



How to build common ground, one syntactic layer at a time.

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Overview

Empricial goal

Introduce sentence-initial response markers which express epistemic stance

Analytical goal

Analyse these response markers within the framework of Interactional Spine Hypothesis

Theoretical goal

Draw conclusions about the linguistic representation of the common ground and the table

The interactional spine hypothesis (ISH)





An empirical problem

S-initial vs. S-internal discourse markers

- (1) [Die Lena hot an neichn Hund]Det Lena has a new dog'Lena has a new dog.'
- (2) **Ma** [die Lena hot an neichn Hund]

(3) **Geh** [die Lena hot an neichn Hund]









- (1) [Die Lena hot an neichn Hund]Det Lena has a new dog'Lena has a new dog.'
- (2) Ma [die Lena hot an neichn Hund][Die Lena hot leicht an neichn Hund]



Similar effect as S-internal discourse particle



These UoLs encode how propositional content is integrated into the **Common Ground**

(2) Ma [die Lena hot an neichn Hund][Die Lena hot leicht an neichn Hund]



(3) Geh [die Lena hot an neichn Hund][Die Lena hot doch an neichn Hund]



Surprise

Context: Mariana and Reingard are on a walk and from a distance they see their friend Lena who is walking with a dog, they have never seen before:

- R: a. *Die Lena hot an neichn Hund 'Lena has a new dog.'
 - b. **Ma,** die Lena hot an neichn Hund
 - c. *Geh die Lena hot an neichn Hund



Suprise

S-initial and Sinternal particle can co-occur

Context: Mariana and Reingard are on a walk and from a distance they see their friend Lena who is walking with a dog, they have never seen before:

R: a. Die Lena hot **leicht** an neichn Hund 'Lena has a new dog.'



- b. **Ma,** die Lena hot an neichn Hund
- c. Ma, die Lena hot leicht an neichn Hund

Discrepancy

- I: Vielleicht wü die Lena an von unsare HundalMaybe wants det Lena one of our dog.dim'Maybe Lena wants one of our puppies.'
- R: a. ??Die Lena hot an neichn Hund 'Lena has a new dog.'
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- I: Vielleicht wü die Lena an von unsare HundalMaybe wants det Lena one of our dog.dim'Maybe Lena wants one of our puppies.'
- R: a. Die Lena hot **doch** an neichn Hund 'Lena has a new dog.'
 - b. **Geh** die Lena hot an neichn Hund
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- I: Wos gibt's neichs? 'What's new?'
- R1: [Die Lena hot an neichn Hund] Det Lena has a new dog 'Lena has a new dog.'
- R2: *Ma [die Lena hot an neichn Hund] *Die Lena hot leicht an neichn Hund
- R3: ***Geh** [die Lena hot an neichn Hund] *Die Lena hot **doch** an neichn Hund.



Not compatible with answer to broad focus question

Context: Mariana and Reingard are on a walk and from a distance they see their friend Lena who is walking with a dog, they have never seen before:

- R: a. Schau dort drüm. Die Lena hot an neichn Hund.'Look over there. Lena has a new dog.'
 - b. **Ma** schau dort drüm. Die Lena hot an neichn Hund.
 - c. Schau dort drüm. *Ma die Lena hot an neichn Hund.
 - d. **Ma** schau dort drüm. Die Lena hot **leicht** an neichn Hund.



S-internal has clause-type restrictions

Context: Mariana and Reingard are on a walk and from a distance they see their friend Lena who is walking with a dog, they have never seen before:

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 - d. **Ma** schau dort drüm. Die Lena hot **leicht** an neichn Hund.
 - e. *Ma schau leicht dort drüm. Die Lena hot an neichn Hund.



- I: Vielleicht wü die Lena an von unsare HundalMaybe wants det Lena one of our dog.dim'Maybe Lena wants one of our puppies.'
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 - b. **Geh** wos redtst'n zam. Die Lena hot an neichn Hund

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Similarities and differences

	ma	geh	leicht	doch
S-oriented	\checkmark	Х	\checkmark	Х
Adr-oriented	Х	\checkmark	Х	\checkmark
Move-internal	Х	Х	\checkmark	\checkmark
Clause-type restriction	Х	Х	\checkmark	\checkmark

Interpretive ingredients:

- Spkr, Adr
- old/new information

Distributional differences:

- Move-type restrictions vs.
- clause-type restriction

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How does grammar interact with **Common Ground**?

What is common ground?

A theoretical problem

What is common ground?

"To presuppose something is to take it for granted, or at least to ac as if one takes it for tranged, as background information – as *common ground* among the participatns in the conversation."

Stalnaker 2002: 701

Assertions update the common ground

attributed to Stalnaker 1978



CG contains:

- propositions
- discourse referents

What is common ground?

Common ground is constructed mutually

Classic Speech-Act Theory

S asserts p if i) S believes p ii) S wants A to believe p

Bach & Harnish 1979



Common ground is constructed mutually



Assertions are **proposals** to update CG Stalnaker 1978

- Assertion does not expand the common ground immediately, (only in the absence of rejection).
- Assertion proposes to make p common ground
- making p common ground is a further process
- Requires negotiation by the interlocutors

(see Clark, 1996).

Disagreement

Initiation

Reaction



John is leaving for Italy.

i) He isn't.

ſ

 ${\mathcal R}$

ii) {Actually, well, uuuhmmmm} he isn't.



It should be made clear that to reject an assertion is not to assert or assent to the contradictory of the assertion, but only to refuse to accept the assertion. If an assertion is rejected, the context [common ground] remains the same as it was.

(Stalnaker, 1978, p. 87, fn9)

Common ground is constructed mutually

Grounding is the fundamental, moment-bymoment conversational process by which speaker and addressee are constantly establishing mutual understanding.



The table...

- a discourse component that records the Questions under Discussion
- Records what is 'at issue' in the conversation

"When the table is not empty, the immediate goal of the conversation is to empty it, ... to settle the issue at hand.

"... allows us to capture the tight connection between the initiating conversational moves, ... and responding moves... "

Farkas & Bruce 2010

How does grammar interact with **Common Ground** (and the table)?



How does grammar interact with **Common Ground** (and the table)?

The view from syntax





- All sentences are performative utterances.
- We're doing something with everything we say!
- What we are doing is encoded in the sentence at D-S!



- (1) Jenny isn't here, for I don't see her.
- (2) Mary is getting married, **because I heard it from her mother.**



Thai speaker agreement (Ross 1970:260 (119))

- a. Khaw maa khráp.
 - he come spkr=male "He is coming."
- b. Khaw maa khâ.
 - he come spkr=female "He is coming."



Basque addressee agreement (Miyagawa 2012 (8))

- a. Pettek lan egin dik.
 Peter work do.prf aux-2masc
 "Peter worked."
- b. Pettek lan egin din.
 Peter work do.prf aux-2fem
 "Peter worked."





Speas & Tenny 2003

How do we syntacicize mutual grounding



Ingredients:

- S-Ground and A-ground
- Table
- 2 types of moves

Initiation



Reaction

The grammar of interactional language

Background

Cambridge Studies in Linguistics 142

The Universal Structure of Categories

Martina Wiltschko

Towards a Formal Typology

The Grammar of

Martina Wiltschko

Interactional Language
The universal spine hypothesis



Cambridge Studies in Linguistics 142

The Universal Structure of Categories Towards a Formal Typology

Martina Wiltschko

Wiltschko 2014

The universal spine hypothesis (Wiltschko 2014)



The universal spine hypothesis (Wiltschko 2014)













Mandarin

	Speaker-oriented	Addressee-oriented	
old	<i>de:</i> Ground _{Spkr} [+coin]	<i>ma:</i> Ground _{Adr} [+coin]	
new	<i>a:</i> Ground _{Spkr} [-coin]	<i>bei:</i> Ground _{Adr} [-coin]	

Mandarin: de [+coin] Ground_{Spkr}

Context: John was told that Mary drives to work. He wonders whether he can take a ride each morning. But he is not sure whether Mary drives every morning. He runs into Bob, Mary's husband, and wants to know whether it is true. Bob says:

Ta meitian zaoshang kaiche shangban**de**. She every.day morning drive work PRT 'She (really) drives to work every morning.'

Ta meitian zaoshang kaiche shangban. She every.day morning drive work She drive to work every morning.



a [-coin] Ground_{Spkr}

Context: John is talking with his advisor Mary for his graduation. He thinks he has already done what are required for graduation. But Mary thinks he needs to publish another article before his graduation.

John: Dou wancheng le. Wo xianzai deng zhe biye le. Everything is done. Now I am waiting for my graduation.
Mary: Buguo ni hai xuyao fabiao yi pian lunwen. But you still need publish one cl paper But you need to publish one more paper (before you graduate).
John: Shenme? Wo hai dei xie yi pian lunwen What? I still must write one CL thesis PRT What? I still have a thesis to write (which is out of my expectation).

ma [+coin] Ground_{Adr}

Context: Mary gave John a puppy. After a month, John asks Mary which kind of dog's food is better for his dog.

Ni shangci gei wo le tiao gou ma ... You last.time give me asp cl dog prt ...wo xiang wen ni nage paizi de gouliang hao. I want ask you which brand poss. dog.food good. Remember you gave me a dog last time.

Now I want to ask which food is good for him.'



bei [-coin] Ground_{Adr}

Context: Mary knows that John doesn't like cats. But one day when they are in the supermarket, she finds that John is looking at cat toys.

Mary: Ni zenme kan mao de dongxi? You why look cat poss. things Why are you looking at the cat stuff?

John: Wo erzi jian huilai yi zhi mao bei yiding yao yang. My son pick back one cl cat prt, certainly want keep (You haven't known that) my son picked up a cat somewhere and wants to keep it anyway.





i-spine regulates i-language

Response markers

Confirmationals

The same system regulates confirmationals and response markers

The role of the spine



Polar response markers



1.I:Did you save the world?R:Yes.No.

Response markers as agreement markers



Response to wh-Question

Katie:	Why would he do something like that?
Brooke:	Yes, I know. That is the question.
	BB-2012-05-23

Response markers as agreement markers



Response to imperative

Tracy:	Give it to me!
Brooke:	No!

GH-2012-01-20

Response markers as agreement markers



Response	to	exclama	tive
	St	ceffy:	Wohoo
	B	rooke:	Yes!

BB-2012-05-03

Response markers as acknowledgment markers



Response to vocative



Your initiation is in my response set Response to vocative

1. I: Hey Betsy?





Your initiation is **not** in my response set = contradiction

Confirmationals

The same system regulates confirmationals and response markers



Confirm that p is true



(1) You have a new dog, **eh**?



Confirm that you know p

The same system regulates confirmationals and response markers

Confirmationals



How does grammar interact with **Common Ground** (and the table)?

What is common ground?

The i-spine addresses the theoretical problem Provides the interface to Common Ground

Ingredients:

- S-Ground and A-ground
- Table
- 2 types of moves

Initiation



Reaction







CG has no linguistic representation



What is represented in the Ground?



What is represented in the Table/Resp-set?



What's in the ground?

But propositions are not the only things in ground and on the table

Ground

Propositions Discourse referents

Declarative





*Surprise! You have a new dog, eh? Surprise! You have a new dog.
Declaratives



You have a new dog, eh? *You have a new dog.

Ground and Table must also contain p with pA





Interrogatives



Cx 5Andy is in a public lecture, waiting for his friend Bob, who is late. As Bob arrives, half-way into the lecture, he wants Andy to summarize the content of the lecture thus far. Bob utters:

(66) a. What's he talking about?">
b. What's he talking about">
**,C5> What's he talking about, eh?

Interrogatives



Cx 6 Andy and Bethany are in a public lecture. The lecture is rather obscure and Andy is not following though he doesn't think it's his fault. Judging from Bethany's face he determines that she also doesn't understand (or much like) the lecture. Andy utters...

(67) a. What's he talking about?
b. What's he talking about, eh?

Ground and Table must also contain Questions



Imperatives



Cx 7 Billy and Alfred are frat boys. Billy is a bit of a bully, and Andy a bit of a pushover. As Billy is sitting on the couch watching a move, Andy comes in, sits down on the couch and tells Billy that he's so tired and doesn't want to leave the couch anymore. Billy is used to his roommates serving him beer. So, he says to Andy....

(70) a. $\langle \cdot, Cx \rangle \in Get me a beer$ b. $\langle *, Cx \rangle \in Get me a beer, eh?$

Imperatives



Cx 8 Boris and Annabelle are relaxing on the couch watching a movie. Annabelle gets up to go to the kitchen as she usually does during commercials. And she usually brings Boris a beer. Just to make sure that Annabelle is indeed planning on bringing Boris a beer, he utters ...

(71) a. $\overset{<*}{\cdot}Cx \ 8^{>}Get me a beer!$ b. $\overset{<\cdot}{\cdot}Cx \ 8^{>}Get me a beer, eh?$

Imperatives

Ground and Table must also contain Desires



Exclamatives



Cx 9 Anne has organized a surprise party for Charlie. Charlie was out with Bob whose job was to distract Charlie. As Charlie enters the room and everyone shouts "surprise", Charlie, who is genuinely surprised utters...

(76) a.
$$({}^{\circ}Cx 9^{>, <*,}Cx 10^{>}What a surprise!$$

b. $({}^{\circ}Cx 9^{>, <*,}Cx 10^{>}What a surprise, eh?$

Exclamatives



Cx 10 Anne has organized a surprise party for Charlie. Charlie was out with Bob whose job was to distract Charlie. As Charlie enters the room everyone shouts "surprise". Observing Charlie's surprised expression, Anne utters...

(76) a. $\overset{<\checkmark}{\cdot}Cx 9^{>, <*,}Cx 10^{>}$ What a surprise! b. $\overset{<*,}{\cdot}Cx 9^{>, <*,}Cx 10^{>}$ What a surprise, eh?

Exclamatives



Figure 32 The normal course of an exclamation

Ground

Propositions Questions Propositional Attitudes Desires Surprise

Ground/Table contain syntactic objects





Items on the table are syntactic objects paired with their denotations

Farkas & Bruce 2010: 86

Initiation Reaction **27** CPi, CPj,... SELF 27 SELF CPi, CPj,... [Ground [NegPk]] CPi, CPj, CPk,... СРі, СРј, ... [Ground [CPk]] CPk NegPk 27 27 $\nabla \nabla$ $\circ \circ$ $\nabla \nabla$ $\circ \circ$ ∇ 0 \bigcirc CPk CPk NegPk

S-initial vs. S-medial discourse particles

Similarities and differences

	ma	geh	leicht	doch
S-oriented	\checkmark	Х	\checkmark	Х
Adr-oriented	Х	\checkmark	Х	\checkmark
Move-internal	Х	Х	\checkmark	\checkmark
Clause-type restriction	Х	Х	\checkmark	\checkmark

Interpretive ingredients:

- Spkr, Adr
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Distributional differences:

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S-/A-orientation derives
from association with
Ground (via AGREE)



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Clause-type restriction derives from position within p-structure No sensitivity to Move-type





S-initial particles



- = Pro-GroundP
- \rightarrow Associates with Ground_{SpkrP}
- \rightarrow marks Utt as a response to a contextually salient situation

S-medial particles



→ Associates inside p-structure
→ is interpreted in GroundP
→ marks grounding status of p-content itself

	ma	geh
S-oriented	\checkmark	Х
Adr-oriented	Х	\checkmark
Move-internal	Х	Х
Clause-type restriction	Х	X

S-/A-orientation derives from being Ground pro-forms



	ma	geh
S-oriented	\checkmark	Х
Adr-oriented	Х	\checkmark
Move-internal	Х	Х
Clause-type restriction	Х	Х

Move-type restriction derives from associating with RespP



Surprise

Context: Mariana and Reingard are on a walk and from a distance they see their friend Lena who is walking with a dog, they have never seen before:

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Suprise

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Discourse markers

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Predictions

- S-initial particles can be used in isolation (as exclamations)
- (1) At the sight of something surprising: Ma!

(2) At the sight of something the addressee does but the speaker disapproves: Geh!

Predictions

Cx 4

• S-initial particles co-occur with other S-internal particles (w/opposite orientation



Geh [die Lena hot **leicht** an neichn Hund]

Conclusion

The interactional spine hypothesis (ISH)







p: AnchorP Q: LinkP pA: [GroundP[CP]] Des: [GroundP[AspP]] Surprise: [GroundP[...]]



Items on the table are syntactic objects paired with their denotations

Farkas & Bruce 2010: 86
S-initial discourse particles

S-medial discourse particles



Response markers



• Confirmationals



