

Semantics of de re and de se ascriptions without acquaintance relation

Ivan Rygaev

Laboratory of computational linguistics

Institute for information transmission problems RAS, Moscow

irygaev@gmail.com

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De re/de dicto distinction

- *Ralph believes that someone is a spy* (Quine 1956)
 - *Ralph believes that there are spies*
 - *Someone is such that Ralph believes that (s)he is a spy*
- Distinction can be drawn:
 - On the level of *beliefs* themselves
 - On the level of *belief ascriptions*

De re beliefs

- Correspond to a singular thought
 - A thought about a specific object
 - Analogous to a singular proposition
- Singular thought criterion:
 - «Acquaintance» of the subject with the object
 - Requires a special acquaintance relation (causal, epistemic, etc.) between the subject and the object of the thought/belief

Acquaintance relation

- Russell 1905, 1910
 - Very strict constraint
 - Only universals and sense data
- After Russell – liberalization
 - Epistemic acquaintance (Evans 1982)
 - Know how to distinguish the object from all others
 - Causal acquaintance (Recanati 1993, Bach 1994)
 - Causal chains

No acquaintance relation

- Liberalism (Hawthorne & Manley 2012)
 - Singular thought (de re belief) requires no special relations
 - Acquaintance relation cannot explain (un)acceptability of de re ascriptions
 - Acceptability depends on the context and even on the utterance itself

Without acquaintance

- De re interpretation is not acceptable:
 - *Ralph believes that the shortest spy is a spy*
 - *# There is someone Ralph believes to be a spy*
- De re interpretation is acceptable:
 - *Ralph hired a killer to identify and kill the shortest spy*
 - *There is someone Ralph wants to be dead*

With acquaintance

- De re interpretation is acceptable:
 - Thelma chases a thief who stole her purse
 - *There is someone Thelma believes to be a thief*
- De re interpretation is not acceptable :
 - But she fails to identify him at the police line-up
 - *# There is someone Thelma believes to be a thief*

In the same context

- Detective: *The murderer is insane*
- De re interpretation is not acceptable:
 - # *There is someone the detective believes to be the murderer*
- De re interpretation is acceptable
 - *There is someone the detective believes to be insane*
- Is the detective acquainted with the murderer?
 - Doesn't matter
 - Acquaintance relation does not explain the difference between the sentences

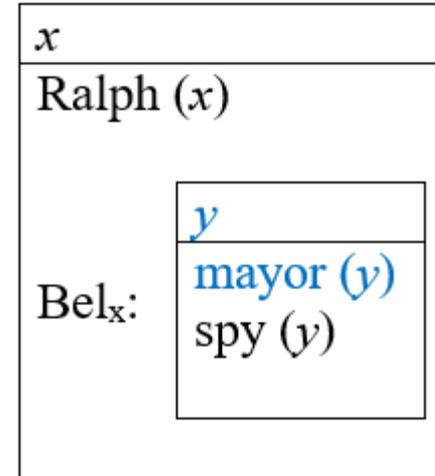
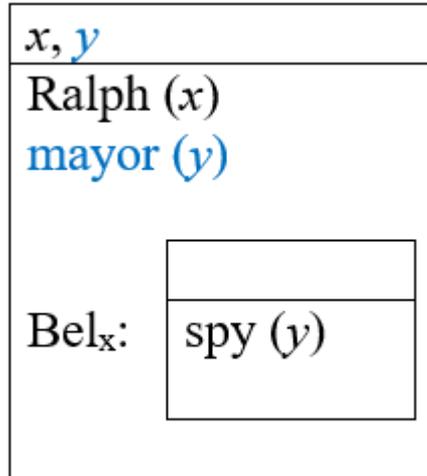
De re и de dicto beliefs

- Acquaintance is not a requirement to have de re beliefs
 - Should we then collapse de re and de dicto beliefs together?
 - Probably yes
- How to explain unacceptability of the exportation?
- Uninformativeness:
 - *There is someone John believes to buy a car*
 - *Who is that?*
 - *# The buyer of the car*
 - *The man in a yellow t-shirt*

De re и de dicto ascriptions

- Scope differences:
 - *Ralph believes that the mayor is a spy*
 - $\exists y (\text{mayor}(y) \ \& \ \text{Bel}_x(\text{spy}(y)))$ – de re
 - $\text{Bel}_x(\exists y (\text{mayor}(y) \ \& \ \text{spy}(y)))$ – de dicto
- Communicative difference:
 - In the former it is we (the speaker and the audience) believe that the man in question is the mayor. Whether Ralph believes so is not specified.
 - In the latter it is Ralph who believes that the man is the mayor. Whether we believe so is not specified.

Discourse representation structures



De se ascriptions

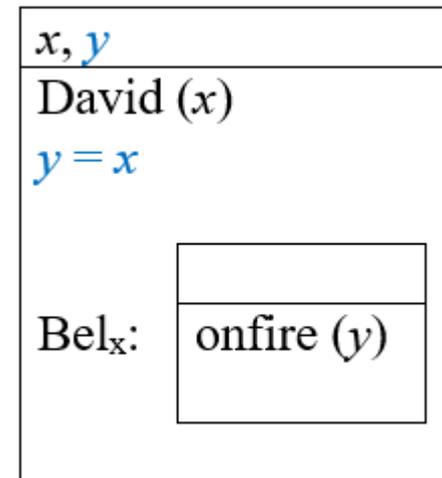
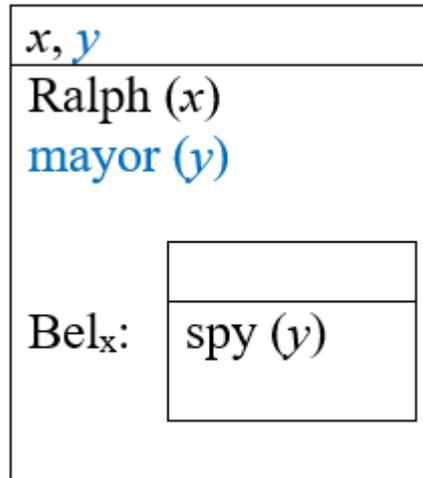
- De se – Ascriptions of beliefs about oneself
 - *David_i believes that his_i pants are on fire* (Kaplan 1989)
 - De se – David understands that it is he himself
 - De re – David does not understand that (sees in a mirror)
- De se is a special case of de re (Maier 2009)
 - Different acquaintance relations:
 - Relation of identity with himself
 - Perception in the mirror
 - But we have shown that acquaintance relation cannot explain acceptability of ascriptions

De se as de dicto

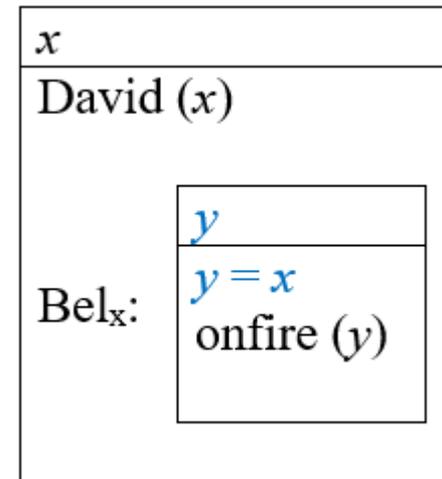
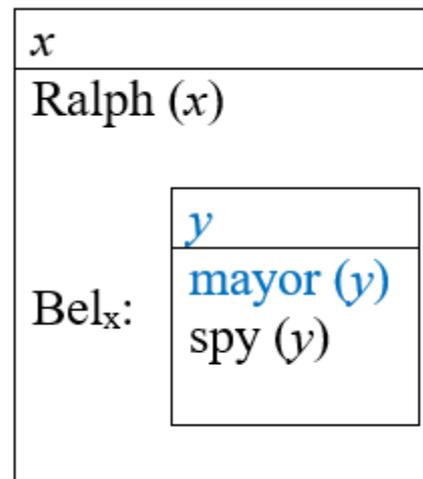
- The difference is very similar:
 - In one case it is we who believe the David and the man on fire is the same individual
 - In another case it is David who believes so
- *x believes that P is Q:*
 - $\exists y (P(y) \ \& \ Bel_x(Q(y)))$ – de re
 - $Bel_x(\exists y (P(y) \ \& \ Q(y)))$ – de dicto
 - Substituting the predicate “equal x” for P we get de se instead of de dicto. $P = \lambda y (y = x)$
 - Thus de se is a special case of de dicto
 - And it seems that there is no opposition de se vs de dicto

Discourse representation structures

- De re



- De dicto/de se

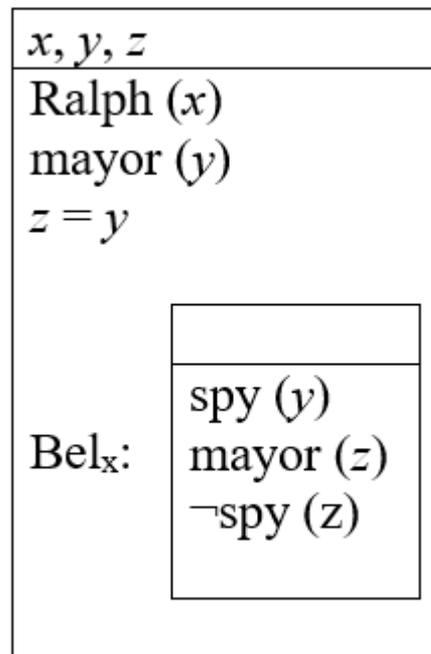


Identity and necessity

- A non-standard modal logic is required
 - With contingent identity
 - $(y = z) \nrightarrow \text{Bel}_x (y = z)$
- Leibniz's law is violated (indistinguishability of identities)
 - $(y = z) \ \& \ \text{Bel}_x \text{ spy}(y) \ \& \ \neg \text{Bel}_x \text{ spy}(z)$
- Intuitively epistemic logic requires contingent identity anyway:
 - Hughes & Cresswell 1996
 - Bezhanishvili 2002

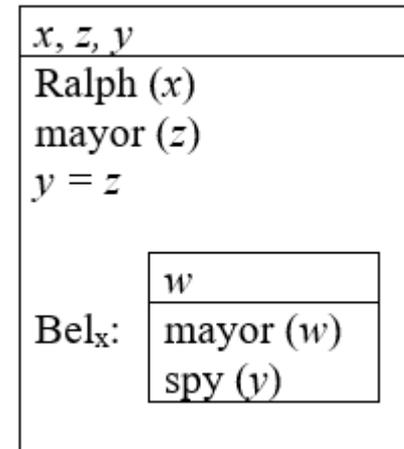
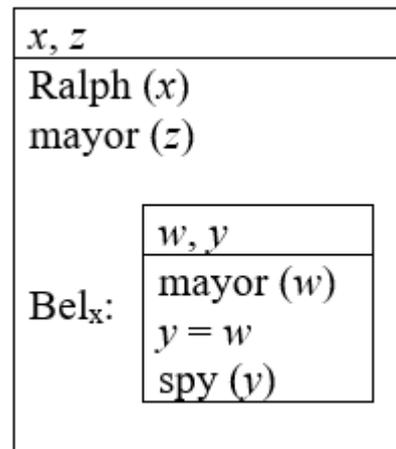
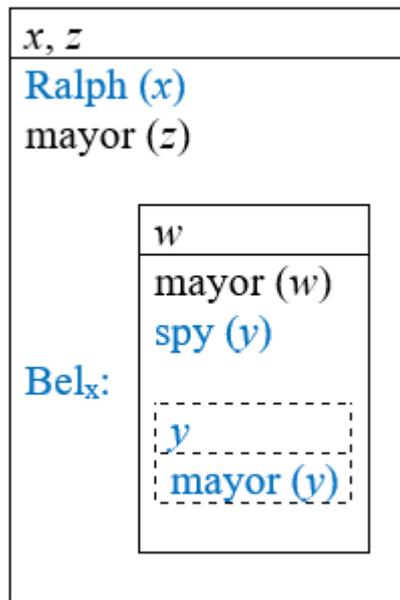
Double vision

- Apparent contradiction:
 - *Ralph believes that the mayor is a spy* (de re)
 - *Ralph believes that the mayor is not a spy* (de dicto)



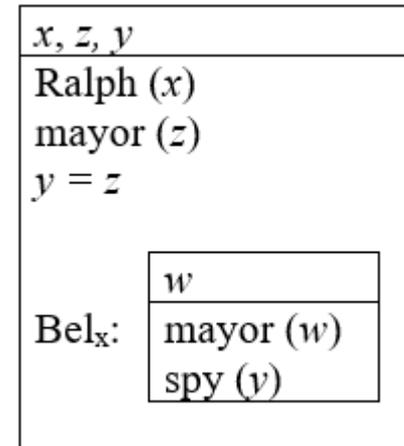
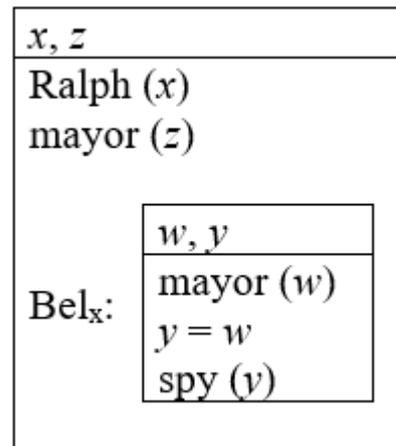
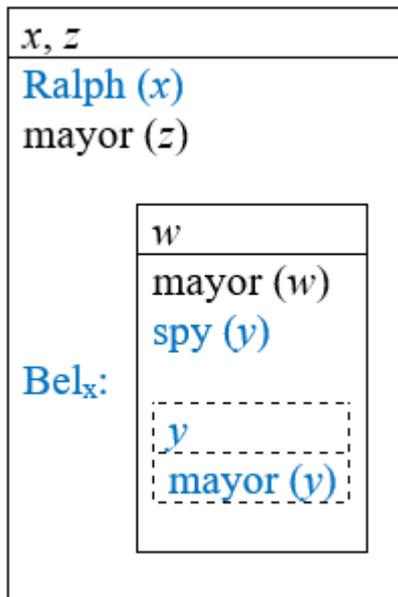
Derivation

- How to get two interpretations out of one sentence?
 - *Ralph believes that the mayor is a spy*
 - Presupposition projection in DRT (van der Sandt 1992)



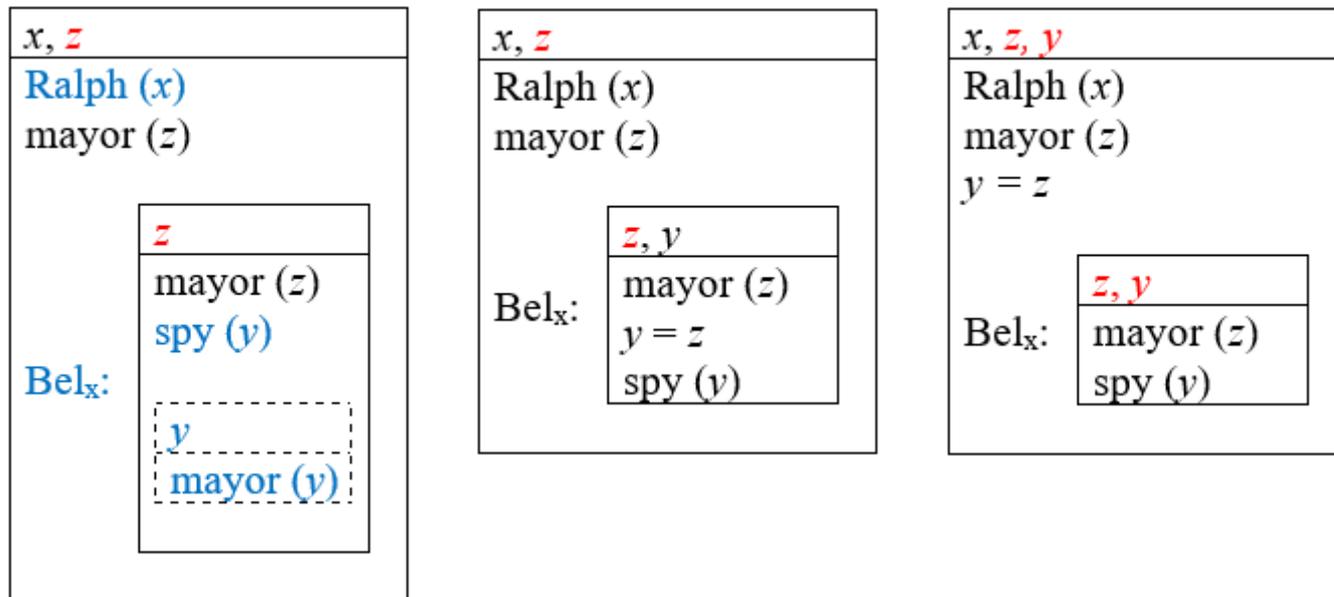
Technical problems

- How to say that $z = w$?
 - Not in the main DRS – w is undefined
 - Not in the subordinate DRS – it will be just x 's belief
- On the right y is undefined in the subordinate DRS



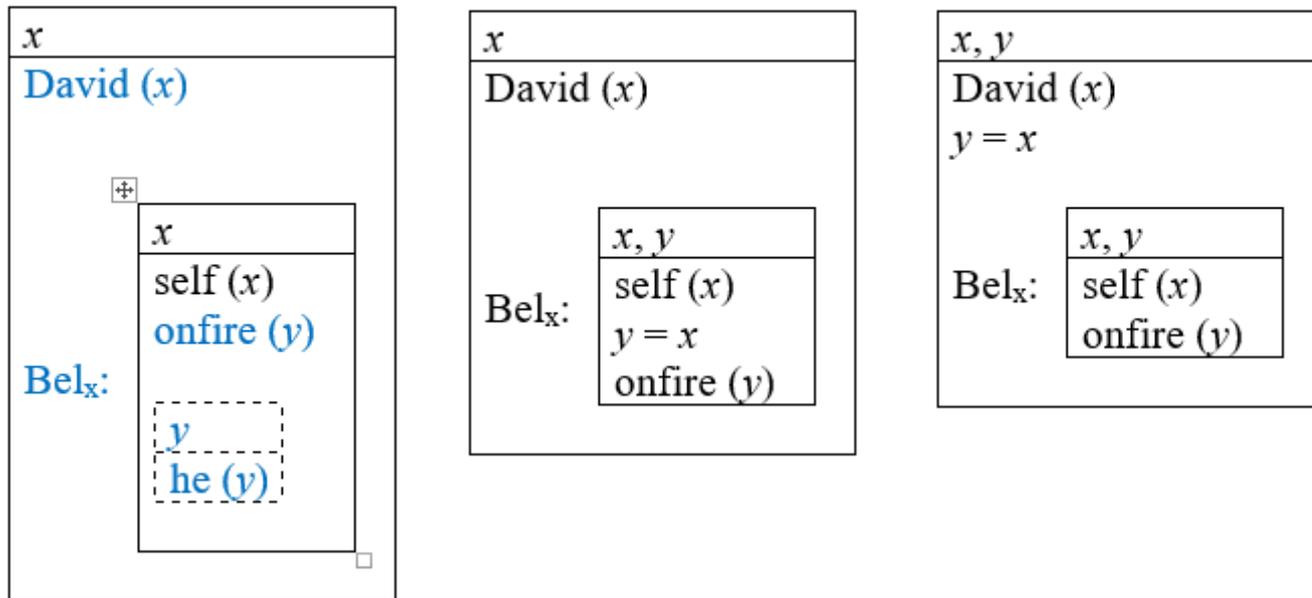
Technical solutions

- How to say that $z = w$?
 - Use the same variable (instead of anchors)
 - Ignore binding if already bound from outside
- Duplicate the variable in the subordinate DRS



Derivation

- How to get two interpretations out of one sentence?
 - *David believes that he is on fire*
 - Presupposition projection in DRT (van der Sandt 1992)



Conclusions

- Acquaintance relation cannot explain the distinction between de re and de dicto *beliefs*
- Probably, they should not be distinguished
 - Intuition depends on the context and the utterance
- De re and de dicto *ascriptions* differ in scope of the predicate P (presupposition)
- De se ascriptions are a special case of de dicto
 - Where P is the identity of the subject and the object of the belief
- Standard presupposition projection in DRT allows to derive both de re and de dicto/de se interpretations
 - With slight technical modifications

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Thanks for your attention!
Questions?