

Book Outline *Objects and Attitudes*

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The topic

This book develops a novel semantics for sentences which aims to shed a new light on a great range of linguistic and philosophical issues. In particular, it develops a new semantics of attitude reports and modal sentences. Under this semantics, sentences do not stand for propositions that act as the objects of propositional attitudes or speech acts, but rather semantically act as predicates of various sorts of attitudinal, modal, and speech-act-related objects, entities like claims, judgments, requests, beliefs, intentions, permissions, needs, and abilities. Attitudinal objects like claims, judgments, requests, beliefs, intentions on that view are considered the primary bearers of truth (or satisfaction) conditions. They are associated with propositional attitudes, but do not act as their objects.

The project of the book spans philosophy of language, linguistic semantics, metaphysics (especially in the sense of ‘natural language ontology’), as well as syntax (in the generative tradition). The semantics that will be developed goes along with the pursuit of both descriptive metaphysics and descriptive philosophy of mind. The ontology of attitudinal and modal objects is well-reflected in natural language, in the semantic behavior of various nominal expressions and clausal constructions, as well as, to an extent, in language-independent intuitions about artifacts and mental attitudes in general. Attitudinal and modal objects are bearers of truth or satisfaction conditions, which will be conceived along the lines of Kit Fine’s recent truth maker semantics, rather than possible-worlds semantics.

The semantics of attitude reports and modal sentences is supported by various syntactic generalizations, and takes into account recent research in (generative) syntax regarding clauses in subject and object position and the decomposition of lexical items in syntactic structure.

General Description

1. The semantic role of independent and embedded sentences

1.1. The abstract propositions view and the new view of sentences as ‘predicates’ of attitudinal and modal objects

Contemporary philosophy of language and linguistic semantics are dominated by the notion of a proposition, an abstract mind- and language-independent object that bears truth conditions and acts as the sharable content of both sentences and propositional attitudes (Frege 1918/9, Stalnaker 1984, Schiffer 2003). The notion of a proposition goes along with a particular view about the logical form of attitude reports and a corresponding view about the nature of propositional attitudes, according to which propositional attitudes are relations between agents and propositions. Let me call the adoption of abstraction propositions as the meanings of sentences and primary truthbearers *the abstract propositions view* and the view about propositional attitudes, *the relational view of attitudes*. The two views are linked in that propositions as the semantic values of sentences embedded under an attitude verb will have to be, so it seems, the arguments of dyadic attitudinal relations and as such the shareable and thus abstract contents of attitudes. Given the relational view, the logical form of the attitude report in (1a) is as in (1b), where [*Mary is happy*], the denotation of the sentence (*that*) *Mary is happy*, is the proposition that Mary is happy:

- (1) a. John thinks that Mary is happy.
 b. think(John, [*Mary is happy*])

I will call the analysis in (1b) the *Relational Analysis* (and the *Modified Relational Analysis* a variant of it that permits various proposition-like objects (facts, possibilities, states of affairs) as arguments of attitudinal relations) (Moltmann 2003b, 2013, Chap 4).

The notion of an abstract proposition, an object generally identified either with a set of circumstances (Stalnaker 1981, Barwise Perry 1983) or with a structured proposition conceived in one way or another (Cresswell 1987, King 2007, Soames 1987), has been subject to serious criticism, which concerns especially the ability of an abstract object to have truth

conditions (and the particular truth conditions it is meant to have) and its ability to act as the content of a cognitive state or act (Jubien 2001, Moltmann 2003b, Soames 2010, Hanks 2011, 2015). A number of philosophers, in particular Soames (2010) and Hanks (2011, 2015), have therefore more recently explored an alternative, cognitive conception of propositions according to which propositions are identified with types of acts (of predication). This alternative conception, though, is still connected to the relational view of attitudes according to which clausal complements stand for objects that act as the contents of propositional attitudes.

This book will reject both the abstract-propositions view and the relational view of attitudes. This means in particular that it rejects an identification of abstract propositions as the meanings of sentences (and *that*-clauses in particular) with the objects (or contents) of attitudes. Sentences no longer have semantic values that act as the objects of propositional attitudes; rather attitudes are associated with objects ('attitudinal objects') that sentences (*that*-clauses) just serve to characterize. I will call this the *attitudinal objects view* of attitudes. Similarly, modals are associated with objects ('modal objects') that sentences (or 'sentential units') may serve to characterize. The general view that the book will develop then is one according to which sentences serve to characterize various sorts of *attitudinal* or *modal objects*. Examples of *attitudinal objects* are beliefs, intentions, thoughts, judgments, decisions, claims, requests, promises and questions. *Modal objects* are entities like permissions, obligations, needs, abilities, and essences. Sentences thus are no longer taken to stand for objects (i.e. propositions) that also serve as the contents of attitudes. Rather they serve to characterize the relevant entities associated with propositional attitudes, attitudinal objects, as well as modal objects. Attitudinal objects are cognitive entities of one sort of another, and they generally come with intrinsic truth or satisfaction conditions (and thus do not pose the problem of the truth-directedness of abstract propositions). Modal objects also include mind-independent entities such as abilities and essences (now conceived as objects).

The view applies equally to independent and embedded sentences. An independent sentence serves to characterize an attitudinal object like a claim, a request, or a question, the product of the illocutionary act meant to be performed by the utterance of the sentence.

Attitudinal and modal objects are not generally recognized as entities in contemporary metaphysics. However, they are extremely well-reflected in natural language and thus form part of the ontology of natural language (in the sense discussed in Moltmann, to appear f). Natural language displays a great range of nouns that stand for attitudinal or modal objects, in particular nominalizations of the sort *John's thought that S*, *John's claim that S*, *John's belief*

that S, John's need to do X, but also underived nouns (*fear, hope, impression*). There are moreover language-independent intuitive grounds for at least some attitudinal and modal objects. Attitudinal objects that are thoughts, decisions, judgments, claims, or requests are on a par with 'abstract' artifacts, and some modal objects are too, most obviously obligations and laws. As artifacts they are established by mental or illocutionary acts and carry relevant representational or normative properties. Attitudinal objects also include beliefs and intentions, that is, mental states, which are widely recognized as such in the philosophy of mind.

The book will pursue the view that sentences serve to characterize attitudinal and modal objects by developing compositional semantic analyses of independent and embedded sentences of various sorts (subject- and complement clauses, attitude reports, modals, truth predicates, and direct quotation). This semantics will be based on specific linguistic (syntactic and semantic) evidence as well as a range of philosophical considerations. In addition, the book will include an in-depth discussion of the ontology of attitudinal and modal objects, in their central role in that semantics.

1.2. The logical form of attitude reports and modal sentences and its linguistic support

The following gives an outline of the semantics of attitude reports and modal sentences with its main linguistic motivations. With some details of the analyses not yet being settled, one purpose of the following is to indicate how research in syntax and lexical theory is relevant and needs to be taken into account.

The notion of an attitudinal object goes along with a new logical form of attitude reports. Thus, in (1a), repeated below as (2a), the *that*-clause will now serve to characterize the attitudinal object that is John's thought that Mary is happy, the non-enduring product of John's act of thinking. It does so by specifying its truth conditions or rather truthmaking conditions (Section 3):

(2) a. John thinks that Mary is happy.

b. $\exists e(\text{think}(e, \text{John}) \ \& \ [\text{that Mary is happy}](\text{product}(e)))$

Making use of Davidsonian event semantics, (2a) then has the logical form in (2b), where the semantic value of *that Mary is happy* is now a property of attitudinal objects, *think* expresses a relation between acts of thinking and agents, and *product* is the function mapping an act

onto its non-enduring product. (Note that if semantically the *that*-clause acts as a predicate; this does not mean that it has the more familiar predicative syntactic role of, say, adjective complements of copula verbs and could be used in the same way as adjectives; rather the *that*-clause enters a clause-specific syntactic relation to the verb whose interpretation leads to the logical form in (2b).) Let me call the analysis in (2b) the *Attitudinal-Objects Analysis* of attitude reports.

Mental state verbs (*intend, believe, desire* etc) involve mental states which are not taken to be products. The mental states will themselves be considered the Davidsonian arguments of mental state verbs. Formally, the product function *product* as in (2b) will also apply here, but it will just map a mental state onto itself.

The Attitudinal-Objects Analysis straightforwardly carries over to *that*-clauses in NPs like *John's thought that S*, which have the syntactic status of adjuncts of the noun, not complements, a difficulty for the standard view (Moulton 2010). As adjuncts they are predicated of what the head noun stands for, attitudinal objects.

The Attitudinal-Objects Analysis accounts for important semantic generalizations regarding attitude reports, namely the Substitution Problem and the Objectivization Effect (Moltmann 2003a, b, 2013, see also Bach 1997, King 2002, 2012, Prior 1971, Rosefeldt 2006). *John thought that S* does not imply *John thought the proposition that S*, which is unacceptable (the Substitution Problem), and *John imagined that S* does not imply *John imagined the proposition that S* (or *John imagined the imagination that S*) (the Objectivization Effect). The 'Objectivization Effect' (Moltmann 2003b, 2013, Chap. 4) involves a change of the semantic role of the complement from specifying the content of the attitude to specifying the object the attitude is about or directed toward (*John imagines / fears that Mary is unhappy* vs *John imagines / fears the proposition that Mary is happy*). This is explained by the Attitudinal-Objects Analysis since on that analysis *that*-clauses do not provide an argument of an attitudinal relation, but rather characterize the relevant attitudinal object.

A few verbs in English do not exhibit the Substitution Problem (*believe, prove, establish*); the reason is that those verbs are polysemous and have an additional meaning with an argument position for proposition-like objects, taking arguments that are semantic values of NPs (*John believes the proposition / claim / idea / hypothesis that S*) (Moltmann 2003b, 2013, Chap 4).

There is linguistic support for the view that clausal complements of attitude verbs are not referential arguments, but rather serve as predicates of an object that is an implicit argument of the verb or closely related to one. This is the widely attested alternation illustrated below

between simple verbs taking clausal complements and complex predicates consisting of a light verb (such as *have*, *make*, or *give*) and a nominal describing an attitudinal or modal object:

- (4) a. John requested to leave.
 b. John made a request to leave.
- (5) a. John advised Bill to leave.
 b. John gave advice for Bill to leave.

The alternation gives significant support for the *Attitudinal-Objects Analysis*, which analyses (6a) almost as if it had the logical form of (6b), which is roughly as below (with quantification over attitudinal objects that are thoughts):

- (6) a. John has the thought that Mary is happy.
 b. $\exists d(\text{have}(\text{John}, d) \ \& \ \text{thought}(d) \ \& \ [\textit{that Mary is happy}](d))$

The analysis in (6b) may appear implausible linguistically in that the semantics of what appears to be a derivative construction is taken to be the same as that of the simple construction. In fact, Schiffer (2003) and philosophers following him would view the sentence in (6a) as obtained by what is called a ‘something-from-nothing’-inference from the sentence in (2a), introducing a ‘pleonastic entity’, an entity that has only properties attributable in virtue of an inference such as from (2a) to (6a). This view will be rejected for two main reasons.

First, the nouns in the complex predicates, nouns for attitudinal or modal objects, just do not stand for pleonastic entities, but for entities of a substantial sort, whose nature is not exhausted by linguistic inferences (or even strategies of abstraction in Frege’s sense). Attitudinal objects, recall, include artifacts and mental states. The objects that the nouns in complex predicates stand for are in that respect on a par with events and actions rather than non-worldly facts, for which a pleonastic account is plausible (Moltmann 2013, Chap 2 and 6).

Second, it is far from obvious that the complex construction is derived from the simple one, in view of current work in lexical semantics pursued in the context of generative linguistics. There are important views according to which at least certain types of simple verbs are derived from complex predicates consisting of light verb and noun (e.g. the verb *walk* is

derived from *take a walk* etc) (Hale /Kayser 1997, 2002). The overall view would support the lexical analysis of *think* as *have the thought*, *request* as *make a request* etc. with a noun for an attitudinal object. This general view, which has a range of syntactic motivations, would both give support for the sort of semantics in (2b) and bear on the status of the *that*-clause (permitting an analysis on which the *that*-clause is an (obligatory) apposition to the noun, rather than an ordinary complement of the verb).

Note also that language sometimes display only a complex predicate and not a simple verb (*have the impression*, French *avoir peur*). The alternation between simple attitude verbs and complex attitudinal predicates can hardly be accounted for on the standard, relational view of attitude reports based on abstract propositions since the nominals in the complex-predicates are not proposition-denoting.

The analysis in (2b) goes along with a particular view about sharing of the content of attitudes, and specifically the semantics of expressions used to report such sharing. Sharing of content does not mean sharing a mind-independent, abstract proposition, but rather it consists in two agents participating in the same kind of attitudinal object (Moltmann 2003a, b, 2013). Thus (7a) will report the sharing of ‘the thought that Mary is happy’, with a logical form as in (7b):

(7) a. John thinks what Bill thinks, that Mary is happy.

b. $\exists x \exists e (\text{think}(e, \text{John}) \ \& \ x = \text{product-kind}(e) \ \& \ x = \iota y [\exists e' (\text{think}(e', \text{Bill}) \ \& \ y = \text{product-kind}(e'))])$

This view goes along with the (independently motivated) semantic analysis of *what* as a nominalizing device (Moltmann 2003a, 2013, Chap 3, 4), introducing a ‘new’ object into the semantic structure rather than standing for an argument of the predicate. The ‘new’ object is the sort of object that could also be described by the relevant nominalization.

This account of sharing is supported by considerable linguistic evidence, namely constraints on reports of cross-attitudinal sharing, which are indicative that it is not propositions, but kinds of attitudinal objects that are reported to be shared. These constraints have been noted and discussed in Moltmann (2003b, 2013, Chap. 4) and are illustrated in (8a, b):

(8) a. ??? John thought what Bill imagined, that Mary was happy.

b. ??? John claimed what Mary hoped, that it will rain tomorrow.

They are also reflected in the (un)acceptability of identity statements involving explicit terms for attitudinal objects, as in (2c) (Moltmann 2003b, 2013, Chap. 4):

- (9) a. ??? John's thought was Bill's imagination.
 b. ??? John's claim was Mary's hope.

The unacceptability of (8a) follows if *what Bill imagined* stands for the imagination that Mary was happy and that is said to be identical to the thought that Mary is happy, which could not be true. (Note that the unacceptability of (8a) could not be accounted for on the Modified Relational Analysis on which different attitude verbs take different proposition-related objects since there is no such object for *think* or *imagine* in (8a) to take, cf. Moltmann 2013a).

1.3. The semantics of modal sentences

Almost the same semantics applies to modal sentences, though modal sentences come with different sorts of syntactic structures. A modal predicate will take a modal object as an implicit argument and the 'sentential unit' associated with the modal predicate will serve to characterize the modal object in terms of its satisfaction condition. The term 'sentential unit' is meant to cover the prejacent of modal auxiliaries, the sentential complement of full modal verbs, and subject clauses that go along with modal adjectives. Some deontic modals take modal products of the sort of obligations or permissions as implicit arguments. But other modal predicates may take as arguments modal objects that are not products of illocutionary acts, such as abilities or 'essences' (the modal objects of metaphysical necessity).

Modals of necessity and modals of possibility will lead to the very same logical form. The difference between the two sorts of modals will be traced entirely to the nature of the modal objects, more precisely their satisfiers and violators (Section 3). The *Modal-Objects Analysis* of (10a) and (10b) will thus be as in (11a) and (11b):

- (10) a. John needs to write a book.
 b. John is allowed to write a book.
 (11) a. $\exists e(\text{need}(e, \text{John}) \ \& \ [\text{John to write a book}](e))$
 b. $\exists e(\text{is allowed}(e, \text{John}) \ \& \ [\text{John to write a book}](e))$

Again, (full) modal verbs often display an alternation with a complex predicate, namely of the form *have*- noun for a modal object, as in (12a) whose logical form in (12b) is closely related to that in (11a):

(12) a. John has a need to write a book.

b. $\exists d(\text{have}(d, \text{John}) \ \& \ \text{need}(d) \ \& \ [\text{John write a book}](d))$

As with attitudinal predicates, some languages display only the complex modal predicate and not the simple modal. For example, French has only the complex predicate *avoir besoin*. Harves/Kayne (2012) even argue that the English modal verb *need* is derived from the complex predicate *have a need*, with the complement clause acting as a relative clause modifying the noun. This analysis, for Kayne (p.c.), would generalize to attitude verbs as well, which means that the complement clause of an attitude verb would in fact modify a noun for an attitudinal object. While the assimilation of complement clauses to relative clauses advocated in Kayne (2010) is not an established syntactic view, a view along these lines goes along well with the Modal-Objects Analysis of modal sentences.

There is specific semantic support for the analysis of modals as predicates of modal objects. It comes from modal concord as in (13a), where the modal adverbial serves to reinforce the modality already conveyed by the modal verb rather than setting up its own ‘modal operator’. The modal adverbial and the modal verb will here act as a predicate of the very same modal object, as in (13b):

(13) a. John could possibly write a book.

b. $\exists e(\text{could}(e, \text{John}) \ \& \ \text{possibly}(e) \ \& \ [\text{John write a book}](e))$

Unlike the possible worlds-based account of modal concord of Anand / Brasoveanu (2010), this analysis predicts that only expressions of the same modal force can participate in modal concord (Moltmann 2015b).

The modal-objects-based semantics of modals has particular plausibility for deontic modals, whose modal objects are quite intuitive and on a par with laws. But the same sort of semantics will carry over to other modals as well. Modals expressing physical possibility may take modal objects as arguments that are abilities or dispositions, modals expressing metaphysical necessity take as arguments essences now conceived (as Aristotle seem to have intended) as

objects distinct from the individuals to which they pertain. For some (uses of) modal verbs modal objects are less intuitive and modal object may be best understood as being generated from particular conditions, such as a piece of evidence for epistemic modal objects. Some modal objects involve a dependence that needs to be reflected in the semantics. Thus individual essences are dependent on an individual, which may require positing an additional argument position for an individual (so that, say, essentially will express a relation between modal objects that are essences and individuals). Epistemic modals may also seem to be dependent on a particular agent; but they give rise faultless disagreement, which is better taken to mean that epistemic modal objects involve a dependence on a relevant group with whom the speaker identified (first-person based genericity in the sense of Moltmann 2010).

1.4. Other attitude verbs

Not all clausal complements of attitude verbs have the semantic function of characterizing the ‘product’ of the event argument of the verb (or the semantic value of the noun in the underlying complex predicate), and in fact there are also syntactic differences among clausal complements. In particular, clausal complements of so-called response-stance verbs (*repeat, confirm, agree, deny* etc) and factive verbs behave semantically and syntactically different from *think* and *imagine*, so-called volunteered stance verbs (Cattell 1978 and subsequent syntactic research). Given their various syntactic particularities, it has been argued that the complement of response-stance verbs are appositives within a DP (a category on a par with referential NPs), rather than CPs (a sentential category) (Kastner 2015). This naturally goes along with a semantics of response-stance verbs on which their clausal complement characterizes a contextually given attitudinal object (a claim, suggestion, or hypothesis), in addition to characterizing the ‘product’ of the event argument of the verb. Thus, (14a) will have the analysis in (14b), where $\text{ref}_s(e_N)$ is what the speaker s refers to with the silent nominal element e_N in the DP structure:

(14) a. John agreed that S.

b. $\exists e(\text{agreed}(e, \text{John}, \text{ref}_s(e_N)) \ \& \ [\text{that S}](\text{product}(e)) \ \& \ [\text{that S}](\text{product}(\text{ref}_s(e_N))))$

The difference between volunteered-stance verbs and response-stance verbs is also reflected semantically, in the understanding of *partially* (Moltmann, to appear b):

- (15) a. ??? John partially thought/imagined that Mary was unprepared.
 b. John partially agreed that Mary was unprepared.

Partially has the semantic function of relating a partial content of an independent argument of the verb to the product of the event argument of the verb, a function that is inapplicable with volunteered-stance verbs as in (15a).

With at least some factive verbs (*regret, notice*), the *that*-clause has a similar double function, serving both to characterize the product of the event argument of the verb and to provide the constitutive content of a fact (the semantic value of the DP containing the *that*-clause, perhaps headed by a silent noun ‘fact’).

Cases where complement clauses have several semantic functions at once are hard to account for on the standard view on which *that*-clauses act as referential terms standing for propositions, but they are accounted for straightforwardly on the present view. Another such case are *if*-clause complements of attitude predicates:

- (16) John would be happy if Mary came.

If Mary came in (16) both acts as the antecedent of a conditional and characterizes the content of the mental state described by the embedding predicate.

1.5. Other sentence-embedding predicates

That-clauses can go with other predicates than modal and attitudinal predicates, in particular when occurring in subject position. Truth predicates (*true, correct*) and evaluative predicates (*great, bad*) are examples. The view will be that *that*-clauses in subject position do not stand for propositions, but serve to characterize an attitudinal object, a kind of attitudinal object, or a fact. This goes along well with current views about the syntax of clausal subjects. There is general agreement in the syntactic literature that clausal subjects are not just CPs in subject position, but rather either occupy the topic position (Koster 1978) or else, as in the case of response-stance verbs, are part of a DP, as an apposition of an implicit nominal element (Kastner 2015). Either view is suited for a semantics of subject-clauses according to which they do not act as referential terms (taking propositions as semantic values), but serve to characterize a contextually given attitudinal object (or kind of attitudinal object), say a claim, suggestion or hypothesis or a fact, the semantic values of the DP or the empty element in

subject position. Some clausal predicates give semantic support for that view. For example, *correct* does not actually apply to propositions, with the relevant reading, but only something like a claim, suggestion or hypothesis (Moltmann 2015a).

(17) a. ??? The proposition that S is correct.

b. The claim / suggestion / hypothesis that S is correct.

Thus, (17c) will have the semantic analysis in (17d), where, again, $\text{ref}_s(e_N)$ is the attitudinal object the speaker *s* refers to with the silent nominal element e_N associated with *that* S:

(17) c. That is S correct.

d. [*That* S]($\text{ref}_s(e_N)$) & [*correct*]($\text{ref}_s(e_N)$)

With factive predicates (e.g. evaluative predicates), the *that*-clause would relate to a DP in subject position, containing a silent nominal element for facts.

2. The ontology of attitudinal object and modal objects

Attitudinal and modal objects (decisions, promises, requests, needs etc.) play a central role in the view this book develops, but they are not generally accepted or even discussed in contemporary metaphysics. Hence they require, if not a fully developed ontological theory, a thorough discussion, in relation to more familiar ontological categories. Here the focus will be on their characteristic properties which distinguish them from entities of other ontological categories, though I will also discuss whether attitudinal objects can be construed in terms of more familiar ontological categories.

What is important and new in the present project is the methodology that leads to the positing of attitudinal and modal objects, namely natural language ontology. Attitudinal and modal objects are part of the ontology of natural language, the ontology that a speaker accepts when using a language and that may be quite different from the ontology a philosopher is willing to accept or even an ordinary speaker when reflecting upon ‘what there is’ (Moltmann, to appear f). Attitudinal and modal objects act as semantic values of nouns (especially deverbal nominalizations) and special quantifiers, as referents associated with *that*-clauses in certain contexts, and as implicit arguments of predicates. The characteristic properties of attitudinal and modal objects are reflected in the semantics of those constructions, though they

also match certain language-independent intuitions about artifacts and mental states. Modal and attitudinal objects all share three crucial characteristics:

[1] They are bearers of truth or satisfaction condition.

[2] They enter into exact or close similarity relations on the basis of being the same in content.

[3] They have a part structure based on partial content.

These properties sharply distinguish them from actions and, at least in part, from propositions.

Ad [1]: Attitudinal and modal objects generally have truth conditions, or rather, more generally, satisfaction conditions. This is reflected in the great range of predicates of satisfaction to that can apply to attitudinal and modal objects (*was satisfied, was fulfilled, was executed, was followed, was broken, was complied with*). The applicability of such predicates sharply distinguishes attitudinal and modal objects both from sentences, propositions and ‘mental representations’ and from actions. Thus, neither sentences, propositions, mental representations or acts can be ‘fulfilled’, ‘satisfied’ or ‘broken’ (Ulrich 1979, Moltmann to appear a). Predicates of satisfaction clearly show that nouns like *decision, promise* and *request* cannot be viewed as ambiguous between standing for propositions and standing for acts, as the standard view would have it (e.g. Pustejovsky 1995). Rather they unambiguously stand for entities of a third kind, attitudinal or modal objects.

Ad [2]: For two attitudinal of the same type to be exactly similar or ‘the same’, it suffices that they be the same in content. This is how *John’s thought is the same as Mary’s, John’s promise is the same as Bill’s, John’s obligation is the same as Joe’s* are understood (Moltmann 2013, Chap. 4, 2014, to appear a). Obviously this condition fails to obtain for actions.

Ad [3]: Unlike actions, attitudinal and modal objects have a part structure that is strictly based on partial content (Moltmann to appear a, b). Thus, the expression *part of* when applied to attitudinal and modal objects (as in *part of the claim, thought / promise / request / obligation/need*) can pick out only a partial content, not a temporal part.

Some attitudinal objects are products of acts in the sense of Twardowski’s (1911) distinction between actions and products. Thus, a claim is the (illocutionary) product of an act of claiming, a promise the (illocutionary) product of an act of promising, and a decision a (cognitive) product of an act of deciding. Products in Twardowski’s sense are best understood as artifacts that lack a material realization or, in the case of decisions, a physical realization, ‘abstract’ artifacts in Thomasson’s (1999) sense (Moltmann 2014). Cognitive and illocutionary products generally do not last longer than the acts that produce them, and like

the corresponding acts, they come with a ‘force’, not just a content. However, products have fundamentally different sorts of properties from the acts, only some of which were noted by Twardowski (1911). Most importantly, they have the properties [1] - [3].

Modal products, not recognized as such by Twardowski, are entities like permissions, offers, and obligations, which may be produced by the very same illocutionary acts that produce illocutionary products. They share the properties [1] – [3] with cognitive and illocutionary products. However, modal products characteristically may endure past the act that establishes them. This difference is reflected linguistically, for example in the choice of tense below, in a situation in which had John promised last week to help Mary during the day of the utterance:

- (18) a. John’s promise was / ??? is to help Mary today.
 b. John’s obligation is to help.

There is also language-independent support for attitudinal and modal objects. First of all, general intuitions about our mental life reflect attitudinal and modal objects. Attitudinal objects such as beliefs, intentions, judgments, and decisions carry a content and play causal roles, which propositions can’t (we are made to act by a decision, an intention, a fear, not a proposition or an action). Moreover, attitudinal and modal objects, rather than propositions, appear to act as the content-bearing objects of memory (decisions, intentions, fears, thoughts, and obligations are what we remember, not propositions).

There are also language-independent intuitions from our social ontology in support of at least some attitudinal and modal objects, namely cognitive, illocutionary and as modal products. They are simply (‘abstract’) artifacts, though of a relatively simple sort, resulting from mental or illocutionary acts. Being part of the more general ontological category of (materially realized or abstract) artifacts, the recognition of cognitive, illocutionary, and modal products goes along with the recognition of artifacts as an important ontological category besides events, material objects, and abstract objects, as advocated by Ingarden (1931) and more recently Thomasson (2005). As with artifacts in general, cognitive, illocutionary, and modal products are the carriers of representational (and normative) properties, not the acts that created them. Representational properties (including satisfaction conditions) are characteristic of all attitudinal and modal objects, including those that do not result from acts. This means that their representational properties should not be viewed as resulting from those acts but be attributed to primitive intentionality.

There is a general question whether cognitive and illocutionary acts may have more than one product. Clearly, certain illocutionary acts (of requesting and permitting) may have both an illocutionary product and a modal product. Moreover, acts may have several non-modal products, which is plausible for speech acts that aim to say several things at once or permit several interpretations.

Cognitive and illocutionary products are spatio-temporally coincident with the act that created them (or at least the final stage of that act), which raises the question whether product could be viewed as ‘facets’ of acts, rather than independent objects. This might solve a puzzle regarding the part structure of products. Products have a part structure strictly based on partial content. However, they are also concrete objects that are located in time (and perhaps space) and play causal roles. This means that they are of an entirely different kind ontologically than the sum of their parts (partial contents). The same issue arises with artifacts such as books, which have been viewed as entities with two facets: as material objects and as information objects. The content-related aspects of attitudinal objects might then be considered making up a facet of an action. This move, however, could not carry over to mental states and modal objects, which also exhibit both properties of concreteness and a content-based part structure.

Kinds of attitudinal objects play an important role in the semantics of attitude reports and modal sentences as well, and they likewise are well-reflected in natural language: explicitly with terms of the sort *the thought that S*, *the belief that S* etc. and implicitly in the semantics of special quantifiers and pronouns. What individuates kind of attitudinal objects? The condition on the individuation of kinds that can be read off natural language is that two particular attitudinal objects belong to the same kind in case they are exactly or closely similar (‘are the same’), provided they are of the same sort (*John’s thought is the same as Mary’s thought*, *John’s claim is the same as John’s thought*). At least for cognitive products, the condition on the instances making up a kind will be that two products belong to the same kind in case they are produced by acts of the same type and are the same in content. But again a condition is required that covers kinds of attitudinal and modal objects in general.

3. Truthmaker semantics for attitudinal and modal objects

How do sentences characterize attitudinal and modal objects? The view that I will pursue is that they mainly do so by specifying their truth conditions, or more generally satisfaction conditions. More precisely, the primary function of sentences is to give the satisfaction conditions of modal or attitudinal objects. But sentences may have a possible, alternative

function, when embedded under locutionary verbs, namely of characterizing an attitudinal object in terms of the structure of its content-related, ‘rhetic’ composition (Section 5).

For the satisfaction-related meaning of sentences I will make use of Fine’s (2012, 2014, to appear) truth maker semantics, rather than possible-worlds semantics. Fine’s truthmaker semantics is based on a relation of exact truthmaking that holds between a situation s and a sentence S just in case s is wholly relevant for the truth of S , or, in the case of an imperative, between an action s and a sentence S just in case s is wholly relevant for the satisfaction of (or compliance with) S . There are general advantages of this approach for the semantics of attitude reports and modals, such as that of providing a suitably fine-grained notion of content, a notion of partial content, and a more adequate semantics of imperatives and counterfactual conditionals, as discussed in Fine’s work. But there are also specific reasons to make use of that approach for the semantics based on attitudinal and modal objects. This, though, requires particular modifications and extensions of truth maker semantics, extending, in particular the exact truthmaking relation (or more generally exact satisfaction relation) to a relation between situations (or actions) and attitudinal or modal objects. The motivations for such an *object-based truthmaker semantics*, as I will call it, are the following.

First, it allows to link truthmaker semantics to the intentionality of the mind. Mental states such as intentions and mental products such as decisions come with inherent satisfaction or realization conditions, and clearly, they are satisfied or realized not by worlds or world states, but rather by actions (in fact actions ‘by way of’ realizing the intention or decision, see below). This is also linguistically reflected, in the use of the *by*-locution (as in *John realized his intention / decision by doing X*). In fact, a rudimentary truthmaker semantics for mental states and products has been put forward by Searle (1983), for whom intentions and decisions (which come with a world-word/mind direction of fit) have actions as satisfiers, and beliefs, judgments, desires etc. have states of affairs as truthmakers or satisfiers. Truthmaker semantics should apply both to mental objects and to linguistic objects – illocutionary products as well as the artifacts that are sentences, in order to yield a more general theory of content.

Second, object-based truthmaker semantics can account for the fact that it may depend on the particular attitudinal or modal object what the satisfiers in question are. As Searle (1983) points out, intentions and requests do not take just actions as satisfiers, but rather actions ‘by way of’ fulfilling or complying with’ the intention or request, that is, actions with a particular gloss that makes reference to the intention or request itself. Thus, to use Searle’s example, doing something that accidentally kills my neighbor is not an action that fulfills my intention

to kill my neighbor, rather only an action with the intention doing so is. The same, one can add, holds for modal objects that are obligations. Other attitudinal or modal objects (hopes, beliefs, or epistemic modal objects, for example) do not require their satisfiers or truth makers to be of that sort.

Third, object-based truthmaker semantics permits a further application to the semantics of intensional transitive verbs such as *look for* and *owe*. Transitive intensional verbs are associated with products whose satisfiers are objects in situations rather than situations. A satisfier of a search is not a situation, but rather an object in a situation, and it will depend on the nature of the search what sort of situation it needs to be: John's search for a diamond requires a situation of John coming across an object; John's search for an assistant requires a situation of John hiring someone as an assistant; John's search for a person able to do the job requires a situation of recognizing an ability in an individual (Moltmann 2007). Similarly, satisfiers of debts are not situations but objects (Moltmann 2007). The satisfiers of products associated with intensional transitive verbs also play a central role in the semantics of constructions of the sort *the assistant John is looking for*, which stands for a variable object whose manifestations are objects in situations, the satisfiers of the search in question (Moltmann 2013, Chap. 5, to appear).

The object-based truthmaker semantics also permits an application to the semantics of interrogatives, based on illocutionary and cognitive products that are questions. Questions will then be either illocutionary products that have answers (assertions) as satisfiers or cognitive products (of inquiry) that have pieces of knowledge as satisfiers. Independent interrogatives and interrogatives embedded under verbs like *ask* and *wonder* will have corresponding satisfaction-based meanings. Interrogatives are embedded under 'extensional' verbs such as *know* or *announce* will have a more derivative meaning, serving not to characterize a question, but satisfiers of a question (in one of two senses), such as a piece of knowledge or an assertion.

Modal and attitudinal objects play an additional semantic role besides that of being implicit arguments of modal and attitudinal predicates (and referents of terms explicitly referring to them): they may themselves serve as satisfiers of modal sentences or attitude reports, or rather of other modal or attitudinal objects characterized in terms of such sentences.

Another important advantage of objects-based truthmaker semantics concerns the possibility of underspecification of the content of an attitude (modality) by a sentence (or sentential unit). For example, the complement clause may underspecify the reported desire in

a desire reports like (19a), discussed by Fara Graff (2014) as a problem for the standard view of attitude reports. (19b) illustrates the same problem with a modal verb:

- (19) a. Fiona wants to catch a fish.
 b. Fiona must catch a fish (in order to have something for dinner).

Fiona's desire, according to (19a) is not satisfied if she catches any fish whatsoever, but, most likely only a fish she can eat, and so for her need in (19b). This sort of underspecification is accounted for straightforwardly within object-based truthmaker semantics. In general, what the satisfiers in question are depends on the particular attitudinal or modal object in question, not the sentence used to characterize it, which may give only necessary, not sufficient conditions for its satisfaction.

While the clausal complement in (19a) does not give the full constraints on the situations satisfying the desire, the desire itself will come with constraints as to what situations satisfy it. The same may, at least to an extent, explain the discrepancy of the content of an independent sentence that has been uttered and 'what is said' as well as the content of a *that*-clause and the actual reported belief. The attitudinal object may be more specific and incorporate various 'contextually determined' elements (see Section 6).

Fine's truth maker semantics will not just be extended to attitudinal and modal objects, but also significantly modified, in particular for the semantics of modal sentences. On the modal objects-based semantics of modals, modals of possibility and modals of necessity will not lead to a difference at logical forms (in terms of universal and existential quantification over circumstances); rather the distinction between the two modals is attributed to the nature of modal objects, or rather whether or not they have violators. Modal objects of possibility will have only satisfiers (e.g. permissions have the actions they allow as satisfiers), whereas modal objects of necessity will have both satisfiers and violators (e.g. obligations have certain actions as satisfiers and other actions as violators). Also certain cognitive and illocutionary products are distinguished that way: requests have satisfiers and violators, invitations and offers have only satisfiers. The general *satisfaction-based meaning* of a sentence *S* then will be the property of modal and attitudinal objects below:

$$(20) [S] = \lambda d[\forall s(s \Vdash d \rightarrow s \in \Vdash S)) \ \& \ \forall s(s \Vdash d \rightarrow s \Vdash S)]$$

Here \Vdash (\Vdash) is the exact truthmaking/satisfaction (falsmaking/violation) relation that holds between a situation or action s and an attitudinal or modal object d just in case s is wholly relevant for the truth/satisfaction (falseness/violation) of d . \Vdash is the relation of inexact truthmaking between a situation or action and a sentence, and $\dashv\Vdash$ the relation of inexact falsmaking.

The valid inferences that are the subject matter of modal logic will be accounted for on the basis of the satisfiers and violators of modal objects, ontological conditions on ‘generating’ modal objects under particular conditions, and contextual constraints on the presence of modal objects in the domain.

(20) gives a single meaning of sentences applicable to all modal and attitudinal objects. However, this is not entirely adequate. Particular types of sentences impose particular conditions on the attitudinal or modal object they may apply to, on the type of satisfiers, the actuality of satisfiers, or the direction of fit. Conditions of this sort may be encoded by the sentence type (declarative-imperative-interrogative), the type of embedded sentence (*that*-clauses vs infinitival clauses), and verbal mood (such as subjunctive in different languages). It will be explored to what extent the semantics based on attitudinal and modal objects captures better the sorts of constraints imposed by sentence types and mood than a proposition-based or possible worlds-based semantics.

Attitudinal and modal objects may not just come with satisfaction conditions as in (20). Both modal and attitudinal objects may be associated with a *background*, an object whose satisfaction conditions represent the presuppositions of the modal or attitudinal object. Thus permissions may come with preconditions that may or may not be fulfilled by an action, and desires may come with background beliefs that would need to be fulfilled for a situation to satisfy or fail to satisfy the desire. Semantically, backgrounds of modal or attitudinal objects will play a role for conditional obligations or permissions as well as for presuppositions and unbound anaphora (Section 6).

4. Connections between attitudes and modals

Both modal and attitudinal objects have truthmakers (satisfiers) and possibly falsmakers (violators), moreover, attitudinal and modal objects may be products of the very same acts. This allows for an account of certain connections between modals and attitude verbs that are hard to account for on standard views, especially the relational view of attitudes.

First, if attitudinal and modal objects are products of possibly the same illocutionary act this allows for a novel account of performative uses of both illocutionary and modal verbs, as below.

- (21) a. I order you leave.
 b. You must leave.

The performative use of the modal sentence (19b), under suitable circumstances of authority, can achieve the very same thing as the (more familiar) performative use of (19a), namely putting the speaker under an obligation. The performative use of an illocutionary verb as in (19a) produces both a request and (under suitable circumstances) an obligation. When a modal as in (19b) is used performatively it thereby produces that very same obligation. Performative uses of modals pose a serious difficulty for the standard account on which modals range over deontically ideal worlds (though there is a discourse-semantic treatment, on which performative modals and imperatives alike add to a ‘to do list’ as part of the discourse representation, cf. Portner 2007).

Given the semantics based on attitudinal and modal objects, (21a) can be assigned as its meaning, roughly, the property of illocutionary products in (22a), and modal sentences used performatively such as (21b) the property of modal products in (22b), where s_d is the speaker of d :

- (22) a. $\lambda d[\exists e(d = \text{product}(e) \ \& \ \text{order}(e, s_d) \ \& \ [\textit{you to leave}])(d)$
 b. $\lambda d[\text{must}(d) \ \& \ [\textit{you leave}]](d)$

In (22a) the illocutionary product is the product of the event argument of the verb and in (22b) the modal product is itself the argument of the modal verb.

The same connection between attitude verbs and modals is reflected in inferences involving non-performative uses of attitude verbs and modals, such as, under suitable circumstances, from (23a) to (23b):

- (23) a. John asked Mary to help.
 b. Mary must / should help.

John’s act of asking may produce a request as well as an obligation (on the part of Mary).

This semantics of performative uses of modals also permits a straightforward account of ‘harmonic’ modals (as A. Kratzer calls them in recent presentations), as in (24a), where the modal does not seem to contribute semantically to the content of the demand (which may consist just in the content of an imperative ‘leave’ and could just as well have been reported by (24b):

- (24) a. John demanded that Bill should leave.
 b. John demanded for Bill to leave.
 c. $\lambda d[\text{should}(d) \ \& \ [\textit{Bill leave}](d)]$

In (24a) the modal is in fact a performative use of a modal in an embedded context, with the complement clause expressing the property in (22c) and serving to characterize the modal product produced by the act of demanding.

5. Relevance for current debates in the philosophy of language

The semantic theory based on attitudinal and modal objects that is developed in this book bears on three central issues in the contemporary philosophy of language, and the book will discuss how it contributes to the debates and how it may be further developed so as to represent new positions within those debates.

First, the potential underspecification of an attitudinal object by the sentence used to characterize it bears on the current debate about the semantics-pragmatics distinction. That debate involves the question how much ‘contextual information’ relevant to ‘what is said’ by the utterance of a sentence should be made part of the content of the sentence in the utterance context and how much can be attributed to the pragmatic context in which the sentence is used. Contextual elements that are made part of the content of the sentence (in an utterance context) raise notorious issues. One of them is how they can enter the composition of the meaning of the sentence – especially if they fail to have a syntactic basis. Another one is how they may be identifiable as part of the communicative intention of the speaker, which present a particular problem for embedded sentences used to report the attitude of another agent (Schiffer 2003, Bunchanan/Ostertag 2005, Buchanan 2012). The present approach permits a new approach to the debate in that it can take recourse to attitudinal objects, which are maximally specific and carry full truth or satisfaction condition, and they need to be only partially characterized by the sentence in question. In fact, ‘what is said’ is a term involving

the nominalizing pronoun *what* and thus should precisely stand for a product of the act of saying (and as such may be richer than the content used to characterize it). This attitudinal objects view allows unburdening the semantics of sentences, which no longer need to represent ‘what is said’ and include in its semantic value all the relevant ‘contextually determined’ elements. The recourse to attitudinal objects also applies to sentences embedded under attitude verbs, where again, the embedded sentence need to give only a partial characterization of the attitudinal object.

The view of course also permits for certain sorts of contextual elements to be part of the intended characterization of the attitudinal object in question. This is needed for cases where, say, an attitude report may have different truth conditions, depending on the intended contextual elements (such as Kripke’s case *Pierre believes that London is pretty*, which may be true or false, depending which mode of presentation of London is meant).

Attitudinal objects need to be supplemented by a background, which represents its presuppositions and may also include discourse-related information regarding anaphoric elements (Section 3).

The attitudinal-objects view also promises a new approach to externalism, the view that concepts that should be part of the content of an attitude may be outside the epistemic reach of the agent. Given the present theory, these elements may be part of the attitudinal object and determine its satisfaction condition, but they need not be part of its ‘internal content’ (in a suitable sense).

Similarly the theory permits a novel approach to attitudes *de se* (and the agent’s own time and location). In an attitude *de se*, the agent (or time or place of the attitude) will be part of the attitudinal object, which, let’s say, is based on a rhetic product of an act of self-predication of a property of individuals of the agent (or a property of time of the time of the attitude or a property of places of the place of the attitude). An account along these lines solves a problem that was pointed out by Stalnaker (1981) in regard to Lewis’ (1979) account of attitudes *de se* as consisting in the self-ascription of a property. The observation is that when an anaphor relates to an attitude *de se*, such as *that* below, it will refer to something truth-conditionally complete and could not just stand for a property:

(29) John claims to be innocent. That is in fact true.

Attitudinal objects with a *de se* content, such as ‘John’s claim to be innocent’, are by nature truth-conditionally complete even if they are based on the self-ascription of a property.

Special or nominalizing pronouns such as *that* in (29) always refer to attitudinal objects (or kinds of them) and do not stand for the content of the apparent antecedent clause (the property that for Lewis would be expressed by it).

The present view finally permits a new approach to the multidimensionality of meaning, as explored by Potts (2005). Attitudinal objects do not just have truth or satisfaction conditions, but may involve a range of other features such as a physical form. Moreover, they may come with a background representing its presuppositions. A sentence need not just express a property specifying the satisfaction of an attitudinal object, but may express a complex of properties targeting different components or facets of an attitudinal object.

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Chapter Descriptions

Chapter 1: Propositions, the relational view of attitude reports and its alternative

This chapter starts with presenting the abstract-propositions view and the relational view of attitude. It will discuss the various problems for abstract propositions in relation to the relational view as well as empirical problems for the Relational Analysis of attitude reports (such as the Substitution Problem and the Objectivization Effect). Furthermore, the chapter will discuss recent and historical act-based alternatives to abstract propositions, which identify propositions with types of cognitive acts, yet adhere to the relational view of attitudes. This will lead to the main part of the chapter, the notions of an attitudinal and a modal object. The chapter will give general, philosophical and linguistic motivations for them and a first outline of the semantics of sentences as characterizing modal and attitudinal objects, focusing on simple attitude reports and modal sentences. It will also give a brief presentation of the semantic of special quantifiers and pronouns when they take the position of clausal complements.

Previous relevant publications

For the critique of abstract propositions, the relational view and Relational Analysis:

Moltmann, F. (2003b): 'Propositional Attitudes without Propositions'. *Synthese* 135, 70-118.

Moltmann, F. (2013): *Abstract Objects and the Semantics of Natural Language*. Oxford UP, Oxford, Chap. 4.

For the notion of an attitudinal object and a cognitive product:

Moltmann, F. (2014): 'Propositions, Attitudinal Objects, and the Distinction between Actions and Products'. *Canadian Journal of Philosophy* 43 (5-6), 679-701.

Moltmann, F. (to appear a): 'Cognitive Products and the Semantics and Attitude Verbs and Deontic Modals'. In F. Moltmann / M. Textor (eds.): *Act-Based Conceptions of Propositional Content*, Oxford University Press, New York, 2017

Forthcoming related publication

Invited contribution, In C. Tillman (ed.): *Routledge Handbook on Propositions*, Routledge, New York.

Chapter 2: Object-based truthmaker semantics

This chapter develops object-based truthmaker semantics, based on Fine's sentence-based truth maker semantics. It will first give a presentation of Fine's truth maker semantics and then develop the object-based version of it, with its various motivations and semantic applications. It will furthermore elaborate the new semantics of modals in terms of the

absence or presence of violators and give further syntactic and semantic motivations for it. Furthermore, the chapter will show how the object-based truth maker semantics captures connections between modals and attitude verbs based on a novel account of performatively used modals.

Previous relevant publications

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

Proceedings of the 20th Amsterdam Colloquium, December 16-18, 2015, online

Moltmann, F. (to appear a): ‘Cognitive Products and the Semantics and Attitude Verbs and Deontic Modals’. To appear in F. Moltmann / M. Textor (eds.): *Act-Based Conceptions of Propositional Content*, Oxford University Press, New York, December 2017.

Moltmann, F. (to appear d): ‘Variable Objects and Truthmaking’. In M. Dumitru (ed.): *The Philosophy of Kit Fine*, Oxford University Press, New York, to appear.

Moltmann, F. (to appear e): ‘Intensional Relative Clauses and the Semantics of Variable Objects’. To appear in M. Krifka / M. Schenner (eds.): *Reconstruction Effects in Relative Clauses*. Studia Grammatika, Akademie Verlag, Berlin.

Forthcoming related publication

Moltmann, F. (to appear g): ‘A Truthmaker Semantics for Modals and Attitude Reports’.

A. Egan / P. van Elswyck / D. Kinderman (eds.): *Unstructured Content*. OUP.

Previous presentations

Numerous talks and ESSLLI 2015 (Barcelona), advanced course ‘Act-Based Conceptions of Propositional Content’, Lecture 3

Chapter 3: The ontology of attitudinal and modal objects

This chapter gives an in-depth discussion of the ontology of attitudinal and modal objects against the background of the methodology of natural language ontology. It will start by clarifying the distinction between mental states (intentions, beliefs, fears etc) and cognitive products (decisions), the notion of a cognitive (and illocutionary) product, based on various philosophical views of mental states. It will then present in detail the historical distinction between actions and products of Twardowski and introduce further criteria for the action-product distinction. It will argue that cognitive and illocutionary products are best understood in terms of the notion of an artifact, in roughly the sense of Ingarden’s and Thomasson’s work. The chapter will also introduce the notion of a modal product as an enduring product of an illocutionary or cognitive act, as a major deviation from Twardowski. The chapter will

furthermore distinguish illocutionary product from locutionary and phatic products, based on Austin's distinction between phonetic, phatic, locutionary and illocutionary acts, arguing for the importance of the action-product distinction at each level of linguistic acts. It will be emphasized that cognitive, illocutionary and modal products be considered part of a larger class of objects, attitudinal and modal objects not all of which can be viewed as artifacts produced by acts, though they play the same sort of role in the semantics of attitude reports and modal sentences and share the same characteristics (having truth or satisfaction conditions, entering similarity relations based on being the same in content, and having a part structure strictly based on partial content).

Previous relevant publications

Moltmann, F. (2014): 'Propositions, Attitudinal Objects, and the Distinction between Actions and Products'. *Canadian Journal of Philosophy* 43 (5-6), 2014, 679-701.

Moltmann, F. (to appear a): 'Cognitive Products and the Semantics and Attitude Verbs and Deontic Modals'. In F. Moltmann / M. Textor (eds.): *Act-Based Conceptions of Propositional Content*, Oxford University Press, New York, 2017.

Moltmann, F. (to appear b): 'Partial Content and Expressions of Part and Whole. Discussion of Stephen Yablo: *Aboutness*'. *Philosophical Studies* 2016, online first.

Moltmann, F. (to appear f): 'Natural Language Ontology'. *Oxford Encyclopedia of Linguistics*, Oxford UP, Oxford, online February 2017.

Previous presentations

Numerous talks about attitudinal and modal objects and natural language ontology and ESSLI 2015 (Barcelona), advanced course 'Act-Based Conceptions of Propositional Content', Lecture 2

Chapter 4: Attitudinal objects and the semantics of clausal constructions

This chapter extends the semantic account of simple attitude reports given in Chapter 2 to a range of other clausal constructions, such as clausal complements with response-stance and factive verbs, and clausal subjects. The semantic analyses in this chapter will be developed in close connection to current research in generative syntax on clausal complements and subjects as well as lexical theory (the representation of predicate meanings in syntax). The chapter will also include a compositional semantics of sentences with embedded clauses of the various sorts and with special quantifiers or pronouns in clausal position. While part of material of this chapter have already been presented in published work, the book adds significant

additions, especially regarding syntactic issues, and moreover develops it much further, beyond ‘simple’ attitude reports and modal sentences.

Previous relevant publications

On clausal subjects:

Moltmann (2015): ‘Truth Predicates in Natural Language’. In D. Achourioti et al. (eds.): *Unifying the Philosophy of Truth*. Synthese Library Springer, Dordrecht, 2015, 57-83.

On response-stance verbs:

Moltmann, F. (to appear b): ‘Partial Content and Expressions of Part and Whole. Discussion of Stephen Yablo: *Aboutness*’. Invited contribution to a book symposium on S. Yablo *Aboutness. Philosophical Studies*. 2016, online first.

On complement clauses:

Moltmann (to appear a): ‘Cognitive Products and the Semantics and Attitude Verbs and Deontic Modals’. In F. Moltmann / M. Textor (eds.): *Act-Based Conceptions of Propositional Content*, Oxford University Press, New York, 2017.

Previous presentations

Numerous talks and ESSLLI 2015 (Barcelona), advanced course ‘Act-Based Conceptions of Propositional Content’, Lecture 3

Chapter 5: Further issues and possible extensions

This chapter will discuss a number of issues in the current debate in the philosophy of language and how the view developed in the book relates to them. It will also indicate some extensions of the view. The issues will include the underspecification and the semantics-pragmatic debate, attitudes *de se*, and the multidimensionality of meaning. The extensions will concern a further development of the notion of a background of an attitudinal object, the treatment of context-dependency, the semantics of attitudes *de se*, and the semantics of verbs of saying.

Particular features of the book in relation to existing approaches

The view developed in this book contrasts most obviously with the abstract-propositions view and the relational view of attitude reports that goes along with it. Whereas there have been various philosophical critiques of the relational view of attitudes, they have not lead to a

systematic development of an alternative semantics that covers the full range of attitude reports, modal sentences, and other sentence-embedding contexts.

Like recent act-based approaches to propositional content (Soames 2010, Hanks 2011, 2015), the book explores a cognitively realistic approach to the content of attitudes, but by making use of different notions from that of a cognitive act, namely that of a cognitive product of an act as well as that of a mental state. This allows solving a range of serious difficulties for the approaches of Soames and Hanks. The theories of Soames and Hanks are tailored to clausal complements of verbs describing nonfactive occurrent mental acts. By contrast, the semantics the book will develop allows embedded sentences to apply to a wide range of attitudinal and modal objects, including mental states and modal objects that are not products of acts. Moreover, unlike views that identify propositions with types of acts, it avoids having to reduce the intentionality of mental states to the intentionality of mental acts (but is compatible with a view such as Searle's (1983) according to which the intentionality of states is prior to that of acts).

The book will also distinguish itself from most work on attitude reports in philosophy of language by taking syntax seriously into account. In particular, the book will seriously take into account recent syntactic views of clausal complementation as well as well as research in generative lexical theory.

Finally, the book will connect core issues in contemporary philosophy of language and linguistic semantics with lesser known traditions in early analytic philosophy (Twardowski, Ingarden). It aims to take critically into account not only contemporary act-based-conceptions of propositional content, but also those of the phenomenological and early analytic tradition (Husserl, Reinach, Meinong) (cf. Moltmann/Textor, to appear),

References

- Anand, P. / A. Brasoveanu (2010): 'Modal Concord as Modal Modification'. In *Proceedings of Sinn and Bedeutung* 14, 19-36
- Austin, J. L. (1962): *How to do Things with Words?*. Harvard UP, Cambridge.
- Bach, K. (1997): 'Do Belief Reports Report Beliefs?'. *Pacific Philosophical Quarterly* 78, 215-241.
- Buchanan, R. (2012): 'Is Belief a Propositional Attitude'. *Philosophers' Imprint* 12.1, 1-20.
- Buchanan, R. / G. Ostertag (2005): 'Has the Problem of Incompleteness Rested on a Mistake'. *Mind* 114 (456), 889-913.

- Cattell, R. (1978): 'On The Source of Interrogative Adverbs'. *Language* 54, 61-77.
- Cresswell, M. (1985): *Structured Meanings*. MIT Press, Cambridge.
- Fara Graff, D. (2013): 'Specifying Desires'. *Noûs* 47(2), 250-272.
- Fine, K. (2012): 'Counterfactuals without Possible Worlds'. *Journal of Philosophy* 109 (3), 221-246
- Fine, K. (2014): 'Truth-Maker Semantics for Intuitionistic Logic'. *Journal of Philosophical Logic* 43, 2-3, pp 549-577
- Fine, K. (to appear): 'Truthmaker Semantics'. B. Hale / C. Wright (eds.): *Blackwell Companion to Philosophy of Language*, Blackwell, New York.
- Frege, G. 1918/9. 'Thoughts'. In B. McGuinness, ed. *Collected Papers on Mathematics, Logic, and Philosophy*, Oxford: Blackwell, 1984, 351-372.
- Gaskin, R. 2008. *The Unity of Propositions*. Oxford: Oxford UP.
- Hale, K. and J. Keyser (1997) "On the Complex Nature of Simple Predicators", in A. Alsina, J. Bresnan /and P. Sells (eds.): *Complex Predicates*. CSLI Publications, Stanford University, Stanford, CA, 29-65.
- Hale, K. and S.J. Keyser (2002): *Prolegomenon to a Theory of Argument Structure*, MIT Press,
- Hanks, P. W. (2011): 'Propositions as Types'. *Mind* 120, 11-52.
 ----- (2015): *Propositional Content*. Oxford UP, Oxford.
- Harves, S. / R. Kayne (2012): 'Having *need* and needing *have*'. *Linguistic Inquiry* 43.1, 120–132.
- Ingarden, R. (1931): *Das literarische Kunstwerk. Eine Untersuchung aus dem Grenzgebiet der Ontologie, Logik und Literaturwissenschaft*, Halle: Max Niemeyer. Translation as *The Literary Work of Art* by G. Grabowocz, 1974, Northwestern UP.
- Jubien, M. (2001): 'Propositions and the Objects of Thought'. *Philosophical Studies* 104, 47-62.
- Kastner, I. (2015): 'Factivity Mirrors Interpretation: The Selectional Requirements of Presuppositional Verbs'. *Lingua* 164, 156-188.
- King, J. (2002): 'Designating Propositions'. *Philosophical Review* 111, 341-471.
- King, J. (2007): *The Nature and Structure of Content*. Oxford UP, Oxford.
- Matthews, R. (2007): *The Measure of Mind. Propositional Attitudes and their Attribution*. Oxford: Oxford UP.
- Moltmann, F. (2003a): 'Nominalizing Quantifiers'. *Journal of Philosophical Logic* 35.5. 445-481.

- Moltmann, F. (2003b): 'Propositional Attitudes without Propositions'. *Synthese* 135, pp. 70-118.
- Moltmann, F. (2008): 'Intensional Verbs and Their Intentional Objects'. *Natural Language Semantics* 16.3., pp. 239-270.
- Moltmann, F. (2010): 'Relative Truth and the First Person'. *Philosophical Studies* 150.2. 2010, 187-220.
- Moltmann, F. (2013): *Abstract Objects and the Semantics of Natural Language*. Oxford UP, Oxford.
- Moltmann, F. (2014): 'Propositions, Attitudinal Objects, and the Distinction between Actions and Products'. *Canadian Journal of Philosophy* 43 (5-6), special issue on propositions, edited by G. Rattan and D. Hunter, 679-701.
- Moltmann, F. (2015a): 'Truth Predicates in Natural Language'. In D. Achourioti et al. (eds.): *Unifying the Philosophy of Truth*. Synthese Library Springer, Dordrecht, 57-83.
- Moltmann, F. (2015b): '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.
- Moltmann, F. (to appear a): 'Cognitive Products and the Semantics of Attitude Verbs and Deontic Modals'. In F. Moltmann / M. Textor (eds.): *Act-Based Conceptions of Propositional Content. Contemporary and Historical Perspectives*. Oxford UP.
- Moltmann, F. (to appear b): 'Partial Content and Expressions of Part and Whole. Discussion of Stephen Yablo: *Aboutness*'. Invited contribution to a book symposium on S. Yablo *Aboutness*. *Philosophical Studies*. 2016, online first.
- Moltmann, F. (to appear c): 'Levels of Linguistic Acts and the Semantics of Saying and Quoting', In S.L. Tsohatzidis (ed.): *Interpreting Austin: Critical Essays*. Cambridge UP, Cambridge, to appear in 2017.
- Moltmann, F. (to appear d): 'Variable Objects and Truthmaking'. To appear in M. Dumitru (ed.): *The Philosophy of Kit Fine*, Oxford University Press, New York.
- Moltmann, F. (to appear e): 'Intensional Relative Clauses and the Semantics of Variable Objects'. To appear in M. Krifka / M. Schenner (eds.): *Reconstruction Effects in Relative Clauses*. Studia Grammatika, Akademie Verlag, Berlin.
- Moltmann, F. (to appear f): 'Natural Language Ontology'. *Oxford Encyclopedia of Linguistics*, Oxford UP, Oxford, online February 2017.
- Moltmann, F. (to appear g): 'A Truthmaker Semantics for Modals and Attitude Reports'. A. Egan / P. van Elswyck / D. Kinderman (eds.): *Unstructured Content*. OUP, under

- contract.
- Moltmann, F. / M. Textor (eds.): *Act-Based Conceptions of Propositional Content. Historical and Contemporary Perspectives*. Oxford University Press, New York, to appear in 2017.
- Kastner, I. (2015): ‘Factivity mirrors Interpretation : The Selectional Requirements of Presuppositional Verbs’. *Lingua* 164:156-188
- Koster, J. (1978): ‘Why Subject Sentences don’t exist’. In J.S. Kayser (ed.): *Recent Transformational Studies in European Languages*, 53-64.
- Lewis, D. (1979): ‘Attitudes *de dicto* and *de se*’. *Philosophical Review* 88, 513–543.
- Portner, P. (2007): ‘Imperatives and Modals’. *Natural Language Semantics* 15, 351–383.
- Potts, C. (2005): *The Logic of Conventional Implicature*. Oxford UP, Oxford.
- Prior, A. (1971): *Objects of Thought*. Oxford: Clarendon Press.
- Pustejovsky, J. (1995): *The Generative Lexicon*. Cambridge, MA: MIT Press.
- Rosefeldt, T. (2006): ‘“That”-Clauses and Non-Nominal Quantification’. *Philosophical Studies* 133, 301-333.
- Schiffer, S. (2003): *The Things we Mean*. Clarendon Press, Oxford.
- Searle, J. (1969): *Speech Acts*. Cambridge UP, Cambridge.
- Searle, J. (1983): *Intentionality*. Cambridge UP, Cambridge.
- Soames, S. (1987): ‘Direct Reference, Propositional Attitudes, and Semantic Content’. *Philosophical Topics* 15, 47-87.
- Soames, S. (2010): *What is Meaning?* Princeton: Princeton UP.
- Stalnaker, R. (1981): ‘Indexical Belief’. *Synthese*, 49, 129–151.
- Stalnaker, R. (1984): *Inquiry*. MIT Press, Cambridge.
- Thomasson, A. (1999): *Fiction and Metaphysics*. Cambridge: Cambridge UP.
- Thomasson, A. (2005): ‘Ingarden and the Ontology of Cultural Objects’. A. Chrudzimski, ed.: *Existence, Culture, Persons: The Ontology of Roman Ingarden*. Ontos, Frankfurt.
- Twardowski, K. (1911): ‘Actions and Products. Some Remarks on the Borderline of Psychology, Grammar, and Logic’. In J. Brandl / J. Wolenski, eds.: *Kazimierz Twardowski. On Actions, Products, and Other Topics in the Philosophy*. Amsterdam and Atlanta: Rodopi, 1999, 103-132.
- Ulrich, W. (1976): ‘An Alleged Ambiguity in the Nominalizations of Illocutionary Verbs’. *Philosophica* 18.2., pp. 113-127.