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**Natural Language Ontology**

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**1. Natural language ontology as a practice and as a discipline**

Appeal to natural language by philosophers thoughout the history of philosophy

Many philosophers throughout the history of philosophy have appealed to natural language to support an ontological category, notion, or structure.

Often not consistently so:

Frege: for numbers being objects, not for truth values being objects

Philosophers have appealed to certain linguistic data, but not others for that purpose.

Examples of appeals to natural language to support of a philosophical view:

* Medieval philosophers when arguing for nominalist / platonist views
* Twardowski when arguing for a cognitive notion of a truth bearer
* Frege when arguing for numbers or propositions being objects
* Many philosophers of language or mind today when arguing for propositions

A general view

Natural language involves its own ontology (ontological categories and structures), an ontology that may be different from the one a philosopher may be willing to accept or that would be needed for particular sorts of purposes, such as the development of particular scientific theories.

Cases of discrepancy:

Existence (Hacker 1982, Cresswell 1986, Fine 2006, Moltmann 2013d):

(1) a. The house still exists.

 b. The largest prime number does not exist.

(2) a. ??? The rain still exists.

 b. ??? John’s death existed yesterday.

Variable objects (Fine 1999, Moltmann 2013b, to appear b):

(3) a. The president of the US is elected every four years.

 b. The water in the container has increased.

 c. The height of the water level has increased.

 d. The quality of her writing has improved.

 e. The book John needs to write must be short.

Complex tropes (Moltmann 2013b)

John happiness (vs John’s being happy), John’s tallness (vs John’s height), Mary’s strength vs Mary’s weakness

Other cases

Artifacts: doors, homes, cities etc (Chomsky 1998)

*The average /typical American, the ideal student*

 A common view about the ontology of natural language

Natural language involves a wealth of referential permitting reference to a great range of abstract, minor, and derivative objects, many of which are unacceptable or at least problematic philosophically

Development of contemporary theoretical linguistics

The ontology of natural language becomes a subject matter of investigation in itself.

The ontology of natural language: the ontological categories, notions and structures implicit in natural language

Natural language ontology or natural language metaphysics:

the discipline whose aim is to uncover the ontological categories, notions, and structures implicit in natural language, as a part of both natural language semantics and metaphysics.

Natural language ontology contrasts with:

* Ontology for a particular purpose or the ontology involved in a particular scientific theory
* The ontology of what there ‘really’ is, involving fundamental ontological categories and structures

Strawson (1959)

Descriptive metaphysics: aims to uncover our shared conceptual scheme, or better the ontological categories and structures as we implicitly or ordinarily conceive of them

Revisionary metaphysics: aims to conceive of a ‘better’ ontology, for particular purposes

Fine (to appear)

Shallow metaphysics, naïve metaphysics: the metaphysics of appearances, reflected in language or otherwise in our not language-driven judgments

Foundational metaphysics: the metaphysics of what there ‘really’ is

Fine’s point:

Foundational metaphysics presupposes naïve metaphysics. It cannot do its foundational work before the notions of naïve metaphysics, which it aims to explain in more fundamental terms, are clarified. Naïve metaphysics should be pursued without considerations of foundational metaphysics

Chomsky (1998)

Natural language terms do not involve reference to real objects, but just lexical/conceptual structures deployed by speakers in particular contexts.

Chomsky’s abandoning of reference is misguided:

Natural language ontology as a branch of naïve metaphysics in Fine’s sense is about apparent objects of reference and their apparent nature, not about ‘real’ objects and their ‘real’ nature.

*Refer* as an intentional transitive verb.

Some doubts about Fine’s way of separating the two branches of metaphysics

Naïve metaphysics / natural language metaphysics cannot be pursued without considerations of what judgments / sentences are true and what sorts of features of reality contribute to them being true.

Some doubts about Chomsky’s view

Referential terms may stand for derivative entities grounded in reality, ‘below’ their descriptive content. Thus, conceiving of those objects as composed of lexical/conceptual features won’t work.

Ways of dealing with the wealth of kinds of objects displayed by referential terms in natural language

* consider the contested entities to be ‘language-created’ or ‘pleonastic’ entities
* properly analyse natural language and arrive at a different view of the ontology natural language involves
* accept and make sense of the rich ontology of natural language

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**2. How to characterize the ontology of natural language?**

How to characterize the ontology of natural language, the ontology that is implicit in natural language, i.e. presupposed by the use of natural language.

First proposal

(4) a. The ontology of natural language is the ontology accepted by ‘ordinary’ speakers

 (nonphilosophers).

But ordinary speakers may engage in reflections upon what there is and the nature of things and accept ontological views not compatible with that reflected in natural language.

Distinguish between implicit and explicit acceptance.

Second proposal

(4) b. The ontology of natural language is the ontology speakers implicitly accept.

But at least part of the ontology of natural language may be driven by the meaning or use of natural language itself.

Examples:

* definite NPs that define variable objects
* mass-count distinction (the rice - the rice grains - the heap of rice)
* Schiffer (1996, 2003): pleonastic entities
* discourse-driven ontology of discourse referents as entities individuated by the flow of discourse (Karttunen 1976, Landman, Edelberg)
* information-based part structures of pluralities and quantities (Moltmann 1996)

Third proposal

(4) c. The ontology of natural language is the ontology a speaker implicitly accepts *when*

using natural language.

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**3. What sorts of linguistic data should natural language ontology take into consideration?**

**3.1. Presuppositions vs assertions**

Statements that natural language ontology should not take into consideration:

(5) a. There are propositions.

 b. Events are property instances.

 c. Numbers are objects.

(6) a. That 2 is prime is a proposition.

 b. John’s arrival is an event.

 c. Three is a number.

Criterion 1

The ontology of natural language is reflected in presuppositions, not asserted contents of commonly used sentences (sentences not uttered as a result of philosophical reflection).

Examples of ontologically relevant presuppositions

Lexical presuppositions, semantic selectional requirements

Existence predicates

Events vs. objects (Cresswell 1986, Fine 2006, Moltmann 2013c):

(7) a. John’s arrival *took place* yesterday.

 b. ??? John’s arrival *existed* yesterday.

(8) a. ??? The building *took place* last year.

 b. The building *existed* last year.

Other predicates

Actions vs products (Twardowski 1912, Moltmann 2013b, 2014, to appear a):

(9) a. John’s claim is true.

 b. ??? John’s speech act is true.

(10) a. John kept / broke his promise.

 b. ??? John kept / broke his speech act.

Facts vs events (Vendler 1967)

(11) a. John observed Bill’s arrival.

 b. ??? John observed the fact that Bill arrived.

Lexical presuppositions are important for identifying and characterizing ontological categories that are part of the ontology of natural language.

**3.2. Identity statements**

Frege: Referential terms have the ability of ‘flanking the identity symbol’

Relevant identity statements

(12) a. The number of planets is eight. (Frege)

 b. John’s belief is that 2 is prime.

(13) a. ??? John’s remark is his belief. (Moltmann 2013b)

 b. ??? The number of planets is the number nine. (Moltmann 2013a, b)

Irrelevant identity statements

(14) a. The number nine is the number nine.

 b. The proposition that it is raining is the proposition that John believes.

(15) a. The number nine is nine.

 b. The proposition that S is what John believes.

Criterion 2

The ontology of natural language is reflected identity statements not involving technical terms or more generally terms in *the periphery of language*.

Less relevant for the ontology of natural language:

Sentences with ‘technical or quasi-technical terms

The construction of ‘reifying terms’ (Moltmann 2013a, b)

(16) a. the number nine

 b. the concept horse

 c. the truth value true

definite determiner – sortal – nonreferential material

Analysis as a quotational construction:

(17) a. the word ‘nine’

 b. the noun ‘horse’

 c. the adjective ‘true’

Similar construction / semantics

(18) the proposition that S

Periphery vs core of language (but not in the sense of Chomsky 1986!)

Reifying terms belong to the periphery, not the core of language.

(19) The ontology of natural language is reflected in the *core* of language, not its *periphery*.

Yet, the possibility of using the periphery of language, extending natural language with the use of philosophical terms, must also be accounted for.

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**4. Referential terms and the ontology of natural language**

Frege’s criterion of objecthood

An object is what a referential term stands for.

Standard criteria for the syntactic role of NPs as referential terms:

* Support of anaphora
* Replaceability by quantifiers
* Ability to occur with extensional predicates (including identity predicates)

Ordinary and special quantifiers

(20) a. Socrates is wise.

 b. Socrates is something admirable.

 c. ??? Socrates is some admirable property.

*Something admirable*: special quantifier

*Some admirable property*: ordinary quantifier

The Meinongian claim

Referential terms and quantification are not ontologically committing.

Problematic data -- statements of a philosophical view:

(21) There are things that do not exist.

Relevant data:

(22) a. The building mentioned in the guide does not exist. (Moltmann 2016)

 b. There is a building mentioned in the guide that does not exist.

 c. ?? There is a building that does not exist.

(23) The ontology of natural language involves a domain of conceived objects and objects

 speakers conceive of being conceived objects

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**5. Other ways for entities to be involved in the semantic structure of sentences**

Implicit arguments

Davidsonian event semantics: events as implicit arguments of verbs

Events as semantic values of referential terms: nominalizations of verbs

(24) a. John walked slowly.

 b. John’s walk was slow.

Tropes as implicit arguments of adjectives and semantic values of adjective nominalizations:

(25) a. John was extremely happy.

 b. John’s happiness was extreme.

Degrees, contextual standards as implicit arguments of adjectives

Modes of presentation

Contexual parameters of evaluation (and truthmakers)

Times, worlds, situations, taste parameters etc

Difference in degrees of objecthood among:

* entities that are semantic values of referential terms
* entities that are only implicit arguments
* entities that are only parameters of evaluation

Why?

* Degrees of acceptance go along with different semantic roles?
* (General) count status of referential terms?

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**7. The importance of natural language ontology**

**7.1. Rectify philosophical prejudices regarding natural language**

The common view

Natural language allows for reference to a wealth of abstract objects, such as properties, propositions, numbers, degrees, word types.

However, a more thorough and deeper analysis of natural language indicates that the view is fundamentally mistaken.

Moltmann (2013b)

The ontology of natural language is much more particularist. In its core, natural language does not permit reference to abstract objects, but only reference to particulars:

* Tropes or trope-like objects (including quantitative tropes, number tropes),
* Pluralities of particulars (including modalized pluralities or kinds),

e.g. *wisdom* is a term standing for a the plurality of (possible) wisdom tropes

*the number of planets* stands for a manifestation of ‘being eight’ in the planets

Moreover many occurrences of expressions are wrongly considered referential:

* Quotations are generally nonreferential,
* Predicative and sententential complements (and subjects) are nonreferential
* Moltmann (2014, to appear): More generally, sentences are not terms for propositions, but predicates of modal or attitudinal objects

An important purpose of natural language ontology

Clarify what the ontology of natural language really involves before rejecting it!

Further purpose

Provide accurate analyses of linguistic data when those are taken to motivate a philosophical view

Example 1

The relational analysis of attitude reports:

*that-*clauses as referential terms providing a propositional argument for an attitudinal relation?

Various views in philosophy of language and mind are based on that view of the logical form of attitude reports

But the logical form of attitude reports may be a very different one, involving sentences predicated of attitudinal objects.

Example 2

Some apparent identity statements are better considered as specificational sentences (Higgins)

Specificational sentences express question – answer relation, not identity among objects

(29) a. What John is is happy.

 b. ‘What is John’ – ‘John is happy’.

Applications:

(30) a. The number of planets is eight

 b. What number of planets is there? -- There are eight planets’. (Moltmann2013a)

(31) a. John’s belief is that S.

 b. ‘What does John believe’ – John believes that S.

Yet another purpose

The ontology of natural language may for some areas be the right one -- presumably for propositional attitudes

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