Propositional Content without Propositions

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Handout 6

The Neo-Russellian Account

attitudinal objects:

John's belief that Mary is happy = f(j, λx[believe(x; HAPPY, Mary)])

kinds of attitudinal objects:

the belief that Mary is happy = $f_{kind}(\lambda$x[believe(x; HAPPY, Mary)])

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1. Attitudinal objects with objectual attitudes

object-related attitudes and their attitudinal objects:

(1) a. John's desire for Mary was fulfilled

    b. John's hope for peace remained unfulfilled.

    c. John belief in quarks turned out to be correct.

- have their own satisfaction conditions
- no need for implicit sentential complements or propositional contents

2. Attitudinal objects and context

attitudinal objects provide 'natural' truth-conditional completion for apparently truth-conditionally incomplete contents of propositional attitudes:

[1] sentences used to describe the objects of attitudes *de se*

[2] sentences expressing the things temporal or location operators operate on.

The puzzle:

Sentence contents at the same time appear to provide truth-conditionally complete objects, objects that provide the contents of propositional attitudes, act as truth bearers, and act as semantic values for the purpose of anaphoric reference and quantification.

attitudes *de se*, cf. Lewis (1979):

(2) a. John believes that he himself is a hero.

    b. John claims [PRO to be a hero].

    c. believe(John; $\lambda x[hero(x)]$))

left open by Lewis' account: the truth conditions of the 'contents' of attitudes *de se*

observation: such 'contents' appear to act as truth bearers (cf. Stalnaker):

(3) a. John believes something that is true, namely that he himself is a hero.

    b. John claims that he is a hero, which is true.

    c. John claims to be a hero. That is in fact true.

attitudinal objects are not the 'objects' (contents) of attitudes, but they provide their 'natural' truth-conditional completion.

Intuitively, attitudinal objects that correspond to attitudes *de se* are truth-conditionally complete:

- 'John's belief that he himself is a hero' is either true or false.
- 'John's claim PRO to be a hero' is either true or false.

Attitudinal objects also complete satisfaction conditions:

- 'John's desire to become a hero' can be fulfilled or not.

Truth (satisfaction) conditions for attitudinal objects with properties as contents:

(4) For an attitudinal relation R, an agent a, a property P, and a world w,

    the attitudinal object $f(a, \lambda x[R(x, P)])$ is true (satisfied) at w iff $P^w(a)$.

extended de se:

- time of attitude
- location of agent / attitude

self-attribution of property of times / locations to the time / location of the attitude / agent

temporal / locational operators:

(5) a. John believes that it will rain.

    b. John believes that somewhere it is raining.

    c. John believes that it is raining.

content of *believe*: property of time / locations (on one reading).

J. King: Natural language does not in fact contain temporal or spatial operators.

Attitudinal objects provide precisely the 'truth conditional completion' that some 'propositional contents' require.

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3. 'Logical' Properties of Attitudinal Objects

Inferences among propositions now as inferences among attitudinal objects:

Proposition p implies proposition q:

If there are attitudinal objects a and b with p 'constituting' the content of a and q 'constituting' the content of b, then if a is true (satisfied), b is true (satisfied).

-   all inferences among propositions reflected in potential attitudinal objects with omniscient agents

 -   also inferential relations among attitudinal objects with truth-conditionally incomplete contents

inferences among kinds of attitudinal objects:

The belief that S is true iff for some possible instance b of 'the belief that S', b is true (iff for some possible agent a, a's belief that S is true)

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4. Elaborating the Neo-Russellian Analysis

4.1. *that*-clauses as plural terms

That-clauses stand for ordered pluralities of propositional constituents

Compare:

(6) a. John said these words.

   b. Mary said the same thing (those words -- in the same order)

second-level pluralities: conjoined *that*-clauses and plural quantifiers

(7) a. John is happy that Mary started the project and that she finished it.

    b. John is happy that Mary started the project and she finished it.

conjunction of *that*-clauses *that* S *and that* S' as plural term:

goes together with distributive interpretation of the predicate and typical plural predicates:

(8) a. John is equally happy that May started the project and that she finished it.

   b. ?? John is equally happy that Mary started the project and she finished it.

(9) a. That it is Sunday and that the sun is shining are both true.

   b. * That it is Sunday and the sun is shining is / are both true.

pluralities of ordered pluralities …

4.2. complex multigrade attitudinal relations

two (argument) places: simple: for the agent, multigrade: for propositional constituents

the multigrade place:

designated position for (predicable) relation, other places for entities linked to particular

places in that relation

attitudinal relations are (of course) *neutral* relations: argument places and positions matter,

but not their order

another case of the same type of relation:

the multigrade relation of instantiation:

R instantiated by $a_1, \ldots, a_n$: $I(R, a_1, \ldots, a_n)$

4.3. multiple embeddings of sentences

(10) John thinks that Mary thinks that Bill is happy.

Taylor/Hazen (1992): using multiple indexing of entities: each index corresponds to the position within a multigrade place, for subsequently deeper nested places (or 'positions').

<u>compositional semantics</u>: requires multiple indexing of the relevant constituents of a *that*-clause; the indices determined on the basis of the depth of embedding of the *that*-clause and the order, within the multigrade place, of the relevant argument place or position.

in (10): *Mary* bears index <2, 2>, and *Bill* the index <2, 2, 2>.

4.4. sentence connectives and sentence operators

(11) John believes that Mary won the race or Sue won it.

three options to account for coordination:

1. disjuncts stand for attitudinal objects

the most general attitudinal objects: attitudinal objects of acceptance ('judgments')

or as a two-place predicate of acceptances or rather (because *or* can coordinate any number of clauses) a multigrade predicate of attitudinal objects of acceptance

Or holds of *n* attitudinal objects just in case one of them is true.

or must holds of *kinds* of attitudinal objects: the agent will not be available in the semantic evaluation of a *that*-clause:

(12) a. For sentences S and S' such that $[S] = <C_1, ..., C_n>$ and $[S'] = <C'_1, ..., C'_m>$

$[that$ S or S'$] = <[or], e, e'>$, where $e = f_{kind}(\lambda x[ACCEPT(x; C_1, ..., C_n)])$ and

$e' = f_{kind}(\lambda x[ACCEPT(x, C'_1, ..., C'_m)])$

b. For kinds of attitudinal objects e and e', $<e, e'> \in [or]$ iff e is true or e' is true.

problems:

- How could the conjunct clauses could denote (kinds of) attitudinal objects?

Sentences do not denote (kinds of) attitudinal objects, but only specify sequences of propositional constituents.

- intuitions of what disjunctions are about: 'That Mary won the race or Sue won it' intuitively is just about Mary and about Sue, as well as the race, not about the acceptance that Mary won the race and the acceptance that Sue won the race.

2. *Or* as a multigrade 'predicate'

multigrade in all of its places (allowing for an unlimited number of propositional constituents
as provided by the disjuncts).

places of *or* will be occupied by the various propositional constituents given by the disjuncts::

(13) [*that* S *or* S'] = <[*or*]; C_1, ..., C_n; C'_1, ..., C'_m> for [S] = <C_1, ..., C_n> and

[S'] = <C'_1, ..., C'_m>

problem:

How does it enable the propositional constituents in the multigrade places of *or* to be
evaluated as true or false when evaluating the overall attitudinal object with the disjunctive
content as true or false (or satisfied / not satisfied)? Only an attitudinal relation can ensure the
truth evaluation of the propositional constituents, but not *or* itself.

3. *Or* as imposing conditions on attitudinal objects that are objects of acceptance of the
propositional contents given by the disjuncts

Or expresses a concept OR which imposes conditions on the truth (or satisfaction) of the
overall attitudinal object, to the effect that the overall attitudinal object is true (or satisfied)
just in case one of the acceptances of a disjunct is true:

(14) For an attitudinal relation R and an agent a,

$f(a; \lambda x[R(x; OR, C_1, \ldots, C_n, C'_1, \ldots, C'_m)$ is true iff $f(a, \lambda x[ACCEPT(x, C_1, \ldots, C_n)]$ is
true or $f(a, \lambda x[ACCEPT(x, C_1, \ldots, C_n)]$ is true.

On this account: agent 'accepts', at least implicitly, the disjuncts, but acceptances are not
propositional constituents
OR as a concept whose semantic contribution is exhausted by conditions it imposes on the
truth (or satisfaction) of the overall attitudinal object.

Similar treatment for negation:

(15) a. [*not* S] = <NOT, C_1, ..., C_n> for [S] = <C_1, ..., C_n>

b. For an attitudinal relation R and an agent a, $f(a; \lambda x[R(x; NOT, C_1, \ldots, C_n)])$ is true iff

$f(a, \lambda x[ACCEPT(x; C_1, \ldots, C_n)])$ is false.

Also for expressions that can be considered sentential operators:

(16) John must work.

must as a modal operator shifting the world of evaluation of the 'acceptance' of the propositional content of the scope of *must*, in the evaluation of the truth value of the overall attitudinal object:

(17) For an attitudinal relation R, an agent a, and a world w_o,

$f(a; \lambda x[R(x; MUST, C_1, \ldots, C_n)])$ is true at w_o iff for all w, w R w_o,

$f(a; \lambda x[ACCEPT(x; C_1, \ldots, C_n)])$ is true at w.

again: An attitudinal object can be true *at* worlds in which it does not exist.