Representation of de re beliefs without external anchors

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Discourse Representation Theory

- *A woman was bitten by a dog*

- DRS:

x, y
woman (x)
dog (y)
bit (y, x)

- DRS does not only represents a discourse

- But also propositional attitudes – beliefs, desires, etc. (Kamp 1990)

De re and direct reference

- DRS is interpreted existentially
  - The language does not have individual constants
  - This corresponds to de dicto interpretation of all beliefs
- De re beliefs:
  - About specific individuals
  - Assume direct reference
  - Realize as singular propositions

External anchors

- Kamp introduces a notion of external anchor
  - To represent directly referential terms
  - They are created in particular by visual perception
- *That man is a crook*

x
man (x)
visual_appearance (x)
crook (x)

$\{<x, a>\}$

- Anchors constrain the interpretation of variables to fixed individuals in the model

Problems

- Anchors are object of intermediate nature

- Where are they located?

    - Not in the representation (i.e. not in our mind)

    - Not in the model (i.e. not in the real world)

    - But somewhere in between (but where?)

- *How can something inside the head refer to something outside the head?* (Devitt 1990)

Thought experiment

- There are two twins – Aaron and Bill

  – Aaron picked roses in the queen's garden

- He was witnessed by three people:

  1. The first saw him and understood that it is Aaron

  2. The second saw him and decided that it is Bill

  3. The third just saw a person who is stranger to him

Thought experiment

- Truth conditions (without anchors)

x
picked_roses (x)
Aaron (x)
Aaron_acquaintance (x)

x
picked_roses (x)
Bill (x)
Bill_acquaintance (x)

x
picked_roses (x)

True   False   True

- In another possible world
  - all happened the same way but with Bill instead of Aaron

False   True   True

Thought experiment

- Truth conditions (with anchors) $\{<x, a>\}$

x
picked_roses (x)
Aaron (x)
Aaron_acquaintance (x)

True

x
picked_roses (x)
Bill (x)
Bill_acquaintance (x)

False

x
picked_roses (x)

True

- In another possible world
  - all happened the same way but with Bill instead of Aaron

False   False   False

Anaphora as anchor

- Referential expression serves to find an existing discourse referent
  - New information is added to it
  - And adjoined to the old information
  - Which already includes unique properties
  - Such as time and location of appearance
  - What is interpreted in the model is the whole "file card" of the discourse referent
  - That guarantees the uniqueness of the interpretation (de re)

Anaphora as anchor

- A doctor arrived   The doctor arrived

x
doctor (x)
arrived (x)

x
doctor (x)
arrived (x)
acquaintance (x)

- Moreover:

  - Interpretation in the model is a theoretical tool

  - The agent does not perform such an operation

  - For him the discourse referent itself is the representative of the very individual about whom he has a de re attitude

De re – de dicto continuum

- De re vs de dicto
  - No clear distinction can be made
  - The more information – the more de re
  - Including descriptive information (Maier 2009)
- Mary wants to:
  - marry a sailor
  - marry a sailor with a long beard
  - marry a sailor with a long beard from the neighbor village
  - marry a sailor with a long beard from the neighbor village whom she have seen once from the distance
  - …

Conclusions

- **External anchors**

  - Objects of strange nature in the middle between the representation and the model

  - Lead to incorrect truth conditions

- **Interpretation of attitudes as de re**

  - Is provided by linking new information to existing one

  - The entire amount of information on the discourse referent provides its unique interpretation

  - The more information has contains the referent, the more tendency we have to interpret it as de re

References

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Thanks for your attention! Questions?