

Additivity, scalarity and the interactions between them: Beyond *also* and *even*

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Class 3:
noch-like particles: Analyses and debates

Schedule

Class # 1: The landscape of additive, of scalar and of scalar additive particles

Class # 2: *Even*-like particles

Class # 3: *noch*-like particles: German *noch*
– discourse-based perspective

Class # 4: *noch*-like particles: English *more* / Hebrew *od*
– degree-based perspective

compare the two perspectives

Class # 5: Two types of scalar-additives combined with comparatives

noch größer – even taller

Summary and outlook Additive particles in the context of expressions
of sameness, similarity, and difference ²

Plan for today

- readings of *noch* ('still', 'in addition', ...)
- compare additive *noch* to *auch* ('also/too')
- discourse-based analysis of additive *noch* (Umbach 2012)
- discourse-based analysis of additive *noch* (Grubic 2018)
- Krifka (2000) *still / already scale alignment particles*
?? --> general meaning of *noch*, including additive *noch*
(work in progress)

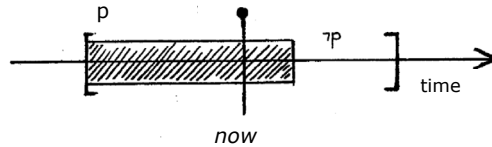
German focus particle *noch*: four readings

- (1) *Es regnet noch.* **temporal**
'It is **still** raining.'
- (2) *Osnabrück liegt (gerade) noch in Niedersachsen.* **marginality**
'Osnabrück is **still** in Lower Saxony.'
- (3) *Berta ist noch größer als Adam.* **comparative**
'Berta is **even** taller than Adam.'
- (4) a. (Otto had a beer)
Otto hat noch einen SCHNAPS getrunken. **additive**
'Otto had a schnaps **in addition**.'
- b. (Otto had a schnaps ...)
Otto hat NOCH einen Schnaps getrunken.
'Otto had **another** schnaps.'

German focus particle *noch*: four readings

- (1) *Es regnet noch.* temporal / aspectual
 'It is still raining.'

past "It has been raining before now."
 future "it might stop soon."



German *noch*, English *still*

selected references: Horn 1969, König 1977, 1991, Löbner 1989, Mittwoch 1993, Krifka 2000, Ippolito 2007, Tovena & Donazzan. 2008, Beck 2019

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German focus particle *noch*: four readings

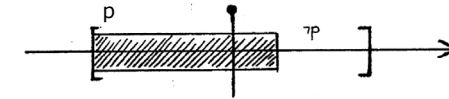
- (2) a. *Osnabrück liegt (gerade) noch in Niedersachsen.* marginality
 'Osnabrück is still in Lower Saxony.'

"Osnabrück is close to the border of Lower Saxony"

"Viewed from the center, Osnabrück is a marginal case of being in of Lower Saxony"

- b. *Otto ist noch gemäßigt.* (König 1977)
 'Otto is still moderate (in his political attitudes).'

--> temporal scale is transferred to other scales



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German focus particle *noch*: four readings

- (3) *Berta ist noch größer als Adam.* comparative
 'Berta is still/even taller than Adam.'

temporal: It won't be long before she is smaller than Adam
 marginal: Berta size is still in the range of being taller than Adam
 comparative: Adam is tall and Berta is even (still) taller

What is the scale?

--> class 5

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German focus particle *noch*: four readings

- (4) a. (Otto had a beer)
Otto hat noch einen SCHNAPS getrunken. additive
 'Otto had a schnaps in addition.'
- b. *Otto hat auch einen SCHNAPS getrunken.*
 'Otto had a schnaps, too.'
- c. (Otto had a schnaps ...)
Otto hat NOCH einen Schnaps getrunken. another schnaps
 'Otto had another schnaps.'
- d. (Otto had a schnaps ...)
 # *Otto hat AUCH einen Schnaps getrunken.* another person
 'Otto had another schnaps.'

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Noch – auch

(4) a. Otto had a beer)

Otto hat noch einen SCHNAPS getrunken.
'Otto had a schnaps in addition.'

additive

The meaning of additive *auch*:

presuppose an antecedent

– such that the predication holds for an alternative of the associated constituent

– antecedent has been previously mentioned

(e.g. Rooth 1992, Krifka 1999, Saebo 2004, Zeevat 2004)

How does *noch* differ from *auch*?

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Noch vs. auch: order of mention

(6) *Otto hat ein Bier getrunken.*

'Otto had a beer.'

a. *Dann hat er auch einen Schnaps getrunken.* real time

b. *Dann hat er noch einen Schnaps getrunken.* real time/order of mention
'(Then) he had a schnaps in addition.'

(7) Otto wants to pay his bill and asks the barkeeper:

Was hab ich denn alles getrunken?

'What did I drink?'

Barkeeper: *Drei Bier, und eine Selters, und einen Kaffee, und dann noch einen Schnaps, gleich als du gekommen bist.*

'Three beer, and a selters, and a coffee, and in addition a schnaps, when you came in.'

▶ order of mention may run counter to real time

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Noch vs. auch vs. auch noch

(8) *Isabelle ist Schlagzeugin.*

'Isabelle is a drummer.'

a. *Sie ist auch Sängerin.*

b. *# Sie ist noch Sängerin.* (only temporal)

'She is AUCH / NOCH a singer.'

c. *Dann ist sie noch Sängerin.*

order of mention

'Then she is NOCH a singer.'

d. *Sie ist auch noch Sängerin.*

no redundance

'She is also NOCH a singer.'

▶ *auch* and *noch* do different things

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Dann noch vs. dann auch

(9) *Es hat gewittert*

'There was a thunderstorm.'

a. *Dann hat es noch geregnet. Ich bin klatsch nass geworden.*

'Later it rained. I got wet all over.'

thunderstorm < rain

b. *Dann hat es auch geregnet. Ich bin klatsch nass geworden.*

'Later it also rained. I got wet all over.'

thunderstorm < thunderstorm + rain

▶ Grubic 2018: *auch* / *noch* reopen the QUD in different ways

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Stressed **NOCH** vs. **AUCH**

(10) *Otto hat, als er ankam, einen Schnaps getrunken. Und stell dir vor:*

'When arriving Otto had a schnaps. And imagine:'

a. *Otto hat **NOCH** einen Schnaps getrunken.*

schnaps₁ + schnaps₂

'Otto had another schnaps.'

b. # *Otto hat **AUCH** einen Schnaps getrunken.*

'Otto had a schnaps, too.'

schnaps-drink_{Otto} + schnaps-drink_{Bruno}

c. *Bruno hat **AUCH** einen Schnaps getrunken*

d. *Gestern hat Otto **AUCH** einen Schnaps getrunken.*

'Yesterday, Otto had a schnaps, too.'

schnaps-drink_{today} + schnaps-drink_{yesterday}

▶ **NOCH** descriptively identical individuals – individuated by order of mention

AUCH identical event types – individuated by agent / time

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Stressed **NOCH** – how to interpret the accent?

Fery (2006) on stressed **AUCH**:

(i) the accent is on **AUCH** because **any other position must be deaccented**

→ the accent on **AUCH** is an **emergency** solution

→ the focus is deaccented

(ii) ...

Adopt (i) for stressed **NOCH**:

*Otto hat **NOCH** [einen Schnaps_F] getrunken.*

'He had another schnaps.'

associated constituent

?? How to distinguish descriptively identical alternatives?

Alt(einen Schnaps) = {a-schnaps, a-schnaps}

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Noch vs. **auch** in questions

(11) a. (Sue informs her mother about what happened during the summer)

Mother to Sue:

*Und was ist im Sommer **noch** passiert?*

'What happened *noch* in the summer?'

b. (Little Lisa tells her mother what happened when she visited the zoo with Auntie.)

Auntie to Lisa:

*Und was ist im Zoo **auch** passiert? "showmaster question"*

'What happened *auch* in the zoo?'

(12) (In the butcher's shop:)

*Was möchten Sie **noch** / # **auch**?*

'What do you want *noch* / *auch*?'

▶ Umbach (2012): **auch** in wh-questions is restricted to showmaster questions

▶ Theiler (2019): too strong, "summoning questions"

Noch vs. **auch** in questions

(13) A: *Gestern auf der Party habe ich Otto getroffen.*

'Yesterday at the party I met Otto.'

B1: *War Paul **auch** da?*

'Was Paul *auch* there?'

"Did you forget to tell me about Paul?"

B2: # *Wer war **auch** da?*

'Who was *auch* there?'

(showmaster question)

B3: *Wer war **noch** da?*

'Who was *noch* there?'

"Continue to give me the guest list."

B4: # *War Paul **noch** da?*

'Was Paul *noch* there?'

(not additive)

▶ intuitively **auch** adds a subsequent supplement
noch continues a list

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"Additive particles under stress" Krifka (1999)

(11) *What did Peter and Pia eat?*

- Peter and Pia ate PASTA.*
- PETER ate PASTA and PIA ate pasta, TOO.*
- ? PETER ate PASTA and PIA ate PASTA.*

Stressed additive particles (*TOO, ALSO, AUCH*)

- are associated with contrastive topics {peter, pia}
- the accent on the particle indicates a focus {affirmation, denial}
- make up for a violation of the Gricean maxim of manner ("be brief")

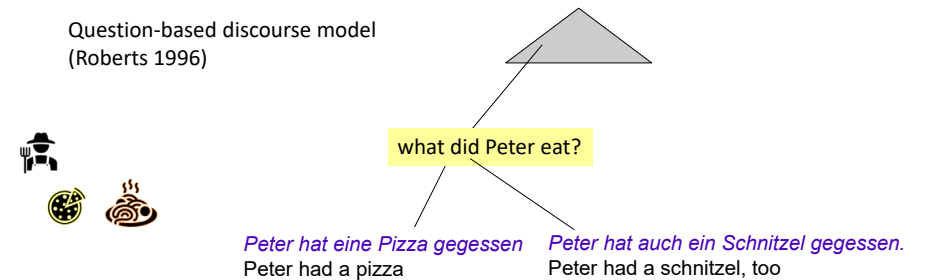
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auch indicates a subsequent supplement

Generalize Krifka's idea to unstressed *auch*:

- ▶ *auch* (stressed or unstressed)
 - licenses a violation of the maxim of manner
 - is a **repair strategy**: "add a supplement to the previous predication"

Question-based discourse model
(Roberts 1996)

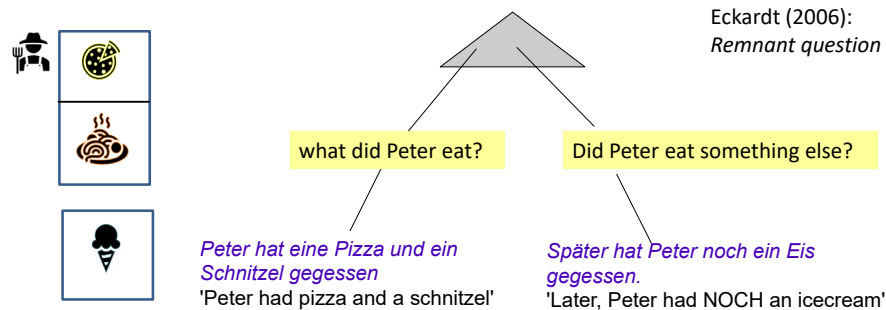


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noch indicates continuation of a list

- ▶ *additive noch* (stressed or unstressed)
 - indicates that there is a list to be continued
 - "add a further element to this list"

LIST APPEND



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The meaning of additive *noch*

Umbach (2012): Additive *noch* induces an order on the set of alternatives aligned to the order of mentioning (→ alternatives constitute a **list**)

$$[[noch \alpha]]^0 = [[\alpha]]^0$$

$[[noch \alpha]]^F$ is ordered such that

- the order is aligned to the order of mentioning ($<_m$)
- there is a **mentioned** alternative $x \in Alt_m$ such that $x <_m [[noch \alpha]]^0$

$$Alt_m(\text{einen Schnaps}) = [a\text{-beer} \mid a\text{-schnaps}]$$

$$Alt_m(\text{einen Schnaps}) = [a\text{-schnaps}_1 \mid a\text{-schnaps}_2]$$

How does additive *noch* relate to aspectual *noch*?

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Two strategies of reopening QUDs

Grubic 2018, Grubic & Wierzba (2021)

auch vs. *noch* both indicate that a QUD is reopened

- *auch* indicates reopening with respect to the same **topic** situation (but a different **resource** situation)
- *noch* indicates reopening with respect to a different **topic** situation.

Kratzer (2011)

Topic situation	situation a proposition is about (same in QUD and assertion)
Resource situation	provides restrictions of domains / alternative sets e.g. restriction of quantification – <i>everbody</i>

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Two strategies of reopening QUDs

Grubic 2018, Grubic & Wierzba (2021)

- *dann* ('then') indicates a shift of topic situation
- *noch* is preferred with overt topic situation shifters like *dann*

Otto trank ein Bier. Er trank (#)noch / ✓auch einen Schnaps.

Otto trank ein Bier. Dann trank er noch einen Schnaps. more coherent

'Otto had a beer. (Then) he had NOCH / AUCH a schnaps.'

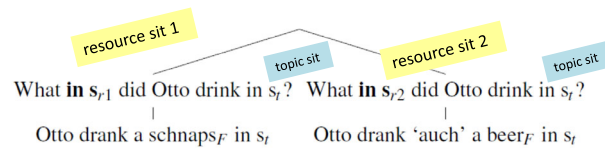
(9) *Es hat gewittert .*

- Dann hat es noch geregnet.* thunder < rain
 - Dann hat es auch geregnet.* thunder < thunder + rain
- 'There was a thunderstorm. Later it rained.'

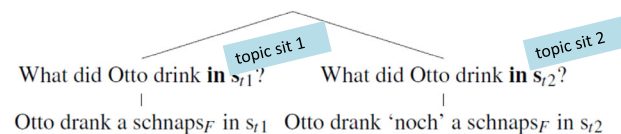
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Two strategies of reopening QUDs

- *auch* indicates reopening with respect to the same topic situation (but a different resource situation)



- *noch* indicates reopening with respect to a different topic situation.



(Grubic 2018, ex. 42, 43)

Two strategies of reopening QUDs

(a) *In 2014, Max visited his parents for Christmas.*

Das Jahr danach hat er noch die Eltern seiner Freundin besucht.

"In addition, the next year, he visited the parents of his girlfriend."

--> He visited his parents in 2014 & his girlfriend's parents in 2015

(b) *In 2014, Max visited his parents for Christmas.*

Das Jahr danach hat er auch die Eltern seiner Freundin besucht.

"The next year, he visited the parents of his girlfriend too."

--> He visited his parents in 2014 & **his and his girlfriend's parents** in 2015
(from Grubic 2018)

Hypothesis:

► In a new topic situation, *auch* but not *noch* licenses accommodation

Confirmed in detailed experimental study reported in Grubic & Wierzba 2021

Standard interpretation of aspectual *noch*

Es regnet *noch*. 'It is still raining.'

Löbner (1989), König (1991):

Temporal *noch* triggers **"past presupposition"** (It has been raining before)
"future implicature" (It will soon stop raining)

(focus was on the duality of *noch* / *schon*)

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Scale alignment particles (Krifka 2000)

- *noch/still* and their duals *schon/already* in a focus semantic framework
- Aspectual *noch* (i) induces an order on the set of alternatives preserving entailment
 - (ii) the order on alternatives is aligned to another order -- temporal / prototypicality / ...
 "scale alignment particles"
 - (ii) the focus is the **minimal** element
 → lower ranked alternatives are excluded;
- alternatives are propositions that "given the common ground and the informational interest of the interlocutors, could have been made at the current point of conversations"
- The restriction of the set of alternatives leads to pragmatic inferences, e.g., the future implicature in the case of temporal *noch*.

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Scale alignment

alignment to time

Lydia ist noch 3 Monate / Lydia is still 3 month

alternatives ordered by entailment

Ly-4mon ==> Ly-3mon ==> Ly-2mon

Ly-2mon \leq_A Ly-3mon \leq_A Ly-4mon

—————|—————> alignment scale: time

- ▶ only alternatives greater than focus are reasonable to entertain
 the possibilities under consideration are that she might be elder than 3 month

alignment to \mathbb{N} :

Lydia ist noch 110 cm / Lydia is still 110 cm

alternatives ordered by entailment

Ly-120 ==> Ly-110 ==> Ly-90

Ly-90 \leq_A Ly-110 \leq_A Ly-120

—————|—————> alignment scale: \mathbb{N}

- ▶ only alternatives greater than focus are reasonable to entertain

Scale alignment

alignment to order of mention:

(Otto hat ein Bier getrunken. Dann hat er einen Kaffee getrunken.)

Und dann hat er noch einen Schnaps getrunken

List of drinks: [beer | coffee | schnaps]

order alternatives qua entailment **beer+coffee+schnaps ==> beer+coffee ==> beer**

beer \leq_A beer+coffee \leq_A beer+coffee+schnaps \leq_A beer+coffee+schnaps+water

—————|—————> alignment scale: mention

- ▶ only alternatives greater than focus are reasonable to entertain

(work in progress)

Conclusion

Umbach (2012): structure of alternatives

- *auch* indicates a supplement, *noch* indicates an enumeration
- *auch* operates on a set of alternatives, *noch* operates on a list
→ alternatives are individuated by order of mentioning

Grubic (2018): reopening of the QUD

- *auch* indicates reopening with respect to the same **topic** situation (but a different **resource** situation)
- *noch* indicates reopening with respect to a different **topic** situation.

▶ discourse management

How does this look like from a degree-based perspective?