Handling information from different dimensions

– with special attention on gesture vs. speech –

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dimensions of meaning

- Conveyed information can be of different status

- Pieces of information of different status stem from only one channel, i.e. speech
  - at-issue/non-at-issue debate
    (Grice 1975, Potts 2005, Anderbois et al. 2015, Koev 2013, ...)

- Or from different channels, i.e. gesture vs. speech
  - Information status of gesture information
    (Ebert & Ebert 2014, Ebert 2017, Schlenker 2016, Schlenker t.a., Esipova 2017)

general view

- whenever there are pieces of information from different dimensions or channels, they compete for the at-issue status

- there are certain defaults, but these can be overridden

- there are operators and other systematic means to shift information from one dimension to the other

preview

- appositives are generally not-at-issue

- the status of gestures depends on their temporal alignment with speech (i.e. availability of a competitor)

  - stand-alone gesture → at-issue

  - co-speech gesture   → not-at-issue

- certain dimension shifters (such as demonstratives and mimics) explicitly make not-at-issue information at-issue

- dimension shifting is meaningful and results in semantically distinguishable readings; this accounts for the semantics of demonstratives and the attributive-referential distinction

classical case:
two dimensions within speech

- Core phenomena:

  1. expressives like *damn* (or 'mixed items' like *cur*)

     Jessica brought her damn dog with her.

  2. supplements like appositive relative clauses (ARCS) or appositive NPs (NAs)

     Lance Armstrong, who was a world class cyclist, started his career at the age of 12. (ARC)

     Lance Armstrong, a world class cyclist, started his career at the age of 12. (NA)

- bring in information that is not at issue at the time of utterance, but sneaked in as 'secondary' information

- information is not for disposition, non-negotiable

properties of non-at-issue material

- Non-at-issue material does not enter truth conditions as straight-forwardly as at-issue material (Potts 2005)

  ➜ Truth value not influenced by false non-at-issue material

  ➜ material cannot be denied directly in discourse

- Non-at-issue material projects (Potts 2005)

  ➜ it cannot be the target of modal operators like negation

- Non-at-issue material can be ignored in ellipsis (Potts et al. 2009)

appositives
at-issue and non-at-issue interpretations

direct denial

to appositive

Lance Armstrong, a world class cyclist, started his career at the age of 12.

Direct denial response:

#That's not true! He wasn't a world class cyclist, he was a world class trumpeter.

Discourse interrupting protest:

Hey, wait a minute! He actually he was a world class trumpeter, not a cyclist.

to main clause VP

Lance Armstrong, a world class cyclist, started his career at the age of 12.

Direct denial response:

That's not true! He started his career at the age of 16.

projection

with appositive

It is not true that Lance Armstrong, a world class cyclist, started his career at the age of 12.

Negation elaboration:

#He was a world class trumpeter.

with main clause VP

It is not true that Lance Armstrong, a world class cyclist, started his career at the age of 12.

Negation elaboration:

He started with about 16.

ellipsis

- Expressive content can be ignored under ellipsis (Potts et al. 2009)

> A: *I saw your f***ing dog in the park.*
>
> B: *No, you didn't — you couldn't have. The poor thing passed away last week.*

- Holds also for appositive content:

> A: *I met Peter, the best trumpeter in town, for lunch.*
>
> B: *Last week, I did, too. – But I don't think, he is such a great trumpeter.*

at-issue appositives

- But some appositives *can* apparently be at-issue

  (AnderBois et al. 2015; Koev 2013; Syrett & Koev 2014)

- <u>Direct denial is possible with sentence-final ARCs</u>

  A: *He took care of his husband, who had prostate cancer.*

  B: *No, he had lung cancer.*

  A: *His husband, who had prostate cancer, was being treated at the Dominican Hospital.*

  B: *??No, he had lung cancer.*

at-issue appositives

- Some appositives seem to be interpretable in the scope of modal operators, i.e. they do not project (Wang et al. 2006; Nouwen 2014)

- <u>Appositive *one*-modifiers (a subtype of NAs) often do not project</u>:

  If a professor, a famous one, publishes a book, he will make a lot of money.

  Mary wants to marry an Italian, a rich one.

at-issue appositives

Question: why are appositives at-issue in these cases?

- AnderBois et al. 2015:

  appositives enjoy a "*broader range of possible interpretations, behaving in many respects as though they were conjunctions rather than true appositives*"

- Syrett & Koev 2014:

  "*we propose to account for the shifting status of ARCs [...] by assuming that ARCs can* **compete** *with main clauses for at-issue status (that is, either is in principle a candidate for at-issue status), and by relating the ordering of the appositive assertion and the main clause assertion to the overall flow of discourse*" (my emphasis)

at-issue appositives

- Syrett & Koev (2014):

    - all appositives (both NAs and ARCs) and main clauses introduce independent assertions

    - in principle, either can be at issue – they compete

    - the proposition that is processed last is at issue

    - ARCs can be attached to either the anchor or the root node
    - recency of assertion exerts an effect on its at-issue status

        the symphony hired my friend [$_{DP}$ Sophie [$_{CP}$ who is a classical violinist]]

        [$_{CP_1}$ the symphony hired my friend Sophie] [$_{CP_2}$ who is a classical violinist]

at-issue appositives

- Koev (2013) hypothesizes that *one*-"appositives" are in fact not appositive constructions but a special kind of restricting modifier (cf. Nouwen 2014).

gradual at-issueness

competition for information status

gradual at-issueness

- A new thought on competition: gradual at-issueness

"The more stand-alone a piece of information,
the more likely it is at-issue."

- Supposed to include information from different channels, i.e. speech, gesture, mimics, ...

- Emphasizes aspects of temporal occurence

- Occurence at right periphery & finiteness are "stand-alone" features for appositives

gradual at-issueness

Denial Examples (response: *Nein, DER hieß LOUIS Armstrong!*)

- completely out:

  Lance Armstrong, <u>der virtuose Trompeter,</u> hatte Hodenkrebs.

  *Lance Armstrong, <u>der ein virtuoser Trompeter **war**</u>, hatte Hodenkrebs.*

- better:

  Zu den Prominenten, die an Hodenkrebs erkrankten, gehörte zum Beispiel auch Lance Armstrong, <u>der virtuose Trompeter</u>.

- even better:

  *Zu den Prominenten, die an Hodenkrebs erkrankten, gehörte zum Beispiel auch Lance Armstrong, <u>der ein virtuoser Trompeter **war**</u>.*

gradual at-issueness (engl)

Denial Examples (response: *No, HE was called LOUIS Armstrong!*)

- completely out:

  Lance Armstrong, <u>the virtuosic trumpeter,</u> suffered from prostate cancer.

  *Lance Armstrong, <u>who **was** a virtuosic trumpeter,</u> suffered from prostate cancer.*

- better:

  Among the celebrities who suffered from prostate cancer we also find Lance Armstrong, <u>the virtuosic trumpeter</u>.

- even better:

  *Among the celebrities who suffered from prostate cancer we also find Lance Armstrong, <u>who **was** a virtuosic trumpeter</u>.*

gradual at-issueness

Ellipsis Examples (follow-up: *Peter auch – allerdings mit dem Flugzeug.*)

- ok:

  Paul fliegt heute, <u>übrigens mit dem Hubschrauber</u>, nach Wien.

- worse:

  Paul ist heute nach Wien geflogen, <u>übrigens mit dem Hubschrauber.</u>

- even worse:

  *Paul ist heute nach Wien geflogen, <u>übrigens **ist** er mit dem Hubschrauber geflogen.</u>*

gradual at-issueness (engl)

Ellipsis Examples (follow-up: *Peter, too – but he will fly by plain* .)

- ok:

  Paul will fly, <u>by helicopter by the way,</u> to Vienna.

- worse:

  Paul will fly to Vienna, <u>by helicopter by the way.</u>

- even worse:

  Paul will fly to Vienna, <u>he will fly by helicopter by the way.</u>

gradual at-issueness

Showing the same with gestures instead of appositives
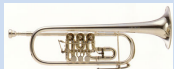
gradual at-issueness

Denial Examples (response: *Nein, DER hieß LOUIS Armstrong!*)

- completely out: *[Lance Armstrong] hatte Hodenkrebs.*

- slightly better (?):

  Zu den Prominenten, die an Hodenkrebs erkrankten, gehörte zum Beispiel auch [Lance Armstrong].

- even better:

  Zu den Prominenten, die an Hodenkrebs erkrankten, gehörte zum Beispiel auch Lance Armstrong.

- and even better:

  Zu den Prominenten, die an Hodenkrebs erkrankten, gehörte zum Beispiel auch Lance Armstrong. [...pause...]

gradual at-issueness (engl)

Denial Examples (response: *No, HE was called LOUIS Armstrong!*)

- completely out: *[Lance Armstrong] suffered from prostate cancer.*

- slightly better (?):

    Among the celebraties who suffered from prostate cancer we also find [Lance Armstrong].

- even better:

    Among the celebraties who suffered from prostate cancer we also find Lance Armstrong.

- and even better:

    Among the celebraties who suffered from prostate cancer we also find Lance Armstrong. [...pause...]

gradual at-issueness: ellipsis

Ellipsis examples (follow-up: *Das Flugzeug auch.*)

- ok:

  Der Hubschrauber [*startet*   ] *gleich.*

- slightly worse (?):

  Der Hubschrauber ist schon [*gestartet*   ].

- even worse:

  Der Hubschrauber ist schon gestartet.

- even worse (?):

  Der Hubschrauber ist schon gestartet.   *[pause]*

gradual at-issueness: ellipsis (engl)

Ellipsis examples (follow-up: *The plane, too.*)

- ok:

  The helicopter will [take off] soon.

- slightly worse (?):

  The helicopter already [took off].

- even worse:

  The helicopter already took off.

- even worse (?):

  The helicopter already took off. [pause]

gradual at-issueness

- Gradual at-issueness:

  "The more stand-alone a piece of information,
  the more likely it is at-issue."

- Emphasizes aspects of temporal alignment:

  - Temporal coincidence $\rightarrow$ strong competition
    $\rightarrow$ clear at-issue/non-at-issue distribution

  - Temporal proximity $\rightarrow$ facultative competition

- In this view:

  a sentence-medial appositive "occurs" at the same time as its anchor, like a simultaneous gesture ('comma' intonation).

gestures

at-issue and non-at-issue interpretations

gesture types

- Gesture:

  communicative movements of hands and arms transporting emotions, intentions, and thoughts

- Types of Gestures:

  - Iconic gestures

  - Pointing gestures

  - Emblematic gestures

  - Metaphoric gestures

  - Regulators

  - Beats

gesture types

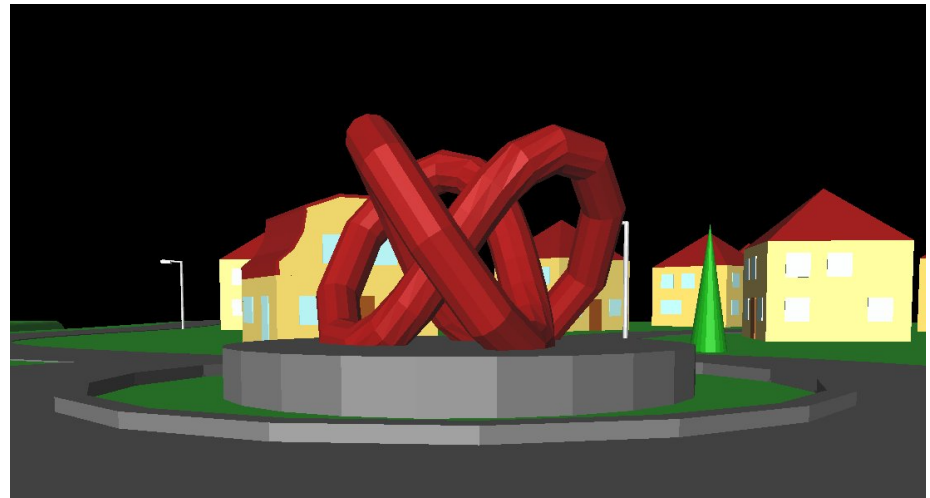with respect to temporal alignment with speech

pre-speech   pro-speech   co-speech   post-speech

the SaGA copus

- Bielefeld Speech-and-Gesture-Alignment (SaGA) corpus of project B1 *Speech-gesture-alignment* of the SFB 673 *Alignment in Communication* (Lücking et. al 2013)

co-speech gesture

It is on a [grey base made of concrete]$^{+ic\text{-}g}$.
Three meters high. And on it, there are [red tubes]$^{+ic\text{-}g}$.

co-speech gesture

- Gesture information adds semantic content to the utterance

- 'Gesture and speech work together to convey one thought' (cf. McNeill 1992, Kendon 1980)

post-speech gesture

With one round tower. [   ]$^{+ic\text{-}g}$ With one round...

post-speech gesture

Such a curve. [   ]+ic-g [I went along there]+ic-g.

pre-speech gesture

More specifically, [on the righthandside, there will be (such) a pillar]$^{+ic\text{-}g}$. It doesn't fit the townscape at all.

pro-speech gesture

- We also find pro-speech gestures (Ladewig 2012, Ebert 2014, Schlenker & Chemla 2016, Schlenker 2017)

A: *Have you met Paul recently?*
B: (shakes head)

Can you pass me the [iconic 'shape' gesture]*?*

Yesterday, we went [ ].

co- vs. pro-speech gestures

Literature:

- Schlenker & Chemla (2016) show that co-speech gestures can be ignored under ellipsis, which sets them apart from pro-speech gestures

a. This helicopter will soon _____. [take off], and this plane will too.

b. #This helicopter will soon TAKE-OFF-ROTATING_ _____., and this plane will too.

- co-speech-gestures are usually not at issue (Ebert & Ebert 2014, Schlenker 2016), pro-speech gestures are usually at issue (Ebert 2014, Schlenker 6 Chemla 2016, Schlenker t.a., cf. Ladewig 2012).

- fits the idea of gradual at-issueness

temporal alignment and at-issueness

pre-speech	**pro-speech**	**co-speech**	**post-speech**
at issue (?)	at-issue	not at-issue	more distant → more likely to be at-issue

co-speech gestures

2 views

meaning of co-speech gestures

I brought [a bottle of water] to the talk.

Conveys roughly the same meaning as:

Cornelia brought a <u>big</u> bottle of water to the talk.

contribution of gesture vs. speech

I brought [a bottle of water] to the talk.

At-issue:	semantic content of the speech signal
	The speaker brought a bottle of water to the talk
Non-at-issue:	'semantic content' of the gesture (roughly):
	The bottle is big

2 views

- Gestures contribute non-at-issue information by default

Ebert & Ebert 2014:

- co-speech gestures behave **like appositives**, which are not at-issue (e.g. Potts 2005)

- Formal approach fleshed out on basis of AnderBois et al.'s (2015) approach to appositives

Schlenker 2016:

- co-speech gestures behave **like a special kind of presupposition**, i.e. like cosuppositions

Ebert & Ebert 2014

co-speech gestures are like appositives: direct denial

speech & gesture

I brought [a bottle of water].

Direct denial response:

#That's not true! You actually brought a small bottle.

Discourse interrupting protest:

Hey, wait a minute! Actually, the bottle is not as big.

speech only

I brought a <u>big</u> bottle of water.

Direct denial response:

That's not true! You actually brought a small bottle.

Ebert & Ebert 2014

co-speech gestures are like appositives: projection

speech & gesture

I did not bring [a bottle of water] to the talk.

Negation elaboration:

#A small one is enough for me.

speech only

I did not bring a <u>big</u> bottle of water to the talk.

Negation elaboration:

A small one is enough for me.

Schlenker 2016

- argues that co-speech gestures do not behave like supplements, but rather like a special kind of presupposition, i.e. like *cosuppositions*

- An expression *p* with a co-occuring gesture with content *g* comes with the requirement that it holds that *p entails g*

    a. *John [helped] his son.*

    entails:
    John helped his son by lifting him.

    b. *John didn't [help] his son.*

    c. *Did John [help] his son?*

    entail:
    If John (had) helped his son,
    he would have done so by lifting him.

Schlenker vs. Ebert & Ebert

- Presuppositions carry old, appositives new information by default

- Gestures should contribute old information in Schlenker's approach and new information in Ebert & Ebert's in the general case

- Kendon (1980), Lücking (2013): gestures can never be redundant because they are concrete – they always add something

Schlenker vs. Ebert & Ebert

- Some discussion in Schlenker (2016)

Yesterday John bought (i) LARGE_ [a bottle of beer]. / (ii) a bottle of beer, which was

LARGE_ this large. I thought he'd drink it over dinner last night. But this morning, he brought

a. (#) LARGE_ [his bottle of beer] to the workshop!

b. (#) his bottle of beer, which was LARGE_ this large, to the workshop!

- Co-speech gesture seem at least degraded when they carry old content

Schlenker vs. Ebert & Ebert

- In positive environments, same entailment in Ebert & Ebert's (2014) and Schlenker's (2016) approach.

I brought [a bottle of beer].

Asserted:	Cornelia brought a bottle of beer.
Presupposed:	If Cornelia brought a bottle it was a big bottle.
Entailed:	Cornelia brought a big bottle of water.

Schlenker vs. Ebert & Ebert

- Schlenker (2016): in negative environments, co-speech gestures also receive a presuppositional interpretation.

I did not bring [a bottle of beer].

Asserted: Cornelia did not bring a bottle of beer
Presupposed: If Cornelia had brought a bottle it would have
                       been a big bottle

- Ebert & Ebert (2014): odd or interpreted as the gesture associating with the NP (concept-related reading): the speaker takes beer bottles to be that big by default

Schlenker vs. Ebert & Ebert

- Further differences :

It is unlikely that Cornelia will bring [a bottle of beer].

    Asserted: It is unlikely that Cornelia will bring a bottle of beer

    Presupposed: When Cornelia brings a bottle of beer, it is
                      usually a big bottle

No linguist will bring [a bottle of beer].

    Asserted: No linguist will bring a bottle of beer

    Presupposed: When a linguist brings a bottle of beer, it is
                      usually a big bottle

Schlenker vs. Ebert & Ebert

- Schlenker (2016): At-issue readings are derivable via local accommodation, because they are weak triggers, but in particular in contrastive contexts (cf. Esipova 2017)

I did not bring [a bottle] , I brought [a bottle].

small

Schlenker vs. Ebert & Ebert

- Ebert & Ebert (2014): at-issue readings are generally not possible (cf. projection with negation)...

- ... EXCEPT with certain mimics (raising eyebrows, ...) and an eye-catching gesture

I did not bring [a bottle] , I brought [a bottle].

small

Schlenker vs. Ebert & Ebert

Schlenker (2016):

1. co-speech gestures are ok also in downward-entailing contexts and trigger a conditional interpretation

2. at-issue readings are generally available whenever local accommodation is possible

Ebert & Ebert (2014):

1. co-speech gestures are degraded in downward-entailing contexts; sometimes concept-related reading with just the NP is possible

2. at-issue readings are generally not available, only with very special means that make the gesture at-issue

post-speech gestures

2 views

Schlenker 2016

- co-speech gestures receive a presuppositional interpretation and post-speech gestures a supplemental one

co-speech:

Some philosopher brought [a bottle of beer].

↪ cosupposition: *some philosopher brought a big bottle of beer*

post-speech:

Some philosopher brought a bottle of beer.

↪ supplement: *some philosopher brought a bottle of beer,*
which was big.

Schlenker 2016

- co-speech gestures receive a presuppositional interpretation and post-speech gestures a supplemental one

co-speech:

No philosopher brought [a bottle of beer].

↪ cosupposition: *if a philosopher brings a big bottle of beer,*

it will be big.

post-speech:

#*No philosopher brought a bottle of beer.*

↪ supplement: *#No philosopher brought a bottle of beer, which was big.*

an alternative proposal

- co-speech gestures receive a supplemental interpretation
  (Ebert & Ebert 2014)

- in the spirit of gradual at-issueness, post-speech gestures can
  - either behave like co-speech gestures (supplements)
    - ➜ not at-issue
    - ➜ function like (right-dislocated) appositives
  - or like stand-alone pro-speech gestures (independent assertions)
    - ➜ at-issue
    - ➜ serve to clarify a property of the speech DR
      (cf. Averitseva-Klisch's view on afterthoughts: clarify reference)

an alternative proposal

co-speech:

Some philosopher brought [a bottle of beer].

↪ supplement: *some philosopher brought a bottle of beer,*
which was big.

post-speech:

Some philosopher brought a bottle of beer.

↪ supplement: *Some philosopher brought a bottle of beer,*
which was big.

↪ assertion: *Some philosopher brought a bottle of beer,*
This bottle was big.

an alternative proposal

co-speech:

#_No_ philosopher brought [a bottle of beer].

↳ supplement: #*No philosopher brought a bottle of beer,*

which was big

post-speech:

#_No_ philosopher brought a bottle of beer.

↳ supplement: #*No philosopher brought a bottle of beer,*

which was big

↳ assertion: #*No philosopher brought a bottle of beer.*

This bottle was big.

an alternative proposal

- Complex example where anaphoric reference is possible (although it shouldn't be ☺):

It's not true that no philosopher brought a bottle of beer.
It was / they were quite large, in fact.

- Also the post-speech gesture gets better in such contexts:

It's not true that no philosopher brought a bottle of beer .

Thanks to Philippe Schlenker (p.c.) for providing me with this example.

further evidence

- co-speech gesture not-at-issue:

  A: *Maria hatte angekündigt, sich wertvollen Schmuck kaufen zu wollen. Und heute habe ich sie tatsächlich mit [einem teuren Teil] herumlaufen sehen.*

  B: *#Nein, das kann nicht sein! Halsketten findet sie spießig!*

- post-speech gesture at-issue:

  A: *Maria hatte angekündigt, sich wertvollen Schmuck kaufen zu wollen. Und heute habe ich sie tatsächlich mit einem teuren Teil herumlaufen sehen.*

  B: *Nein, das kann nicht sein! Halsketten findet sie spießig!*

further evidence (engl.)

- co-speech gesture not-at-issue:

  A: *Maria announced that she wanted to buy expensive jewelry. And today I actually saw her [with a fancy piece] running around in town.*

  B: *#No, that is not possible! She hates necklets.*

- post-speech gesture at-issue:

  A: *Maria announced that she wanted to buy expensive jewelry. And today I actually saw her [with a fancy piece] running around in town.*

  B: *No, that is not possible! She hates necklets.*

further evidence

- co-speech gesture inevitably projects:

Ich habe mir [einen Hund] zugelegt.
✋ *small*
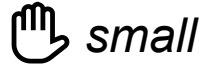
#Ich möchte mir [einen Hund] zulegen.
✋ *small*

- post-speech gesture does not necessarily project:

Ich habe mir einen Hund zugelegt. ✋ *small*

Ich möchte mir einen Hund zulegen. ✋ *small*
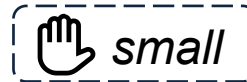
- cf. *one*-appositives:

Ich habe mir einen Hund zugelegt, einen kleinen.

Ich möchte mir einen Hund zulegen, einen kleinen.

further evidence

- co-speech gesture inevitably projects:

  Unser Haus hat Alufenster.
  🖐 *round*

  #Wenn ich Geld habe, möchte ich mir ein Haus mit Alufenstern kaufen.
  🖐 *round*

- post-speech gesture does not necessarily project:

  Unser Haus hat Alufenster. 🖐 *round*

  Wenn ich Geld habe, möchte ich mir ein Haus mit Alufenstern kaufen.
  🖐 *round*

- cf. *one*-appositives:

  Unser Haus hat Alufenster, runde.

  Wenn ich Geld habe, möchte ich mir ein Haus mit Alufenstern kaufen, mit runden.

further evidence (engl.)

- co-speech gesture inevitably projects:

I bought [a dog].
   👋 *small*

#I want to buy [a dog].
   👋 *small*

- post-speech gesture does not necessarily project:

I bought a dog.   👋 *small*

I want to buy a dog.   👋 *small*

- cf. *one*-appositives:

I bought a dog, a small one.

I want to buy a dog, a small one.

further evidence

- post-speech gestures are not possible in all configurations

- tentatively:

  they are excluded whenever *one*-appositives would be excluded

  #Ich würde mir niemals einen Hund zulegen. 🖐 *small*

  #Ich würde mir niemals einen Hund zulegen. 🖐 *small*

- cf. *one*-appositives:

  #Ich würde mir niemals einen Hund zulegen, einen kleinen.

  #I would never buy a dog, a small one.

co- vs. post-speech gestures

	co-speech gestures	post-speech gestures
Ebert & Ebert (2014), this presentation	supplemental (like appositives), not-at-issue	supplemental (like appositives), not-at-issue OR asserted (clarify some aspect of the speech DR), at-issue
Schlenker (2016)	presuppositional, not-at-issue	supplemental (like appositives), not-at-issue

dimension shift & switch

demonstratives & the referential/attributive distinction

dimension shifters

Recall:

- Ebert & Ebert (2014): at-issue readings are generally not possible for co-speech gestures...

- ... EXCEPT with certain mimics (raising eyebrows, ...) and an eye-catching gesture

I did not bring [a bottle] , I brought [a bottle].

small

- mimics functions as dimension-shifter

dimension shifters

- there are means to influence the competition for at-issueness in communication

- they work as dimension-shifters that shift information from one (standardly assumed) dimension to another

- Examples non-at-issue → at-issue:
  - mimics – raising eyebrows, ...
  - demonstratives – *ein* vs. *so ein* and *the* vs. *this*
  - focus-marking/prosody/... ?

- Examples at-issue → non-at-issue:
  - 'comma' intonation

dimension shifters

Shifting effect of demonstrative *so*

speech & gesture

Ich bringe niemals

[eine Flasche Wasser] mit zu

Vorträgen.

I never bring [a bottle of water]
to talks .

Negation elaboration:

#Eine kleine reicht mir nämlich.

(A small one is enough for me.)

speech + *so* & gesture

Ich bringe niemals

[SO eine Flasche Wasser] mit zu

Vorträgen.

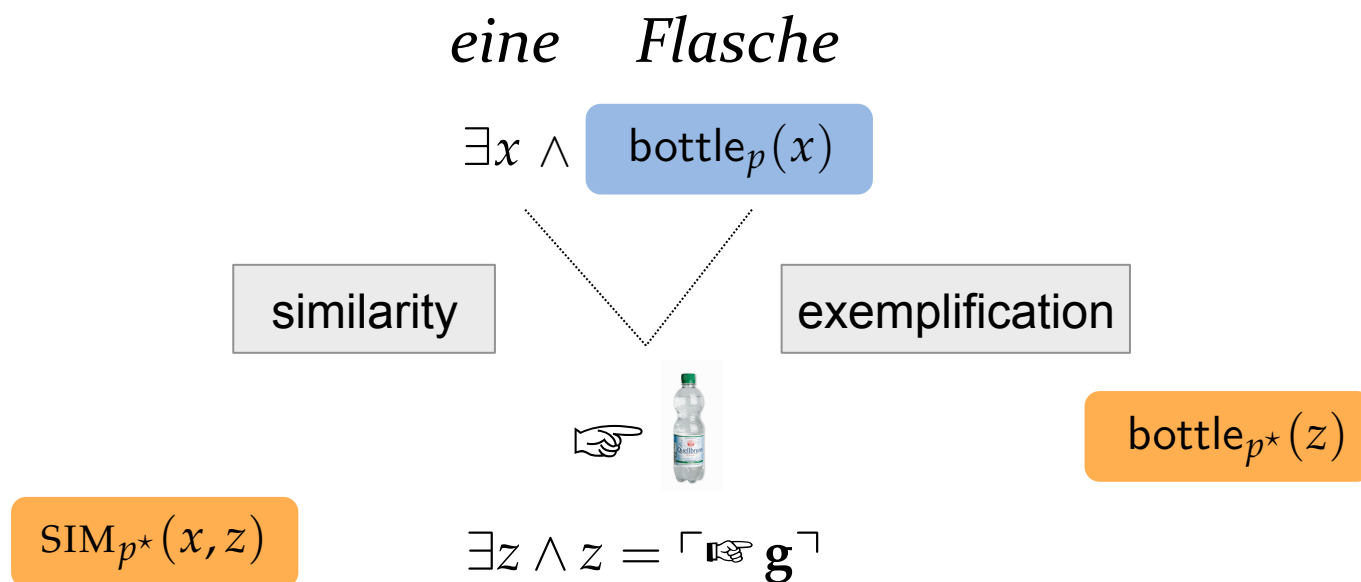*I never bring [a bottle of water*
like that] to talks.

Negation elaboration:

Eine kleine reicht mir nämlich.

(A small one is enough for me.)

dimension shifters

Combined meaning contributions of speech and gesture
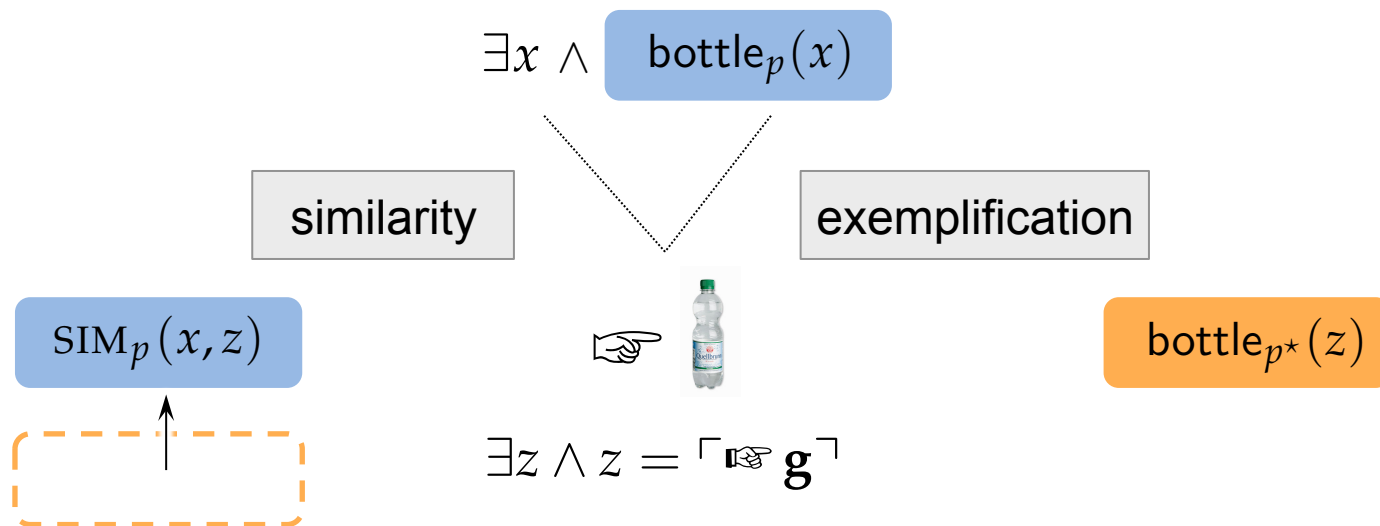(Ebert & Ebert, 2014):

$$\exists x \wedge \boxed{\text{bottle}_p(x)}$$

eine   *Flasche*

similarity   exemplification

$$\boxed{\text{bottle}_{p^\star}(z)}$$

$$\boxed{\text{SIM}_{p^\star}(x, z)}$$

$$\exists z \wedge z = \ulcorner \text{☞ } \mathbf{g} \urcorner$$

$$\exists z \wedge z = \ulcorner \text{☞ } \mathbf{g} \urcorner \wedge \exists x \wedge \boxed{\text{bottle}_p(x)} \wedge \boxed{\text{SIM}_{p^\star}(x, z)} \wedge \boxed{\text{bottle}_{p^\star}(z)}$$

dimension shifters

Combined meaning contributions of speech and gesture
(Ebert & Ebert, 2014):

SO eine Flasche

$\exists x \,\wedge\,$ $\boxed{\text{bottle}_p(x)}$

$\boxed{\text{similarity}}$ $\qquad$ $\boxed{\text{exemplification}}$

$\boxed{\text{SIM}_p(x,z)}$ $\qquad$ $\boxed{\text{bottle}_{p^\star}(z)}$

$\exists z \wedge z = \ulcorner ☞\, \mathbf{g} \urcorner$

$\exists z \wedge z = \ulcorner ☞\, \mathbf{g} \urcorner \wedge \exists x \,\wedge\, \boxed{\text{bottle}_p(x)} \,\wedge\, \boxed{\text{SIM}_p(x,z)} \,\wedge\, \boxed{\text{bottle}_{p^\star}(z)}$

dimension switching

Mistaken identity cases (speaker's/semantic reference)
(Kripke 1977 based on Linsky 1963)

Verbal concept at-issue/attributive interpretation/semantic referent:

A: *Her husband is kind to her.*

B: *No, he* [= her husband] *isn't.*
 The man you are referring to isn't her husband. (Kripke 1977, p. 90)

$$\text{husband\_of}_p(x,y) \qquad x =_{p^\star} z \qquad \text{kind}_p(x,y)$$

Her husband (who is, by the way, identical to the object I'm pointing to) is kind to her.
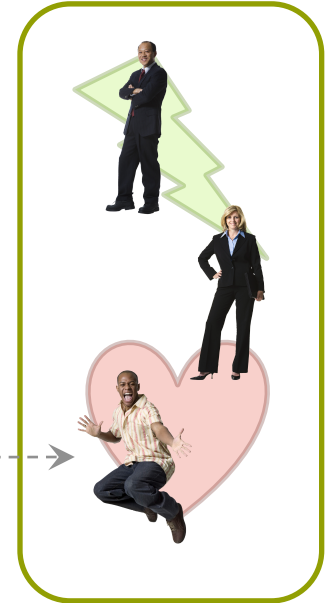
dimension switching

Gestural concept at-issue/referential interpretation/
speaker's referent:

A: *Her husband is kind to her.*

B: *HE* [= the man referred to by the speaker via
     gesture] *is kind to her. But he isn't her
     husband.* (Kripke 1977, p. 90, my emphasis)

$$\text{husband\_of}_{p^\star}(x,y) \qquad x =_p z \qquad \text{kind}_p(x,y)$$

This object (which is, by the way, her husband) is kind to her.

dimension switching

General idea (Ebert & Ebert, 2014):

The big bottle $- - - - - - - - - - - x - - - - - - - - \rightarrow$

☞ $- - - - - - - - - - - z - - - - - - - - \rightarrow$

- Two distinct referential concepts: verbal x and (possibly covert) gestural z

- only one can be at-issue, the other must be non-at-issue

at-issue verbal concept x at-issue gesture concept z

$\text{big\_bottle}_p(x)$ $x =_{p\star} z$ $\text{big\_bottle}_{p*}(x)$ $x =_p z$

attributive reading   **referential reading**

(cf. Gutzmann & McCready t.a.)

dimension switching

attributive reading

the bottle

$$\text{bottle}_p(x)$$

$$x =_{p^\star} z \qquad \text{bottle}_{p^\star}(z)$$

☞
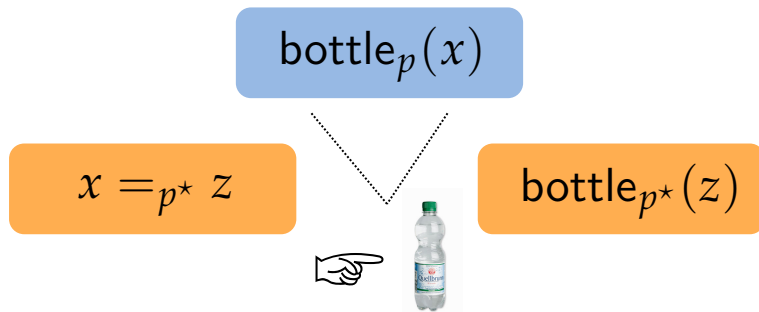
demonstrative reading

this bottle

$$x =_p z \qquad \text{bottle}_p(x)$$

$$\text{bottle}_{p^\star}(z)$$

☞
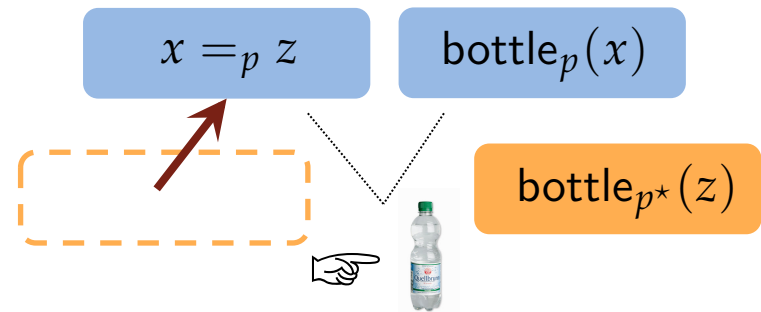
referential reading

the bottle

$$x =_p z$$

$$\text{bottle}_{p^\star}(x) \qquad \text{bottle}_{p^\star}(z)$$

☞
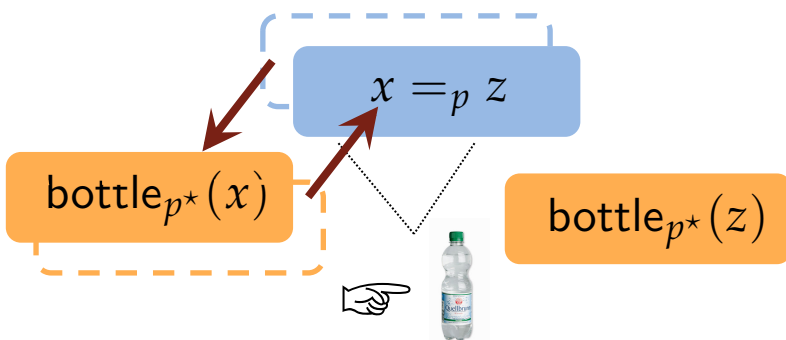
Due to at-issue identification

$$x =_p z$$

definite treated as a rigid
designator or name-like
(see Kaplan 1989a,b; Marti 2008)

summary

- pieces of information from one or across different channels of communication compete for at-issueness

- a prime example is the interplay of gestural information and speech, where speech usually wins over gesture

- stand-alone gestures don't face competition and are hence at-issue

- there are means to switch and shift information between dimensions

outlook

[Lance Armstrong, the famous trumpeter,] likes Spaghetti.

Thank you