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To Project or Not to Project – Is that a Question?

Recent work revisiting focus projection, relevant experimental evidence, and open questions

Kordula De Kuthy and Detmar Meurers

The Ohio State University

COGETI Workshop, Heidelberg November 24, 2006



Motivation

The nature of the integration of a sentence into a discourse can provide an explanation for constraints previously stipulated in syntax (cf., e.g., De Kuthy 2002). To Project or Not to Project

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Motivation

The nature of the integration of a sentence into a discourse can provide an explanation for constraints previously stipulated in syntax (cf., e.g., De Kuthy 2002).

To explore this line of research, we need an explicit representation and understanding of the interaction of syntax and information structure. To Project or Not to Project

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- The nature of the integration of a sentence into a discourse can provide an explanation for constraints previously stipulated in syntax (cf., e.g., De Kuthy 2002).
- To explore this line of research, we need an explicit representation and understanding of the interaction of syntax and information structure.
- German and English, as the languages we are mostly working on, are intonation languages where the prosody plays an important role in constraining the possible integration of a sentence into the discourse.

Some relevant notions

To discuss the interaction of prosody, syntactic structure and pragmatic function of a sentence in a discourse, we rely on the following three notions commonly found in the literature (cf. our tutorial at the COGETI Göttingen workshop):

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Some relevant notions

To discuss the interaction of prosody, syntactic structure and pragmatic function of a sentence in a discourse, we rely on the following three notions commonly found in the literature (cf. our tutorial at the COGETI Göttingen workshop):

Focus: Which part of the meaning of a sentence answers the question under discussion in a discourse? To Project or Not to Project

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Some relevant notions

To discuss the interaction of prosody, syntactic structure and pragmatic function of a sentence in a discourse, we rely on the following three notions commonly found in the literature (cf. our tutorial at the COGETI Göttingen workshop):

- Focus: Which part of the meaning of a sentence answers the question under discussion in a discourse?
- Givenness: Which part of the meaning of a sentence contributes given and which new information?

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Some relevant notions

To discuss the interaction of prosody, syntactic structure and pragmatic function of a sentence in a discourse, we rely on the following three notions commonly found in the literature (cf. our tutorial at the COGETI Göttingen workshop):

- Focus: Which part of the meaning of a sentence answers the question under discussion in a discourse?
- Givenness: Which part of the meaning of a sentence contributes given and which new information?
- Pitch Accent: An intonational phrase includes a nuclear accent (different types of accents exist); additional ones are referred to as prenuclear.

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To discuss the interaction of prosody, syntactic structure and pragmatic function of a sentence in a discourse, we rely on the following three notions commonly found in the literature (cf. our tutorial at the COGETI Göttingen workshop):

- Focus: Which part of the meaning of a sentence answers the question under discussion in a discourse?
- Givenness: Which part of the meaning of a sentence contributes given and which new information?
- Pitch Accent: An intonational phrase includes a nuclear accent (different types of accents exist); additional ones are referred to as prenuclear.

There are a lot of different uses of the first two terms, so we first make them explicit here and how one can test them.



Characterizing Focus

Which part of a sentence answers the question under discussion in the discourse can be made explicit by testing which expression is in the scope of *only*. To Project or Not to Project

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Characterizing Focus

- Which part of a sentence answers the question under discussion in the discourse can be made explicit by testing which expression is in the scope of *only*.
 - (1) The conference participants are renting all kind of vehicles. Yesterday Bill came to the conference driving a red convertible and today he's arrived with a blue one. Do you know what John rented?

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Characterizing Focus

- Which part of a sentence answers the question under discussion in the discourse can be made explicit by testing which expression is in the scope of *only*.
 - (1) The conference participants are renting all kind of vehicles. Yesterday Bill came to the conference driving a red convertible and today he's arrived with a blue one. Do you know what John rented?
 - (2) a. He only rented a MOTORCYCLE.

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Characterizing Focus

- Which part of a sentence answers the question under discussion in the discourse can be made explicit by testing which expression is in the scope of *only*.
 - (1) The conference participants are renting all kind of vehicles. Yesterday Bill came to the conference driving a red convertible and today he's arrived with a blue one. Do you know what John rented?
 - (2) a. He only rented a MOTORCYCLE.
 - focus = new = [a motorcycle] "only" makes explicit what is focused: Out of all the vehicles he could have rented, he got a motorcycle.

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(1) The conference participants are renting all kind of vehicles. Yesterday Bill came to the conference driving a red convertible and today he's arrived with a blue one. Do you know what John rented?

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- (2) a. He only rented a MOTORCYCLE.
 - focus = new = [a motorcycle] "only" makes explicit what is focused: Out of all the vehicles he could have rented, he got a motorcycle.
 - b. He only rented a GREEN convertible.

(1) The conference participants are renting all kind of vehicles. Yesterday Bill came to the conference driving a red convertible and today he's arrived with a blue one. Do you know what John rented?

- (2) a. He only rented a MOTORCYCLE.
 - focus = new = [a motorcycle] "only" makes explicit what is focused: Out of all the vehicles he could have rented, he got a motorcycle.
 - b. He only rented a GREEN convertible.
 - focus = [a green convertible]
 Out of all vehicles he could have rented, he got a green convertible.
 - ▶ new = [green], given = [convertible]

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On the Relation of Focus and Givenness

The entire focus can be new:

(2a) He only rented $[a MOTORCYCLE.]_F$

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On the Relation of Focus and Givenness

► The entire focus can be new:

(2a) He only rented $[a MOTORCYCLE.]_F$

Part of the focus can be new, another part given:

(2b) He only rented [a GREEN convertible.] F

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On the Relation of Focus and Givenness

► The entire focus can be new:

(2a) He only rented $[a MOTORCYCLE.]_F$

Part of the focus can be new, another part given:

(2b) He only rented [a GREEN convertible.] F

- The entire focus can be given:
 - (3) A: John's mother saw Bill in the shopping center. B: And whom did she see then?
 - (4) She saw [JOHN]_F.

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Traditionally it has been assumed that elements that are not intonationally marked can nevertheless be a part of the focus.

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Traditionally it has been assumed that elements that are not intonationally marked can nevertheless be a part of the focus.

(5) a. Q: What did Mary buy a book about?

A: Mary bought a book about [BATS.]] F

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Traditionally it has been assumed that elements that are not intonationally marked can nevertheless be a part of the focus.

(5) a. Q: What did Mary buy a book about?

A: Mary bought a book about [BATS.] F

b. Q: What did Mary buy?A: Mary bought [a book about BATS.]_F

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Traditionally it has been assumed that elements that are not intonationally marked can nevertheless be a part of the focus.

(5) a. Q: What did Mary buy a book about?

A: Mary bought a book about [BATS.] F

b. Q: What did Mary buy?A: Mary bought [a book about BATS.] [F

c. Q: What did Mary do?A: Mary [bought a book about BATS.]]_F

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Traditionally it has been assumed that elements that are not intonationally marked can nevertheless be a part of the focus.

(5) a. Q: What did Mary buy a book about?

A: Mary bought a book about [BATS.] F

b. Q: What did Mary buy?A: Mary bought [a book about BATS.] F

c. Q: What did Mary do?A: Mary [bought a book about BATS.]_F

d. Q:What happened?A: [Mary bought a book about BATS.]]_F

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Traditionally it has been assumed that elements that are not intonationally marked can nevertheless be a part of the focus.

- (5) a. Q: What did Mary buy a book about?

 A: Mary bought a book about [BATS.]]_F
 - b. Q: What did Mary buy?A: Mary bought [a book about BATS.]_F
 - c. Q: What did Mary do?A: Mary [bought a book about BATS.]_F
 - d. Q:What happened?A: [Mary bought a book about BATS.] F

Büring (2006), Roberts (2006), Kadmon (2006) argue that no such focus projection is needed, which raises the questions:

- What is the relation between accent placement and focus?
- What evidence is needed to firmly answer this question?



Recent proposals

Questioning focus projection rules

Several recent proposals in formal pragmatics are questioning whether focus projection rules are needed to relate accent placement and focus:

- ▶ Büring (2006): Focus Projection and Default Prominence [recent article]
- Roberts (2006): Resolving Focus [Sinn & Bedeutung abstract]
- Kadmon (2006): Some Theories of the Interpretation of Accent Placement [OSU talk handout]

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Starting point: Selkirk (1995)

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- Starting point: Selkirk (1995)
 - F-marking:
 - An accented word is F-marked.

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- Starting point: Selkirk (1995)
 - F-marking:
 - An accented word is F-marked.
 - Vertical Focus Projection:
 F-marking of head of phrase licenses F-marking of phrase.

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- Starting point: Selkirk (1995)
 - F-marking:
 - An accented word is F-marked.
 - Vertical Focus Projection:F-marking of head of phrase licenses F-marking of phrase.
 - Horizontal Focus Projection:
 F-marking of internal argument licenses F-marking of head.

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- Starting point: Selkirk (1995)
 - F-marking:
 - An accented word is F-marked.
 - Vertical Focus Projection:F-marking of head of phrase licenses F-marking of phrase.
 - Horizontal Focus Projection:
 F-marking of internal argument licenses F-marking of head.
 - Focus of the sentence (FOC):
 - F-marked node not dominated by another F-marked node.

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- Starting point: Selkirk (1995)
 - F-marking:
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 - Vertical Focus Projection:F-marking of head of phrase licenses F-marking of phrase.
 - Horizontal Focus Projection:
 F-marking of internal argument licenses F-marking of head.
 - Focus of the sentence (FOC):
 - F-marked node not dominated by another F-marked node.
 - F Interpretation:
 - constituent F-marked (but not FOC): New
 - constituent not F-marked: Given

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- F Interpretation:
 - constituent F-marked (but not FOC): New
 - constituent not F-marked: Given
- Büring (2006): eliminates focus projection rules
 - No restrictions on *vertical focus projection*, i.e., any accent within a phrase can project focus to the phrase.

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- Büring (2006): eliminates focus projection rules
 - No restrictions on vertical focus projection, i.e., any accent within a phrase can project focus to the phrase.
 - Horizontal focus projection is the consequence of default prominence assignment, not focus projection.

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- Focus of the sentence (FOC):
 - F-marked node not dominated by another F-marked node.
- F Interpretation:
 - constituent F-marked (but not FOC): New
 - constituent not F-marked: Given
- Büring (2006): eliminates focus projection rules
 - No restrictions on vertical focus projection, i.e., any accent within a phrase can project focus to the phrase.
 - Horizontal focus projection is the consequence of default prominence assignment, not focus projection.
 - ⇒ No syntactic constraints on focus projection are needed.

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Büring: Vertical focus projection

▶ Büring (2006, based on Schwarzschild 1999) uses de-accenting examples to argue: focus can always project.

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Büring: Vertical focus projection

 Büring (2006, based on Schwarzschild 1999) uses de-accenting examples to argue: focus can always project.

- (6) I know that John drove Mary's red CONVERTIBLE. But what did Bill drive?
- (7) a. He drove [his MOTORCYCLE]_F.
 - b. He drove [her BLUE convertible] F.
 - ⇒ focus can project from adjectives/adjuncts

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Büring: Vertical focus projection

 Büring (2006, based on Schwarzschild 1999) uses de-accenting examples to argue: focus can always project.

(6) I know that John drove Mary's red CONVERTIBLE. But what did Bill drive?

(7) a. He drove [his MOTORCYCLE].

b. He drove [her BLUE convertible] F.

⇒ focus can project from adjectives/adjuncts

Similar de-accenting examples support focus projection from transitive subjects, indirect objects, adverbs, minor categories and headless structures—all of which had been claimed to not support focus projection. To Project or Not to Project

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- Büring (2006, based on Schwarzschild 1999) uses de-accenting examples to argue: focus can always project.
 - (6) I know that John drove Mary's red CONVERTIBLE. But what did Bill drive?
 - (7) a. He drove [his MOTORCYCLE]_F.
 - b. He drove [her BLUE convertible] F.
 - ⇒ focus can project from adjectives/adjuncts
- Similar de-accenting examples support focus projection from transitive subjects, indirect objects, adverbs, minor categories and headless structures—all of which had been claimed to not support focus projection.
- Vertical focus projection (Büring 2006):
 - F-marking of any daughter licenses F-marking of mother.



- Horizontal Focus Projection (Büring 2006)
 - ► In configuration [A B], one of A, B can be unaccented, even though it is interpreted as F-marked.

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- Horizontal Focus Projection (Büring 2006)
 - ► In configuration [A B], one of A, B can be unaccented, even though it is interpreted as F-marked.
- Büring (2006) wants to derive this effect based on a theory of default prominence.

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- ► Horizontal Focus Projection (Büring 2006)
 - ► In configuration [A B], one of A, B can be unaccented, even though it is interpreted as F-marked.
- Büring (2006) wants to derive this effect based on a theory of default prominence.
- idea of default prominence: default accent placement, independent of whether focus or background

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- Horizontal Focus Projection (Büring 2006)
 - ► In configuration [A B], one of A, B can be unaccented, even though it is interpreted as F-marked.
- Büring (2006) wants to derive this effect based on a theory of default prominence.
- idea of default prominence: default accent placement, independent of whether focus or background
- The idea is only sketched, not worked out. A default pattern suggested for English states that predicates don't receive a pitch accent if an argument does.



Roberts (2006): Resolving Focus

Roberts (2006) eliminates focus projection entirely and instead proposes to relate accent placement to interpretation using the notion of retrievability. To Project or Not to Project

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Roberts (2006): Resolving Focus

 Roberts (2006) eliminates focus projection entirely and instead proposes to relate accent placement to interpretation using the notion of retrievability.

- Core components:
 - Accentuation: Freely align pitch accents (in an independently generated prosodic structure) with words (in an independently generated syntactic structure).

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 - Accentuation: Freely align pitch accents (in an independently generated prosodic structure) with words (in an independently generated syntactic structure).
 - Retrievability presupposition: If a contentful constituent bears no accent, then its denotation is conventionally implicated to be RETRIEVABLE.

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 - Novelty Implicature of Focus: If a constituent bears an accent, then its denotation is IRRETRIEVABLE.

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 - Retrievability presupposition: If a contentful constituent bears no accent, then its denotation is conventionally implicated to be RETRIEVABLE.
 - Novelty Implicature of Focus: If a constituent bears an accent, then its denotation is IRRETRIEVABLE.
- Elements without nuclear pitch accent which traditionally were analyzed as part of a projected focus must be
 - retrievable, or
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Parallel to Roberts (2006), Kadmon eliminates focus projection entirely and instead relies on the notion of EXPECTABLE to relate accent placement and interpretation. To Project or Not to Project

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- Parallel to Roberts (2006), Kadmon eliminates focus projection entirely and instead relies on the notion of EXPECTABLE to relate accent placement and interpretation.
- Core components:
 - Interpretation of pitch accent placement: A word is interpreted as EXPECTABLE iff it is unaccented.

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Parallel to Roberts (2006), Kadmon eliminates focus projection entirely and instead relies on the notion of EXPECTABLE to relate accent placement and interpretation.

- Core components:
 - Interpretation of pitch accent placement: A word is interpreted as EXPECTABLE iff it is unaccented.
 - An expression B is EXPECTABLE in an utterance U iff the following holds:
 - Presented with the result of replacing B in U with a variable, it would be possible for the hearer to infer on the basis of prior context that in the actual utterance, the position of that variable should be occupied by B.

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 - Interpretation of pitch accent placement: A word is interpreted as EXPECTABLE iff it is unaccented.
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 - Presented with the result of replacing B in U with a variable, it would be possible for the hearer to infer on the basis of prior context that in the actual utterance, the position of that variable should be occupied by B.
- Elements without nuclear pitch accent which traditionally were analyzed as part of a projected focus must be
 - expectable, or
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(8) What did you do?

(traditionally: wide, VP focus)

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What did you do? (traditionally: wide, VP focus)

(9) a. I INVITED BILL. (R/K claim: good out of the blue) Empirical evidence Gussenhoven (1983)

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What did you do?

a. / INVITED BILL.

b. I invited BILL.

(traditionally: wide, VP focus)

(R/K claim: good out of the blue)

(R/K claim: bad out of the blue, good if party context)

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Context-retrievability experiment: judge whether a question and an answer are from the same or a different dialogue.

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Context-retrievability experiment: judge whether a question and an answer are from the same or a different dialogue.

Experiment includes two types of questions:

(10) What do you do?

(wide, VP focus)

(11) What do you teach?

(narrow, NP focus)

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Context-retrievability experiment: judge whether a question and an answer are from the same or a different dialogue.

Experiment includes two types of questions:

(10) What do you do? (wide, VP focus)

(11) What do you teach? (narrow, NP focus)

Two types of answers:

(12) I TEACH LINGUISTICS. (accents on verb and NP)

(13) I teach LINGUISTICS. (accent on NP only)

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Experiment includes two types of questions:

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(10) What do you do?

(wide, VP focus)

(11) What do you teach?

(narrow, NP focus)

Two types of answers:

(accents on verb and NP) (12) / TEACH LINGUISTICS.

(13) I teach LINGUISTICS. (accent on NP only) Empirical evidence Gussenhoven (1983) Birch and Clifton (1995)

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Results

- Listeners performed no better than chance in judging whether questions and answers were matched.
- This finding supports focus projection: To focus the VP, it is sufficient to accent the object NP.



- Second experiment tested dialogues with questions:
 - (14) Please tell me what happened that night? (wide, VP focus)
 - (15) What do you remember from the last lesson? (narrow, NP focus)

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- Second experiment tested dialogues with questions:
 - (14) Please tell me what happened that night? (wide, VP focus)
 - (15) What do you remember from the last lesson? (narrow, NP focus)
- ► The answers contain "non-merging predicates":
 - (16) I REMEMBER NOTHING. (accent on V and NP)
 - (17) I remember NOTHING. (accent on NP only)

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- Results: Listeners matched
 - narrow focus questions (15) with answers accenting only the NP (17)

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- Results: Listeners matched
 - narrow focus questions (15) with answers accenting only the NP (17)
 - wide focus questions (14) with answers accenting both the verb and the NP (16)

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- Second experiment tested dialogues with questions:
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- Results: Listeners matched
 - narrow focus questions (15) with answers accenting only the NP (17)
 - wide focus questions (14) with answers accenting both the verb and the NP (16)
- ⇒ Non-merging predicates do not allow focus projection.

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Empirical Evidence: Birch and Clifton (1995) [I]

- Two sets of experiments, each consisting of:
 - make-sense judgment task (appropriateness of dialogue): response times to make yes/no-judgments measured.
 - linguistic judgment task: rate prosodic appropriateness on Likert scale (1–5)

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- Experiment 1: Questions and answers used in dialogues:

(18) a. Isn't Kerry pretty smart?b. Isn't Kerry good at math?

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 - (18) a. Isn't Kerry pretty smart? (wide, VP focus) b. Isn't Kerry good at math? (V focus)
 - (19) a. Yes, she TEACHES MATH.
 - b. Yes. she teaches MATH.
 - c. Yes, she TEACHES math.

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- ► Results for wide, VP focus question (18a):
 - make-sense judgment: same reaction times for answers with accent on both V and NP (19a) or only on NP (19b)

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 - linguistic judgment: subjects preferred answers with accent on both V and NP (19a) over only on NP (19b)

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 - make-sense judgment: same reaction times for answers with accent on both V and NP (19a) or only on NP (19b)
 - linguistic judgment: subjects preferred answers with accent on both V and NP (19a) over only on NP (19b)
 - ⇒ Birch and Clifton (1995) interpret this a saying that accenting the verb of a focused VP is optional.

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Empirical Evidence: Birch and Clifton (1995) [II]

Experiment 2 used questions supporting VP focus and answers with "non-lexical" argument NPs (quantifiers):

(20) What can you tell me about the math program at Cornell this year?

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Empirical Evidence: Birch and Clifton (1995) [II]

 Experiment 2 used questions supporting VP focus and answers with "non-lexical" argument NPs (quantifiers):

(20) What can you tell me about the math program at Cornell this year?

(21) a. They ACCEPTED NO ONE.

b. They accepted NO ONE.

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b. They accepted NO ONE.

Results:

 make-sense judgment: faster response times for answers with accent on both V and NP (21a) than for NP only (21b). To Project or Not to Project

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 - b. They accepted NO ONE.

- make-sense judgment: faster response times for answers with accent on both V and NP (21a) than for NP only (21b).
- linguistic judgment: no preference for answers with accents on V and NP (21a) over only on NP (21b)

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- linguistic judgment: no preference for answers with accents on V and NP (21a) over only on NP (21b)
- ⇒ Conclusion: Accented lexically filled argument NPs project focus, while non-lexically filled ones do not.

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- ⇒ Conclusion: Accented lexically filled argument NPs project focus, while non-lexically filled ones do not.
 - Parallel to Gussenhoven's "non-merging predicates" results



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 Experiment 2 used questions supporting VP focus and answers with "non-lexical" argument NPs (quantifiers):

- What can you tell me about the math program at Cornell this year?
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- make-sense judgment: faster response times for answers with accent on both V and NP (21a) than for NP only (21b).
- linguistic judgment: no preference for answers with accents on V and NP (21a) over only on NP (21b)
- ⇒ Conclusion: Accented lexically filled argument NPs project focus, while non-lexically filled ones do not.
 - Parallel to Gussenhoven's "non-merging predicates" results
 - Reverse linguistic judgment results remain as a puzzle.



Welby (2003) investigates the influence of prosodic phrasing in the Birch and Clifton (1995) setup. To Project or Not to Project

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- Welby (2003) investigates the influence of prosodic phrasing in the Birch and Clifton (1995) setup.
- Questions: VP focus (22a) or object-NP focus (22b):
 - (22) a. What's that terrible smell coming from the neighbors' yard?
 - b. There's a terrible smell coming form the neighbors' yard. What are they burning?

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 - (22) a. What's that terrible smell coming from the neighbors' yard?
 - b. There's a terrible smell coming form the neighbors' yard. What are they burning?
- ► There were four possible answer types:
 - (23) a. They're BURNING their garbage. L-L * (verb)

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 - b. They're burning their GARBAGE. $_{\rm H^*}$ (obj-NP)

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- There were four possible answer types:
 - (23) a. They're BURNING their garbage. (verb)
 - b. They're burning their GARBAGE. (obj-NP)
 - c. They're BURNING their GARBAGE. ("hat")

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- Welby (2003) investigates the influence of prosodic phrasing in the Birch and Clifton (1995) setup.
- Questions: VP focus (22a) or object-NP focus (22b):
 - (22) a. What's that terrible smell coming from the neighbors' yard?
 - b. There's a terrible smell coming form the neighbors' yard. What are they burning?
- There were four possible answer types:
 - (23) a. They're BURNING their garbage. (verb)
 - b. They're burning their GARBAGE. (obj-NP)
 - c. They're BURNING their GARBAGE. ("hat")
 - d. They're BURNING their GARBAGE. (two peak)

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The experiment used the linguistic judgment task of Birch and Clifton (1995), rating using Likert scale.

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- The experiment used the linguistic judgment task of Birch and Clifton (1995), rating using Likert scale.
- Results for questions supporting VP-focus and for those supporting object-NP-focus were identical.

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► The experiment used the linguistic judgment task of Birch and Clifton (1995), rating using Likert scale.

- Results for questions supporting VP-focus and for those supporting object-NP-focus were identical.
 - "hat" pattern and the object-NP-only accent pattern were rated as equally appropriate.
 - Appropriateness of hat pattern → prenuclear pitch accent does not affect focus structure interpretation.

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- Results for questions supporting VP-focus and for those supporting object-NP-focus were identical.
 - "hat" pattern and the object-NP-only accent pattern were rated as equally appropriate.
 - Appropriateness of hat pattern → prenuclear pitch accent does not affect focus structure interpretation.
 - Two-peak pattern was less acceptable
 - → Two-peak pattern is disfavored for single focus interpretation (favors double focus interpretation).

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Empirical Evidence: Féry (1993) [I]

 Context-retrievability experiment: judge whether a question and an answer are from the same or a different dialogue. To Project or Not to Project

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Empirical Evidence: Féry (1993) [I]

 Context-retrievability experiment: judge whether a question and an answer are from the same or a different dialogue.

Experiment includes two types of questions:

(24) Wer ist verhaftet worden? (narrow, NP focus) who has arrested been

(25) Hast Du heute die Nachrichten gehört? (wide focus) have you today the news heard

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► Answer recorded twice, once answering (24), once (25):

(26) GORBATSCHOV ist verhaftet worden.

Gorbachev has arrested been

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Context-retrievability experiment: judge whether a question and an answer are from the same or a different dialogue.

Experiment includes two types of questions:

(24) Wer ist verhaftet worden? (narrow, NP focus) who has arrested

(25) Hast Du heute die Nachrichten gehört? (wide focus) have you today the news heard

Answer recorded twice, once answering (24), once (25):

GORBATSCHOV ist verhaftet worden.

Gorbachev has arrested been

- Results
 - Listeners decided at random whether the realizations of (26) were an answer to the question inducing narrow focus or to the one inducing broad focus.
 - No difference in tonal realization between narrow and wide focus answer.

Summary and Outlook

- Recent work in formal pragmatics proposes to eliminate focus projection rules:
 - Kadmon/Roberts: focus never projects (new elements must be accented; unaccented focused elements are given/retrievable/expectable)
 - Büring: focus can always project

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Summary and Outlook

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 - Kadmon/Roberts: focus never projects (new elements must be accented; unaccented focused elements are given/retrievable/expectable)
 - Büring: focus can always project
- A review of experiments reported in the literature shows substantial evidence for the existence of some focus projection, i.e., for certain pairs of verbs with object-NP arguments in English.

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- Büring: focus can always project
- A review of experiments reported in the literature shows substantial evidence for the existence of some focus projection, i.e., for certain pairs of verbs with object-NP arguments in English.
- More evidence is needed to establish when focus can project, more specifically: In which constructions can what kind of elements be accented (with which type of accents) and project focus how far?

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- More evidence is needed to establish when focus can project, more specifically: In which constructions can what kind of elements be accented (with which type of accents) and project focus how far?
- We intend to explore this question based on corpora which have been syntactically and intonationally annotated.

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