- Maybe some kind of neglect-zero-individual
- Assuming that the asker has a referent in mind
- (44) SITUATION: There are no lemons on this table.

#Less than three lemons on this table are ripe.

(LANDMAN 2011)

Puzzles Motivations Theory Applications Alternative analysis **Conclusion**○○○○○ ○○○○ ○○○○ ○○

## Conclusion

Introduction

The existential inference of simplex wh-question is:

- weak and unstable
- weaker in free-choice-licensing environments
- depends on pragmatic factors

Motivations for a specific vs. generic semantic ambiguity :

- Focus movement in Mongolian and Ngamo
- Referential vs. attributive readings of non-interrogative wh-items
- Anaphoric properties of wh-words

This duality explains:

- Weak NPIs in questions
- Variation of answer expectation to different kinds of questions
- Weak islands

ion Puzzles Motivations Theory Applications Alternative analysis **Conclusion**00000 00000 00000 00000 00

# Summary of the duality properties

Property	<b>who</b> <sub>S</sub>	<b>who</b> <sub>G</sub>
Referent Identification	specific	generic
Presuppositional	yes (existential)	no
Open to negative answers	no	yes
Anaphoric relation	matrix	modal subordination
Domain	narrow	wide
Favoring environments	/	habitual, future, generic
Sensitivity to interveners	no	yes (weak islands at least)
Can be focused	yes	no
Trace licensing weak NPIs	no	yes
Associated question types	exam, echo	rhetorical, reflexive

Thank you!



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