Philosophy of Language: Natural Language Ontology

Friederike Moltmann

Université Côte d'Azur

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Handout 9

The Chomskyan Challenges to Referentialist Semantics 1

1. The standard semantic view about truth and reference

Sentences have truth conditions.

Semantics aims (among other things) at giving truth conditions for sentences.

Objects of reference play an important in truth conditions of sentences.

Referential NPs

The standard semantic view in linguistics and philosophy (Frege):

Referential NPs serve to stand for objects; objects are arguments of predicates.

Semantic composition involves the application of predicates to objects, to give truth values.

Quantificational NPs

Standard (nonspecial) quantificational NPs: range over objects that are potential arguments of predicates.

Anaphora

Stand for objects, as variables or as referential NPs

The Chomskyan view about semantics

[1] 'Referential NPs' do not refer to entities in the world.

 'Referential NPs' do not stand for entities at all, not even merely conceived ones.

Semantics cannot be referentialist semantics: truth and reference play no role in semantics

[2] Semantics can only involve another level of representation, a level of cognitive representation, and thus another level of syntax.

Semantics must be internalist, not externalist.

Semantic composition can only be a form of concept composition.

Presuppositions of Chomsky's view

1. *Reference* is a relation between expressions and entities in a mind-independent reality.

2. *Entities* are mind-independent beings that occupy a particular spatio-temporal location and are subject to standard conditions on property-attribution.

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2. Reference as a relation between expressions and entities in a mind-independent world?

'Refer' in natural language is also an intentional verb (Moltmann 2018) or intensional verb (d'Ambrosio 2019):

(3) a. John referred to a ghost.

    b. John referred to the woman described in the novel.

My conclusion

Reference does not require actual entities, but may apply to intentional objects.

D'Ambrosio's conclusion

Reference relation conveyed by *refer* is compatible with externalist and internalist semantics.

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3. Some Chomskyan examples

3.1. Standard examples of artifacts

Ships: can be rebuild with different material (ship of Theseus), thus are not identical to particular physical entities.

Houses: likewise can be rebuild at different locations.

3.2. Doors, windows

What we refer to as a 'door' could be painted, replaced, and walked through, properties that could not be attributed jointly to material objects as standardly understood.

3.3. Home vs. house

Chomsky: What we refer to as a 'home' may have peculiar combinations of properties:
one can own or sell a home, but not paint a home, in contrast to a house.
But how can houses and homes be distinct objects in an external world?

3.4. Water vs. H20

Chomsky: 'Water is not H2O'
- What we refer to as 'water' can be dirty, polluted, but not so H20
- Sprite has the same chemical composition as tap water, but unlike tap water, sprite is not water.
Conclusion:
'Water' is not individuated as a physical substance in an external mind-independent reality, but depends on its function within our daily life.

3.5. More general conclusion

Apparent objects of reference include:
- Various spatio-temporally coincident and materially coincident 'entities'
- 'Entities' that bear contradictory properties and do not fulfill standard conditions on individuation, and hence could be objects as standardly understood
- 'Entities individuated by their intended function and that thus are mind-dependent

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4. Fine's (1999, 2020) theory embodiment

4.1. Rigid and variable embodiments

Rigid embodiments

Consist of entities and their structural relations

Variable embodiments

Involve a function from locations to rigid embodiments

Examples of rigid embodiments

- ' The water in the container right now'

- Words, as composed of phonemes

- The married couple of John and Mary

Examples of variable embodiments

- 'The water in the container'

- 'The president of the US'

- Artifacts: ships, houses, chairs, sculptures etc

- Organisms: bodies, trees

- A nuclear family: John, Mary and their children

The idea of the theory of embodiments (Fine 1999)

Associate with an object o a form F, a function from times to realizations of o

Rigid embodiments: F is a constant function

Variable embodiments: F is a not constant function

E.g. the president of the US p: $F_p(t)$ the president of the US at t

4.2. Fine (2020): Social Groups

4.2.1. Location

Example: All Souls College

The puzzle:

All Souls College is located where the building is located.

All Souls College consists of fellows, who make take vacations in various places.

But their locations are not the location of the college.

The solution:

All Souls college consists of the building on Broad Street and its fellows.

But the building will be a spatial part, and the fellows the temporal parts.

All Souls College is manifested at any given time by a rigid embodiment composed of the fellows and the building:

The rigid embodiment will be where the building is and not necessarily where the fellows are.

And so for the corresponding variable embodiment:

All Souls College *inherits* its location from its spatial parts (at a time), but not its temporal parts.

4.2.2. Mixed character

Example: France as a geographical area and as a social entity

Apparent contradictory properties:

(1) a. France is hexagonal.

    b. France is a member of the UN.

France is ambiguous?

France does not refer? (Chomsky)

Linguistic arguments for there being a single referent – a variable embodiment

(2) a. The entity which the person visited is the very same entity which is a member of the United Nations.

    b. Joe visited a country that recently became a member of the UN.

'France' as a variable embodiment

For time t at which France exists:

$F_f(t)$ the geographical region at t (spatial parts) + political entity at t (temporal parts)

4.2.3. Structure

Example: a committee

- Can have different members at different times
- Can be structured differently into sub-committees at different times

<u>A committee c as a variable embodiment</u>

For times t at which c exists:

$F_c(t)$ = the rigid embodiment of c with structure S

The same structure S for all times t at which c exists: S is essential to c

Not the same S for all times t at which c exists: S is not essential to c.

A *structure* is essential to rigid embodiment manifesting a variable embodiment.

If having a structure S is a constraint on all rigid embodiments, then S is essential to the variable embodiment.

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Handout 10

The Chomskyan Challenges to Referentialist Semantics 2

1. Paul Pietroski's elaboration of the Chomskyan view of meaning

The view of semantic internalism (Chomsky, Pietroski)

Semantics cannot be about the relation between expressions and things in the world, but only about another level of representation, that of (complex) conceptual structure.

Point of departure

Nouns like *book, county* (country names), *window* are polysemous.

Some predicates apply to one concept, other to another concept.

(1) a. The book is heavy, but it is interesting.

b. France is hexagonal, and it is a republic.

c. John entered through the window after breaking it.

Book: material object – content

Country: geographical region – social organization

Window: opening (aperture-sense) – sheet of glass (pane-sense)

Polysemy vs. homophony (*bank*)

Polysemous expressions allow for co-predication:

(2) a. The book is interesting, but very heavy.

b. France is hexagonal and a republic.

c. John entered through the window after he had smashed it.

Homophonous expressions do not allow for co-predication:

c.   ??? John sat on a bank, at which he has an account.

Pietroski's theory

Lexicon consists of 'addresses' associated with words: 'conceptual instructions' or 'recipes' for building complex concepts.

In *semantic interpretation* (translation of natural language sentences into conceptual structures), one of the concepts in the address is retrieved, in the formation of largely *conjunctive complex concepts*.

Polysemy of *book*: arguments in favor

Incompatible predicates:

(4) a. a small book

  b. a short book

Different readings of predicates:

(5) a. The book is nice

   b. The book is light.

Different readings of *part of*:

(6) a. John burned part of the book.

   b. John knows part of the book.

Counting:

(7) a. There are ten books on the shelf (five copies of two books).

   b. John read the books on the shelve : he read two books.

Issues for the polysemy account of *book*

1. Plausibility of the polysemy

(8) a. ??? John likes the book that is on his shelf better than the book he just read.

  b. ??? The book on the table is more interesting (as a material object) than the book that
       got reviewed in the newspaper.

   c. ?? John likes the country he travelled through better than the country he read a
      history of.

2. Applicability of some predicates

(9) a. John *wrote* a book.

   b. ??? John *wrote* the content of a book.

Writing produces something concrete, but the product is also abstract, a content.

2.   Inapplicability to certain books

Unique illuminated manuscripts: no reason for content – material object distinction

3. Inapplicable to other artifacts

No separation of material object – content possible for sculptures, paintings etc.

<u>Do windows make a better case for polysemy?</u>

Pietroski: *Window* can pick out the two different concepts in the same sentence:

(10) ? The window they had cut into the wall is nicer than the one they installed.

Is that sentence really acceptable?

Pietroski: There are also neutral uses of *window, book*, etc

(11) The window that Click preferred is nice than the window that Clack preferred.

Here the NP still represents the 'instruction', not a particular concept.

<u>Polysemy of *France* etc</u>

Pietroski:

Pronouns are required for co-predication: pronouns permit retrieving different concepts:

(12) France is hexagonal, and it is a republic.

Without pronoun anomaly results:

(13) ??? France is a hexagonal republic.

But conjunctions of predicates without pronouns are unproblematic:

(14) France is hexagonal and democratically governed.

Further observations:

Close appositions for the political entity do not strictly 'disambiguate':

(15) a. John visited the Federal Republic of Germany.

　　　b. The Federal Republic of Germany shares a border with France.

(16) ? La République Française est hexagonale.

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2. The ontological alternative: Fine's variable embodiments

Books, countries, and windows as variable embodiments

<u>Books as variable embodiments</u>

Associated with a function from times to manifestations, which are pluralities of copies

But copies are to be conceived as compositions of material object *and* content (though not as fusions!).

The counting problem:

Count either the variable objects themselves or their manifestations at a given time.

<u>Countries as variable embodiments</u>

Associated with a function mapping a time to a rigid embodiment composed of a region and a political organization, results in two part structures?

Two part structures clearly for colleges, ministries, churches, …

<u>Windows as variable embodiments?</u>

Associated with a function from times to rigid embodiments

Rigid embodiment of a window at a time: composition of an opening and a pane

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3. The treatment of other Chomskyan challenges

<u>1. Functional individuation</u>

Home as opposed to house:

A house reduced to certain functional aspects.

<u>2. Polysemy, e. g. *water*</u>

Functional individuation of water: thirst-drenching, tasteless, transparent liquid

Scientific individuation: the substance H20

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