

Course: The Ontology of Predication

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Handout 1

Predicates in Linguistic Semantics and in Ontology

1. The interest in predication

(1) Socrates is wise.

- Predication at the core of the meaning of sentences

Constitutive of the ‘unity of propositions’ and of ‘propositional objects (the thought that Socrates is wise, the fact that Socrates is wise, the possibility that Socrates might be wise).

- Predicate (seem to) denote or express properties

Properties are abstract objects, universals → lots of philosophical questions

- Predicate (seem to) connect a property to an individual: how is that possible? How should the link between a property and an individual be understood?

2. Linguistic notions of predication

Predicates as syntactic categories? No:

is wise, a wise man, that wise man,

is a man, a man arrived

Predicates as syntactic functions:

(2) a. John is wise. A

b. John is a man. NP

c. John is laughing. VP

d. John saw Mary. V

is wise, is laughing, saw Mary are the predicates of the sentence

Saw as a relational predicate

Syntactic categories that can function as predicates: A, NP, VP, V

Wise or *is wise*

Is the copula essential for predication?

Philosophers' views:

Frege: copula semantically irrelevant

Wiggins: copula ensures 'incompleteness' of denotation (denoting a concept rather than an object)

Wright: copula goes together with adjective to form expression whose semantic function is attribution (of a property), not reference

linguists' observation:

- in some languages copula *is* not present (Russian)
- predicates can be complement of other verbs than copula verbs
- predicates occur without copula in 'small clause' constructions

Other copula verbs:

be, remain, become

Other predicate-taking verbs: *look, seem*

John looks happy

John seems tired

Predicates as complement of prepositions: *as a teacher, for a teacher, like an idiot*

Small clause constructions

- (3) a. John made Mary happy.
 b. John painted the house pink.
 c. John left the dinner untouched.

most plausible conclusion:

occurrences of expressions in a sentence with the syntactic function or role of a predicate make a 'predicational' semantic contribution to the sentence, whether or not a copula is present.

Philosophical discussion focused on

- copula – adjective constructions: (1)

= ‘standard predicational construction’

2. Further important properties of the standard predicational construction

2.1. Propredicative quantifiers

Quantification into predicate position

(4) a. Socrates is wise.

Socrates is something.

b. John is everything Mary is, wise, intelligent, rich etc.

Propredicative quantifiers: *something, everything, nothing, many things*

But not *some property, every property* etc:

(5) * Socrates is some property.

Part of the same phenomenon:

Reference to predicate values: free relative clauses

(6) a. What Socrates is is wise

b. What Socrates is is admirable.

Demonstrative, anaphoric reference to predicate values:

(7) Mary is extremely talented. Sue is that too. / That is what Sue is too.

Properties of propredicative quantifiers:

1. can relate to syntactic positions with incompatible syntactic requirements:

(8) a. John became something I had never expected e. AP -- S or NP

b. John is something that e is strange. AP -- S or NP

c. John used to be something he now does not like to talk about. AP – NP

Consequence:

Propredicative quantifiers are not substitutional

2. are 'beyond types':

- (9) a. What John is is terrible. predicate type – object type
 b. John is something that I am not and that is very strange. predicate type – object type
 c. John has become something I had not expected. predicate type – sentence or object type

the common Fregean and type-theoretic view:

Predicates are of different semantic type than objects:

Objects, as referents of subject NPs are arguments of adjectives

Propredicative quantifiers, apparently, can range over things that are both arguments of adjectives and at the same time predicate values:

Consequence:

Propredicative quantifiers are not second-order quantifiers

Propredicative nouns:

Color, weight, height, size

- (4) a. John's house is yellow. Mary's house is the same color.
 b. John painted his house yellow. Mary painted her house the same color.
 c. Bill is two meters tall. Joe is the same height.

2.2. Nominalizations of predicates

Adjective nominalizations:

Socrates' wisdom, wisdom

Gerunds:

Socrates' being wise

Being wise

Explicit property-referring terms:

The property of being wise

Adequacy condition on a semantic analysis of predicates:

Enable an account of propredicative quantifiers and nominalization

3. The meaning of predicates: some views

3.1. Predicates and properties:

Notions of property

Properties are whatever are the meanings of predicates

Properties are things that play particular roles in the world: involved in natural laws, ground intrinsic similarity etc.

Properties: universals, have instances

Properties inherently predicational ?

Properties can be predicated via some instantiation relation?

3.2. Reference for predicates: Frege

Sense-reference distinction for singular terms and predicates

Singular terms: refer to objects

Predicates: refer to concepts

The concept horse paradox:

The concept horse is not a concept.

3.3. Carnap / Montague

Intension / extension for all meaningful expressions

Intension of singular terms: individual concepts (function from world-time pairs to individuals)

Extension of singular terms: object

Intension of predicates: functions from world-time pairs to sets of individuals

Extension of predicates: sets of individuals

3.4. Alternatives:

- predicates have no reference or denotation or semantic value, they are just 'true of' objects (Quine)

- Predicates *expressing* properties, do not refer to them

4. Predication, Events, and Tropes

4.1. Events

Davidson's view of action verbs

- (5) a. John buttered the toast slowly with a knife.
 b. John buttered the toast
 c. $\exists e(\text{butter}(e, \text{John, the toast}) \ \& \ \text{slowly}(e) \ \& \ \text{with a knife}(e))$
 d. $e(\text{butter}(e) \ \& \ \text{Agent}(\text{John, } e) \ \& \ \text{THEME}(\text{the toast, } e) \ \& \ \text{slowly}(e) \ \& \ \text{with a knife}(e))$

Verbs denote relations among events and participants classes of events

predication: existential quantification over events

4.2. Tropes

Tropes: concrete manifestations of properties ; particularized properties

Socrates' wisdom: the concrete manifestation of wisdom in Socrates

Bearer relation: Socrates is the bearer of the trope that is his wisdom

Aristotelian, medieval tradition:

- (6) a. Socrates is wise.
 b. There is a trope (accident, mode) of wisdom that inheres in Socrates.

Trope nominalism:

Properties as classes of similar tropes

Predicates denote classes of tropes or relations between tropes and objects

Predication: existential quantification over tropes and attribution of bearerhood to the subject referent

Tropes as predicational?

Mertz's view (Metz 'Moderate Realism and its logic)

Advantages of the trope-based approach:

straightforward account of nominalizations, and of pro-predicative quantifiers!

5. Analyses of pro-predicative quantifiers

5.1. Neutralism

Pro-predicative quantifiers carry no new ontological commitment in relation to a corresponding non-quantificational statement:

John is something is not more ontologically committed than *John is wise*.

Varieties of neutralism:

1. substitutional quantification (Marcus, Sellars):

‘ $\exists xP(x)$ ’ is true iff a substitution instance of ‘ $\exists xP(x)$ ’ is true.

Problem 1 : truth depends on existence of expressions in natural language

(7) John is something which cannot be described.

Problem 2: pro-predicative quantifiers operate ‘beyond’ syntactic categories

2. Prior: pro-predicative quantification not further to be explicated, to be accepted as primitive, no formal definition to be given (‘Anti-formalism’)

for existential quantification substitution only sufficient, not necessary condition

-- unsatisfactory ...

3. Wright (‘On Quantifying into Predicate Position. Towards a New(tralist) Perspective’):

the meaning of statements with pro-predicative quantifiers is exhausted by their inferential role, in regard to other thoughts (propositions, structured complexes consisting of concepts and objects) (existential and universal introduction and elimination rules)

Problem:

The ‘beyond type’ property of pro-predicative quantifiers

elimination rules would not be applicable to corresponding thoughts

5.2. Propredicative quantifiers as objectual

1. quantification over concepts:

no, because of propredicative quantifiers are ‘beyond types’

2. Quantification over properties (acting as objects)

No:

What propredicative quantifiers range over does not have the properties of abstract objects

Perceptual and causal properties:

(8) a. John is something I had never noticed before.

b. John has become something that has caused Mary consternation.

Evaluative predicates apply as with tropes, kinds of tropes:

(9) John is something very admirable.

John’s wisdom, wisdom is admirable, not the property of being wise

Propredicative quantifiers as quantifiers over tropes

(10) a. John is something, namely wise.

b. $\exists t(B(t, \text{John}))$

(11) John is the same thing as Mary, namely very wise.

quantification over kinds of tropes (‘extreme wisdom’)

Advantages:

- preserves neutralism:

quantificational sentence is as ontologically committed as corresponding non-quantificational sentence: commitment to tropes

- generalize ‘semantic nominalization’ to propredicative quantifiers