Philosophy of Language

Julian J. Schlöder, University of Amsterdam

Yerevan Academy for Linguistics and Philosophy 2019

- William Lycan, *Philosophy of Language* (Routledge, 3rd ed, 2019).
- Stephen Yablo, Lecture notes on Philosophy of Language.
 - > https: //ocw.mit.edu/courses/linguistics-and-philosophy/ 24-251-introduction-to-philosophy-of-language-fall-2011/ lecture-notes/
- Jeff Speaks, *Theories of Meaning* (Stanford Encyclopedia of Philosophy).
 - > https://plato.stanford.edu/entries/meaning

• Language is *remarkable*.



Are Pringles potato chips?

- The British courts spend some two years on that question.
 - > At stake was some £100 million in taxes.
- *The VAT and Duties Tribunal:* Yes! A Pringle is "made from potato flour in the sense that one cannot say that it is not made from potato flour."
- The High Court of Justice: No! Pringles contain "a number of significant ingredients" and "cannot be said to be 'made of' one of them." They do not exhibit "potatoness". (They are more like bread than like chips.)
- The Court of Appeal: Yes! The test for "potatoness" is an "Aristotelian question" about "essence" and the court has "no real idea" of what that means. Rather, the question "would probably be answered in a more relevant and sensible way by a child consumer than by a food scientist or a culinary pendant."

- Fact: words and sentences have meanings or are meaningful.
- Fact: not all sequences of sounds/letters are meaningful.
- But what are meanings? Alternatively: what is meaningfulness?
- How do linguistic items relate to meanings? (And why do some items fail to relate to meanings?)
- In what relations do humans, languages and meanings stand?

Here are some things that we know about meanings, whatever they are.

- Some sequences of sounds/words have meaning, some others do not.
- Some words/sentences are ambiguous.
- Some words/sentences are synonymous with other words/sentences.
- Some words/sentences include other words/sentences.
 - > *square* includes *rectangle*; *bachelor* includes *male*.

(not exhaustive)

- A theory of meaning is some explanation of what meanings are (or of what meaningfulness is) and of how meanings relate to sounds and to minds.
- We assess a theory of meaning by how well it explains the meaning facts.

- Answers to important questions depend on which theory of meaning is correct.
- The High Court espoused a theory of meaning according to which the meaning of 'potato chip' is determined by some essential property.
- The Court of Appeals espoused a theory of meaning according to which commonplace use of 'potato chip' determines what is a potato chip.
- They came to very different answers about a practical question, based on these theories.

Here are a few questions that we may concern ourselves with.

- Is a Pringle a potato chip?
- Is killing one to save ten a good act?
- Was Alexander the Great a just person?
- Do numbers exist?
- How can I achieve happiness?
- Maybe goodness, justice, existence and happiness are like potato chips.

- A rough outline of an argument by Frege.
- For a sentence like *The X is Y* to be true, Y must exist and Y must be X and Y must be the only X.
 - > 'The teacher for PhLang is Julian' is true because I exist and I am actually teaching PhLang.
 - 'The king of France is bald' is not true because there is no king of France.
- 'The number of planets is 8' is true.
- So there is a thing that is the number 8.

So what are meanings?

What do you learn about me when someone tells you *Julian knows the meaning of 'potato chip'?*

- The first intuitive idea: meanings are some sort of thing.
 - In the loosey-goosey sense of 'thing' according to which ideas, events, colours and the game of chess are things.
- After all, we do say that words have meanings
 - > (and there is no reason to think we are being fanciful).
- What kind of things?

The Sentence Theory of Meaning

Recall our meaning facts:

- Some sequences of sounds/words have meaning, some others do not.
- Some words/sentences are ambiguous.
- Some words/sentences are synonymous with other words/sentences.
- $\circ~$ Some words/sentences include other words/sentences.
 - > square includes rectangle; bachelor includes male.

- Maybe there is nothing more to language than... well, language itself.
- When someone tries to explain you a new meaning, they paraphrase.
- So the meaning of a sentence is explainable by another sentence.
- Define the following: the meaning of a word is the set of all synonymous words.
- The meaning of a sentence is the set of all sentences that can be used instead.
- $\circ\;$ This explains the meaning facts quite nicely.
- But are there other meaning facts it does not explain?

The Mental Theory of Meaning

- One idea: meanings are something mental.
- Roughly: meanings are ideas; words and sentences express and evoke ideas.
- Ideas, roughly: the sort of thing that can be imagined.
- Is this any good?

- Some sequences of sounds/words have meaning, some others do not.
 - > Not everything evokes an idea.
- Some words/sentences are ambiguous.
 - > Some words/sentences evoke different ideas in different contexts.
- Some words/sentences are synonymous with other words/sentences.
 - > Some different words/sentences evoke the same idea.
- Some words/sentences include other words/sentences.
 - > This is a bit tricky here, without knowing more about what precisely 'ideas' are.

- I can never ideate abstract concepts, like 'cat'.
 - > I can imagine different particular cats, but never the abstract catness.

- It seems that meanings are objective in a sense that ideas are not.
 - > You and I assign the same meaning to 'sandwich', but my ideas are mine and your ideas are yours.
- Meanings are intersubjective in a sense that ideas are not.
 - > When you and I both understand the same sentence, we bear some relation to the same meaning.
 - > But our mental states are never the same.
- If I tell you *imagine a giant pink unicorn*, you all have different pictures in your head. But there is a commonality.
 - > That's the meaning.
 - > But the commonality isn't itself a picture.

- Here is another meaning fact.
- Meanings are normative: there are right and wrong ways to use words.
- But if I use a word to evoke an idea in you, in what sense can you get the *wrong idea*?
- It seems that whatever we use to judge whether you got the right idea is *actually* the meaning we are looking for.
 - > But is that meaning an idea?

- I can make my computer print out a list of grammatical English sentences. Some of them will be (a) sentences nobody has ever perceived and (b) meaningful.
 - > But (a) and (b) are incompatible with the "meanings are ideas" view. The idea expressed by such a sentence is in nobody's head.
- *Possible ideas* are not ideas.

- At best, meanings are not *concrete* ideas, but *types or specifications for ideas*.
- But types or specifications are not mental objects.
- So meanings are not mental objects.
- Take a moment to appreciate how fascinating that is.
- We have shown this: if meanings are things, they are things outside our minds.

- Let's for the moment be only concerned with declarative sentences.
 - > l.e. not questions, commands etc.
- Call the mind-independent object that (supposedly) records the meaning of a declarative sentence a proposition.
- But now we have just given a name to our confusion.

- There is *a lot more* to language.
- \circ Questions
 - > "Is it raining?"
- \circ Commands
 - > "Do your homework!"
- Declarations
 - > "I hereby declare you husband and wife!"
- Exclamations
 - > "Ouch!", "Oh my god!"
 - > "Julian!" (said by my mother when I do something stupid)
- But for the moment, focus on declarative sentences. ("Sophie is a professor.")

- An idea: propositions are the same sort of thing as *truths*, *facts* etc.
- That is, the sort of object that is referred to in *that*-clauses
 - > It is a fact *that* it is sunny in Yerevan.
 - > What did Daniel tell you? He told me *that* class starts at 10.
- The sort of thing that is referred to by *that*-clauses can be the object of your attitudes.
 - > Belief that, hope that, fear that, ...
- That sort of object is a proposition.
- Did we make progress?

- Some sequences of sounds/words have meaning, some others do not.
- The meaning of 'Snow is white' is the proposition (*that*) snow is white.
- But does that help?
- ?? The meaning of 'Sna snu fubs' is the proposition (*that*) sna snu fubs.

The Naming Theory of Meaning

- $\circ\;$ We have ruled out that a meaning is a concrete mental object.
 - > An idea-ish thing actually inside someones actual head.
- All ways out are self-undermining.
 - > Types of ideas, Possible ideas, Blueprints for ideas are all not mental objects.
- If a sentence has a meaning, its meaning is some mind-independent object.

- $\circ\;$ The second intuitive idea: words mean what they stand for.
 - > That's right, Daniel himself, trapped in the meaning of 'Daniel'.
 - > But at least Daniel is mind-independent, so that's progress.
- The *means* relation is like the *names* relation.
- 'Daniel' names (stands for) the person Daniel.
- 'Daniel' *means* the person *Daniel*.
 - > In better English: By the name 'Daniel' we mean the person Daniel.
- Some words fail to have meaning in exactly the same sense that some words fail to name someone.

- Intuitively, sentences stand in some relation to Truth and Falsity.
- "The claim *that*..." is subject to truth value assessment.
 - > Hey! That's another meaning fact! Some meanings can be assessed as true and false.
- Sentences are names for The True or The False.
- Whether any given sentence names The True or the False can be computed from the names in the sentence and how they are put together.
 - "X is Y" puts together two names and identity; so it names The True exactly if X and Y name the same.

- *It is sunny in Yerevan* and *2 is the only even prime number* are both true.
- $\circ~$ So they both name The True.
- $\circ~$ So they stand for the same.
- So they mean the same??
- $\circ~$ In fact, this doesn't even work for names!

- 'Mark Twain' and 'Samuel Clemens' name the same person.
- But 'Mark Twain is Mark Twain' and 'Mark Twain is Samuel Clemens' do not have the same meaning.
 - > Informativeness of identities.
- 'Pegasus is a flying horse' is *meaningful*, but 'Pegasus' does not seem to name anything.
 - > Meaningful empty terms
- 'Santa Claus does not exist' is *meaningful* and true as a matter of fact, but 'Santa Claus' does not seem to name anything.
 - > True non-existence claims

- We could say something like this:
- 'Mark Twain is Samuel Clemens' means that *the names* 'Mark Twain' and 'Samuel Clemens' name the same person.
- 'Pegasus is a flying horse' means that *the name* 'Pegasus' can only (if anything) name a flying horse.
- 'Santa Claus does not exist' means that the name 'Santa Claus' does not name anything.
- But (so Frege says) they are defective: the claims we make about the world are about the world and not about what words mean.

- We could (at least on the latter two points) say that Pegasus *is* (in some sense that makes him accessible for naming), but he does not *exist*.
- WVO Quine, On what there is:

[If you do that, you are] one of those philosophers who have united in ruining the good old word 'exist' ... [who] in an ill-conceived effort to appear agreeable, genially grant us the non-existence of Pegasus and then, contrary to what we meant by nonexistence of Pegasus, insist that Pegasus is. • Quine gets quite worked up over this:

[This] overpopulated universe is in many ways unlovely. It offends the aesthetic sense of us who have a taste for desert landscapes, but this is not the worst of it. [The] slum of possibles is a breeding ground for disorderly elements. Take, for instance, the possible fat man in that doorway; and, again, the possible bald man in that doorway. Are they the same possible man? How do we decide? How many possible men are there in that doorway? Are there more possible thin ones than fat ones? How many of them are alike? Or would there being alike make them one? Are no two possible things alike? Is this the same as saying that it is impossible for two things to be alike? Or, finally, is the concept of identity simply inapplicable to unactualized possibles? But what sense can be found in talking of entities which can not be meaningfully be said to be identical with themselves and distinct from one another? These elements are well nigh incorrigible. By a Fregean therapy of individual concepts, some effort might be made at rehabilitation; but I feel we'd do better do simply to clear [the] slum and be done with it.

- Frege: 'Mark Twain', 'the author of *Tom Sawyer*', 'Samuel Clemens' all name the same person, but they do so differently.
- It matters not just what is named, but also how.
- The *how* is what Frege calls the *sense* of an expression.
- But what are senses?

- Sentences are names for The True or The False, but they name Truth and Falsity in different ways.
- Sentences have a sense which is how they present Truth or Falsity.
 - > The "thought" or "proposition" expressed by that sentence.
- The sense of a sentence is computed from the senses of the names that feature in it.
 - > "Frege's Principle" or "The Principle of Compositionality".

The Description Theory of Meaning

- Here is another meaning fact:
- We *learn* meanings. We also learn names.
- How can I tell you about my friend Thomas?
- By pointing ("this is Thomas!")
 - > But, alas, he's not here.
- By description ("I have a friend Thomas, *who is* a philosopher, lives in Amsterdam..."

- Maybe, when I tell you that Thomas share and office ...
- ... you substitute in your head *The person named 'Thomas' who is* a friend of Julian's, is a philosopher, lives in Amsterdam ... shares an office with Julian.
- This does not seem implausible at all, particularly for historical figures.

- Russell's *Name Claim*: names are actually descriptions. "names" is a relationship between a name and a description.
- How *exactly* do you think you are acquainted with the person *Socrates*?
- If I ask you, who is Socrates, how do you answer?

- Mark Twain is Samuel Clemens.
- The person named 'Mark Twain' who wrote *Tom Sawyer* and ... is the same person as the person named 'Samuel Clemens' who
- Sounds informative!

Sherlock Holmes is (. . .) a brilliant London-based "consulting detective", Holmes is famous for his astute logical reasoning, his ability to take almost any disguise, and his forensic science skills to solve difficult cases. (Wikipedia)

• That sounds meaningful, regardless of whether there is someone of that name.

- "Sherlock Holmes does not exist" = "there is no person matching the description"
- That sounds true, meaningful and informative!

During the Golden Age of Pure Semantics we were developing a nice homogeneous theory, with language, meanings, and entities of the world each properly segregated and related one to another in rather smooth and comfortable ways. (David Kaplan)

- On the description theory, meanings are ontologically innocent.
- Descriptions are descriptions are descriptions, quite independently of the world.
- Grasping propositions from the armchair.

THERE IS GREAT BEAUTY AND POWER IN THIS THEORY.



(still David Kaplan)

The Golden Age and the Fall

- A logic of perfectly general platonic propositions.
- $\circ~$ We need not concern ourselves with reality to do semantics.
 - > No worldly casualties, no psychological dirt.
- Historical figures.
 - > How can we refer to Gottlob Frege? He is the author of Begriffsschrift, in which he invented modern predicate logic. We cannot point at the guy, but we can refer to him. We have identifying descriptions.
- Contingent identity statements.
 - It is informative to say that Gottlob Frege, the author of Begriffsschrift, is also the author of Die Grundlagen der Arithmetik, and this is something one might not have known.

Enter Saul Kripke (Naming and Necessity)

Kripke's Characterisation of Descriptivism

- 1. To every name or designating expression 'X', there corresponds a cluster of properties, namely the family of properties ϕ such that A believes ' ϕ X'.
- 2. One of the properties, or some conjointly, are believed by *A* to pick out some individual uniquely.
- If most, or a weighted most, of the φ's are satisfied by one unique object y, then y is the referent of 'X'.
- 4. If the vote yields no unique object, 'X' does not refer.
- 5. The statement, 'If X exists, then X has most of the ϕ 's' is known *a priori* by the speaker.
- 6. The statement, 'If X exists, then X has most of the ϕ 's' expresses a necessary truth (in the ideolect of the speaker).

(2) One of the properties, or some conjointly, are believed by *A* to pick out some individual uniquely.

In fact, most people, when they think of Cicero, just think of a famous Roman orator, without any pretension to think either that there was only one famous Roman orator or that one must know something else about Cicero to have a referent for the name. (p. 81)

Consider Richard Feynman, to whom many of us are able to refer. He is a leading contemporary theoretical physicist. ... However, the man in the street, not possessing these abilities, may still use the name 'Feynman'. When asked he will say: well he's a physicist or something. (p. 81) (3) If most, or a weighted most, of the φ's are satisfied by one unique object y, then y is the referent of 'X'.

In the case of Gödel that's practically the only thing many people have heard about him—that he discovered the incompleteness of arithmetic. Does it follow that whoever discovered the incompleteness of arithmetic is the referent of 'Gödel'? (p. 83)

What do we know about Peano? What many people in this room may 'know' about Peano is that he was the discoverer of certain axioms which characterize the sequence of natural numbers, the so-called 'Peano axioms'.
(...) So on the theory in question the term 'Peano', as we use it, really refers to—now that you've heard it you see that you were really all the time talking about—Dedekind. But you were not. (p. 85)

- (5) and (6): descriptions are *a priori* and necessary.
- Nothing necessary follows a priorily from naming.

I think that my belief about Gödel [that he discovered the incompleteness of arithmetic] is in fact correct and that [that someone else called Schmidt did] is just fantasy. But the belief hardly constitutes a priori knowledge. (p. 87)

• No necessity follows from the use of the name 'Gödel' either, let alone that this necessary truth is known a priori.

- The meaning of a name consists in the necessary and sufficient conditions for being the referent of the name.
 - > E.g., "Frege" := "the person who invented predicate logic."
- Hence, "Frege invented predicate logic." is
 - > necessary,
 - the sentence ascribes Frege an essential property,
 - > a priori,
 - ► it follows from the definition of "Frege".
- Wait ... what? Isn't that strange?

- Saul Kripke in his landmark book *Naming and Necessity* continues:
- "Frege invented predicate logic."
- Such a statement is not necessary.
 - > *He* might not have done it.
 - > This is strike one.

[The modal argument.]

- Such a statement is not a priori.
 - > It is something you could have been unable to know.
 - > This is strike two.

[The epistemic argument.]

- Suppose that, after all, it was Charles Sanders Peirce who invented predicate logic really.
- According to the classical conception
 - > "Frege wrote the Begriffschrift."

would be about Peirce, and not about Frege—and hence be false.

This is strike three.
 [The counterfactual argument.]

Three strikes is Out.

 \gg This conception of the meaning of names is wrong.

- (2–4) That Frege is the referent of "Frege" is independent of the fact that Frege satisfies a certain description. (That was strike 3.)
 - (5) We do not know *a priori*ly that he has the associated properties. (S. 2.)
 - (6) And surely they are no essential, necessary, properties. (S. 1.)

- $\circ\;$ Kripke's complaint can be appreciated as follows.
- Descriptions are non-rigid: in different possible or hypothetical circumstances, *the inventor of predicate logic* may designate different people.
- But names are rigid: Gottlob Frege always designates Gottlob Frege.
 - > Not the bearer of the *name* "Gottlob Frege", but the *person*.
 - > Gottlob Frege may not have been named "Gottlob Frege".
 - > Gottlob Frege is a rigid designator; The person named "Gottlob Frege" is a nonrigid designator.
- This difference is not reconcilable.



- This is a harsh defeat. Descriptivism lost.
- There is A LOT LOT LOT more to say about all this, though.

The Truth-Conditional Theory of Meaning

- Frege: declarative sentences are names for True and False.
- A proposition is the sense of a dec sentence, so the meaning of a sentence is *how* the True or the False is named by a sentence.

You know the meaning of a sentence by knowing in which circumstances it is true. (Or: by knowing what the world has to be like for it to be true.)

 $\circ~$ We don't need all the talk about names to think of it like this.

- Stalnaker: a proposition can be true or false at different circumstances ("worlds").
 - > The meaning of a sentence is a function from worlds to truth values.
- Words have compositional content.
 - > (Richard Montague)
- Properties are functions from worlds to sets of things.
- *The X* is a function from worlds to a thing that is X in that world.
- Names directly denote things.

- Now we're back to this:
- o "Mark Twain is Samuel Clemens."
- Descriptions and names designate individuals very differently.
 - > A description goes into a world and finds the described person.
 - > A name designates a person (and then you go into particular worlds to find that persons properties).

- One solution: abstract once more. Say that sentences are names for propositions.
- So the meaning of a sentence is a function from worlds to propositions.
 - > This is unhelpfully called a *propositional concept*.
- $\circ~$ And a proposition is (still) a function from worlds to truth values.

- This means that the same sentence can express different propositions in different worlds.
 - > Names.
 - > I am here now.
- So evaluating whether *Yerevan is the capital of Armenia.* is a two-step process.
- Find the thing X that is designated by Yerevan in your world. And the thing Y that is designated by Armenia. Get the proposition X is the capital of Y.
- 2 Find out whether that proposition is true at your world.

The (?) Social Theory of Meaning

Daniel knows the meaning of 'sandwich'?

• What do we know about Daniel?

- Speech Acts
- JL Austin (*How To Do Things With Words*): speaking is a form of acting.
- Many, many sentences do not have truth-conditions, but instead do something that can succeed or fail.
- asking, commanding, marrying, declaring (war), apologising, greeting, ...
 - > What would be the truth-condition of "hello"?
- Names themselves do not denote; they can be used to denote.

- Recall a meaning fact:
- Meanings are normative: there are right and wrong ways to use words.
- Normative by what rules?
 - > Social rules!
- There are certain conditions on making acts with words: for instance, if you want to marry two people, you have to be ordained.
 - > These are called felicity conditions.

• For every speech act there is a conventional procedure (a tradition or custom, if you will).

Felicity Conditions (adapted from JL Austin)

- Misinvocations
 - A.1 There must be a conventional procedure having an effect.
 - A.2 The circumstances must be as specified by the procedure.

Misexecutions

- B.1 The procedure must be executed correctly by all participants.
- B.2 The procedure must be executed completely by all participants.

$\circ \ \text{Abuses}$

- C.1 The participants must have the requisite thoughts, feelings and intentions as specified by the procedure.
- C.2 The participants must conduct themselves appropriately in the consequent.

- You can explicitly perform speech acts using *hereby*.
- But not every act is a speech act.
 - > ✓I hereby apologise.
 - ► You have thereby apologised.
 - > XI hereby fry an egg.
- $\circ\;$ Not everything that happens linguistically is a speech act.
 - > **X**I hereby surprise you.
 - > XI hereby frighten you.

- A speech act is composed of three things.
- The locutionary act: the concrete event of producing some sounds.
- The illocutionary force: the type of act that the locution performs.
 - > threatening, warning, declaring, apologising...
- The perlocutionary effect: what the utterance causes in its audience.
 - > frightening, surprising, consoling...
- The verbs that go with *hereby* to indicate force are speech act verbs.

Types of Illocutions

assertives commit the speaker to the truth of a proposition. *e.g.* stating, reporting or testifying.

directives cause the addressee to perform a certain action. *e.g.* ordering, requesting, or asking.

commissives commit the speaker to a certain action.

e.g. promising, pledging or arranging appointments.

expressives express the speakers attitudes.

e.g. thanking, apologizing or offering condolences.

declaratives cause some property of the world to change. *e.g.* christening, convicting, or charging someone with a crime.

- Using speech act theory, we can do a bit more with propositions.
- We can say that assertives, directives and commissives all have propositional content.
- *It is raining, Is it raining?, Make it rain!* have the same content, but different forces.
- ... but maybe that is misguided.
 - > It doesn't seem to help for expressives and declaratives anyway.

- Maybe we should not ask for meaning... we should ask for purposes and rules.
- And purposes aren't things inasmuch as they are emergent from certain practices.
- What's a drill?
- What's a queen in chess?
- How is language used in ritualistic ceremonies?

Daniel knows how to use the queen in chess.

- What do we know about Daniel?
- That he has mastered a certain kind of rule-governed activity.

- A computer can play a game like chess.
- Per our intuitions, the computer can play chess.
- A computer can, for a short time at least, use language according to purpose and rules.
- Per our intuitions, the computer does not understand.
- Is this just a confusion?

- Language is open-ended in a sense that games are not / do not seem to be.
- What exactly would the rules be that govern a sentence you have never heard before?
 - > You need a compositionality again: the meaning of the sentence is constructed from the meaning of its parts.
 - > But what meaning!
- And how exactly can words that do not refer by themselves be used to refer?
 - > How does the practice connect up with the world?

- Amusingly, the meaning-is-use theories are great at explaining everything that the referential theories do not.
- But really bad at dealing with the stuff that motivated referential theories in the first place.

- Robert Brandom (*Making It Explicit*) has an idea.
- Social norms about games involve commitment and entitlement.
- If I promise to teach class tomorrow, I am committed to doing so (and you are entitled).
- $\circ~$ In the sense that I am subject to certain social sanctions.
- After a declaration ("you are hereby married"), you have certain commitments and entitlements in your social group.
- Now what about assertions? Assertions...
 - > Commit me to give reasons (a particular kind of language game)
 - > Entitle you to use what I asserted on my authority.

- Then the compositional meaning of words as used in assertions is given by inference rules.
 - > The rules of the game of giving reasons.
- The meaning of 'and': from *p* and *q* infer *p* and *q* (and vice versa).
- The meaning of 'bachelor': from *John is a bachelor* infer *John is male and unmarried* (and vice versa).
- This makes sense of the idea that meanings can be explained by paraphrase.
 - > But without identifying meanings with descriptions or paraphrases.

- All this seems to lead to the following: truth and falsity are not at stake, but at stake is what is socially sanctioned.
- $\circ~$ So where does the world come into it?
- Anti-realists (Dummett, notably): the world just does not come into it at all.

- The logical positivists (Rudolf Carnap *et al*) insist that a sentence is only meaningful if it being true or false has some sort of effect on our current or future experience.
- The meaning of a sentence is the set of experiences that would verify the sentence.
 - > And, maybe, also a second set of experiences about falsifying the sentence.
- Meaningless: *sna snu fubs*; *everything in the world just doubled in size*; etc.
- One conclusion: all scientific facts are only claims about certain measurements.
 - > The meaning of "there is no luminiferous aether" is "the Michelson-Morely experiment (and similar set-ups) gives a negative result"

Intermission: Worlds

- Modal realists say that possible worlds are as real as our actual world.
- 1. Let (*) abbreviate *It is possible that Frege didn't invent predicate logic*.
- 2. (*) is true.
- 3. If (*) is true, then something grounds that truth.
- 4. Nothing in the actual world grounds the truth of (*)
- 5. Hence, something in a non-actual world grounds the truth of (*).
- 6. Thus, there are non-actual worlds.
- (By arguments we know already, we can rule out that imagination grounds these truths.)

- $\circ\;$ Modal actualists say that only one world is real: this world.
 - > Rebuttal to modal realism: the logical/causal facts of the actual world ground counterfactual possibilities.

- What are propositions?
- Modal realists can say that propositions *are* sets of possible worlds.
 - > You have worlds, you define propositions.
- Modal actualists say that possible worlds are maximal propositions.
 - > You have propositions, you define worlds.
 - > But sets of possible worlds are still a fine way to *characterise* non-maximal propositions.

Some Puzzles about Moral Language

- Let *G* be the essential property that makes an act good.
 - > G could be "pleasurable" (hedonism), "happiness-maximising" (utilitarianism), "legal" (legal positivism)
- GE Moore: I can always ask "Yes, this act is G, but is it good?"
- The very fact that the question is open, shows that *G* does not characterise a truth-condition for goodness.
 - > Or so Moore says.

- 1. If stealing is wrong (as a matter of fact), then everyone has reason not to steal.
- 2. Some have compelling desire to steal and no fear of reprisal.
- 3. From (2), some have no reason not to steal.
- 4. From (1), (3), by *modus tollens*: it is not the case that stealing is wrong (as a matter of fact).

(JL Mackie)

- Moral language items have motivating power.
- If you think that *Murder is wrong* you may be disinclined to murder.
- If you think that *Giving to the poor is good* you may be inclined to give to the poor.
- Why is that?

The Expressivist Theory of Some Meanings

- Expressivism holds that some terms are not truth-conditional, but express attitudes.
 - > Notably: Ayer, Hare, Stephenson.
- For instance, wrong expresses moral disapproval.
 - > Roughly like *sorry* expresses regret or compassion (maybe).
 - > Or like *boo* expresses some sort of disapproval.
- This means that *this is wrong* expresses a certain kind of expressive (the category of speech acts).
 - > That is, "Murder is wrong" is like "Murder? Boo!" (booing)
 - > And "Charity is good" is like "Charity? Yay!" (yaying)

- Is this just subjectivism?
 - > (Murder is wrong = I don't like murder?)
- Not according to the expressivist:
- Murder is wrong stands to I don't like murder as Grass is green stands to I believe grass is green.
 - > You can disagree with *Murder is wrong* or *Grass is green*.
 - > But not with *I don't like murder* or *I believe grass is green*.

Consider:
(1) If lying is wrong, Bob is a bad person.
(2) Lying is wrong.
From (1) and (2): (3) Bob is a bad person.

- But what could be (if anything) the hypothetical expression of an attitude?
- It's not this:

(1') If I disapprove of lying, Bob is a bad person.(2) Lying is wrong.??From (1') and (2): (3) Bob is a bad person.

- $\circ~$ "Lying is wrong and grass is green."
- What does that sentence *do*?
- What kind of speech act is being performed here?
- "I am Julian and who are you?"
- "If you are Julian, then who am I?"
- What kind of speech act is being performed here?
- Is there a compositionality of speech acts?
 - > There is! It's called Discourse Coherence Theory, which is a topic for another time.