

Entity Representations and Articulated Contexts

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The larger Project

- General Motivation: What is the kind of contextual information that is needed for the interpretations of different types of definite noun phrases?

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- General Motivation: What is the kind of contextual information that is needed for the interpretations of different types of definite noun phrases?
- The Definite Noun Phrases of English:
 - ▶ Definite Descriptions
 - ▶ Third Person Pronouns
 - ▶ First and Second Person Pronouns
 - ▶ Simple Demonstratives (*this/that/these/those*)
 - ▶ Complex Demonstratives (*this man/that bird on the roof over there*)
 - ▶ Proper Names

The larger Project

- Two well-investigated context types:
 - (i) The Utterance Context (Kaplan, Cresswell)
 - (ii) The Discourse Context

But we need more: Discourse-new definite descriptions and proper names.

Dependence on Utterance Context

(1) I am hungry.

DRS/Discourse Context:

(2)

t	s
$n \subseteq t$	$t \subseteq s$
s: hungry(sp)	

The larger Project

- Kaplan: indexicality tests:
 - (3)
 - a. I am hungry.
 - b. The speaker (of this utterance) is hungry.
 - (4)
 - a. If Estelle had spoken these (last) words, you would have done everything you could to please the speaker.
 - b. If Estelle had spoken these very words, you would have been paying the closest possible attention to the speaker (of this utterance).
 - c. If Estelle had spoken these very words, you would have been paying the closest possible attention to me.

The larger Project

- Dependence on the Discourse Context:
 - (5) a. Last week Fred bought a donkey.
b. He sold it the next day.
 - (6) (Discourse Representation Structure for (??).a))

n	t_1'	t_1	e_1	f	d
“week-before-the-week-of” (n)(t_1')					
$t_1 < n$ $t_1 \subseteq t_1'$ $e_1 \subseteq t_1$					
Fred(f) donkey(d)					
e_1 : buy(f, d)					

Indexical pronouns, indexical discourse referents, self-reflective discourse referents

- Indexical pronouns: , *you*

Indexical discourse referents: *n*, *sp*, *ad*, ..

Self-reflective discourse referents: *i*, *n*.

The *Utterance Context Concept*: a bundle of *indexical concepts* – *f_n*, *f_{sp}*, *f_{ad}*, ..

Building Utterance Contexts into Discourse Contexts: Use indexical discourse referents *n*, *sp*, *ad*, ..

(7) A: Did you put the garbage out? B: I did.

Articulated Contexts

(8) (Definition of Articulated Contexts)

An *Articulated Context* is a 4-tuple $\langle K_{dis}, K_{enc}, K_{gen}, K_{env} \rangle$, where

- (i) K_{dis} is the representation of the discourse context (with possible occurrences of indexical discourse referents to capture the contributions of the utterance context);
- (ii) K_{enc} is a set of representations of “known entities”;
- (iii) K_{gen} is a set of representations of items of “(generic) world knowledge”;
- (iv) K_{env} is a set of representations of elements from the immediate environment.

Entity Representations

(1) (Definition of *Entity Representation* and of Entity Representations that are *unanchored*, *simply anchored* and *multiply anchored*)

(i) An *Entity Representation* is a triple of the form

$$\langle [\text{ENT}, x], K_{\text{descr}}, \mathcal{K}_{\text{anch}} \rangle,$$

where x is a discourse referent, K_{descr} is a DRS and $\mathcal{K}_{\text{anch}}$ is a set of anchor-DRSs.

(By an *anchor-DRS* is understood a DRS whose vocabulary is restricted to a special, limited DRS language, the ‘internal anchor formalism’.)

(ii) An Entity Representation ER is *unanchored* iff $\mathcal{K}_{\text{anch}} = \emptyset$; otherwise ER is *anchored*. ER is *simply anchored* if $|\mathcal{K}_{\text{anch}}| = 1$ and *multiply anchored* if $|\mathcal{K}_{\text{anch}}| > 1$.

Motivations for ACs and ERs

- Recall: The motivations for Articulated Contexts and for Entity Representations are different:

Articulated Contexts: Different definite NPs can make use of different parts of an AC

Entity Representations: Were introduced as constituents of mental states as conceived by MSDRT.

The original conception of Articulated Contexts was not a psychological one.

But when ERs are adopted as constituents of ACs, then we are faced with a quandary. Either:

- (a) Turn ERs into non-psychological items; or
- (b) Interpret ACs as parts of mental states.

The choice made here: Option (b).

AC Components and NP Types

	K_{dis}	K_{enc}	K_{gen}	K_{env}
1st/2nd pers. pronouns	✓			
3rd pers. pronouns	✓			✓
Proper Names	?	✓		
Definite Descriptions	✓	✓	✓	✓
Demonstrative Phrases	✓			✓

- Observe: (i) 1st/2nd pers. pronouns: only utterance context;
- (ii) 3rd pers. pronouns: discourse context and environment;
- (iii) Proper Names: only encyclopedic context;
- (iv) Definite Descriptions: everything except for the utterance context;
- (iv) Demonstrative Phrases: discourse context and environment;

AC Components and NP Types

- Use of a proper name, demonstrative phrase or definite description will transfer items represented in K_{enc} , K_{gen} or K_{env} to K_{dis}

This is the most important aspect of the internal dynamics of Articulated Contexts.

- We have seen how the interpreter of a proper name can exploit his K_{enc} (standard referential use) and his K_{env} (introductory₁ use).

The most complex type from the present perspective is that of definite descriptions.

Definite descriptions can be used in quite a number of different ways.

Different uses of definite descriptions involve different AC components.

AC Components and NP Types

(9) Look at that bird on the roof over there! It is a blackbird.

H's AC before S has said (??)

(10) $\langle \emptyset, K_{enc} \cup \{ER_a\}, K_{gen}, K_{env} \cup \{ER_a\} \rangle$

- ER_a is H's ER for the speaker S.
- a is the distinguished discourse referent of this ER.
- ER_a belongs both to H's K_{enc} and to his K_{env} .

AC Components and NP Types

- Upon hearing S's words H forms a perceptually anchored ER ER_b for the bird he now sees: .

$$(11) ER_b: \left\langle [ENT, b], \begin{array}{|c|} \hline \\ \hline \text{bird}(b) \\ \hline \end{array}, \left\{ \begin{array}{|c|} \hline s \\ \hline n \subseteq s \\ s: i \text{ see } b \\ \hline \end{array} \right\} \right\rangle.$$

- Next, H adds a vicarious anchor to the anchor set of (??).
- H also forms a rudimentary K_{dis} with a discourse referent b for the bird represented by this ER (??).

AC Components and NP Types

- At this point H's AC looks like this:.

$$(12) \left\langle \begin{array}{|c|} \hline y \\ \hline y = b \\ \hline \end{array}, K_{enc} \cup \{ER_a\}, K_{gen}, K_{env} \cup \{ER_a, ER'_b\} \right\rangle$$

- Preliminary representation of the second sentence (??):

$$(13) \left\langle \left\{ \begin{array}{|c|} \hline z? \\ \hline \text{non-human}(z) \\ \hline \end{array} \right\}_{3d.p.pr}, \begin{array}{|c|} \hline \\ \hline \text{blackbird}(z) \\ \hline \end{array} \right\rangle$$

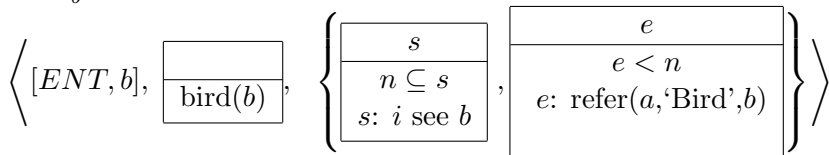
- The presupposition in (??) can be resolved by linking z anaphorically to y .

AC Components and NP Types

- Next, H adds a vicarious anchor to the anchor set of ER_b .

H also forms a rudimentary K_{dis} with a discourse referent y for the bird represented by this ER, as indicated by its being set equal to its distinguished discourse referent b .

(14) ER'_b :



Here 'Bird' is short for 'that bird on the roof over there'.

AC Components and NP Types

- At this point H's AC looks like this:.

$$(15) \left\langle \begin{array}{|c|} \hline y \\ \hline y = b \\ \hline \end{array}, K_{enc} \cup \{ER_a\}, K_{gen}, K_{env} \cup \{ER_a, ER'_b\} \right\rangle$$

- Preliminary representation of the second sentence (??):

$$(16) \left\langle \left\{ \begin{array}{|c|} \hline z? \\ \hline \text{non-human}(z) \\ \hline \end{array} \right\}_{3d.p.pr}, \begin{array}{|c|} \hline \\ \hline \text{blackbird}(z) \\ \hline \end{array} \right\rangle$$

- The presupposition in (??) can be resolved by linking z anaphorically to y . This leads to the following new K_{dis} :

AC Components and NP Types

(17)

y
$y = b$ blackbird(y)

And H's new AC looks like this:

(18)

$$\left\langle \begin{array}{|c|} \hline y \\ \hline y = b \\ \text{blackbird}(y) \\ \hline \end{array}, K_{enc} \cup \{ER_a\}, K_{gen}, K_{env} \cup \{ER_a, ER'_b\} \right\rangle$$

AC Components and NP Types

- A similar example, but with several complicating factors:

(19) Cellini's Perseus over there has recently been cleaned.

- When said by a tour guide to a group in the center of Florence the roles of the names *Cellini* and *Perseus* may well have been different for different members of the group.
- Question/Exercise: What can we say about these roles in terms of our earlier distinctions between the 'standard referential use', the 'introductory₁) use' 'introductory₂) use' of proper names?
- Are further distinctions between uses of proper names needed?

AC Components and NP Types

- What NP do you choose to refer to something that you expect some members of your audience know but others do not?

Make the well-informed feel underrated or force the less well-informed to accommodate?

AC Components and NP Types

- What NP do you choose to refer to something that you expect some members of your audience know but others do not?

Make the well-informed feel underrated or force the less well-informed to accommodate?

Conjecture: Never make people fewer they are being underestimated.

Let people accommodate if they have to. This kind of accommodation never hurt anybody.

Common ground and Discourse Context

- What is part of the Common ground between conversation partners?

Two questions:

(1) What do we know/can we assume about the Common Ground at the point when the conversation starts?

(2) How does the Common Ground develop as the conversation proceeds?

Answer to (1): ???

Answer to (2): K_{dis} .

Deixis and Anaphora

- A rough cross-linguistic generalization:

NPs that can be used anaphorically can also be used deictically and conversely.

- Two different characterizations of anaphora:

First characterization:

(1) An expression is interpreted *em* anaphorically if its semantics involves connecting it with K_{dis} .

(Alternatively: An expression is interpreted *em* anaphorically if it triggers a presupposition that must be resolved via K_{dis} .

(Van Der Sandt (1992): ‘Presupposition Projection as Anaphora Resolution’)

Deixis and Anaphora

Examples: Discourse context-related interpretations of: *again*, *too*, *other*, 3rd person pronouns, definite descriptions, demonstratives.

- Second characterization:

(2) An expression is interpreted *anaphorically* if it gets its semantic value from some constituent of K_{dis} (by establishing an ‘anaphoric link’ between the two).

Examples: anaphoric (interpretations of) 3rd person pronouns, definite descriptions, demonstratives.

Donkey Anaphora

- Examples of anaphorically used pronouns, descriptions and demonstratives with sentence-internal K_{dis} 's (donkey NPs):

(20)

- a. If a man lives in Athens he doesn't live in Sparta.
- b. If Fred has a hamster and a guinea pig, he will like the guinea pig better than the hamster.
- c. If one Texan steals the cattle of another Texan, then that Texan will get very cross.

Deixis and Anaphora

(21)

- a. A: That bird on the roof over there is a blackbird.
- b. B: Yes, and it cannot be more than a few months old.
- c. B: Yes, and that bird on the roof over there/that bird on the roof/that bird over there/that bird/that there/that cannot be more than a few months old.

Deixis and Anaphora

- Two apparently conflicting principles:

Conjecture 1: Both K_{dis} and K_{env} are Common Ground between the discourse participants.

They both act as ‘displays’ from which linguistic expressions designed for this purpose can pick items.

Conjecture 2: Picking things off K_{dis} , especially items that are salient because they have been put there recently, seems to be easier than selecting an item from K_{env} .

- K_{dis} seems to come very close to Lewis’s scoreboard.

Direct Reference

(22)

- a. An NP *interpretation* is *directly referential* iff the referential argument of the NP (the discourse referent introduced to represent its referent or semantic value) is either
- (i) identified with a component of the utterance context or
 - (ii) directly or indirectly linked to the distinguished discourse referent of some ER.
- b. An NP *type* can be said to be *directly referential* if its interpretations are always, and of necessity, directly referential.

‘Non-direct Reference’

- Some definite descriptions refer (and are intended to refer) on the strength of unique satisfaction of their descriptive content.

One kind of example: definite descriptions containing superlatives (*the shortest spy*).

Question: Do all uses of definite descriptions require unique satisfaction of some ‘descriptive content’ that can be associated with them?

(More often than not this ‘descriptive content’ is a combination of the descriptions own content and a contribution from the context.)

‘Non-direct Reference’

- What contributions do satisfaction-based definite descriptions make to the contents of the sentences of which they are part?

According to our account of the syntax-semantics interface: Only that of unique satisfaction.

(Definite descriptions interpreted this way do not render the contents of their sentences singular.)

When indefinites are really bad

- Often a speaker has to choose between a definite and an indefinite NP.

Her choice will typically reflect her estimation of whether the interpreter is familiar with what she is talking about or not

Mostly the choice is not critical. (The hearer may have to accommodate an ER to interpret a definite, or use an old ER to interpret an indefinite.) But sometimes indefinites won't do.

(23)

- a. I just bought a new car
- b. The dealer is going to bring it around tomorrow morning.
- c. The dealer is going to bring a car around tomorrow morning.
- d. The dealer is going to bring a new car around tomorrow morning.

When indefinites are really bad

- The reason why the indefinites in (?.b,c) are so misleading is that what the speaker wants gov talk about is a salient element of K_{dis} (which is salient because of its recent introduction).

In such a situation the hearer cannot explain the speaker's use away as an erroneous application of the Novelty Principle.

What contributions do satisfaction-based definite descriptions make to the contents of the sentences of which they are part?

He cannot because of the total transparency of K_{dis} , its being part of the Common Ground.

Resume of Emar Maier: 'Fictional Names in Psychologicistic Semantics

- Problem: How to treat Names in Fiction.
- Aim: Try to get a uniform treatment of the name *Frodo* in the following two examples:
 - (1.a) Frodo is a hobbit born in the Shire.
 - (1.b) Frodo is a fictional character made up by Tolkien.

Resume of Emar Maier

- Traditionally: Different views on what the name *Frodo* does in these sentences:

1. Realists: *Frodo* refers to a fictional character.

Problem: How are we to interpret the predicates in (1.a) ?

(What is it for a fictional character to be born in some other fictional character?)

2. Anti-realists: *Frodo* doesn't refer.

Problem: What are we to make of (1.a) ?

And how can we explain that (1.b) is a meaningful and true assertion?

Resume of Emar Maier

- The ambiguity thesis: *Frodo* refers in both (1.a) and (1.b).

But it refers to radically different things.

In (1.a) *Frodo* refers to a creature of flesh and blood.

In (1.b) *Frodo* refers to a fictional character.

Question: How are these uses of *Frodo* related to each other.

How do we explain what this relationship is?

- Pragmatic anti-realists: treat the assertions that make up a fictional discourse as *pretend*-assertions
and the names occurring in them as expressions that *pretend*-refer.
Problem: But what are we to do with (1.b)?

Resume of Emar Maier

- Maier's aim: Give an account in which:
 - (i) it is the same name *Frodo* that occurs in (1.a) and (1.b); and
 - (ii) which can give a satisfactory account both of the semantics of (1.a) and of the (truth-conditional) semantics of (1.b).

Resume of Emar Maier

- Two main ingredients of Maier's approach:
 1. Treat fictional discourse as a speech act of a special type: that of a prescription (invitation/injunction) to imagine. (Walton, 1990)
 2. Use a dynamic semantics of the kind found in DRT to account for how the recipients of fictional discourse build representations of the fiction they process..
 3. Represent the results of these interpretation processes as attitudinal components of mental representations.

Resume of Emar Maier

- These mental representations take the form of ADSs.

ADSs are representations from the mental state description formalism ADT.

ADT is much like MSDRT, but there are a couple of important differences.

The components of ADRSs that represent fictional discourse have the Mode Indicator IMG.

Their content is given by a DRS.

Resume of Emar Maier

- General strategy of Maier's approach:

The recipient of a story complies with the speaker's/author's/text's injunction to imagine by building an IMG component of his mental state.

Building the content representation of this component makes use of the two-stage strategy first advocated by Van Der Sandt and Geurts:

First build a preliminary DRS in which presuppositions are explicitly represented.

Then turn this preliminary DRS into a DRS by resolving the presuppositions.

What matters here are the identification presuppositions triggered by proper names.

Resume of Emar Maier

- Important for Maier is the phenomenon of *counterfactual imagination*

You can, in response to a piece of fiction, speculate what might have happened to a protagonist if

This is possible in particular for protagonists that have been introduced into the story by name.

Maier treats counterfactual imagination is an attitude component that is dependent on the IMG component that contains his representation of the story as told.

To this end he needs a framework for describing sets of propositional attitudes that may be related by referential dependence.

(In this respect Maier's ADSs are essentially like the IAADRSs of MSDRT.)

Resume of Emar Maier

- Note well, however, that ADT does not have Entity Representations of the kind found in the latest version of MSDRT we have discussed.

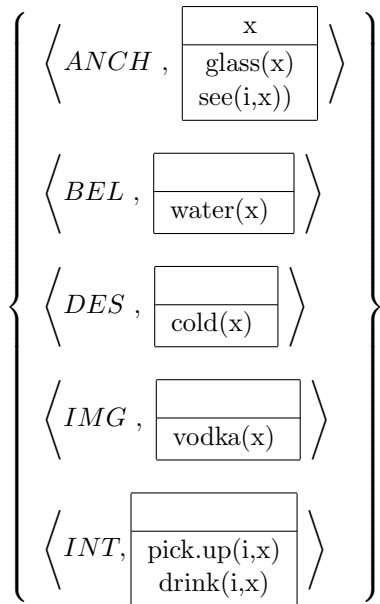
Maier only has what he calls ‘anchors’.

These ADS components consist just of an internal anchor.

This internal anchor

- (i) purports to testify to the existence of an external anchor (the referent), but
- (ii) from an internal perspective has the status of a belief.

Resume of Emar Maier



Resume of Emar Maier

- Hans wants the ghost in his attic to be quiet tonight.

Accommodation of a definite in the complement of a desire-expressing matrix verb typically takes the form of accommodating belief.

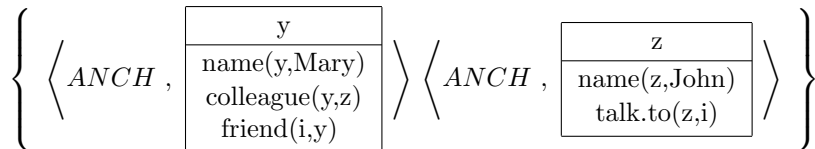
$$\left\{ \left\langle BEL, \begin{array}{|c|} \hline x \\ \hline ghost(x) \\ in.attic(x) \\ \hline \end{array} \right\rangle \left\langle DES, \begin{array}{|c|} \hline \\ \hline quiet(x) \\ \hline \end{array} \right\rangle \right\}$$

Resume of Emar Maier

- An example like some we have dealt with:

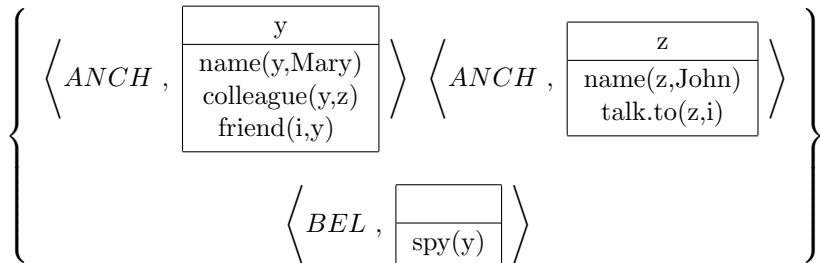
John to Sue: “Mary is a spy.”

Sue’s mental state before John’s utterance:



Resume of Emar Maier

- Sue's mental state after John's utterance:

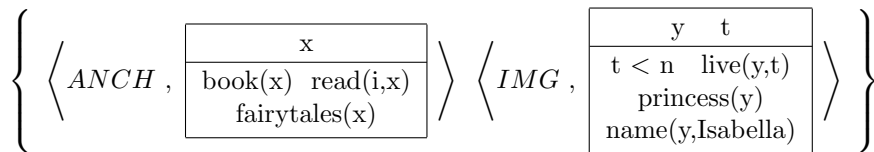


Resume of Emar Maier: Some examples

- From a fairy tale book:

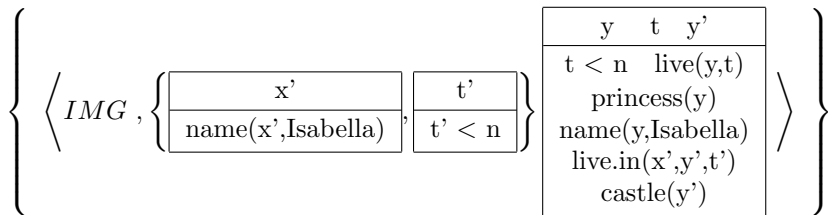
(15) Once upon a time there was a princess named Isabella.
Isabella lived in a castle.

Mental state of reader after reading the first sentence.



Resume of Emar Maier: Some examples

- Preliminary representation of second sentence of (15)



Resume of Emar Maier: Some examples

(20) Fine men! remarked Napoleon, looking at a dead Russian grenadier, who, with his face buried in the ground and a blackened nape, lay on his stomach with an already stiffened arm flung wide.

(22) Barry Fairbrother did not want to go out to dinner.

(Opening sentence of the novel *A casual Vacancy* by J.K. Rowling)

Maier: Non-fictional names in fiction can be treated in the same way as non-fictional names in non-fiction.

They get their anchored entity representation at the highest level of the ADS.

(That is, outside of the IMG component that represents the fictional content.)

Resume of Emar Maier: Some examples

- But what to do with a fictional name like *Barry Fairbrother*?

Here we have quandary:

Should it also be accommodated outside the IMG component that is being initiated?

Or should it be accommodated inside this component?

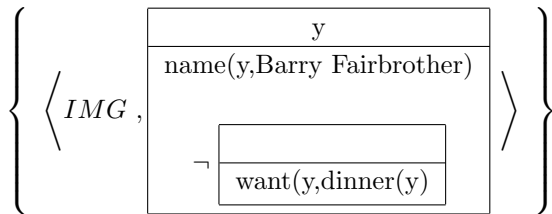
Maier: On balance it is better to go for the second option.

But the price one pays is that this reduces the contribution of the name to a descriptive one:

Barry Fairbrother now gets analyzed as ‘someone named *Barry Fairbrother*’.

Resume of Emar Maier: Some examples

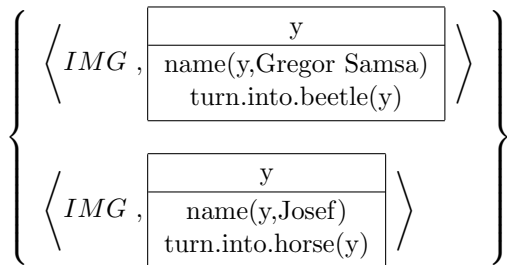
- Maier's representation for the first sentence of *A Casual Vacancy*:
(22) Barry Fairbrother did not want to go out to dinner.



Resume of Emar Maier: Some examples

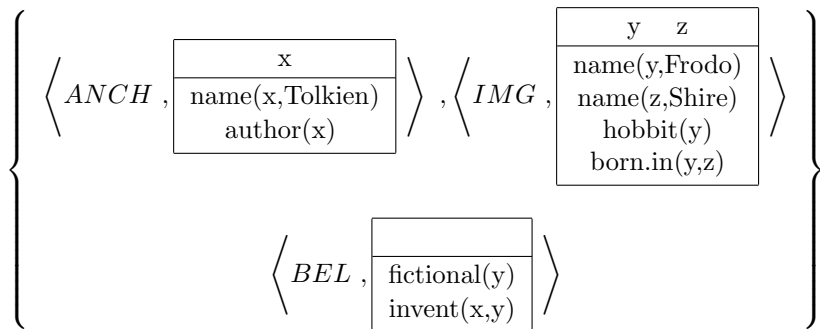
- A case of counterfactual speculation:

The reader of Kafka's *Metamorphosis* imagines that Gregor Samsa might have been called 'Josef' and turned into a horse.



The paradox of fictional names resolved?

- The reader who has processed (1.a) as a bit of fiction by Tolkien and (1.b) as a bit of metafiction.



Model-theoretic Semantics of ADT

- ADSs are evaluated in terms of NBASs ('Ninan-based Attitudinal States')

NBASs differ from the ISBASs ('Information state-based Attitudinal States') we considered earlier.

The content components of an NBAS are pairs $\langle \text{MOD}, Q \rangle$ from 'possibilities' (i.e. pairs $\langle w, f \rangle$) to Information States (sets of pairs $\langle w, f \rangle$)

An Alternative Proposal

- A different way of describing mental states:
 1. We assume that the core of the information that is represented in a mental state has the default mode INF.

Mental state components of the form $\langle INF, K \rangle$ represent information that the agent takes for granted.

Until now such information was represented as $\langle BEL, K \rangle$.

But from now on we distinguish between information the agent takes for granted and information to which the agent has an explicit belief commitment.

Only the latter information is represented as $\langle BEL, K \rangle$.

An Alternative Proposal

- Mental State components of the form $\langle INF, K \rangle$ come with an implicit commitment to $\langle BEL, K \rangle$.

For instance, when the agent is challenged on the information content K her default reaction will be that she believes that K and at that point she will add the component $\langle BEL, K \rangle$ to her mental state.

She may then also give up this belief, when she is given good grounds, or by reflecting on the content K herself.

So she may replace the component $\langle BEL, K \rangle$ by $\langle WON, K \rangle$ or by $\langle BEL, \neg K \rangle$

Since INF is a kind of default mode we may adopt the convention that propositional content representations K may occur without explicit Mode Indicator.

When thesis so, the tacit Mode Indicator is always INF.

An Alternative Proposal

- To accommodate the new mental state descriptions formally only a small change to MSDRT is necessary:

Add INF to the repertoire of Mode Indicators.

- One reason for adding INF to our Mode Indicator repertoire is the conviction that there is an important distinction between what we take for granted and what we admit to be in principle negotiable.

Important issues in epistemology and the philosophy of mind have to do with this:

When do you know that what you see are zebras?

What is the relation between beliefs and credences?

An Alternative Proposal

2. The present reason for this modification of our mental state descriptions is this:

When we listen to or read a story we build complex representations like the new MSDRT descriptions of complex mental states.

Such a representation has a main part of 'mere information' in the sense of INF.

In addition it will typically have a set of Entity Representations (for the different protagonists of the story).

It may also have attitudinal components with a variety of attitudinal modes.

These may involve belief, hope, fear, disapproval and others.

(Mode Indicators for these various attitudes can be added to MSDRT according to need.)

An Alternative Proposal

3. We distinguish between two types of communication involving fiction:

- (i) the telling of a story by S and the interpretation of that story by H.
- (ii) Talk about the given fiction.

Story telling is a speech act type of a special type (not yet identified as such in this Seminar)

It involves a particular way of processing on the part of those who understand the story as function.

They add the information they get from the story telling in a compartment that is separated from the rest of they mental state by a label that its contents belong to a particular fiction.

(For instance, the label may refer to some particular novel or play).

An Alternative Proposal

- Interpretation of a story you hear or read follows the same rules (determined by the grammar and lexicon of the given language L) as interpretation of real world reports.

In particular, the interpretation of a name N in the story will involve the creation or reuse of an N -labeled ER, which will get a new vicarious anchor to the effect that it represents what the story teller has just used N to ‘refer’ to.

(The use of other kinds of definite noun phrases may also give rise to the reuse or creation of vicariously anchored ERs.)

This vicarious anchor is ‘fictional’ insofar as the ‘referent’ is a protagonist in the story.

It is grounded in the story teller’s power and license to create protagonists at will.

An Alternative Proposal

- As the interpreter of a piece of fiction F is building his F -labeled compartment this may also lead to the addition of attitudinal components with Mode Indicators other than INF.

These may capture his fears, hopes, admiration, disapproval etc concerning certain propositions involving some of the protagonists.

In this regard the interpreter's evolving compartment will also resemble the real-world-oriented part of his mental state.

When listening and 'living' the story as it is told to him air as he reads it, he is in some sense inside the world it narrates.

His attitude towards the protagonists are somewhat comparable to how he sees and judges his cohabitants of the real world.

An Alternative Proposal

- But there is nevertheless an important asymmetry between the real world-oriented part of someone's mental state and the various fiction-labeled components that are also part of it:

Fiction-labeled components allow for an *external* as well as an *internal* perspective.

The real world component only allows for an internal perspective (in the sense of 'internal' intended here).

We adopt an external perspective to an F -labeled component C_F of our mental state (where F is the label for some particular piece of fiction) when we talk about the fiction represented in this component.

An Alternative Proposal

- In particular, adopting an external perspective to C_F can involve (and usually does) the *exportation* of ERs belonging to C_F .

We assume that exporting an ER $\langle [ER, x], K, \mathcal{K} \rangle$ from C_F to the real world part of the agent's mental state takes the form of adding a copy of the ER to the real world part.

The distinguished dref x of this copy now establishes a link with the distinguished dref x of the ER inside C_F .

This link renders the external copy of ER into the entity representation of the fictional character that is identified by the ER copy within C_F .

An Alternative Proposal

- The identity conditions of this fictional character are given by (i) the piece of fiction F and (ii) the role of x within the story represented in C_F .

[Details of this notion of ‘fictional character’ still need to be worked out.]

There may be more than one way to do this.]

An Alternative Proposal

- Once an ER has been exported from C_F , it can be used in statements of various types.

For instance when F is the story of the Lord of the Rings and

$$\langle [ER, x], \boxed{\text{Named}(x, \text{'Frodo'})}, \mathcal{K} \rangle$$

is the exported copy of the ER for Frodo in C_F , then the following statements are possible

- (i) Frodo is a hobbit born in the Shire.
- (ii) Frodo is a fictional character made up by Tolkien.
- (iii) Sam carried Frodo from Mount Doom,

(The last two also presuppose of course the exportation of the ERs for the Shire, Sam and Mount Doom.)

An Alternative Proposal

- As several commentators have noted, the logical forms of these statements must be different.

The difference has to do with the predicates that contain the distinguished drefs of the ERs in question.

In general, the selection restrictions of these predicates disambiguate between a *fictional* and a *metafictional* interpretation.

For instance, all the predicates in (i) select for a fictional interpretation.

On this interpretation the statement is justified iff it follows from the INF part of C_F .

(More about this later.)

An Alternative Proposal

- The justification of (iii) likewise depends on the content of the INF part of C_F .

(ii) is different. Its predicates select for an interpretation at the level of the real world.

So a responsible use of it presupposes that its logical form is entailed by the INF component of the real world-oriented part of the agent's mental state.

And it will be true iff the real world conforms to it.

An Alternative Proposal

- Mixed statements are also possible, with some predicates selecting for creatures like hobbits and other physical objects and others for fictional characters.:

(iv) Frodo is a fictional character invented by Tolkien.
He is a hobbit.

There are some non-trivial questions about the semantics of these different types of statements.

Here is a proposal for how one might deal with this problem.

An Alternative Proposal

- Note that statements about a piece of fiction that are made from an external perspective can nevertheless lead to changes in the relevant fiction compartment of the mental state of the recipient

This happens for instance when you read synopses of novels, plays or operas.

But it can also happen when for instance you tell me, in a conversation we have about the Lord of the Rings, that Bilbo was 99 when he adopted Frodo.

I might have forgotten that, or perhaps I never really knew because I skipped over much of the early parts of the book.

In such cases the recipient forms a new C_F or he adds the information he just got to the INF part of the C_F he already has for the given piece of fiction.

An Alternative Proposal

- So far we have focused only on the mental state changes that information about what goes on in a given story may produce in the recipient.

As we saw, this can be either when the he is listening to or reading the story for the first time.

Or it can happen when information is provided about what happened in a non-story telling mode.

This enables us to state a certain form of subjective notion of ‘pseudo-truth’ for statements like (i) or (iii):

Such statements can be said to be *true for* an agent H iff they follow from the INF part of his compartment for the Lord of the Rings.

This is not the notion of truth in fiction that most people seem to be after.

An Alternative Proposal

- When you interpret a story S you are told or that you are reading and I interpret that same story S_t , then we are likely to arrive at more or less the same interpretation.

And so it will be for other people who hear or read S and who are competent in the language L in which S is told or written.

That can be expected because the interpretation is largely fixed by the grammar and lexicon of L .

Suppose that the interpretation of S , I_S , is completely fixed by the rules of L .

Then I_S can serve as the basis of a 3-valued notion of ‘truth in S ’:

- (i) A sentence S of L is *is true in S* iff S is entailed by I_S .
- (ii) S of L is *is false in S* iff S is inconsistent with I_S .
- (iii) S of L is *neither true nor false in S* otherwise.

An Alternative Proposal

- That the interpretation of S is fully determined by the rules of L is of course an idealization.

In general there will be some differences between your interpretation of S and my interpretation of S and these need not reflect any incompetence of you or me as speakers.

So I_S will in general not be sharply delimited.

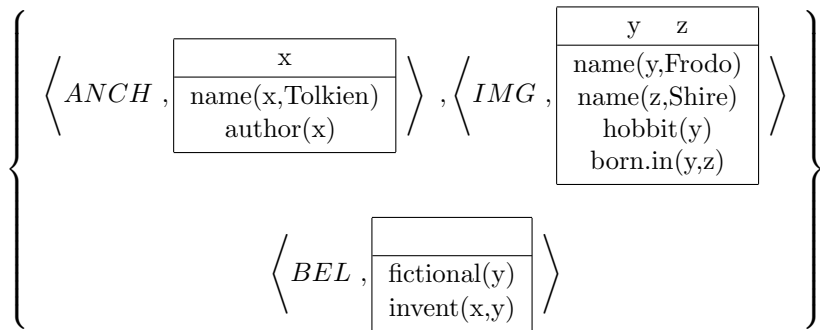
And the truth definition will have unsharp edges between true and neither true nor false and between neither true or false and false.

- The three-valued evaluation of predications involving truth in S and the two-valued evaluation of predications involving truth in the actual world should make it possible to get a truth definition for mixed statements.

But note that this definition will never be better than 3-valued.

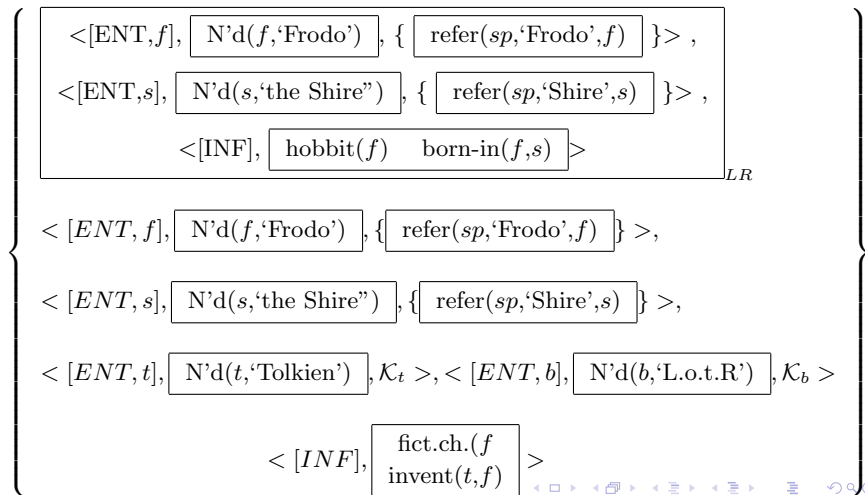
An Alternative Proposal

- To see the difference between the present proposal and Maier's consider his representation of the mental state of an agent who has the information that Frodo is a Hobbit born in the Shire and a fictional character invented by Tolkien.



An Alternative Proposal

- This is what the mental state of an agent with this information looks like on the alternative proposal.



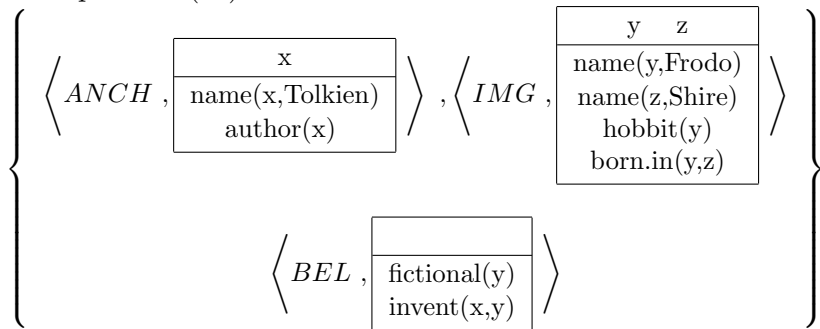
An Alternative Proposal

- There is one discrepancy between the compartment proposed here to represent the contents of fictions and on the other hand the way in which MSDRT allows for the representation of the mental states of others via the predicate *Att*.
- It would be natural to make the notation more uniform by either extending the applicability of *Att*, or else introducing a similar predicate for the attribution of fiction contents.

Criticisms

- **Aloni**

1. The logic of ADT: How to derive from the mental state description in (23):



(a) that the agent's believes that Tolkien is an author;

(b) that the agent's believes that Tolkien invented Frodo?

Criticisms

- To the first of these queries Maier has a good reply.

The set of admissible NBASs can be naturally constrained in such a way that this inference is validated.

His defense of the second inference may be more problematic.

Here the validation depends on combining information from the ANCH, the IMG and the BEL components.

By the same principles we could also derive, it seems, that the agent believes both that Frodo is a hobbit and that the agent believes that Frodo is a fictional hobbit.

But should everything that is in IMG box count as a belief?

Criticisms

- Aloni's second question:

What can we say about truth in fiction?

This question is important.

It isn't clear how a representation of the story itself is to be distinguished in a systematic way from counterfactual imaginations; both are mental state components with the Mode Indicator IMG.

both are mental state components with the Mode Indicator IMG.

Criticisms

- **Geurts**

Main concern: Should we only give this psychologicistic account of fiction?

Or shouldn't we also adopt a more interpersonal perspective:

Fiction is one form of verbal communication.

And like other forms of verbal communication it should be analyzable as the creation of a shared commitment.

Two points to this:

- I am not sure how Geurts' definition of shared commitments should be worked out.

Criticisms

- There is also the even more abstract position according to which texts have their meaning and content because of the properties of the language in which they are written.

Context may play some role in determining this content.

But with texts the role of context seems to be more limited than with speech.

Also, many have expressed intuition that the text has a meaningfulness there *as text*.

This meaningfulness may unfold differently for different readers, who bring their own contextual assumptions to their reading of it.

A theory of fiction should have something to say about this perspective too.

Criticisms

- Geurts's general moral:

What is needed here is a general reflection on the possible ways of understanding DRT and extension of it such as ADT and MSDRT.

Criticisms

- **Ninan**

Ninan is concerned with two related issues:

(i) a realistic alternative to the form of ‘pragmatic anti-realism’ adopted by Maier .

(ii) The treatment of counterfessionals.

- Ninan’s realistic proposal is to treat all names, fictional and non-fictional, as referring to possibilia.

The difference between a non-fictional and a fictional name is that the referent of the former exists, and that of the latter doesn’t.

In his reply to this Maier mentions a discussion of fictional names by Kripke.

In this discussion Kripke rejects that a fictional name could ever be found to have a referent in the actual world.

Criticisms

- **Rami and Zimmermann**

Rami and Zimmermann distinguish between various conditions under which a sentence like (1.a) might be uttered

(1.a) Frodo is a hobbit born in the Shire.

(U1) (1a) can be used by an author of a fiction, as part of an act of story-telling or creating of a new story.

(U2) (1a) can be used by an author of fiction, as part of an act of story telling, where the author expands an already existing story (for example, in the case of serial fiction)

(U3) (1a) can be used by any person who aims to retell an already existing story.

(U4) (1a) can be used by any person who takes part in a dispute about what is the case concerning a specific already existing story.

Criticisms

- With regard to each of (U1) - (U4) the following questions may be asked:

(Q1) What is the illocutionary force with which (1a) is used relative to the use under consideration?

(Q2) Is the explicit semantic content of (1a) identical to the content expressed by the use of (1a) under consideration?

(Q3) What is the referential status of Frodo in (1a) relative to the use under consideration? Does the expression refer? If so, to what kind of thing?

(Q4) What are the truth-conditions of (1a) relative to the use under consideration?

These distinctions help to bring out the worries of several commentators about what kind of ‘imagination’ is involved in Walton’s analysis of fiction as ‘prescription to imagine’.

Criticisms

- Note that also when you tell me something about what happened in the real world you induce me to exercise my imagination.
Is it that in fiction the recipient is asked to ‘do nothing more’?

Criticisms

- **Recanati**

Recanati observes that Maier doesn't succeed in capturing the pretense dimension of fiction.

A citation from Recanati's forthcoming book:

From both a linguistic and a cognitive point of view, the difference between genuine reference and pretend reference does not matter. Because pretend reference simulates genuine reference, the same type of linguistic material (referring expressions) is used, and the same type of cognitive ability (mental files) deployed, whether one genuinely refers or pretends to refer. There is no formal difference between genuine reference and pretend reference whichever form genuine reference takes, pretend reference will take.

Criticisms

- As Maier states his dilemma:

The fictional anchoring proposal treats reference to Fairbrother in the novel and to Isabella in the fairy tale as fundamentally different. While Fairbrother is represented by an anchor in the readers mental state, Isabella [is] introduced locally by the straightforward DRT interpretation of the indefinite description [a princess named Isabella]. However, intuitively both names seem to fulfill the exact same functions in the continuations of their respective stories, viz., referring to fictional characters.