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**Situations, Alternatives, and the Semantics of Cases**

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Talk about ‘cases’ is abundant in everyday speech. Yet constructions with the noun *case* have hardly received any attention in the semantic literature. This is astonishing also because those constructions are highly interesting for semantic theory. I will argue that *case*-constructions require an approach combining situation semantics (Kratzer online), truthmaker semantics (along the lines of Fine 2012, to appear) as well as alternative semantics and support a view of alternatives as both truthmakers of sentences and of epistemic states. Specifically, I will argue that clausal *case*-NPs as in (1a,b) as well as *case*-anaphora as in (2a,b) involve reference to situations within a space of distinct alternatives, a *case-space*:

(1) a. *(We may have to deal with) the case in which a student fails the exam*

 b. *(We may have to cope with) the case in which it might rain*

(2) a. *In case it rains, we won’t go. In that case, we will stay home.*

 b. *John might go to the party. In that case, I will go too.*

I will first argue that clausal *case*-NPs refer to situations in the role of truthmakers of sentences, or else to kinds of such situations. Clausal *case*-NPs permit numerals counting specific situations making the *in which*-clause true (unlike NPs of the sort *the fact that* S, which always refer to a single (non-worldly) fact even if several situations make S true):

(3) *the three case in which a student failed the exam*

Also disjunctive *in which*-clauses give rise to a plurality of cases:

(4) *the two cases in which John is the wins the race or Mary wins it*

This is captured by standard conditions on truthmaking as below, making use of Fine’s (2012, to appear) notion of exact truthmaking╟, the relation that holds between a situation *s* and a sentence S just case *s* is wholly relevant for the truth of *S*:

(5) a. s ╟ S *or* S’ iff s ╟ S or s ╟ S’ b. s ╟ ∃x S iff s ╟ S[x/d] for some individual d. As in The (positive) semantic value of a sentence S, [S], can then be identified with the set of possible situations that are its exact truthmakers (Fine to appear) (S] = {s| s ╟ S}).

 Definite *case*-NPs may refer to *kinds of cases* in the sense of kind of Carlson (1977), permitting kind predicates, as in (6a), and triggering existential readings with episodic predicates as in (6b):

(6) a. *The case in which a student fails the exam is rare.*

 b. *Joe has never encountered the case in which a student failed the exam.*

Furthermore disjunctions of existentially quantified sentences as below may give rise to a plurality of kinds of cases:

(7) *the two cases in which a German wins the race or an American wins it*

This requires extending truthmaking to kinds of situations: roughly, a kind of situation *k* makes a sentence *S* true just in case all the instances of *k* do. Disjunctions thus are associated with alternatives that may either be particular situations or kinds of situations. The latter will assimilate truthmaker semantics to alternative semantics (Hamblin 1973, Aloni 2007), where the meanings of sentences are conceived as sets of propositions (rather than sets of situations). A sentence will then have an additional kind-based on (positive) semantic value ([S]kind = {k| k ╟ S}). The two meanings of clausal *case*-NPs are then as below:

(8) a. [*case in which* S] = λs[case(s) & s ∈ [S])

 b. [*casekind in which* S] = λk[casekind(k) & k ∈ [S]kind)

Second, I will argue that both clausal *case*-NPs and *case*-anaphora refer to situations or kinds of them only relative to a set of alternatives, a *case-space*, consisting of several possible situations or kinds of situations. In the case of plural *case*-NPs, as in (3) and (4), the case- space is given by the *in which*-clause, which sets up a set of distinct situations of which the situation referred to is a part. There are other sentences than existentially quantified or disjunctive ones that may set up a case-space, for example those with definite descriptions taking different values in different locations:

(9) *the few cases in which the president was a woman*

A different way of setting up the case space is with the focus meaning of a focused *in which*- clause (Rooth 1992):

(10) *the case in which Jéremy wins the race*

The meaning of *case* should then be modified as follows, where Cc is a restriction provided by the local context *c* on the alternatives given by the (focused) sentence (Rooth 1992):

(11) a. [*case in which* S]c = λs[∃X(case(s, X) & X = [S] ∩ Cc)]

 b. [*casekind in which* S]c = λk[∃X(casekind(k, X) & X = [S]kind ∩ Cc)]

However, the case-space need not be given by a sentence, but instead by an epistemic state, more precisely a state of considering or permitting alternatives, or equivalently a state of accepting a disjunction providing those alternatives. For that purpose, truthmaker semantics will be extended so as to allow the truthmaking relation╟ to also hold between a situation *s* and an epistemic state *e* (analogous to the truthmaking relation in Moltmann (2015) holding between actions and objects that are obligations or permissions). The epistemic state may be indicated by an epistemic modal verb as in (1b) or sentence adverb as in (12), on the reading on which the modal does not contribute to the propositional content (Papafragou 2006):

(12) *the case in which John has perhaps returned*

Alternatively, it can be indicated by future tense (13a) or be understood implicitly (13b):

(13) a. *the case in which John will return*

 b. *the case in which there is a solution to the problem*

Instead of involving the alternative semantic meaning of the *in which*-clause, a case-space may thus be generated by an epistemic state ec given by the local context of evaluation *c*:

(14) [*case in which* S]c = λs[∃X(case(s, X) & X = {s| s╟ ec)]

 The various options for setting up a case space are well reflected also in *case*-anaphora, where the noun *case* is evaluated relative to a context *c* that contains either an epistemic state (ec) or the utterance of a preceding sentence S (Sc). Below, a disjunctive antecedent sentence introduces alternatives for plural *case*-anaphor:

(15) *John will interview or Mary will interview. In both cases, we should be well-prepared.*

A case-space for a case-anaphor associated with an epistemic state of uncertainty can be set up by the antecedent of a conditional, an epistemic modal, a question, or the utterance of a different speaker, as seen in the contrast between (17a) and (17b):

(16) a. *If it rains, we won’t go. In that case, we will stay home.*

 b. *It might rain. In that case, we won’t go.*

 c. *Did John win the race? In that case Mary will be happy.*

(17) a. ??? *Hans won the race. In that case, Mary will be happy.*

 b. A: *John won the race.* B: *In that case, Mary will be happy.*

Factive attitude reports, as expected, do not provide antecedents for *case*-anaphora:

(18) ?? *John is happy that he won the election. In that case, he will celebrate.*

But nonfactive ones do if the attitude goes along with an epistemic state of uncertainty (on the part of the described agent), which is the case for fear and hope:

(19) *John fears / hopes that Mary has lost the election. In that case, he won’t celebrate.*

Believe, expectation, assertion, imagination, however, do not go along with such a state of uncertainty as part of the (secondary) context of the described agent:

(20) ??? *John believes / expects / claims / imagines that Mary has lost the election. In that*

 *case, he wants to celebrate.*

This does not hold of course if a context shift takes place and the *case*-anaphor is evaluated with respect to the primary context of the speaker, rather than the secondary context:

(21) *John believes that Mary has lost the election. In that case, I would be relieved.*

**References**

Aloni, M. (2007): ‘Free choice, modals and imperatives’. Natural Language Semantics, 15,

 65–94.

Carlson, G. (1977): ‘A Unified Analysis of the English Bare Plural’. *Linguistics and*

 *Philosophy* 1, 413-457.

Fine, K. (2012): ‘Counterfactuals without Possible Worlds’. *Journal of Philosophy* 109

 (3), 221-246

--------- (to appear): ‘Truthmaker Semantics’. *Blackwell Philosophy of Language Handbook*.

Hamblin, C. L. (1973): ‘Questions in Montague English’. *Foundations of Language* 10(1).

 41–53.

Kratzer, A. (online): ‘Situations in Natural Language Semantics’. *Stanford Encyclopedia of*

 *Philosophy.*

Moltmann, F. (2015): ‘A Predicativist Semantics of Modals Based on Modal Objects’.

 *Proceedings of the 15th Amsterdam Colloquium*, edited by T. Brochagen, F. Roloefson, N.

 Theiler, pp. 296-302.

Papafragou, A. (2006): ‘Epistemic Modality and Truth Conditions’. *Lingua* 116, 1688-1702.

Rooth, M. (1992): ‘A Theory of Focus Interpretation’. *Natural Language Semantics* 1.1., pp.

 75-116