

Seminar ENS

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Friederike Moltmann

Handout 1

Reference to Abstract Objects

1. More on the method of paraphrase

the method:

Replace statements involving reference to or quantification over problematic objects by an approximatively synonymous one, not implying the existence of such objects.

further examples of paraphrase:

- (1) a. The typical swan is white.
b. Any swan, if it is typical, is white.

- (2) a. There is a possibility that John has left.
b. Possibly John has left.

- (3) a. The possibility that Fido will die is frightening.
b. That Fido will possibly die is frightening.

- (4) a. There is a chance I will not come.
b. Perhaps I will not come.

- (5) a. John has great courage.

b. John is very courageous.

(6) a. John has the property of being courageous.

b. John is courageous.

(7) a. Courage is admirable.

b. Courageous people, acts etc. (qua courageous) are admirable.

(8) a. The proposition that S is true.

b. S

(9) a. The number of John's children is nine.

b. John has nine children.

Limits of implicit definition:

Russellian account of definite description

(10) a. The King of France is bald.

b. $\exists x(F(x) \ \& \ B(x) \ \& \ \forall y(K(y) \rightarrow x = y))$

(11) a. The N P

b. $\exists x(N(x) \ \& \ P(x) \ \& \ \forall y(N(y) \rightarrow x = y))$

Russell's implicit definition of *the* N accounts (or aims to account) for all context in which *the* N may occur.

The problem:

This method does not generally work for particular referential terms or definite descriptions:

(12) a. There is a possibility that S

b. $\diamond S$.

(13) a. The possibility that S is P

b. That $\diamond S$ is P.

(14) a. The proposition that S is true.

b. S

(15) a. John believes the proposition that S.

b. ???

(16) a. The proposition that Mary arrived is about Mary.

b. ????

(17) a. t has the property of being P.

b. t is P.

(18) a. The property of being courageous is my favorite property.

b. ????

(19) a. The property of being tall and intelligent is complex.

b. ???

(20) a. The number of John's children is nine.

b. John has exactly nine children.

(21) a. The number of planets is nine.

b. There are exactly nine planets.

(22) a. The number of children is the same as the number of women.

b.

(23) a. Nine is greater than eight.

b. ??

2. Problems with the method of paraphrase

Szabo's (2003) arguments:

- If the original sentence implies existence of abstract objects, but not paraphrase, then the original sentence is false, but the paraphrase need not be. So how can they be synonymous?
- The problem of direction: Why go deflationary rather than inflationary, that is, why should paraphrase, rather than original sentence reflect true meaning, logical form?
- Can the method be pursued at all within a project of a systematic semantics analysis of a natural language?
- nominalist paraphrase should also apply to antinomialist claims:

There are properties, there are propositions, there are abstract objects, ...

3. Referential terms and objecthood: Frege's context principle

Frege's context principle:

Only in the context of a sentence do expressions have meaning.

The meaning of expressions consists in their contribution to the truth conditions of a sentence.

Referential terms ('singular terms', 'names', referential NPs):

examples: proper names; definite descriptions, number words

for a Fregean: Referential terms are characterized formally (syntactically).

criteria for referential terms:

- can flank the identity symbol (Frege)
- licenced inferences such as:

(24) John has courage.

There is something John has.

refinement (Hale 1987)

(25) a. t functions as a referential term in $A(t)$ iff in that use of $A(t)$ the inference from $A(t)$ to

'There is something such that $A(it)$ ' is valid.

b. ... iff in the use of $A(t)$ and some use of some other sentence $B(t)$, the inference from

'There is something such that $A(it)$ or $B(it)$ ' to ' $A(t)$ or $B(t)$ ' is valid.

Frege: The semantic contribution of a referential term to the truth conditions of a sentence is that of standing for an object.

This semantic function best explains the formal and inferential behaviour of referential terms

other semantic functions that that of referential terms:

[1] standing for a function, a concept: the semantic function of predicates

[2] having a syncategorematic meaning:

modal operators, quantifiers, connectives, the definite determiner *the* on Russell's account

expressions that come out as referential terms:

- *courage, mercy*

- *the possibility that S*

- *the proposition that S*

- *the property of being P*

- *the typical swan*

- *the kind swan*

- *the place of the incident*

- *the time of the incident*

e.g. property terms:

(26) a. Mercy is the quality that Stalin most perspicuously failed to display. (Wright)

b. Stalin failed to display mercy.

There is something Stalin failed to display.

numbers:

Identity statements:

(27) a. Two plus two is four.

b. $2 + 2 = 4$

(28) a. The number of planets is eight.

b. The number of women is the same as the number of children.

The Fregean / Neofregean view of numbers as objects:

Because number terms are referential terms, they must stand for objects; thus numbers are objects.

next task: How to conceive of numbers as objects?

idiomatic expressions are not referential terms

example: *Mary's behalf*, the dark *in* leave in the dark

(29) a. John did it on Mary's behalf.

b. * There is something John did it on.

(30) ?? Mary's behalf is the same as Sue's behalf.

(30') a. John left us in the dark.

b. * There is something John left us in.

further, more problematic cases of referential terms:

the shortness of the duration of Mary's stay

the truth of the sentence

the existence of a proof

the lack of a proof

the occurrence of an earthquake

the divergence of opinion

the possession of a character

John's identity

Critique of the context principle:

Ontological rather than syntactic approach to objecthood:

Lowe ('The Possibility of Metaphysics', many other places):

An object is an entity with determinate identity conditions.

Thus there may be referential terms that stand for entities, but not for objects.

Examples: tropes, electrons

→ distinction between entities and objects

Other ways of avoiding objecthood for denotations of referential terms:

Relativization to of truth to fictional contexts, pretend reference

4. Quantification and Objecthood

Quine's criterion ('On What There is')

To be is to be the value of a variable (bound by an existential quantifier that is not in the scope of negation).

Quantification without ontological commitment:

[1] Substitutional quantification:

(31) '∃x p' is true iff some substitution instance of p is true.

free logic: terms need not refer.

[2] Second-order logic: Boolos:

(32) a. Some people came.

b. $\exists X(\forall x(Xx \ \& \ Px \rightarrow Cx))$

Two kinds of natural language quantifiers:

[1] *some thing, some object*:

(33) Every thing is a thing (an object). (true)

[2] *something (nothing, several things)*:

(34) Everything is a thing (an object). (false)

examples:

events:

(35) John ran.

John did something.

(36) John ran.

??? John did some thing.

masses:

(37) John drank some whater.

John drank something

(38) John drank some water.

??? John drank some thing.

properties:

(39) John displayed / admires greatness.

John displayed / admired something.

(40) John displayed / admires greatness.

??? John displayed admired some thing.

facts:

(41) John liked the fact that Mary is happy.

John liked something.

(42) John liked the fact that Mary is happy.

John liked some thing.

apparently:

some thing: ranges over objects

something ranges over entities (including objects)

problem: something \neq some entity

(43) John drank something (namely water).

??? John drank some entity.

(44) John displayed something (namely great courage).

??? John displayed some entity.

5. Quasi-deflationist approaches taking referential terms to stand for entities

Carnap:

Distinguish external and internal questions:

Do abstract objects exist (as such)? – no answer, question makes no sense

Do abstract objects exist within a particular system? - definite answer available

Do natural numbers exist? – no answer

Do natural numbers exist within the system of Peano arithmetic? – yes

The nature of entities within a system:

The system tells us what there is to the nature of such entities, what their properties are.

A somewhat similar approach:

Schiffer's (1996) pleonastic entities:

Referential terms do stand for entities, but pleonastic entities: entities all of whose properties can be read off contexts in which the referential terms do not occur.

Properties and propositions are ‘shadows of predicates and sentences’.

‘something from nothing’ feature

--> language-created entities, analogous to fictional characters

applications:

The proposition that S is true. pleonastic for: S

That S is possible. pleonastic for: Possibly S

The proposition that S implies the proposition that S’: pleonastic for: S. *Therefore S’*

John has the property of being courageous pleonastic for John is courageous.

The property of being tall and intelligent is complex: pleonastic for: ‘Tall and intelligent’ is complex.

Fido’s death occurred this morning pleonastic for: *John died this morning.*

Different ways permitted of reading off properties of pleonastic entities from contexts in which the entities do not occur.

problems with the approach:

Attributions of properties to abstract objects very often cannot be read off a context in which the abstract term does not occur:

John believes the proposition that S. -- ??

That S is surprising. -- ??

The property of being courageous is my favourite character trait. -- ??

John’s death has never been described in any detail. -- ??

Fido’s death has not been watched by anyone. -- ??

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