

# Mental reference

*The essential business of language is to assert or deny facts.*

Bertrand Russell

*The point of a discourse is the exchange of information.*

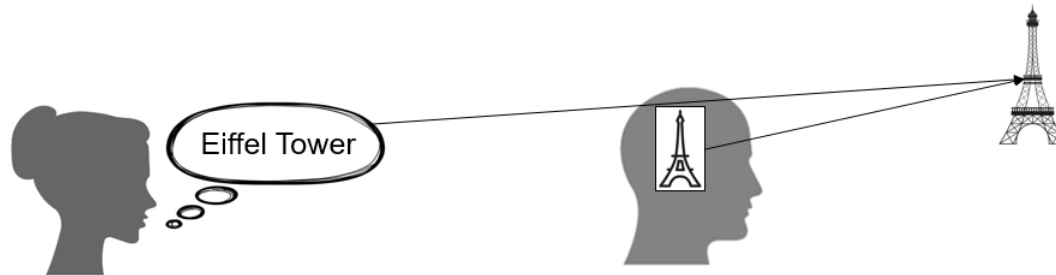
Robert Stalnaker

Ivan Rygaev  
University of Tübingen, Germany  
irygaev@gmail.com

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# Reference

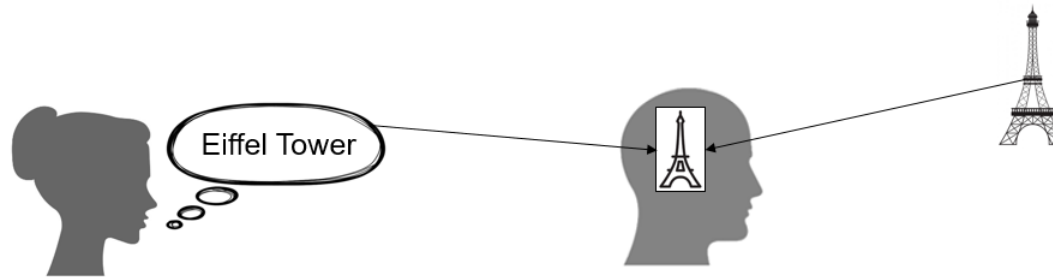
- Reference is usually understood as a relation between a linguistic expression and an object in the world.
  - Referential expressions refer to objects in the real world



- This view is controversial and gives rise to a number of puzzles:
  - Double vision
  - Reference to fictional characters, etc.

# Mental reference

- I propose a different view:
  - Referential expressions refer to mental representations in the hearer's mind.



- This offers a natural solution to reference puzzles

# Communication

- Communication is a primary and main function of language
  - Information transmission from the speaker to the hearer
  - Not the evaluation of the truth of the sentence



# Information transmission

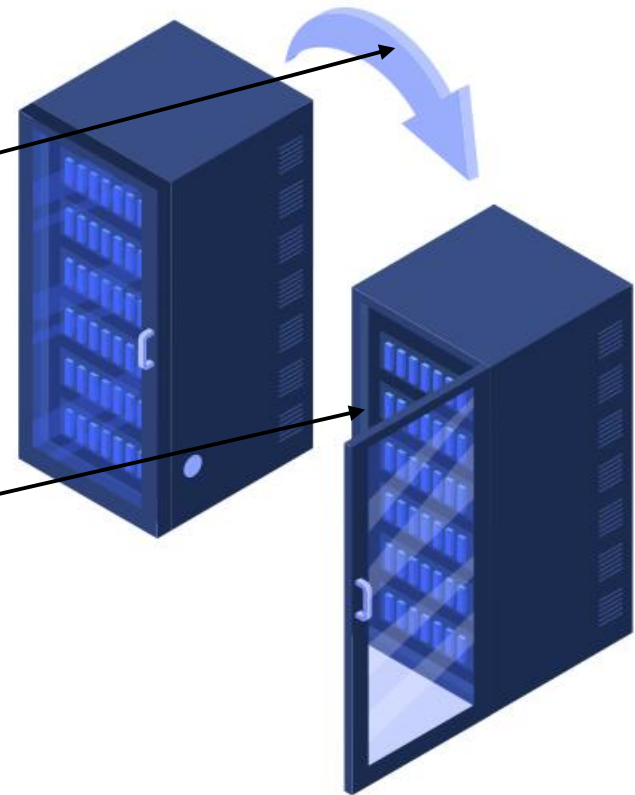
- New information should be linked to the old one:

*Ivanov's salary is 50 000 rub.*

```
update employees  
set salary = 50000  
where name = 'Ivanov'  
[where id = 2837]
```

id	name	salary	...
...			
2837	Ivanov	50 000	...
...			

– Truth evaluation?



# Linguistic communication

- Referential expression serves to find a mental representation of the object in the hearer's mind
  - Truth evaluation?



# Dynamic semantics

- File of cards metaphor:
  - *“B’s task is to construct and update a file which, at any point in the conversation, contains all the information that A has conveyed up to that point”* (Heim 1982:178)
- A card corresponds to a *discourse* referent
- The meaning of noun phrases is procedural
  - *“For every indefinite, start a new card; for every definite, update a suitable old card”* (Heim 1982:179)
- Sentence meaning is a context change potential
  - It the entire file, not a sentence, which has truth conditions

# Discourse referents

- Stand for all kinds objects being discussed:
  - Real, hypothetical, fictional, abstract, ...
- Can be introduced linguistically or extralinguistically
  - ‘Mental referent’ would be a better notion
- Relation to real referents is many-to-many
  - Several discourse referents can map to one real referent
  - One discourse referent can map to several real ones
  - A discourse referent can have no corresponding real one
- Can split and merge as discourse progresses
  - Unlike real referents

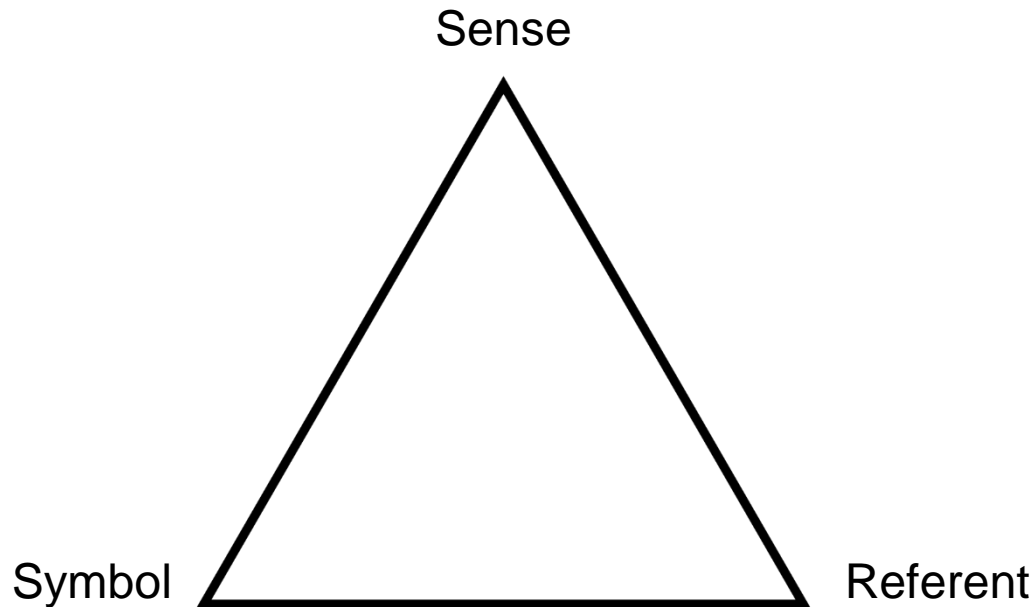


# Frege's puzzle

- If 'Hesperus' and 'Phosphorus' have the same value
  - then those pairs of sentences below must be equivalent
- Informativity puzzle
  - *Hesperus is Hesperus* (non-informative, a tautology)
  - *Hesperus is Phosphorus* (informative)
- Truth value puzzle
  - *John believes that Hesperus is Hesperus* (likely true)
  - *John believes that Hesperus is Phosphorus* (might be false)

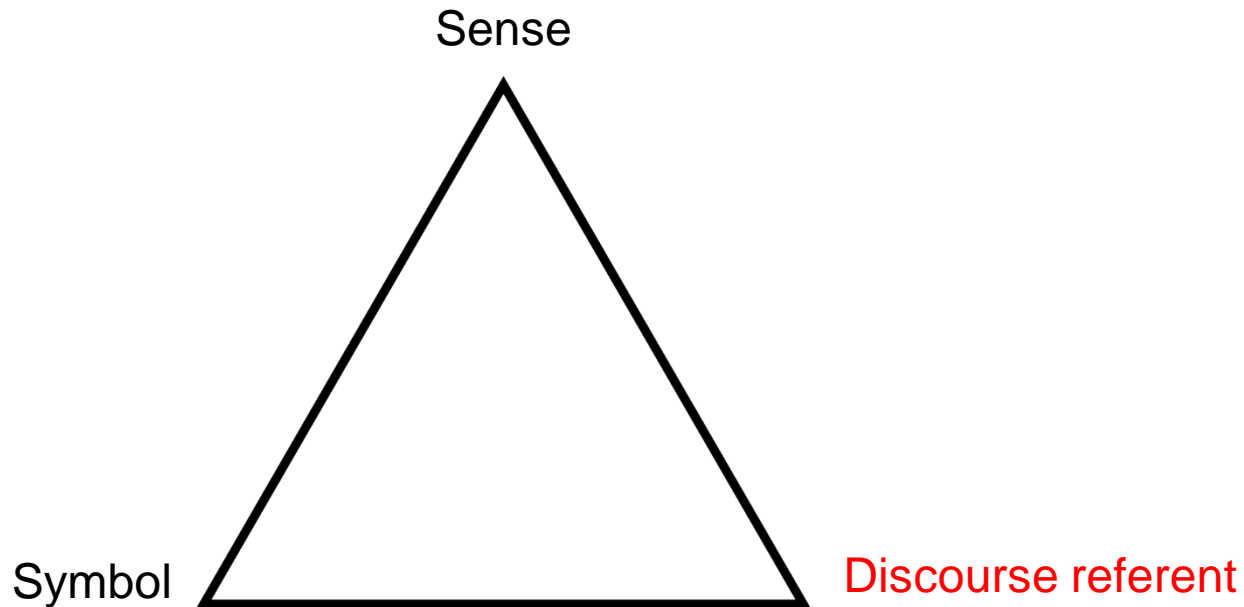
# Frege's solution

- Sense is a mode of presentation of a referent



# Dynamic semantic solution

- Sense is a pattern to search for a discourse referent



# Frege's puzzle natural solution

- If John has two distinct discourse referents
  - *John does not believe that Hesperus is Phosphorus*

$x$
Hesperus ( $x$ )

$y$
Phosphorus ( $y$ )

- Then 'Hesperus is Phosphorus' is informative for him and leads to merge of the two into one
  - *John believes that Hesperus is Phosphorus*

$x$
Hesperus ( $x$ )
Phosphorus ( $x$ )

# Kripke's puzzle

- Double vision
  - *Pierre believes that Londres is pretty*
  - *Pierre believes that London is ugly*
- Has the same natural solution
  - Two discourse referents map to the same real one

$x$
Londres ( $x$ )
pretty ( $x$ )

$y$
London ( $y$ )
ugly ( $y$ )

- The puzzle arises only if we appeal to real referents
  - If we abandon this view, then there is no puzzle at all

# Fictional characters

- *Sherlock Holmes lived on Baker Street*
- Fictional characters:
  - We have mental representations for fictional characters as well as for real objects
  - Referential expressions refer to those mental representations

$x$
Sherlock Holmes ( $x$ ) lived on ( $x, y$ )

$y$
Baker Street ( $y$ )

- The same applies for:
  - hypothetical objects, abstract objects, etc.

# Speaker's reference

- *Her husband is kind to her*
  - Said about a spinster who has no husband
- Truth is irrelevant for the success of communication
  - What matters is the correspondence of the sentence to the hearer's beliefs, not to the real world
  - If the hearer also believes that the man is her husband, then the communication goes without problems
- Moreover
  - The hearer need not believe that the man is her husband
  - He can just assume that the speaker believes so

# Pragmatic reasoning

- In the process of communication the interlocutors reason about each other
- The speaker:
  - Chooses such an expression so the hearer could identify the discourse referent correctly
- The hearer:
  - Reasons whom the speaker could mean in the current context using such an expression



# Conclusions

- If reference is treated as a mental phenomenon then
  - Many reference puzzles are solved in very natural way or even dissolved (i.e. do not appear)
- A sentence does not has a truth value by its own
  - It is sequence of instructions to update a mental representation in the hearer's mind
- Truth is irrelevant for the success of communication
  - What matters is the correspondence of the sentence to the hearer's beliefs, not to the real world

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Thank you!  
Questions?