



# **NEW DIRECTIONS IN THE STUDY OF THE MIND**

research project 2015-2017

 UNIVERSITY OF  
CAMBRIDGE



John  
Templeton  
Foundation

[newdirectionsproject.com](http://newdirectionsproject.com)

# Seminar 22

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1. Recap: Propositional attitudes
2. Semantics
3. Intensionality and intentionality again

# 1. Recap: propositional attitudes and their semantics

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A propositional attitude is a mental state typically attributed in the following form:

S \_\_\_\_\_s that p

Where S is the subject, \_\_\_\_\_ is filled in by a psychological verb and p is a proposition

(The 'that p' bit is sometimes called the 'that-clause')

# Some propositional attitudes

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S believes that ...

S hopes that ...

S desires that ...

S thinks that ...

S perceives that ...

S decides that ...

# Propositional attitudes and their ascriptions

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The definition of propositional attitudes mentions a certain kind of *ascription* or *attribution* of these states

**‘A propositional attitude is a mental state typically attributed in the following form:....’**

How does this connect us to the mental states or events themselves?

# The semantic method

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The approach in the second half of the 20th century:

Propositional attitudes are investigated by investigating the **semantics** of propositional attitude **attributions**

## 2. Semantics

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Semantics contrasted with **syntax**

Semantics is the theory of **meaning**

# Different senses of ‘semantics’

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(1) The theory of meaning or representation or ‘content’ in the broad sense, for example:

- ‘psychosemantics’ (Jerry Fodor)
- teleosemantics (David Papineau)

(2) Compositional semantics: the theory of the determination of truth and falsehood



# Semantics in the broad sense

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Answering the questions:

How is representation possible?

How can anything mean anything at all?

See Tim Crane, *The Mechanical Mind* (2015) chs. 2 & 3

# Semantics in the narrow sense

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How is the truth value (or the truth-conditions) of whole sentences or propositions determined by the semantic properties of their parts?

(Note that this does not ask about how the semantic properties of parts are determined)

## Example: Quine on predication

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‘Predication joins a general term and a singular term to form a sentence that is true accordingly as the general term is true of the object to which the singular terms refer.’

Quine *Word and Object* (1960: 96)

# Example: Frege on concept and object

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Referent of a name: an object

Referent of a predicate: a function ('concept')

Referent of a sentence: a truth-value

'Fa' is true when the object which is the referent of 'a' as argument yields True as value of the function which is the referent of 'Fx'

See G. McCulloch, *The Game of the Name* (1989)

# Semantics in the narrow sense

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‘Most philosophers of language these days think that the meaning of an expression is a certain sort of entity, and that the job of semantics is to pair expressions with the entities which are their meanings. For these philosophers, the central question about the right form for a semantic theory concerns the nature of these entities.’

Jeff Speaks, ‘Theories of Meaning’ (SEP 2014)

# Semantics in the narrow sense

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‘Most philosophers of language these days think that the meaning of an expression is a **certain sort of entity**, and that the job of semantics is to **pair expressions with the entities which are their meanings**. For these philosophers, the central question about the right form for a semantic theory concerns **the nature of these entities**.’

Jeff Speaks, ‘Theories of Meaning’ (SEP 2014)

The semantic content of a sentence = the sentence's **propositional content**, or **truth-conditions**

The semantic content of sub-sentential constituents = their **systematic contribution** to truth-conditions

(e.g. objects, functions, sets etc.)

‘Semantics with no treatment of truth-conditions is not semantics’

David Lewis, ‘General Semantics’ (1970)

‘The basic aim of semantics is to characterize the notion of a true sentence (under a given interpretation)’

Richard Montague ‘Universal Grammar’ (1970)



Some key figures in the semantic tradition:

**Frege** on sense and reference

**Carnap** on intension and extension

**Montague** on categorial grammar

**Lewis** and **Stalnaker** on sets of possible worlds

# Truth conditions

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The conditions under which a sentence is true

A sentence of the form 'a is F' is true iff a has the property F

OR

A sentence of the form 'a is F' is true in just those conditions in which a has the property F

# Semantics of propositional attitudes

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Vladimir believes that Cicero was assassinated

The semantic parts of this sentence are:

- (i) Vladimir
- (ii) the relation expressed by 'believes that'
- (iii) the proposition expressed by Cicero was assassinated

# Exhibit A

‘Propositional attitude attributions appear to relate people to non-linguistic entities called propositions. So any materialist who ... admits that beliefs and desires are relations between people and propositions must give a materialistically adequate account of believing, desiring, and so forth’

Hartry Field ‘Mental Representation’ (1978)

## Exhibit B

‘Propositional attitudes should be analyzed as relations. ...  
“Believes” looks like a two-place relation, and it would be nice if  
our theory of belief permitted us to save the appearances’

Jerry Fodor ‘Propositional Attitudes’ (1986)

# Relations to propositions

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The semantics of propositional attitudes is the source of the idea that propositional attitudes are relations between thinkers and propositions

But what are propositions and what does it mean for a person to be related to them?

[This will be returned to next week]

### **(3) Intentionality and intensionality again**

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Roderick Chisholm's criteria of intentionality

These are really criteria of **intensionality**

But might there be some systematic connection between the criteria for intensionality and intentionality itself?

# Chisholm

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A sentence is intentional if

- (i) It uses a noun phrase without implying that there is anything to which the phrase applies;
- (ii) It contains a propositional clause, but neither it nor its negation imply that the clause is true or false;
- (iii) Substitution of co-referring expressions in the sentence does not preserve its truth-value

See Chisholm, *Perceiving* (1957) 'Sentences about Believing' (1955)



## Criterion (i)

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(i) The context contains a noun phrase without entailing that there is anything to which the phrase applies

Vladimir is thinking about Pegasus

## Criterion (ii)

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(ii) The context contains a propositional/sentential clause, but neither it nor its negation entail that the clause is true or false

Vladimir believes that Mongolia had the largest empire in the history of the world

## Criterion (iii)

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(iii) Substitution of co-referring expressions in the sentence does not preserve its truth-value

Vladimir believes that Cicero was assassinated

Cicero = Tully

Vladimir believes that Tully was assassinated

(Cf. 'Frege's puzzle')

# The connection between intensionality and intentionality

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- (1) Are all sentences (and other contexts) describing intentionality intensional?
- (2) Do all intensional sentences describe intentionality?

(1) Are all sentences describing intentionality intensional?

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(a) Vladimir sees the Pope

This entails that there is something that Vladimir sees

Along with a claim of the form

(b) The Pope = X

it entails that Vladimir sees X

# Criteria of intensionality

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Chisholm's first and third criteria don't apply to 'x sees y' (the second is not relevant here)

'x sees y' is an **extensional context**

So if Chisholm's criteria are the only criteria for intensionality, then not all reports of intentionality are intensional

## (2) Is intensionality a mark of intentionality?

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Quine on the number of planets:

- (i) 9 is necessarily greater than 5
- (ii) The number of planets = 9
- (iii) The number of planets is necessarily greater than 5

Quine, 'Reference and Modality' (1953)

# Intensionality is not the answer

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The intensionality of mental state ascriptions reflects two things:

- (i) the fact that the objects of thought need not exist
- (ii) the fact that the objects of thought are conceived under some aspects to the exclusion of others



# Next week

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Relations to propositions ctd.

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Where is this all going....?



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