

## Questions, focus, and friends

This semester, we will explore issues in the semantics of interrogative constructions and focus constructions. It is often assumed that these two kinds of constructions are closely related and share many syntactic/semantic properties.

**Today:** Some reasons to think that questions and focus are related phenomena.

### 1 Questions and answers

There are many possible answers to a question.

- (1) *Who did John introduce to Mary?*
- a. John introduced Sue to Mary.
  - b. John doesn't even know Mary.
  - c. John introduced Sue to Mary, and Bill to Chris.
  - d. John doesn't like to make introductions.
  - e. I don't know.
  - f. I'm hungry

Answer (a) is *congruent* to the question: it is, pretheoretically, the simplest and most straightforward one. Moreover, it corresponds to the so-called *short answer* to the question:

- (2) *Who did John introduce to Mary?*
- g. Sue.

There is a systematic correlation between the question and the answer to that question: constituents in the answer that correspond to the *wh*-phrase are *focused*. If we place focus on another constituent in the answer, the result is perceived as deviant, or *incongruent*.

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|--|---|
| (3) <i>Who did John introduce to Mary?</i> | (4) <i>Who did John introduce Sue to?</i> |
| a. John introduced SUE to Mary.            | a. # John introduced SUE to Mary.         |
| b. # John introduced Sue to MARY.          | b. John introduced Sue to MARY.           |
| c. # JOHN introduced Sue to Mary.          | c. # JOHN introduced Sue to Mary.         |

It's not that (3b–c) are ungrammatical, they are just not congruent to the question in (3).

We will return to this correlation in a moment.

## 2 Questions as sets of propositions

The basic intuition behind the approach to questions that we will use in this class is that *a question denotes a set of propositions*, which correspond to the *possible congruent answers* to the question (Hamblin, 1973; Karttunen, 1977).

Here are some illustrations for yes-no questions, alternative questions, and *wh*-questions:

- (5) Is John a student?  
    { John is a student,        }  
    { John is not a student }  
    }
- (6) Is John a student or a professor?  
    { John is a student,        }  
    { John is a professor }  
    }
- (7) Which professor is teaching Syntax 3?  
    { Jessica is teaching Syntax 3,    }  
    { Lisa is teaching Syntax 3,        }  
    { Junko is teaching Syntax 3, ... }  
    }

A speaker that utters one of these questions thereby indicates that she doesn't know which proposition(s) in the set are true and which are false, and she would like the addressee to identify the true answer to the question.

In this class we will mostly concentrate on *wh*-questions:

- (8) *What food* did John introduce \_\_\_\_ to Mary?  
    { John introduced sushi to Mary,    }  
    { John introduced natto to Mary,    }  
    { John introduced ramen to Mary,... }  
    }
- (9) *Which professor* \_\_\_\_ met Mary at the party?  
    { John met Mary at the party,        }  
    { Bill met Mary at the party,        }  
    { Chris met Mary at the party,... }  
    }
- (10) *Where* did John meet Mary \_\_\_\_?  
    { John met Mary at the party,        }  
    { John met Mary in the park,        }  
    { John met Mary on the street,        }  
    { John met Mary at the store,... }  
    }

In (8)–(10), the answers vary in the position of the gap. The *wh*-word determines what can go in that position.

Note that the proposition that “John met Mary at the party” is a possible answer to both (9) and (10).

### 3 Question-answer congruence

Suppose that “John met Mary at the party” is the true answer to both (9) and (10). Notice that these answers would be pronounced differently:

- |  |                                       |
|--|---------------------------------------|
| (11) <i>Which professor met Mary at the party?</i> | (12) <i>Where did John meet Mary?</i> |
| a. JOHN met Mary at the party.                     | a. * JOHN met Mary at the party.      |
| b. * John met MARY at the party.                   | b. * John met MARY at the party.      |
| c. * John met Mary at the PARTY.                   | c. John met Mary at the PARTY.        |

The element that corresponds to the *wh*-word in the answer is *focused*.

- (13) “Focus indicates the presence of alternatives that are relevant for the interpretation of linguistic expressions.” — Krifka (2006)

Focus invokes a set of alternatives. In (14), the word “turtle” is focused. The focus on “turtle” conjures up other potential alternatives to “turtle,” based on the current discourse context. Each of these local alternatives then corresponds to alternative propositions. The meaning of the proposition without the contribution of focus is called the *prejacent*.

- (14) Alex took the TURTLE to school.  
Prejacent proposition: Alex took the turtle to school.  
Focused constituent: turtle  
Alternatives to “turtle”: frog, pig...  
Alternative propositions: Alex took the *frog* to school, Alex took the *pig* to school...

**Conjecture:** A question and an answer are congruent when the answer’s alternative propositions are the same as the possible answers to the question (Rooth, 1992).

- (15) **Evaluating question-answer congruence with focus:**
- a. question: What did Alex take to school?
    - i. ✓ Alex took the TURTLE to school.
    - ii. # ALEX took the turtle to school.
  - b. question: Who took the turtle to school?
    - i. # Alex took the TURTLE to school.
    - ii. ✓ ALEX took the turtle to school.

## 4 Focus association and focus-sensitive operators

There are other phenomena beside questions that make use of focus alternatives. For example, *focus-sensitive operators* such as *only*, *even* and *also* need to associate with a focused constituent.

The choice of focus has been shown to affect the interpretation of different focus-sensitive operators in a systematic way (Jackendoff, 1972; Rooth, 1985, 1992).

(16) Alex  $\left\{ \begin{array}{l} \text{only} \\ \text{even} \\ \text{also} \end{array} \right\}$  took the TURTLE to school.

(17) Alex  $\left\{ \begin{array}{l} \text{only} \\ \text{even} \\ \text{also} \end{array} \right\}$  took the turtle to SCHOOL.

Each focus-sensitive operator relates the prejacent proposition to alternative propositions in a different way. For (16), we have the following informal descriptions:

- (18) a. *only*: the prejacent “Alex took the turtle to school” is true, but all the alternative propositions (“Alex took the frog to school,” “Alex took the pig to school”...) are false.
- b. *even*: the prejacent proposition is “Alex took the turtle to school” was less likely than the alternative propositions, e.g. “Alex took the frog to school,” “Alex took the pig to school”..., but the prejacent is nonetheless true.
- c. *also*: at least one of the alternative propositions (“Alex took the frog to school,” “Alex took the pig to school”...) is true, and additionally the prejacent “Alex took the turtle to school” is true.

Quantificational adverbs such as *always* and *often* are also focus-sensitive.

- (19) a. Sandy *always* feeds FIDO Nutrapup.  
'Everything Sandy feeds Nutrapup to is Fido.'
- b. Sandy *always* feeds Fido NUTRAPUP.  
'Everything Sandy feeds to Fido is Nutrapup.'

*Either* is also focus-sensitive:

- (20) John *either* introduced Bill to SUE, or MARY.  
'John introduced Bill to Sue or to Mary (but not to someone else)'
- (21) John *either* introduced SUSHI to Sue, or NATTO.  
'John introduced sushi or natto (but not something else) to Sue'

## 5 Parallels between questions and focus

In English, *wh*-questions involve movement<sup>1</sup> but focus does not involve movement.<sup>2</sup>

Questions and focus constructions often use similar strategies cross linguistically.

### 5.1 The focus position in Hungarian

☞ *only*- and *wh*-phrases must move to a designated, immediately preverbal position...  
(É Kiss, 2002, p. 90)

- (22) a. \*János be mutatott kit Marinak?  
John VM introduced whom Mary-DAT  
'Whom did John introduce to Mary?'  
b. János KIT mutatott be Marinak?
- (23) a. \*János be mutatott csak Pétert Marinak.  
John VM introduced only Peter-ACC Mary-DAT  
'John introduced only PETER to Mary.'  
b. János CSAK PÉTERT mutatott be Marinak.

If there's a *wh* and an *only*, they compete and the *wh* wins!

- (24) **Move the *wh*-phrase** (É Kiss, 2002, p. 91)
- a. KI látta CSAK PÉTERT?  
who saw only Peter-ACC  
'Who saw only Peter?'
- b. \*CSAK PÉTERT látta KI?

( Generally, more than one thing can front in Hungarian at a time to preverbal positions. )

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<sup>1</sup>Except when they don't.

<sup>2</sup>Except when it does.

## 5.2 Identical marker on focus and *whs* in Yaeyama Ryukyu

In Yaeyama Ryukyu (Japonic), *wh*-words and focused constituents do not need to move, but are marked with *du*.

(25) Subject *wh*-question and answer:

a. taa=**du** suba=ba fai.  
who=DU soba=PRT ate  
“Who ate soba?”

b. kurisu=n=**du** suba=ba fai.  
Chris=NOM=DU soba=PRT ate  
“CHRIS ate soba.”

(26) Object *wh*-question and answer:

a. kurisu=ja noo=ba=**du** fai.  
Chris=TOP what=PRT=DU ate  
“What did Chris eat?”

b. kurisu=ja suba=ba=**du** fai.  
Chris=TOP soba=PRT=DU ate  
“Chris ate SOBA.”

(?, p. 1)

## 5.3 Identical marker on focus and *whs* in Mandarin Chinese

In Mandarin Chinese, *wh*-words and focused constituents do not need to move, but are preceded by an optional *shì*, in an adverb-like position.

(27) a. (**shì**) shéi chī-le ròubāo?  
(SHI) who eat-PERF meat.buns  
‘Who ate the meat buns?’

b. (**shì**) ZhāngSān chī-le ròubāo.  
(SHI) ZhangSan eat-PERF meat.buns  
‘ZHANG SAN ate the meat buns.’

(28) a. ZhāngSān (**shì**) chī-le (\*shì) shénme?  
ZhangSan (SHI) eat-PERF (SHI) what  
‘What did Zhang San eat?’

b. ZhāngSān (**shì**) chī-le (\*shì) ròubāo.  
ZhangSan (SHI) eat-PERF (SHI) meat.buns  
‘Zhang San ate the MEAT BUNS.’

## 6 Outlook

We will look at two technologies for computing the meaning of questions and focus.

- Movement (including covert movement)
- Alternative computation, which does not require movement

For each strategy, we will study its syntactic characteristics and understand its semantics. We will also talk about how we might distinguish the two.

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