# The Theory Theory of Metalinguistic Disagreement

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# Overview

# 'Atom' Example

1. Ana: $\text{Atoms}_1$ are the smallest indivisible building blocks of nature.
2. Bruno: $\text{Atoms}_2$ are the smallest building blocks of nature with the properties of chemical elements.

- Problem 1: Why is a dispute about the meaning of 'atom' worth having? $\rightsquigarrow$ Plunkett&Sundell
- Problem 2: In which sense do Ana and Bruno talk about the same topic?

The theory theory addresses both questions.

# The Theory Theory of Metalinguistic Disagreement

- Every overt disagreement about an utterance is based on competing theories.
- Hence, every metalinguistic disagreement about an utterance is based on competing theories.
- A disagreement is substantial and worth having if at least one of the underlying theories is substantial and worth considering, i.e., if it carves out an aspect of reality we're interested in or should be interested in.

# Three Central Theses

## Interchangeability Thesis (IC)

There is no substantial difference between metalinguistic and substantive disagreement, because in all but trivial cases the two forms of disagreeing are (roughly) interchangeable.

## Operationalist Thesis (OT)

Measurement operations warrant topic continuity.

## Indirect Meaning Characterization Thesis (IMCT)

Whenever a term is not explicitly defined, a theory in which the term occurs will indirectly characterize the meaning of that term, as long as the term is the logical subject of a predication or is used for making quantified law-like statements.

# Interchangeability Thesis

1. Secretariat is an athlete. He's physically prow, fit, capable of winning competitions.
2. What it means to be an athlete is to be physically prow, fit, and capable of winning competitions.
3. $x$ is an athlete if and only if $x$ is physically prow & $x$ is fit & $x$ can win competitions.
4. 'athlete' means 'a person who is physically prow, fit, and capable of winning competitions.'
5. An athlete is a person who is physically prow, fit, and capable of winning competitions.

No quoting in 1 and 2, so not explicitly metalinguistic. Phrases like 'what it means to' have a strong metalinguistic flavor. 3 is metalinguistic, a definition of the predicate in some regulated jargon. 4 is metalinguistic, a definition of 'athlete' in terms of an English paraphrase. 5 is how we would usually express this definition. $\rightsquigarrow$ Although 1-5 do not mean the same, 2-3 and 4-5 are 'close enough' respectively.

# Indirect Meaning Characterization

- Within a given theory, any law-like statement partly determines the possible consequences of sentences containing the term.
- For example: 'All birds lay eggs.' is a law-like statement of the form $\forall x[B(x) \rightarrow E(x)]$.
- Not every expression is characterized by every other expression!
- For example: The meaning of 'all' is not indirectly characterized in the above example.

Note: I am presuming an *inferentialist conception of meaning*: The meaning of a term is constituted by the kind of inferences we can draw from sentences containing that term on the basis of lexical meaning from a shared lexicon, our background ontology, encyclopedic knowledge, and the local theory under discussion. So the borderline between semantics and pragmatics is blurred, but this need not worry us here.

# IMCT from a Logical Perspective 1

*Note: It seems better to do this semantically in a modal logic with sphere models.*

- K: background knowledge, ontology
- $T_1, T_2, \ldots$: Theories as sets of formulas in intended models. Assume for simplicity that the background ontology and theories are compatible with each other.
- Two perspectives:
  - Diachronic: Revision $(K_1 \cup T_1) * E_1 = B_2; B_2 = K_2 \cup T_2$
  - Synchronic: Compare $K_1 \cup T_1$ and $K_2 \cup T_2$
- Assume that $K$ remains constant, so only $T_1, T_2, \ldots$ are considered from now on.
- Assume that a unary predicate $P$ is characterized.
- Decomposition: $\forall x[P(x) \Leftrightarrow C_1(x) \wedge \cdots \wedge C_n(x)]$
- Write $Dec(P) = \{C_1, \ldots, C_n\}$

# IMCT from a Logical Perspective 2

- Let different $P$s correspond to the same nl predicate, e.g. 'democratic' or 'good'.
- Suppose $P_1$ is used in $T_1$ and $P_2$ is used in $T_2$.
- We may ask: $Dec(P_1) = Dec(P_2)$? Do $P_1$ and $P_2$ have the same decomposition?
- But wait! This is just a special case! Many other law-like statements may relate $P$ to $C_1, \ldots, C_n$.
  - Example 1: Postulate $\forall x[C_1(x) \wedge \cdots \wedge C_n(x) \rightarrow P(x)]$
  - Example 2: Most $x$ that are $C_1$,...,$C_n$ are also $P$.
- We may ask more generally: What are the consequences of using $P$ in theory $T_1$ as opposed to $T_2$? [conditional entailments of $P$ in $T_1$ and $T_2$]

# Is Conditional Entailment Too Fine-grained?

Yes:

- Many changes from one theory to another affect the consequences of using some predicate.
- We only take *some* possible decompositions as meaning-constitutive for an expression.
- In reality, we also have graded beliefs / epistemic entrenchement.
- We use those features of *P*-ers as defining features of which we are very certain.
- There are almost certainly other criteria: essential vs. accidental properties, intrinsic vs. extrinsic properties, what explains '*P*-ers', what fits into the overall taxonomy, theory-internal adequacy of definitions, etc.

# Topic Continuity: What's the problem?

## Strawson's Challenge

Strawson (1963) vs. explication in Carnap (1950): By replacing one definition of a term with a more precise and fruitful explication, you are changing the topic.

The problem is most pressing with cases of meaning substitution. Examples: Nazi's on 'race' versus social identity theory of race; Haslanger (2012) on 'woman' (semantic amelioration, disruption); traditional family vs. modern family.

# My Take on Topic Continuity

1. Measurement operations are associated with terms, though often not part of their meaning.
2. Example: 1 meter
   - Urmeter $\mapsto$ definition based on wavelength of light from Krypton-86 source $\mapsto$ length light travels in 1,299,792,458th of a second in vacuum.
   - In all cases, when we *measure* 1 meter it will be roughly the same length.
3. Example: 'black people', 'white people'
   - Pseudo-biological racist definitions by Nazi's like Hans F. K. Günther are totally different from modern approaches based on self-identification and/or social roles.
   - In both approaches spurious physical properties like skin color play a role. For example, not every member of a black community will accept a very pale person who self-identifies as black as one of theirs.

# Rough Equality

- Different speakers may associate different measurement operations with a term.
- Measurement operations only need to roughly agree on the extension they measure in order to warrant topic continuity.
- Same topic $\sim$ roughly talking about the same set of entities
- The account is very similar to Cappelen's, though he does not talk about operations (operationalisations) in the sense of Bridgman's (1927) *operationalism*.

# Testing for Theory Compatibility

To test whether $T_1$ and $T_2$ remain compatible in a metalinguistic dispute about term $\alpha$, I suggest a variant of Chalmers's paraphrasing test:

- Rename $\alpha$ in $T_1$ to $\alpha_1$ and in $T_2$ to $\alpha_2$ and call the results $T_1', T_2'$.
- Are $T_1'$ and $T_2'$ compatible with each other?

Conjecture: Competing *scientific* theories will likely be incompatible according to this test. But many everyday theories / opinions may well turn out to be compatible with each other.

# Theories and Topic Continuity

1. No Topic Continuity + Compatibility: There is a potential confusion about the topic. The discussion might still be worthwhile, if at least one of the theories is important.
2. Topic Continuity + Compatibility: The theories highlight different aspects of the same topic. Whether both, none, or only one is endorsed depends on their theory virtues.
3. Topic Continuity + Incompatibility: Prefer one theory over the other or remain agnostic. You cannot fully endorse both theories at the same time.
4. No Topic Continuity + Incompatibility: This may indicate a more fundamental problem with theorizing and may lead to a choice based on theory virtues or to widening the investigation.

Only cases 1 and 2 can lead to talking at cross-purpose.

# The Issue with Semantic Primitivism

Hardcore externalism as semantic primitivism:

- 'Water' means $H_2O$.
- 'democratic' means the characteristic function of the set of all democratic things
- 'good' means the characteristic function of the set of all good things
- $[\![Bom(x)]\!]^{M,g}_{c,i} =$

$$\begin{cases} 1 \text{ if } g(x) \text{ is good in context } c \text{ at modal index } i \\ 0 \text{ otherwise} \end{cases}$$

# Does it make a difference?

No!

- *Democracy is good, because* $R_1, \ldots, R_n$.
- (1) $\forall x[R_1(x) \wedge \cdots \wedge R_n(x) \rightarrow Good(x)]$
- Justifications are like instantiations of law-like statements!
- (1) is part of a theory of certain readings of 'good' (in context, ceteris paribus, simplified, and so on).
- (2) Criteria for calling something 'good' $\sim$ (3) law-like statements that relate $Good(x)$ with criteria $R_1, \ldots, R_n$
- The difference is merely that (2) quotes an nl expression, whereas (3) does not.
- But according to IC the difference is insubstantial.

# The Relativist Objection

Is this just contextualism, where theories form the context?

- Aren't Ana and Bruno talking cross purpose?
- Remember, according to IMCT Ana's use of 'atom' has a different meaning than Bruno's.
- Reply 1: We are able to keep track of other people's definitions and theories with an uncanny precision.
- Reply 2: Only when the two theories are compatible with each other can there be some kind of talking at cross purpose / faultless disagreement. The other two cases are substantial disagreements.
- Reply 3: (No) Topic continuity + Compatibility disputes can be worthwhile, too. In the end, the merits of the theories decide.

# Global Meaning Change Holism: It doesn't exist.

- If Ana learns Bruno's theory, doesn't that mean that the implied meaning change of 'atom' changes the meaning of all other terms in an ever so subtle way?
- Global Meaning Change Holism (GMC): If the meaning of one concept changes, the meaning of all other concepts is affected, for they are all connected by relations and law-like statements in the common sense ontology and by encyclopedic knowledge.
- Reply 1: Psychologically, this is implausible, even if we're talking about associative meaning (Leech) only. The effect should diminish with increased distance.
- Reply 2: GMC is false in a logical theory. Logically independent statements of a theory do not affect each other.

# Summary

- It barely matters whether we disagree about the meaning of terms or in terms of the terms' meaning.
- The underlying dispute is always about theories (opinions, sets of beliefs, world views, . . . ).
- Measurement operations may warrant topic continuity.
- A dispute may be substantial and worth having even without topic continuity, if at least one of the theories involved is important for our way of conceiving reality.
- We judge the quality of theories by their theory virtues - see Keas (2018) for a good taxonomy.
- Without taking into account the agents' background knowledge and beliefs, overt disagreement at sentence-level cannot be explained in any insightful way.

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