

Workshop *Truthmaker Semantics: What, What for, and How*

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## Truthmaking for Modal, Mental, and Illocutionary Objects

Friederike Moltmann

CNRS – Université Côte d’Azur

### 1. The Topic

Truthmaker semantics as a general theory of content.

Not only sentences are content bearers, but also:

- Mental objects: intentions, decisions, beliefs, plans, hopes, desires
  - Illocutionary and locutionary objects: claims, requests, offers, invitations, promises, thoughts
  - Modal objects: needs, obligations, permissions, offers (!), invitations (!)
  - Other objects: debts, purchases, perceptions, recognitions, ...
  - Emotions?
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### 2. Ontological issues

*Descriptive metaphysics*: ontology reflected in our intuitions

Linguistic reflection of our intuitions:

Objects are often linguistically reflected by being denotations of nouns

The properties of objects are to an extent reflected in the predicates applicable to them

The present focus: non-linguistic objects that are *content bearers*

Two issues to pursue:

[1] What evidence is there for content?

Predicates conveying truth, satisfaction, perhaps correctness

Linguistic constructions specifying content

[2] What evidence is there for contents to be truthmaker-based contents?

Truthmaking may involve:

- Smaller entities (than worlds) acting as truthmakers
  - Exact truthmaking (as opposed to ‘being true in’)
  - Special truthmaking relations requiring causal connections ?
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### 3. Content bearers

#### 3.1. Attitudinal objects

Attitudinal objects:

[1] Entities that are *produced by* or *result from* illocutionary acts

[2] Attitudinal objects that are *not produced* by an act: intentions beliefs, implicit desires etc.

Ad [1]: Abstract or physically realized artifacts that may endure part the act that may have produced them

Application of tense:

- (1) a. John’s claim (which he made yesterday) is that the problem is unsolvable.  
       b. John’s claim is still valid.

Enduring validity of a claim, a request, an offer, a promise, a plan etc.

How to understand the relation between the illocutionary or mental act and the attitudinal object?

Ontological dependence, as a generative relation, not as a causal relation

Enduring validity: ontological dependence on an intention that is part of the act.

#### Attitudinal objects as content bearers as opposed to evens

[1] Bear truth- or satisfaction-related properties

- (2) a. *true, false, right*: attitudinal objects with a word-to world direction of fit  
       b. *fulfill, satisfy*: expectations, hopes  
       c. *accept*: offers, invitations  
       d. *carry out, implement, realize*: plans, intentions, decisions

*Correct* in the sense of ‘true’ (whether justified or not):

- (3) John’s belief / claim / hypothesis / guess / speculation is correct.

[2] Application of part-related expressions with a content-related meaning only

*Part of*:

(4) part of the claim / insult / promise / invitation / plan

*Double:*

Two content-related parts:

(5) a. a double lie

b. a double insult

c. a double invitation

Two eventive parts:

(6) a double pirouette, a double tour, a double murder

### 3.2. Modal objects

#### The new view

Modal verbs, adjectives, and nouns semantically are *predicates of modal objects*

Prejacent or sentential or nominal complement gives their satisfaction conditions

#### Nouns denoting modal objects:

*Need, obligation, permission, offer, option, necessity, ability, capacity, strategy*

#### Properties of modal objects:

[1] Satisfaction properties

(7) a. *satisfy, fulfill, comply with*: obligations,

b. *accept, take up*: permission, offer

[2] Part-related expressions picking out partial content only:

(8) part of the need, offer, obligation, invitation, strategy

#### Crosslinguistic motivation for the new of modals

Modals never take the form of quantifiers (ranging over situations or worlds).

E.g. *always, never, every way* etc cannot be used as modals, crosslinguistically so!

#### Semantic motivation:

Only the modal objects, not the clausal unit, may provide full satisfaction conditions:

(9) a. John needs to have a coat.

b. John needs a coat.

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#### 4. Motivation for applying truthmaker semantics to attitudinal and modal objects

[1] TMS is supposed to be a general theory of content

[2] Modal and attitudinal objects exhibit content ordered by the relation of *partial content*, which TMS semantics was in part specifically developed for.

[3] TMS allows for an account of the selection of different satisfaction predicates by different attitudinal and modal objects:

##### Predicates of fulfillment vs predicates of acceptance

Predicates of fulfillment come with predicates of violation:

(10) a. John fulfilled the request.

b. John violated / ignored the request. (John did something wrong.)

(11) John ignored the offer. (John did nothing wrong.)

(12) a. John pursued / took up the option / strategy.

b. John ignored the option / strategy.

Modal objects of necessity, selected by predicates of fulfillment: have satisfiers *and* violators

Modal objects of possibilities, selected by predicates of acceptance; have only satisfiers.

##### General derived meaning of ‘sentential units’ (based on a truthmaker-based meaning)

(13)  $\text{prop}([S]) = \lambda d[\text{pos}(S) = \text{pos}(d) \ \& \ (\text{neg}(d) \neq \emptyset \rightarrow \text{neg}(S) = \text{neg}(d))]$

[4] Certain attitudinal and modal objects take actions as satisfiers, thus not entire worlds

Description with *by*-phrases:

(14) John fulfilled his obligation by helping Mary.

Attitudinal and modal objects taking actions as satisfiers may impose a norm of correctness on those actions:

(15) a. John *was right* in helping Mary

b. Helping Mary *was correct*.

Predicates of truth vs. predicates of satisfactionApplication of *correct*

Attitudinal and modal objects that take truth predicates:

Associated with a *non-action-guiding norm* of truth

Attitudinal and modal objects that take fulfillment predicates:

*Impose a norm* on their satisfiers:

- Actions are correct if they satisfy the content bearer
- How can situations be correct?

Compare ‘the ‘right thing’ happened: situation satisfying an evaluative property.

Predicates of realization: No violators, no normative component

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**5. Do all attitudinal objects and modal objects have satisfaction conditions, i. e. truthmaking conditions?**

Very plausible for modal objects

But not for all attitudinal objects. in particular not for *emotions*.

Distinguish between different emotive attitudes:

[1] desire

Clearly have satisfaction conditions

Show a particular form of underspecification:

Sentential unit may only partially specify satisfaction conditions:

(16) a. Mary wants a coat.

b. Mary wants to have a cat.

(17) a. Mary claims to own a coat.

b. Mary believes that she owns a coat.

More complex analysis of desire (and other attitudes with a world to word direction of fit?)

Satisfaction conditions + evaluation: what is desired is ‘good’, gives happiness ...

evaluation of a (type of satisfier) within a contextually given completion of a situation

(18) a. Mary’s wants to have a coat.

b. Desire(Mary, [Mary to have a coat]) is correct only if for all s, s ||- *Mary to have a*

*coat* → GOOD(C([PRO to have a coat]))

[2] Emotions that do not come with satisfaction situations:

- (19) a. Mary fears the dog / that S / the state of affairs in which S /the possibility that S  
 b. Mary is happy / angry that S / about the fact that S.

Linguistic criterion for the clause giving the *content* as opposed to the *object* of the attitude

Specificational sentences:

- (20) a. John's claim thought is that it will rain.  
 b. \* John's denial is that it will rain.  
 (21) a. John's hope / is that it will rain.  
 b. \* John's happiness / anger is that it is raining

'Pure' emotive attitudes: *happiness, anger, amusement,*

Pure emotions do not have satisfaction conditions.

But they arguably have *correctness conditions* or *conditions of fittingness*

Correctness conditions of emotions are not conditions of their justification:

Correctness includes conditions like the factivity of a state of affairs that the emotion is directed toward.

Less obvious linguistic reflection of correctness conditions of emotions:

- (22) ?? John's anger is appropriate / correct / suited.

*Be right* conveys justification, not correctness:

- (23) a. John is right in being angry that that Mary lost the race.  
 b. John is right in believing that it is raining.

The attitudinalist theory of emotions (Deonna/Teroni)

Emotions as reactions to evaluations:

- (24) a. John fears that S  
 b. John reacts to his evaluation of the state of affairs that S being dangerous.

'Rectifiers' for John's fear that S:

The situation of the state of affairs in which S is dangerous.

Here it is the overall attitudinal objects that supports the 'rectifier'.

'Rectifiers' for complex emotions

Conjunctive emotions:

- (25) a. John's happiness and amusement that S  
 b. The situation of the fact that being good and being amusing.

Disappointment:

- (26) a. Mary is disappointed that S.  
 b. Negative evaluation of the fact that S, positive evaluation of alternatives to the fact that S.

Emotions are also related to actions; however no particular actions can be part of the condition of fittingness of emotions: e.g actions of avoidance or of facing the challenge

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**5. Intensional objects**

Generally, intensional transitive verbs describe 'intensional objects' with satisfaction conditions

Verbs of absence

- (27) a. John's need for a coat.  
 b. John's desire for a coat.

Approximative semantics

- (29) a. John needs no more than one assistant.  
 b. For any situation satisfying John's need, there is no more assistant x in s such that John 'has' x in s.
- (30) a. John owes Mary no more than two bottles of wine.  
 b. For any situation s satisfying John's debt, there are no more than two bottles of wine in s that John 'gives' to Mary in s.

Buy, sell

- (31) a. John bought a bottle of wine (on the internet).  
 b. For any situation s satisfying John's purchase, there is a bottle of wine in s.

Condition on situations satisfying the purchase:

situations must be causally connected to the purchase.

Verbs of representation

Situations act as truthmakers, quantifiers do not constitute content of what is perceived

Imagination:

(32) a. Bill imagined at most two houses.

b. For any situation realizing Bill's imagination, there are at most two houses in s.

Perception (veridical):

(33) a. Bill saw exactly one tree.

b. For any situation satisfying the perception, there is exactly one tree in s.

Additional conditions on realizers of veridical representations

Situations need to have caused the representation

Additional support for the involvement of situations as satisfiers in the semantics of intensional transitives:

Restrictions on reports of sharing:

(34) a. John needs what Mary needs.

b. John has what Mary needs.

c. ??? John imagined what Mary needs, a horse. (John imagined a horse, Mary needs a horse)

What is reported to be shared is (types of) individuals in situations of satisfaction.

Summary

- The content bearers described by intensional transitives have as satisfiers *situations* that consist of entities having certain properties as described by the NP complement
- Sometimes, in addition to truthmaking a causal relation required between the content bearer and the situation.

**Some References**

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