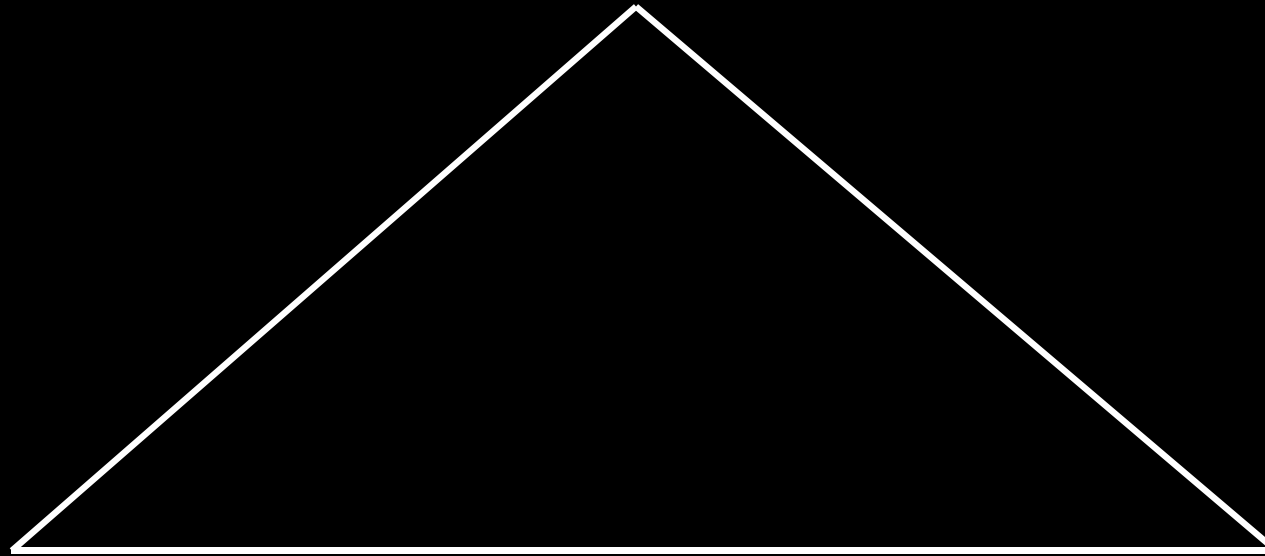


Philosophy of mind — what is it?

Pierre Jacob
Cogmaster
Quinzaine de rentrée 2011

A triangle

Philosophy of mind (late 19th cent.)
(Philosophy 4th century BC)



Naïve psychology
(born 100.000 years ago)

Cognitive science
(born 1950's AC)

What is a thought-experiment?

Simp: There is the very appropriate experiment of the stone dropped from the top of the mast of a ship, which falls to the foot of the mast when the ship is standing still, but falls as far from that same point when the ship is sailing as the ship is perceived to have advanced during the time of the fall, this being several yards when the ship's course is rapid.

Salv: You say, then, that since when the ship stands still the rock falls to the foot of the mast, and when the ship is in motion it falls apart from there... For anyone who [performs the experiment] will find that the experiment shows exactly the opposite of what is written; that is, it will show that the stone always falls in the same place on the ship, whether the ship is standing still or moving with any speed you please... Without experiment, I am sure that the effect will happen as I tell you, because it must happen that way... Galileo, *Dialogue concerning two chief world systems*, 1632

Intentionality

- Franz Brentano (1838-1917)
Psychology from an empirical Standpoint (1874)
- Two major contributions
 - (1) Puzzling definition of
 - ‘intentionality’ generated huge chasm in philosophical logic
 - (2) Thesis: *intentionality is the mark of the mental* at core of 20th century philosophy of mind!



Why is intentionality so-called?



- *Tendere*: The art of mental archery
- Intentionality: *content* or *aboutness* i.e. *representing* objects, properties, states of affairs;
- Intentionality ≠ intention ≠ intensionality

Chasm in philosophical logic

- Intentionality enables human minds to mentally aim at abstract objects (e.g. *numbers*) neither in space and time; at characters of fiction (e.g. *Anna Karenin, Zeus*); at impossible objects (*round square* or *greatest integer*)
- « Every mental phenomenon is characterized by what the Scholastics of the Middle Ages called the intentional (or mental) *in-existence* of an object » (Brentano)
- Do all intentional objects exist?
- Are there things that do not exist?
- Meinong: Yes (being≠existence)
- Russell/Quine: No (to be is to be the value of a bound variable in well-behaved theory)

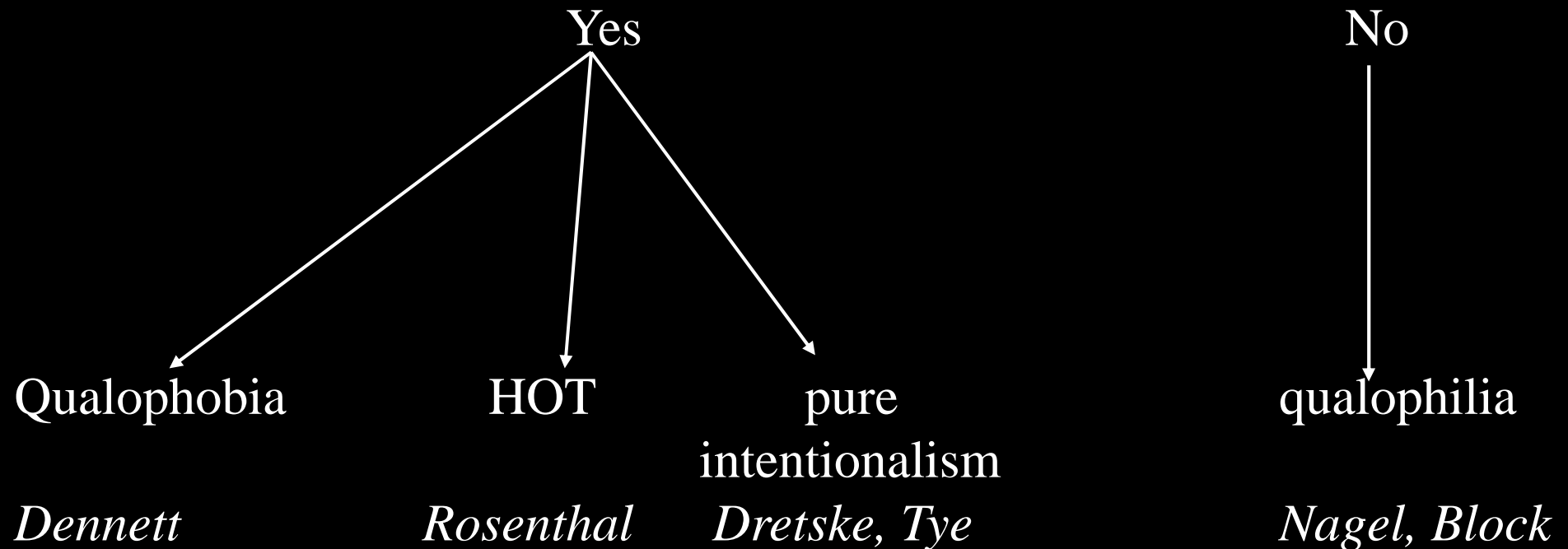
Brentano's thesis

- Why theory of content became main task of philosophy of mind!
- Intentionality (i.e. content) is the mark of the mental
- (1) All mental phenomena exhibit intentionality, i.e. are representations with content.
- (2) Only mental phenomena exhibit intentionality, i.e. are representations with content.
- Consequence of B's only-thesis: ontological dualism vindicated
- (Cf. Descartes's distinction between physical things and mental things)

Two main problems

- (1) *The problem of consciousness*
- Do all mental phenomena exhibit intentionality? Is it true that *to be conscious* (i.e. to experience a *quale*) is to be *conscious of* something or other (i.e. to be in a mental state with *content*)?
- (2) *How to naturalize intentionality?*
- Is it true that *only* mental phenomena exhibit intentionality? If so, is ontological dualism vindicated?

Is intentionality true of all mental Φ ?



Two main questions:

(1) Are there (e.g. phenomenological) properties of human experience/consciousness other than content of psychological state?

(2) Is all content propositional and/or conceptual?

Is intentionality true only of mental Φ ?

- Objection to Brentano's only-thesis
- Utterances of sentences of natural languages are not mental phenomena, but they too have content or intentionality!

Standard reply

John Haugeland
1945-2010



- « [linguistic symbols] only have meaning because we give it to them; their intentionality, like that of smoke signals and writing, is essentially borrowed, hence *derivative*. To put it bluntly: computers themselves don't mean anything by their tokens (any more than books do) — they only mean what we say they do. Genuine understanding, on the other hand, is intentional “in its own right” and not derivatively from something else. »

Rebuttal: the intentional stance

Dan Dennett, 1942-

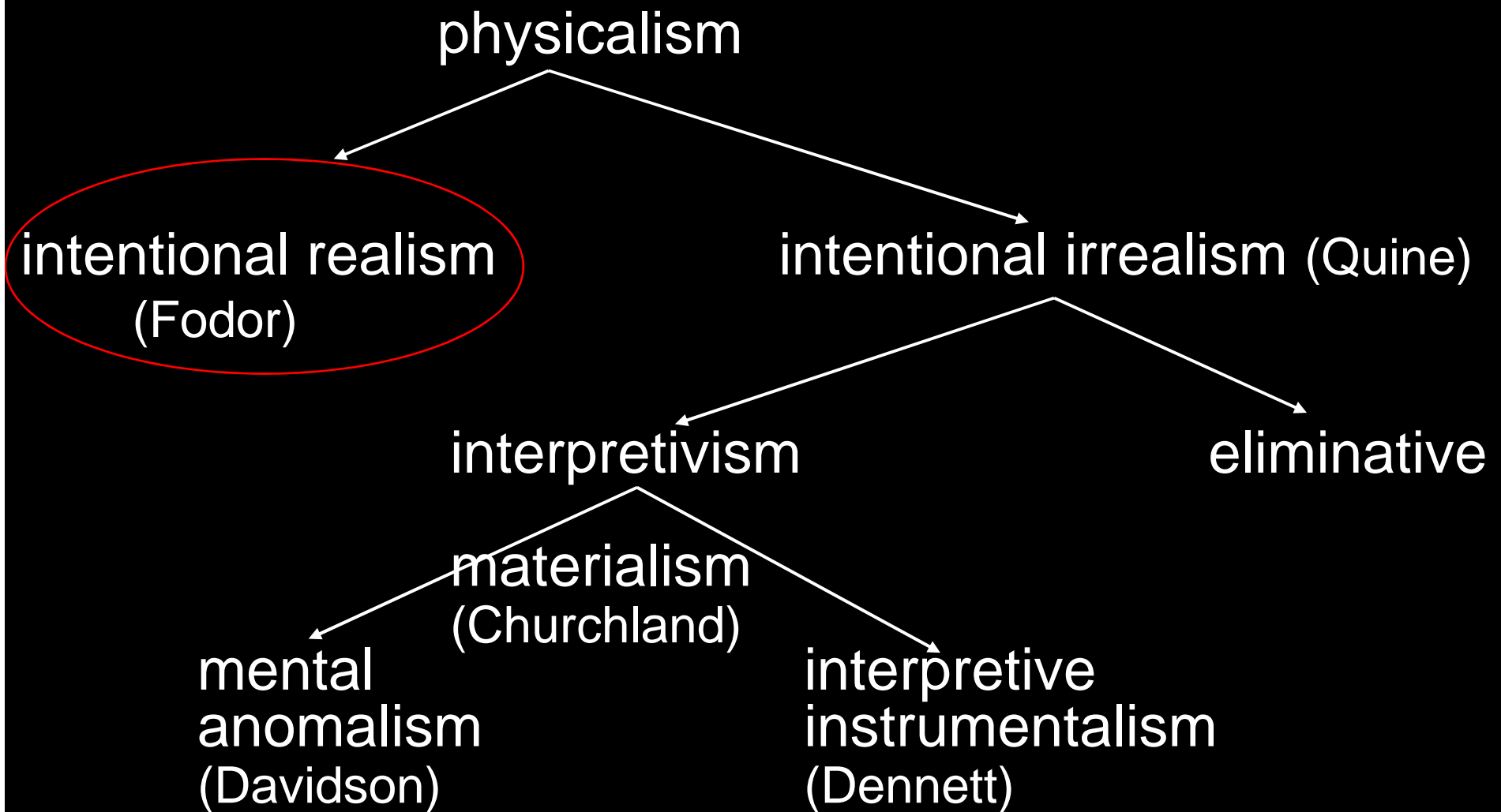


- To ascribe states with intentionality to S is to take one of three possible stances towards S, i.e. the intentional (vs. physical and design) stance.
- There is nothing intrinsically right or wrong about taking the intentional stance: it's convenient for prediction.
- We take this stance towards computers when we play check with, and ascribe beliefs and desires, to them.
- But we reflectively acknowledge that computers lack real belief and desires with underived intentionality!
- Humans are no different from computers!

Puzzles for the intentional stance

- On the radical version of the intentional stance, the intentionality of S 's beliefs and desires is relative to ascription by \underline{S}^* .
- By ascribing intentionality to \underline{S} , \underline{S}^* forms a belief about the contents of \underline{S} 's beliefs and desires.
- If \underline{S} 's beliefs and desires lack underived (independent) intentionality, how can \underline{S}^* be credited with beliefs (about the contents of \underline{S} 's beliefs and desires) with underived (independent) intentionality?
- If not, then the intentional stance seems to run in a circle or be under threat of infinite regress.

Physicalist responses to B's only-thesis

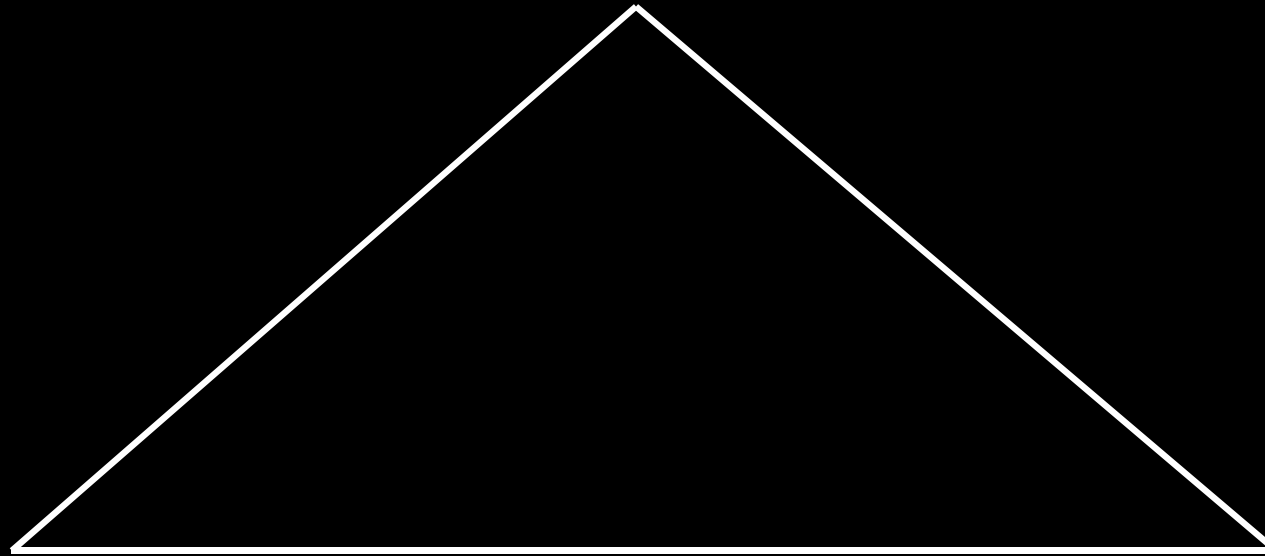


Naturalizing intentionality

- Program: to reconcile intentional realism with a physicalist ontology.
- *What is it to be intentional realist?*
- Intentionality (content) can have causes and effects!
- *What is physicalism?*
- Denial of ontological dualist distinction between mental and physical things: mental things are physical (e.g. neurological) things!

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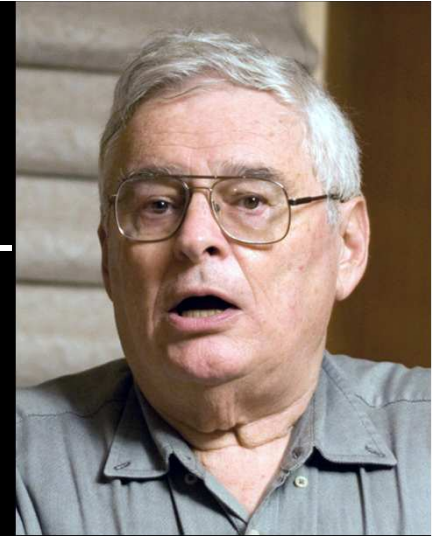
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The cognitive (counter-) revolution

- The computational paradigm (Chomsky-Marr)
- (1) Marr's three levels of analysis of tasks
 - 1.1. The computational level: visual system computes 3-D representation of distal stimulus from retinal inputs.
 - 1.2. The algorithmic level: operations used by visual system to perform computations
 - 1.3. Hardware level
- (2) Three stages of visual computation
 - 2.1. From retinal inputs to primal sketch
 - 2.2. From primal sketch to 2.5-D sketch
 - 2.3. From 2.5-D sketch to 3-D representations of objects.

CRTM

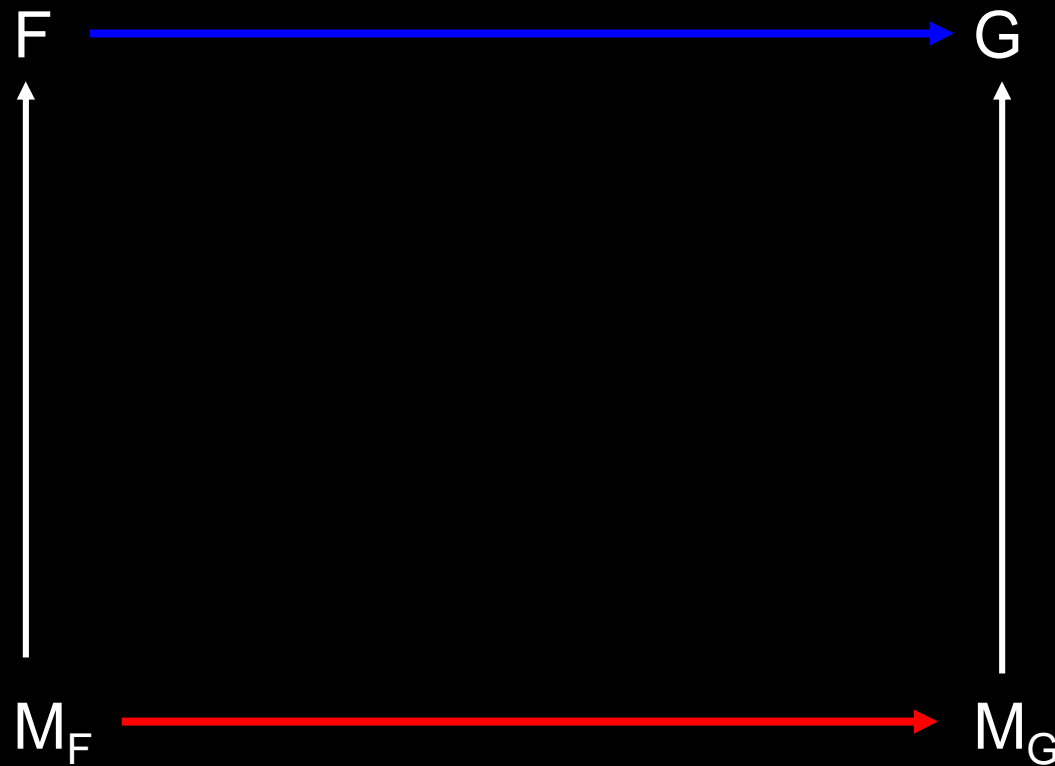
Jerry Fodor, 1935-



- 1. Mental processes (e.g. thinking) are computational processes.
- 2. No mental computation unless there are mental symbols (i.e. symbols in LOT).
- 3. Mental symbols have semantic and syntactic properties such that meanings of complex symbols (BLUE DOG) systematically depend on meanings of constituents (BLUE, DOG) and syntactic principles of combination.
- 4. Mental symbols in language of thought are primary bearers of meaning or content (intentional realism applies primarily to meanings of symbols of LOT).

CRTM and psychological explanation

- 1. To explain individual's behavior is to subsume it under psychological laws
- 2. Psychological laws are intentional and causal
- 3. What makes a psychological law intentional is that it is implemented by an underlying computational mechanism



Intentional psychological law causally relates properties F and G if instances of F are implemented by (supervene on) M_F ; instances of G are implemented by M_G and there is a **causal computational non-intentional (non-semantic) law relating M_F and M_G .**

Assessing computationalism

John Searle, 1932-



- Is the brain a computer? Are mental processes computational processes?
- 1. Computational or syntactic properties are extrinsic, not intrinsic properties, of symbols.
- 2. Syntax is not sufficient for semantics (Chinese room).
- 3. Computer programs are entirely defined by their formal, or syntactical, structure.
- 4. Minds have intrinsic semantical contents or intentionality.
- 5. Conclusion: no computer program by itself is *sufficient* to give a system a mind.

Are syntactic properties unnecessary?

- 1. Syntactic properties of symbols are defined in relation to their semantic properties (so as to prepare the definition of their semantic properties).
- 2. The semantic properties of *complex* symbols depend upon the semantic properties of their *constituents* together with the rules of their syntactic combination.
- If symbols lacked syntactic properties, then the *semantic properties of complex symbols* could not arise from the semantic properties of their constituents and complex symbols would lack semantic properties.

Topics for CO1

- 1. What is intentionality?
- 2. Monist physicalism and Cartesian substance dualism
- 3. What is logical behaviorism?
- 4. The problems of non-reductive materialism
- 5. Functionalism
- 6. Anomalous monism
- 5. Naturalizing intentionality
- 6. Assessing the computational theory of the mind
- 7. Mental causation
- 8. Intentionality and consciousness

Thought experiments

- ‘bachelor’ =_{df} ‘non-married’ + ‘person’
- Mastery of specialized scientific concepts (‘quark’, ‘DNA’, etc.) involves knowing scientific theory. Most natural kind concepts (‘tiger’, ‘water’) and philosophically significant concepts (‘knowledge’, ‘truth’) are not exhaustively definable.
- So philosophers of mind have turned to thought-experiments
- Galileo: the principle of the relativity of motion
- Twin-Earth, brain in a vat, Mary, Chinese room, etc.