**Chapter 2**

**The Ontology of Attitudinal and Modal Objects**

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Attitudinal and modal objects play a central role in the approach of this book, that is, objects we refer to as claims, judgments, assumptions, ideas, hypotheses, claims, needs, obligations, and permissions, in short s-objects. The project of this book is to show that starting out with an ontology of attitudinal and modal objects of can shed new light on a great range of linguistic and philosophical issues regarding propositional attitudes and modals, as well as, with a further extension, verbs of saying and quotation. The method of pursuing this ontology is that of descriptive metaphysics, metaphysics whose subject matter is the ontology that is reflected in our ordinary judgments or intuitions, linguistic or otherwise.

This chapter will argue in detail that attitudinal and modal objects form an ontological category of their own, distinct from events, states, and propositions. It will elaborate their ontology in two respects.

First, it will clarify what sorts of properties characterize attitudinal and modal objects, in particular their ability of having satisfaction conditions. The satisfaction conditions of attitudinal and modal objects will be conceived as in terms of truthmaker semantics in the sense of Fine (2017). In fact, attitudinal and modal objects give specific novel motivations for truthmaker semantics, as we will see in this and in the next chapter.

Second, this chapter will discuss the relation of attitudinal and modal objects to acts from which they may result and argue that at least certain attitudinal and modal objects are to be viewed as artifacts resulting from such acts. This view differs from the notion of a product of Twardowski (1911), which, though, can be viewed as a historical predecessor of the notion of an attitudinal object. This chapter will argue specifically against the view of Twardowski (1911) on which act-related attitudinal objects are just aspects of the act, rather than entities distinct from it.

**1. Preliminary linguistic remarks.**

Before elaborating the ontology of attitudinal and modal objects, I will start out with three preliminary linguistic remarks, which indicate the importance of attitudinal and modal objects in the semantics of natural language.

**1.1. Simple and complex attitude predicates**

A first motivation for attitudinal and modal objects playing a role in the semantics of attitude reports is the existence of complex attitudinal and modal predicates. The standard, proposition-based analysis of attitude reports, as mentioned in Chapter 1, is focused on attitude reports with an attitude verb taking a clausal complement as below:

(1) a. John believes that S.

b. John claims that S.

On the standard view, attitude reports of this sort are taken to bear their logical form on their sleeve, namely on which the *that*-clauses is a proposition-referring terms (an assumption that leads to the various problems that have been mentioned in Chapter 1). The present approach to attitude reports does not take attitude reports like (1b) as its starting point, but rather focuses attitude reports with complex predicates, consisting of a light verb (such as *have* or *make*) and a noun taking a clausal modifier:

(2) a. John’s has the belief that S

b. John made the claim that S

The noun in complex attitude reports generally describes an attitudinal objects and the clause acts as a predicate modifier of the noun, specifying the satisfaction conditions of the attitudinal object that is described. In (2a, b), *have* and *make* express relations that hold between an agent and an attitudinal object the agent engages in. The semantic behavior of the nominal construction *the belief that* S and *the claim that* S is a significant source of intuitions regarding the ontology of attitudinal objects (but not the only one). The compositional semantics of complex attitude reports only requires positing attitudinal objects and no propostions:

(3) ∃d(have(John, d) & belief(d, John) & [*that* S](d))

Attitudinal object nouns appear not only in attitude reports as in (2a, b), but also in specificational sentences as below:

(4) a. John’s belief is that he will win.

b. John’s claim is that he will win.

In specificational sentences such as (4a, b), the *that*-clause following *be* gives the content of the attitudinal object and *is* conveys the relation that holds between a content bearer and its content. Specificational sentences are a standard criterion for entities that are content bearers.[[1]](#footnote-1)

Modals likewise can come with complex predicates. Thus the simple verb *need* alternates in English with the complex modal predicate *have a need* or *have the need*, with explicit reference to a modal object:

(5) a. John needs to work.

b. John has the need to work.

The compositional semantics of (5a) involves the attribution of a content to a need, parallel to (3):

(6) ∃d(have(John, d) & need(d) & [*John to work*](d))

Thus, there are attitude reports and modal sentences that consist in the attribution of a content to an attitudinal or modal object. A further question is whether all attitude reports and modal sentences can be analysed semantically as involving the attribution of a content to an attitudinal or modal object, a question answered positively in Chpater 5.. But for the time being the existence of complex attitude and modal predicates instead of simple ones will suffice for showing the semantic importance of modal and attitudinal objects.

**1.2. The standard view of attitudinal nouns**

Another general linguistic remark about nouns like *belief* and *claim* is in order. On the present view, nouns like *belief* and *claim* denote attitudinal objects, entities distinct from both acts and propositions. This view differs from the standard view on which such nouns are polysemous, denoting either events or propositions. This is related to a standard assumption both in philosophy and in natural language semantics, namely that there are two sorts of objects associated with propositional attitudes and illocutionary acts: [1] acts or states and speech acts and [2] Propositions as the objects or contents of propositional attitudes or illocutionary acts.

Standardly, beliefs, desires, hopes, and intentions are considered mental states, belonging to the same ontological as mental acts or events. Actions, events, and states are generally taken for granted ontologically or at least not in further need of explanation. They are equally well-accepted in linguistic semantics and in particular posited as implicit arguments of verbs, following the influential Davidsonian analysis of action sentences (Davidson 1967).

Propositions of course have become standard in philosophy of language, though there are serious problems associated with them, as discussed in Chapter 1.

The standard, proposition-based view takes nouns like *judgment* and *claim* to be ambiguous between standing for mental events or speech acts and standing for propositions (see, for example, Pustejovsky 1995, Thomson 2008). That is to account for the observation that such predicates allow on the one hand for content-related predicates such as *true* (which could apply to propositions) and on the other hand for predicates of concreteness, specifying, for example, a temporal duration or causal relation. However, there are good reasons to consider such nouns univocal, standing for entities of a third kind, namely attitudinal objects. One reason is that they permit at once predicates of concrete objects and truth predicates:[[2]](#footnote-2)

(9) a. John remembered his false judgment that S.

b. Mary overheard John’s true claim that S.

c. John’s obviously false claim yesterday caused astonishment.

Another, more important reason is the applicability of various predicates that could not apply in the same way to either propositions or events. In fact, beliefs, judgments, and claims belong to a category of objects -- the category of attitudinal objects -- which have a range of linguistically well-reflected characteristics that together distinguish them both from propositions and from actions. In particular, predicates of satisfaction can apply to a request, a piece of advice, or a promise, but neither to an action nor a proposition (Ulrich 1976, Moltmann 2014, 2017c):

(10) a. John fulfilled the request.

b. ??? John fulfilled the act of requesting / a proposition.

(11) a. Joe followed the advice

b. ??? Joe followed the act of advising / a proposition.

(12) a. John broke the promise

b. ??? John broke the act of promising

The applicability of predicates of satisfaction makes particularly clear that nouns like *request, advice,* or  *promise* could not stand for acts or propositions: neither acts nor propositions can be ‘fulfilled’, ‘followed’, or ‘broke’, a point emphasized by Ulrich (1976).

**1.3. Problems for a Davidsonian event-based account of attitude reports**

On Davidson (1967) event semantics, events are implicit arguments of verbs so that adverbials can be considered predicates of events as in (13b) for (13a)

(13) a. John walked slowly.

b. ∃e(walk(e, John) slowly(e))

Events are in the same way motivated as implicit arguments of attitude verbs, which allow, for example, for temporal adverbials and manner adverbials:[[3]](#footnote-3)

(14) a. John finally assumed that Mary was not interested in the project.

b. John with little effort concluded that the problem was unsolvable.

Davidsonian event semantics has enjoyed an enormous popularity in linguistic semantics. This makes it tempting to use it also for a semantics of attitude reports that is not based on propositions, but rather on clausal complements acting as predicates of concrete content bearers (Moltmann 1989, Elliott 2017,). Clausal complements would then be predicates of Davidsonian events, as in (15b) for (15a):

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

b. ∃e(think(e, John) & [*that Mary is happy*](e))

However, using Davidsonian event semantics that way is in error. Events are not content bearers. They fail to have truth or satisfaction conditions and other content-related properties. Only attitudinal objects do, as we will see in much further detail shortly. The Davidsonian account of clausal complements would also wrongly predict that clausal complements can modify nouns that describe speech acts or mental acts, which they cannot:

(16) a. \* John’s speech act that he will come.

b. \* John’s mental state that he is tired.

Only nouns for attitudinal objects permit clausal modifiers, whether they are derived from attitude verbs or not:

(17) John’s hypothesis / idea / thesis that the problem is unsolvable.

To sum up, while there are the same motivations from adverbials for using Davidsonian semantics for attitude verbs as for verbs in general, it is a mistake to consider Davidsonian events themselves to be bearers of content and targets of predication for clausal modifiers. Since the semantics of adverbials are not of interest in the present context, I will disregard Davidsonian event arguments for attitude verbs in this book.

**2. The ontology of attitudinal and modal objects**

With these preliminaries we can turn to the ontology of s-objects. The nature of s-objects is reflected in linguistic data, but also in general intuitions not strictly driven by linguistic data. S-objects do not just form a list of things that are denotations of certain sorts of nouns; rather they form an ontological category of their own jointly characterized by a range of characteristic types of properties, which I will discuss in detail in the following, starting with attitudinal objects.

**2.1. Types of attitudinal objects**

Attitudinal objects divide into *illocutionary objects*, such as claims, requests, promises, suggestions and *mental objects* such as beliefs, thoughts, intentions, decisions, hopes, and doubts.[[4]](#footnote-4) In addition, attitudinal objects include locutionary objects, entities that correspond to Austinian locutionary acts, namely utterances or what one may call ‘sayings’. There are also locutionary objects in the mental realm, thoughts, entities that correspond to mental locutionary acts. Locutionary objects play an important role in the semantics of verbs of saying as well as in the semantics of quotation, and will play a central role in Chapter 6.

Another distinction among attitudinal objects, which is orthogonal to that between illocutionary, locutionary and mental objects, is that between *act-related* and *state-related attitudinal objects.* Attitudinal objects such as thoughts, claims and judgments correlate with acts of thinking, claiming and judging, and thus are act-related attitudinal objects. State-related attitudinal objects include beliefs and intentions. They are distinct from the corresponding states, at least in the sense of the things we refer to *as* ‘states’. What we refer to states do not share the characteristic properties of attitudinal objects (such as bearing satisfaction conditions and having a part structure based on partial content, cf. Section 2.3.).

Likewise act-related attitudinal objects are distinct from the corresponding acts, since the latter do not share the characteristic properties of attitudinal objects, as we will see. The question of course arises of how the relation between the attitudinal objects and the corresponding state or act is to be understood. This will be addressed in detail in Section . For the time being the focus will be on the types of properties that characterize attitudinal and modal objects.

Non-gerundive nominalizations of attitude verbs generally describe attitudinal objects. But attitudinal objects are not tied to nominalizations, rather there are also lots of underived nouns in English that describe attitudinal objects, such as *idea, hypothesis, impression*, and *thesis*. Moreover, in the case of at least some attitude verbs, the verb is clearly derived from the attitudinal object noun, rather than vice versa (*fear, question, answer*).

**2.2. The role of attitudinal objects in thought and communication**

Attitudinal objects play an important role in our mental life, unlike propositions: we remember ideas, thoughts, hypotheses, not propositions.[[5]](#footnote-5) We make plans, proposals, offers as things that guide our future actions, and those things can be the objects of memory, communication, modification, and merger. Attitudinal objects may cause other attitudinal objects or mental events: the imagination that S may make John afraid, the thought that S may make him shudder, the fear that S may make him not take action. In fact, attitudinal objects appear to be just the right entities to enter the relation of content-based causation, more so than acts or events. A claim causing surprise generally means content-based causation, but not so a speech act causing surprise. If Mary’s claim caused a commotion, this implies that the content (as conveyed by Mary) was causally responsible; by contrast, if Mary’s speech act caused a commotion, this implication does not hold. If an answer caused surprise, this implies that the content was the subject of surprise; but not so if an act of answering caused surprise. A decision may cause an action on the part of the agent, and that can only be in virtue of its content. This is not so for a mental act of deciding (whose exhausting nature may be the trigger of an act of taking a break from further decision-making). Propositions as abstract objects cannot play causal roles and thus leave content-based causation a puzzling phenomenon.

Mental attitudinal objects also act as the targets of content-related memory. We remember thoughts, beliefs, decisions, and intentions, rather than propositions. We may remember acts of thinking or acts of deliberating without recalling their content, and thus this would not be content-related remembering.

Unlike propositions, attitudinal objects are *agent-dependent* entities. Thus John’s thought is John’s, not Bill’s. The agent-dependency is reflected in the necessary falsehood of statements of identity as in (18a), in contrast to those conveying similarity, with *is the same as*, in (18b):

(18) a. John’s claim is Mary’s claim.

b. John’s claim is the same Mary’s claim.

Agent-dependence may be somewhat different for entities such as ideas and dogmas, which may involve a generic dependency (as in *the idea has been around for a while*).[[6]](#footnote-6) Unlike particular attitudinal objects, ideas and dogmas have the status of enduring and shared content bearers, because of the range of causal chains and physical realizations they involve.

**2.3. Kinds of attitudinal objects**

Reference to attitudinal objects is possible also without an apparent agent:

(19) a. The belief that god exists is widespread.

b. John often encounters the expectation that he should become famous.

*The belief that* S and *the expectation that* S do not stand for particular attitudinal objects, but for kinds of attitudinal objects, that is, kinds whose instances are maximal classes of exactly similar attitudinal objects. They are similar to kind terms in Carlson’s (1977) sense. But whereas Carlsonian kind terms are bare plurals like *giraffes* and bare mass nouns like *water*, terms for kinds of attitudinal objects take most naturally the form of definite NPs..[[7]](#footnote-7)

What are kinds of attitudinal objects? Kinds may be conceived in various ways, and a particular choice is not needed in this context. What is most is that kinds of attitudinal objects have satisfaction conditions, which they inherit from the particular attitudinal objects that are their instances:

(20) a. The belief that John won the race is true.

b. The expectation that John would become famous was not fulfilled.

Reference to kinds of attitudinal objects is important in that it permits reporting the sharing of a propositional content (see Section 3):

(21) John and Bill share the belief that Mary is guilty.

Here *the belief that Mary is guilty* stands for a kind of attitudinal object: John and Bill both ‘have’ the belief by way of having instances of it. The fact that attitudinal objects come in kinds that are based on the sharing of content distinguishes them from events. *John and Mary shared the activit of thinking* does not imply that John and Mary were thinking the same thing.

**2.3. Modal objects**

Modal objects are entities like obligations, needs, permissions, offers, invitations options, strategies, dispositions, laws, and essences. Modal objects share the characteristics of attitudinal objects, which them from entities such as states, actions, and propositions. That is, modal objects enter similarity relations based on sameness of content (John’s obligation being the same as Mary’s obligation means they are the same in content); they have a part structure strictly based on partial content (‘part of John’s obligation’ can only be a partial content, not a temporal part of a state or event or a structural part of a proposition), and, most importantly, deontic modal objects have satisfaction conditions. Thus, an obligation or commitment may be satisfied, fulfilled, or complied with, and an offer or invitation taken up or accepted. Modal objects may be produced by the very same acts that produce illocutionary objects, such as acts of requesting, promising, and permitting. A modal object produced by an illocutionary act shares its satisfaction conditions with the illocutionary product that the same act has produced, but it generally has a different lifespan, being able to last beyond the act that may have produced it.[[8]](#footnote-8)

Modal objects clearly play a role in our ordinary ontology. Obligations, permissions laws, and rules obviously play a role in our social ontology, and we have very clear intuitions about them, not strictly tied to language (the semantic behavior of modal nouns like *obligation* and *permission*). Even though modal objects are overtly reflected in English, there are nouns like *need* that stand for modal objects of various sort.

Modal auxiliaries (*can, must, may* etc) are associated with modal objects of epistemic, physical, metaphysical and teleological sorts, though they do not come with nominalizations. However, *ability, option, strategy,* and *possibility* are nouns for modal objects of physical and teleological modality (*there is an option / strategy / possibility to avoid a collapse of the building*).

Epistemic modals are not overtly referred to in English and perhaps natural language in general. The only exception is our talk about ‘possibilities’, which can be about epistemic possibilities (*the possibility that John might be late*) as well as physical possibilities (as in *there is a possibility of opening the bottle*).

I will take modal objects to play a role in modal sentences even if there is no explicit noun making reference to them. Thus, for any modal predicate on any reading, there will be a corresponding modal object (even if there are no corresponding nouns describing it explicitly).

There are specific philosophical motivations that have been put forward for modal objects or closely related notions. Thus, Vetter (2015) has developed a theory of physical modality based on the notion of a potentiality (roughly, a disposition). Vetter conceives of potentialities as particularized properties (properties of particular objects), which is close to the notion of an object-dependent modal object. Modal objects such as dispositions and abilities have realization conditions realized by particular actions or events.

Also the notion of essence, as defended by Fine (1994), may be viewed as a notion related to that of a modal object. Fine represents essence by an object-related operator Fa, as in FaP (‘a is essentially P’). While Fine does not take essence to be an object, this is at least one way of understanding Aristotle’s notion of an essence.[[9]](#footnote-9) In fact, there is a promising connection to be made between the notion of an essence and truthmaking as applied to attitudinal objects: the constraints on (fully specific) truths essential to an entity appear to be the very same as those on the truthmakers of the corresponding attitudinal objects.

Modal objects may be agent-dependent, which holds for deontic modal objects such as particular permissions and obligations; others, such as essences, dispositions, and abilities depend on a particular individual. Attitudinal objects may also display a generic dependence on types of entities, just as ontological dependence in general permits generic dependence (Correia 2006). Thus, the obligation to pray may involve a generic dependence on the members of a particular order. The possibility that John might be sick may involve a generic dependence of the interlocutors, in the sense of first-person-oriented genericity. However, unlike attitudinal objects, modal objects need not depend on an agent. That is certainly the case for circumstantial modals (John’s need to work is the need for John to work).

**2.4. Characteristic properties of attitudinal and modal objects**

**2.4.1. Properties of concreteness and the endurance of attitudinal and modal objects**

Attitudinal objects are concrete content bearers. This means they display features of concreteness, but also display content-related properties. Here are some of their properties of concreteness.

As was already mentioned, attitudinal objects are causally efficacious, unlike propositions. They are just the kinds of entities that enter relations of content-based causation, unlike propositions.[[10]](#footnote-10) Only entities like beliefs, intentions, and claims can cause behavior and other mental events, not propositions (*John’s belief that he was fatally ill made him anxious, Joe’s intention made him get his coat, John’s claim shocked Bill*). Moreover, some attitudinal objects are perceivable (*John overheard Joe’s remark, John’s belief that he was fatally ill made him decide to choose Mary as his heir*).

Also some modal objects may enter causal relations. John’s need may have pushed him to act in certain ways and his medical condition may have been the cause of his need for a certain medicine.

Attitudinal objects of course are not concrete in that they may fail to have a material realization (unless, of course, they are written down). In that respect, and only that respect, would attitudinal objects be abstract.

Attitudinal objects are concrete also in that they generally have a limited life span. A claim is made at a particular time and goes out of existence at least when it is no longer valid. A thought occurs to someone at a particular time, but arguably does not endure beyond the time it so occurs. State-related attitudinal objects such as beliefs come into being when constitutive conditions for the state obtain. Act-related attitudinal objects come into being as a result of the act, however the result relation is conceived (an issue I will turn to in detail in Section 6). While it is clear that attitudinal objects are not eternal objects, the length of their temporal duration is not obvious. Twardowski (1911) took act-related attitudinal objects to be temporally coincident with the act that set them up. However, this is not plausible for attitudinal objects that are the culmination of accomplishments, such as assertions, conclusions, and decisions. Such attitudinal objects rather come into being at the end of the relevant act. Twardowski (1911) took the apparent continuity of an attitudinal object such as a thought to be due to it causing the production of exactly similar thoughts, by an agent remembering the thought, by a speaker conveying that thought and making the addressee understanding it.

Twardowski was even more in error about the lifespan of attitudinal objects. At least certain attitudinal objects may very well endure extend past the relevant act. Claims, requests, offers, and promises may have an intended validity, which allows them to endure beyond the act that may have set them up. The validity of such attitudinal objects is reflected in the applicability of the existence predicate *valid* (I will come to the notion of an existence predicates shortly):

(22) John’s claim / offer / promise is still valid.

By contrast, attitudinal objects such as thoughts, ‘sayings’ (utterances) and guesses do not come with an intended validity. This means that they cannot endure past the act that produced them.

There is another linguistic criterion besides predication of validity that distinguishes between the two sorts of attitudinal objects. This is the choice of tense in specificational and predicational sentences. With attitudinal objects that do not endure past the act that produced them (such as remarks, guesses, and utterances) tense in specificational sentences must match the time of the act, whereas this is not so for attitudinal objects like assertions and requests, which may endure past the act that produced. This can be seen below, assuming that John made his utterance in the past:

(23) a. John utterance was / ?? is ‘I won the race!’

b. John’s assertion was / is that he won the race.

The choice of tense in ordinary predicational sentences shows the same:

(24) a. John’s claim (which he made yesterday) is astonishing.

b. John’s remark (which he made yesterday) was / ??? is astonishing.

The choice of tense also distinguishes acts from attitudinal objects (of the enduring sort):

(25) a. John’s claim (which he made yesterday) is outrageous.

b. John’s act of demanding (yesterday) was / ??? is outrageous.

Existence predicates also show the difference between enduring and nonenduring attitudinal objects. Natural language does not just contain a single existence predict *exist*, but a range of existence predicates, including *happen, occur*, and *be valid*.[[11]](#footnote-11) The applicability of particular existence predicates is generally indicative of the ontological category of entities and the way they relate to time and space. Attitudinal objects do not generally share the existence predicates of events. Events can ‘happen’, ‘occur’, or ‘take place’. Claims, remarks, assumptions, and judgments hardly can be said to ‘happen’, ‘occur’, or ‘take place’.[[12]](#footnote-12) In fact, there do not seem to be suitable existence predicates for attitudinal objects in English. Only attitudinal objects that come with an intended validity (claims, offers, invitations, promises) allow for an existence predicate, namely *be valid*.

Validity beyond the act of creation is common among deontic modal objects. Permissions and obligations that result from particular illocutionary acts may easily be valid past the act that created them. Thus, an obligation or law produced or passed by an illocutionary act may obtain as long as it is meant to obtain. An offer established by an illocutionary act will last as long as it is intended to be valid. An act of commanding may produce a command, and, under the right circumstances, an obligation on the part of the addressee, and the latter may last longer than the command. An act of promising produces both an illocutionary product that is a promise, as well as a commitment on the part of the speaker (Searle 1975). Also an act of permitting may set up an enduring modal product, namely the permission that the addressee may have for a longer period of time. Similarly, an act of offering creates an enduring product, the offer that may obtain for a period of time beyond the duration of the act.[[13]](#footnote-13) The endurance of products thus depends on the intention of the agents producing them. There is no general condition on the endurance of products or abstract artifacts as such.[[14]](#footnote-14) This also holds for artifacts that have a material manifestation. The endurance of a chair may be strictly tied to its material composition. But a chair as a designed artifact may also endure past the lifetime of a particular chair, as long as the design keeps being used. Deontic modal objects need not have been created, though, as is the case for deontic modal objects that represent universal ethical laws.

If attitudinal and modal objects can be enduring, this raises the question whether they require ongoing manifestations in order to remain valid, such as mental acts of understanding and remembering. The same issue arises for abstract artifacts such as literary creations. Even if literary creations are meant to be forever, a common view is that they need to be sustained through memory in order to persist (Thomasson 1999).

Enduring deontic modal objects may take various sorts of existence predicates. Besides *exist,* these are *obtain, hold, prevail,* and *be valid* in English. An obligation that results from an act of demanding may ‘hold’ or ‘obtain’, that is, ‘exist’, for a period of time after the act. Similarly, an offer may ‘hold’ or ‘be valid’ for a time past the act of making it, and a permission may ‘hold’ for a time past the act of giving it. All those existence predicates convey validity as the way of existence or mode of being of deontic modal objects, i.e. the validity of a modal object (at a time) amounts to the existence of the modal object (at the time).

Validity is also linked to truth. The validity of a modal object amounts to the time-relative truth of the corresponding modal sentence or, equivalently, the truth of the corresponding tensed modal sentence. Thus (26a) is, roughly, equivalent to (26a), and (27b), to (27b):

(26) a. The obligation for Mary to work still obtains

b. That Mary has to work is still true.

(27) a. The permission for Mary to use the house still obtains.

b. That Mary may use the house is still true.

For modal objects that are laws, rules, and conditions, the same holds for the existence predicate *obtain*:[[15]](#footnote-15)

(28) a. The law that one must have a passport still obtains.

b. That one must have a passport is still true.

To summarize only predicates of validity are applicable to attitudinal objects, and only to those that can endure past the act that produced them, a fact that again distinguishes attitudinal objects from acts and events rather sharply. Modal objects, by contrast, accept *exist* and a greater range of predicates of validity.

**2.4.2. Content-related properties**

Modal and attitudinal objects have three characteristic content-related sorts of properties, none of which pertain to states and actions.

[1] Having satisfaction conditions

[2] Entering similarity relations based on sameness of content only

[3] Having a part structure strictly based on partial content rather than shared features of a performance.

These features together characterize attitudinal objects as an ontological category and distinguish them from acts and propositions. They also distinguish them from states when those are referred to as ‘states’ (*a state of believing* / *intending* / *desiring*). States in that sense generally do not come with satisfaction conditions. The three types of properties not only show that attitudinal objects have a content; they also indicate that attitudinal objects come with a particular sort of content, based on the notion of a truthmaker, rather than a possible world.

**2.4.2.1. Satisfaction conditions of attitudinal and modal objects**

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 that can apply to attitudinal and modal objects, predicates such as *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.

Four types of satisfaction predicates can be distinguished:[[16]](#footnote-16)

[1] Truth predicates: *true, correct*, *false*

[2] Predicates of fulfillment and violation: *fulfill, satisfy, follow, violate*, and *ignore*

[3] Predicates of acceptance: *accept, take up*

[4] Predicates of realization: *realize, execute, implement, carry out.*

The four classes of satisfaction predicates select different types of attitudinal objects. Let’s go through them one by one.

**2.4.2.2. Truth predicates**

Truth predicates apply to attitudinal objects with a word-to-world/mind direction of fit, to use Searle’s (1969, 1983) term, such as beliefs, claims, and judgments, but hardly to events and states. John’s claim or judgment may be true or false, as may be John’s belief. But a speech act of claiming cannot intuitively be true or false, and neither can an act of judging. Acts and events cannot be true or false, and neither can mental states described as such (*John’s state of believing* / *intending* / *desiring*).

Attitudinal and modal objects that take truth predicates generally also accept the predicate *correct* on a reading on which it just conveys truth (see Chap. 3). A claim is correct only in the sense that the claim is true, whereas if an action is correct, it means that it fulfilled the relevant norm.

Philosophers sometimes try to discard intuitions about the applicability of truth predicates. For example, Soames (2010) and Hanks (2018) declare acts as truth bearers. Not only is discarding intuitions unsuited for an approach of descriptive metaphysics, declaring truth to be applicable to actions would also leave unexplained why *correct* conveys the fulfillment of an action-guiding norm when we refer to speech acts or other actions, and not truth.[[17]](#footnote-17)

Related to truth conditions are logical relations, such as implication and contradiction, which are equally applicable to truth-directed attitudinal objects, but hardly to acts and states (*John’s belief that life is short implies that life is short*, *John’s claim that life is a gift contradicts Mary’s claim that life is a burden*).

**2.4.2.3. Predicates of fulfilment and acceptance**

Predicates of fulfilment include *satisfy, fulfil, comply with*, *keep.* They apply to attitudinal objects such as requests, demands, promises, as well as to modal objects of the sort of obligations and needs. Predicates of fulfillment also include predicates of violation, such as *contravene, violate*, *ignore* (in the sense of ‘violate’), and *break*. Predicates of fulfillment apply to attitudinal objects with a world-to-word/mind direction of fit in Searle’s (1969, 1983) sense. They do not apply to actions. An act of requesting or promising cannot be fulfilled, as opposed to the request or promise, the attitudinal object. Also when we refer to mental states as ‘states’, satisfaction predicates are hardly applicable: a state of desiring can hardly be ‘satisfied’ and a state of hoping can hardly be ‘fulfilled’.[[18]](#footnote-18) They also fail to apply to propositions. Propositions can hardly be ‘satisfied, ‘fulfilled, or ‘violated’. Most strikingly, promises can be kept or broken, but not so propositions, contents, or acts. *Ignore* when applied to requests implies violation, but when applied propositions or actions, it means ‘not pay attention’ rather than ‘violate’.

Predicates of satisfaction also include agent-related predicates (*satisfy, carry out, follow, accept*) besides impersonal ones (*is satisfied, is fulfilled*). An agent may fulfill a request, carry out an intention, and accept an offer by doing something. Such predicates also show something about the nature of the content of attitudinal objects is, namely that it may be satisfied by actions. Actions may serve the fulfilment of attitudinal objects and of course they may also violate them. The fact that attitudinal and modal objects come with agent-related predicates of satisfaction constitutes one motivation for conceiving of satisfaction conditions not in terms of possible worlds, but rather in terms of truthmakers, which include actions that can be described by agent-related satisfaction predicates.

Attitudinal and modal objects such as offers, suggestions, permissions, pieces of advice, and invitations do not take predicates of fulfilment, but rather go with predicates of acceptance, such as *take up, follow,* and *accept (Joe accepted the invitation / took up the permission to leave the room* / *followed the advice*). Those attitudinal and modal objects also come with a world-to-word/mind direction of fit, but they differ from attitudinal and modal objects that take predicates of fulfilment and violation by being associated with the modal force of possibility rather than necessity (a difference that will be construed in truthmaker semantic terms in Chapter 3). Unlike obligations, modal objects of the sort of permissions, invitations, and offers do not come with violation condition: there is nothing incorrect about doing something instead of taking up a permission or accepting an invitation or offer.

Also modal objects such as strategies and options lack violation conditions. Strategies and offers can be taken or pursued, but there is nothing wrong about ignoring them.

**2.4.2.4. Predicates of realization**

Attitudinal objects of the sort of intentions and decisions do not take predicates of fulfilment, violation, or acceptance, but rather predicates of realization such as *carry out*, *realize, implement,* and *execute*. Again, those predicates do not apply to the corresponding states or acts: states of intending or acts of deciding can hardly be carried out, realized, implemented or executed.

Different types of satisfaction predicates thus select different types of modal and attitudinal objects. Of course the question is why different attitudinal and modal objects go with different predicates of satisfaction. I will address this issue in Chapter 3, where I will give an account of that selection based on truthmaker theory and a normative construal of the notion of direction of fit.

**2.4.3. Similarity relations based on sameness of content**

The second content-related type of property of attitudinal objects consists in that attitudinal objects of the same types enter similarity relations strictly on the basis of being the same in content. Attitudinal objects that are of the same sort (involving the same kind of physical realization and force) enter similarity relations just on the basis of a shared content. This is reflected in the way *is the same as* and *is* *partly the same as* are understood:[[19]](#footnote-19)

(30) a. John’s claim was the same as Mary’s.

b. John’s claim was partly the same as Mary’s.

(30a) can only state the sharing of content, not the sharing of a way of performing a speech act; (30b) can only be about the sharing of a partial content. By contrast, for actions to be the same, they need to share features of their performance *(John’s act of asserting was the same as Mary’s*); sharing of content is neither sufficient nor in fact necessary (*John’s speech act was the same as Mary’s*). The same holds for state-related attitudinal objects:

(31) a. John’s belief is the same as Mary’s.

b. John’s belief state is the same as Mary’s.

(31a) is true just in case, John’s belief shares its content (satisfaction conditions) with Mary’s, other features of their belief states won’t matter, unlike for (31b).

Modal objects likewise enter similarity relations just on the basis of shared satisfaction conditions or perhaps types of satisfaction conditions. John’s obligation ‘is the same as’ Mary’s just in case the two obligations are satisfied and violated by the same types of actions (i.e. John’s actions satisfying his obligation being the same as Mary’s actions satisfying hers).[[20]](#footnote-20)

**2.4.4. Part structure based on partial content only**

Attitudinal and modal objects have only one part structure based on partial content.[[21]](#footnote-21) This is reflected in the fact that part-structure related expressions exhibit a single reading when applied to attitudinal and modal object, relating to partial content. Again this is a feature distinguishing attitudinal and modal objects from propositions and from events and states (on the standard conception on which states have temporal parts). A part of a belief, judgment, or assertion is a partial content, not a temporal part of a state or act. ‘Part of John’s decision’ cannot be a part of the action of deciding, the temporal part of a mental action. ‘Part of John’s claim’ cannot be a (temporal) part of a speech act. Similarly, ‘part of an obligation’, ‘part of a need’, and ‘part of an offer’ are a partial contents, not the temporal parts of states. The partial-content reading is only way in which *part of* can be understood when applied to attitudinal and modal objects. In fact, all part-related expressions, not just *part of* behave that way, including the partitive construction in general:

(32) All of / Most of / None of Joe’s hope / need was fulfilled.

This also holds for the modifier *double*.[[22]](#footnote-22) When applied to attitudinal objects, *double* specifies two content-related parts, as in (33), but when applied to events, by contrast, it specifies two eventive parts, as in (34):[[23]](#footnote-23)

(33) a. a double lie

b. a double insult

c. a double invitation

(34) a double pirouette / tour / murder

Part-related expressions do not really apply to propositions, with a clear intuitive understanding.[[24]](#footnote-24) When *part of* is applied to a proposition, it very much depends on the theoretical conception of a proposition how *part of* is understood. If propositions are conceived as structured propositions, then objects and properties will be constituents of propositions, and hence parts of them. But this is not so if propositions are conceived as sets of possible worlds. [[25]](#footnote-25)

How is the notion of partial content to be understood? It is a notion that cannot be accounted for on a standard possible-worlds conception of content. Truthmaker semantics has been developed specifically to account for that notion, and the fact that attitudinal and modal objects display the notion of partial content is one motivation for conceiving of their content in terms of truthmaker semantics (see Chap. 3).[[26]](#footnote-26)

Even physically realized attitudinal objects (e.g. claims) fail to have a physical part structure. They differ in that respect from materially realized artifacts like books and letters, which have content-based and material part structures. Why is there such a difference? An explanation is that attitudinal and modal objects are non-material endurants. As endurants, they fail to have temporal parts; as non-material objects, they fail to have material parts. If we adopt the traditional (if controversial) notion of endurance as complete presence throughout time, then attitudinal objects endure throughout a time, because with their content-related parts they are able to be completely present throughout the time.

**2.4.5. The satisfaction conditions as the main characteristics of attitudinal and modal objects**

The ability to represent or to have satisfaction conditions is characteristic also of attitudinal and modal objects that do not result from acts, such as state-like attitudinal objects of the sort of intentions, beliefs, desires, and fears, and light permissions and obligations. This means that the representational ability of modal and attitudinal objects cannot be traced to the intentional act that may have created them. Rather it should be regarded as a primitive feature of certain mental or mind-dependent entities. In that respect, the theory of attitudinal objects differs from the act-based conceptions of propositions of Soames (2010) and Hanks (2015), which try to account for the ability of propositions to represent and be true or false in terms of the predicational acts that, on their view, are constitutive of them.

It may not be obvious that all attitudinal or modal objects have satisfaction conditions. Here are two cases that may seem problematic.

First, imaginations look like attitudinal objects, but there are no satisfaction predicates applicable to imaginations (?? *Bill’s imagination that he was living in a castle was correct / satisfied*.). This at least holds for imaginations that are not directed at reality (imaginations as described by *John imagined his father* may have representational adequacy conditions). However, the verb *imagine* takes clausal complements that should serve to give the satisfaction conditions of the imagination. This means that imaginations have satisfaction conditions even if English lacks suitable satisfaction predicates applicable to them.

Second, one may consider sighs, exclamations, screams and other products of expressive speech acts attitudinal objects, and again they seem to lack satisfaction conditions. But the verbs *sigh, scream,* and *exclaim* take clausal complements. A plausible reason is that those verbs describe locutionary acts with an emotion, and the nominalization picks out the emotion only, not the locutionary content bearer.[[27]](#footnote-27) Pure emotions in general do not come with satisfaction conditions, that is, emotive states such as anger and happiness. They do not tolerate predicates of satisfaction, and the clausal complement of the corresponding predicates (*angry, happy*) generally serves to describe a fact as an object of the emotion, rather than giving satisfaction conditions of an emotive state.[[28]](#footnote-28) Such purely emotive states need to be distinguished from cognitive emotive states, such as fear and hope, which do come with satisfaction conditions: a fear can become true and a hope fulfilled.

**3. Attitudinal and modal objects and the sharing of content**

Attitudinal objects depend on a particular agent. John’s claim depends on John and cannot be the claim of Mary. This raises the question how attitudinal objects as carriers of content could allow for the sharing of content among different agents. There are two ways in which content can be shared with attitudinal objects, both of which are well-reflected in natural language.

The first way consists in two agents engaging in similar attitudinal objects, as in the reports of (exact) similarity or ‘sameness’ among attitudinal objects below:

(35) a. John’s claim is the same as Bill’s.

b. John and Bill made the same claim.

The second way consists in two agents engaging in a kind of attitudinal object (Section 2.2.):[[29]](#footnote-29)

(36) John and Bill made the same claim.

Whereas *John’s claim that Mary is a genius* in (37a) usually stands for a particular attitudinal object, *the claim that* *Mary is a genius* in (37b) stands for a kind of attitudinal object:

(37) a. John’s claim that Mary is a genius is true.

b. The claim that Mary is a genius is true / is widely believed / has never been made.

As (37b) illustrates, kinds of attitudinal objects exhibit representational properties just like particular attitudinal objects; moreover they need not be instantiated.

However kinds of attitudinal objects are to be conceived; what is important only is that they, rather than propositions, are used in reports about the sharing of content.

**4. Intensional objects**

Attitudinal and modal objects form an ontological category characterized jointly by particular content-related properties and properties of concreteness. There is another semantically relevant type of entity that displays such properties, though it may involve different kinds of satisfiers. These are entities that correspond to intensional transitive verbs, that is, verbs that display an intensional reading with NP-complements, such as *look for, need, owe, own, buy, sell, offer, accept.* Let me call those entities (somewhat misleadingly) ‘intensional objects’. Intensional objects include entities we refer to as ‘searches’, ‘needs’, ‘purchases’, ‘debts’, ‘offers’, and ‘acceptances’.

Intensional objects exhibit properties of concreteness, and they come with satisfaction conditions. For example, a search and a debt generally have limited lifespans and can stand in causal relations, and they have satisfaction conditions. But here the satisfiers are entities that are part of situations in which the search is completed or the debt is resolved. The satisfiers of John’s search for a house are particular, suitable houses in situations in which they are ‘had’ (e.g. bought, or rented) by John as a result of the search. John’s purchase of a bottle of wine on the internet, likewise, is a concrete entity with satisfaction conditions, bottles of wine in situations in which they are ‘had’ by John as a result of the purchase. What distinguishes most intensional objects from attitudinal and modal objects is the nature of the satisfiers. In general, the satisfiers of intensional objects are entities standing in a relevant relation to the agent, or, in other words, they are objects-in-situations. Intensional objects may impose further conditions on satisfaction situations. An object-in-a-situation satisfies a purchase only if the situation was caused by the purchase. This does not hold for all intensional objects though. Debts and ownerships are not subject to a causal condition.

Even perceptions as the intensional objects corresponding to the intensional transitive verb *see* take objects-in-situations as satisfiers; and they impose additional conditions on satisfaction. An object-in-a-situation satisfies John’s perception of a tree (when John is looking at an object which he identifies or misidentifies as a tree) only if the object is specified as a tree in that situation.

**5. The relation of attitudinal and modal objects to acts that have produced them**

Certain attitudinal objects correlate with acts: a claim correlates with an act of claiming, a decision with an act of deciding, a request with an act of requesting, a thought with an act of thinking. We have seen that attitudinal objects differ sharply from acts in the kinds of properties they may have. Though like the acts they depend on an agent and display features of concreteness, unlike acts they are enduring content bearers whose validity may last beyond the act. But the relation between the attitudinal object and the act is an important one: without the act, an act-related attitudinal object could not exist.

But how should the relation between an attitudinal object and the corresponding act be understood? This question is particularly important since as an ontological category, acts are generally taken to be unproblematic, but not so attitudinal objects. There are three types of roles that attitudinal objects can play with respect to the corresponding acts or states:

[1] as products

[2] as results

[3] as states that do not result from acts.

**5.1. Attitudinal objects as products or artifacts produced by acts**

There is first of all an intuitive sense in which an assertion and a request are product of speech acts and a decision a product of a mental act. The products may lack a physical realization (judgment, decision) and may or may not endure past the act that set them up. This product relation appears, to an extent at least, to be reflected in the choice of the light verb *make* in the complex attitude predicate (*make an assertion, make a request, make a decision*).

The distinction between actions and products as a distinction that includes such a distinction between acts and non-enduring products that may lack a physical realization plays a prominent role in Twardowksi’s work (which I will discuss shortly). However, it is not a distinction that is exclusive to Twardowski, and in fact Twardowski conceived of the distinction in a particular way that I will not adopt myself (Section 6.4.). The notion of a product in the intuitive sense in which it applies to judgments, assertions, decisions can be found in the work of philosophers prior to Twardowski such as Bolzano and Bergman, in the work of Roman Ingarden (1931), a student of Twardowski’s, as well as, quite independently in Ryle, who makes a distinction between the language of biography and the language of review when distinguishing between judging and a judgment.

An important issue regarding the relation between an act and its (possibly nonphysical) product is the lifespan of the product in relation to the act. Twardowski (1911) held the view that a product is spatio-temporally coincident with the relevant act. However, that cannot be right. First of all a claim, request or thought should certainly exist only at the end of the act of claiming, requesting, or thinking. More importantly, even illocutionary and mental products may have a modal component, which allows them to endure past the act that created them and which is reflected in intuitions about validity and thus the applicability of predicates of like *is still valid* or *still holds*. A claim may still be valid long after the act of claiming, depending on its intended validity, a promise may still hold after the making of the promise. Even products that do not come with a status of validity may endure past the act, for example plans (which ‘exist’, rather than being ‘valid’), decisions, and predictions.

The notion of a product should also apply to modal objects. Laws obviously are products of acts of passing or declaring them, as are other deontic modal objects, such as (explicit) obligations, permissions, and offers. Deontic modal products clearly may endure, or be valid, past the act that may have set them up.

I take illocutionary and mental products to be artifacts produced by acts. Mental and modal products are abstract artifacts in that they lack a physical realization.[[30]](#footnote-30)Abstract artifacts are familiar from musical works, literary works such as poems that have not been written down, fictional characters, and laws (Thomasson 1999).[[31]](#footnote-31)

One of the main critiques of abstract artifacts discussed in the literature on literary and musical works of art has been that abstract artifacts cannot be caused by the actions that have created them, since causation is a relation between concrete entities (Irmak 2020), a critique that has also been applied to the notion of an attitudinal object as an abstract artifact (Bonzo 2020, Davis 2021). However, the relationship between an action and its product need not be viewed as a causal relation. Rather it is more plausibly a relation of ontological dependence; more specifically, a generating relation of ontological dependence, on which the dependence relation defines a new entity (Irmak 2020). Thus, a musical work ontologically depends on the various mental acts composing it as well as the overall intention of producing such a work of art thereby. Ontological dependence does not mean inheriting the temporal duration of the base. Rather, the duration of the lifespan of the artifact depends on the intention that goes along with its production. A work of art may be intended to last forever; a law may be intended to last for a limited period of time; a claim or hypothesis may be intended to be valid until it is withdrawn in view of contrary evidence. Thus illocutionary, mental, and modal products are dependent on mental acts as well as an overall intention for the product to last for a particular time or under particular conditions.

Now we come to an important point. The acts on which attitudinal products depend are not really the acts described by the verb from which the attitudinal product noun may have been derived: A claim does not depend on the claiming act itself, but rather on the acts that together make up an act resulting in a claim. That is, attitude verbs generally describe acts in terms of the products they produce, rather than just describing the acts on which the product ontologically depends. The same holds for complex predicates describing the production of musical works: a symphony does not ontologically depend on an act of composing a symphony, but rather it depends on the various acts of composition that lead to the product of the symphony. A letter does not ontologically depend on an act of writing the letter, but on various acts of writing that lead to the letter. This is so not only for mental acts. There are predicates for physical actions that make reference to the intended product, such as *to circle*, *to underline*, and *to portrait*. Here again the act described is individuated in terms of the physical product. In many cases, thus, the attitudinal object is prior to the act described by the attitude verb. The act is then more transparently described in terms of a complex predicate such as *reach a conclusion* and *make an assumption*, rather than the simple verbs *conclude* and *assume*.

Artifacts in general and illocutionary, mental, and modal products in particular inherit their intentionality from the intentions involved in their creation. In fact, they reflect just the characteristic content-related properties of attitudinal objects that are not created or produced, namely intentions.

**5.2. Attitudinal objects as results**

The distinction between an act and a corresponding act-related attitudinal object cannot always be taken to be the distinction between an act and its product. Some attitudinal objects have the status of entities resulting from the act rather than being produced by it. For example, a particular conclusion is reached by an act, rather than being its product. What we describe as an act of concluding is an activity whose aim is some conclusion or other and that results in a particular conclusion; it is not an intentional act that produces a particular intended conclusion. This arguably also holds for judgments: an act of judging is not an intentional act aiming to produce a particular judgment, but rather an act which aims at some judgment or other, but which results in one particular judgment. While an act of thinking may have as its aim a certain type of thought, a particular thought is not an intended product, but rather a result of the thinking (and it ‘occurs’ or ‘is had’ rather than being ‘made’). By contrast, a particular claim can naturally be viewed as the intentional product of an act, and so for a particular assumption or speculation. But in those cases, it is not the act described by the verb or gerundive nominalization that produces the claim since the act referred to by the verb or gerundive nominalization is individuated in terms of the intended product: an act of claiming that S is a speech act that produces the claim that S. Thus, even when an attitudinal object does have the status of a product, the gerundive nominalization does not quite describe the act that produces it; rather it describes a more complex act individuated in terms of the product.

**5.3. Attitudinal objects and states**

State-related attitudinal objects likewise can hardly be viewed as products, at least not products produced by the corresponding state. A belief may have been produced by a thought, but not by a belief state, and not all beliefs come about that way. In particular, implicit beliefs may fail to do so. Even more strikingly, intentions cannot be viewed as produced by acts aiming to produce those intentions, on pain of circularity, as the acts themselves would have to start out with an intention to perform them (Searle 1980). The fact that mental content bearers cannot generally be viewed as products of acts undermines various recent and historic attempts of act-based conceptions of propositions, on which the truth aptness of propositions is explained in terms of acts that are taken to make up propositions (Hanks 2015, Soames 2010).

A further question is what to make of the difference between beliefs and belief states (as well as hopes and states of hope, intentions and states of intending)? Unlike beliefs, belief states have no intensity and no truth conditions. A plausible conception of belief states is as abstract states (Moltmann 2013b) or Kimean states (Maienborn 2020), that is, as entities that would fall under Kim’s (1976) definition of events, which is better taken to be a definition of facts or abstract states, as below:

On that view, belief states are states of an agent having a belief, obtained by a function F from an attitudinal object d, the having relation H, and an agent a, so that F(H, a, d) exists at a time t if H holds between a and d at t and F(H, d, a) = F(H’, a’, d’) for some relation H’, and entities a’ and ‘ iff H = H’, a = a’, and d = d’. Having here isthe ontological dependency relation between an agent and an attitudinal object. This is an implicit definition of abstract states, which means that abstract states won’t have any inherent properties not fixed by that definition, such a bearing truth values. Given this account, a state of hoping that S is the state of having the hope that S, that is the state of being the agent on which the hope that S depends. A state of intending is the state of having an intention (which means a state of maintaining an intention, rather than having produced an intention).

The difference between attitudinal objects that are results and attitudinal objects that are products tends to be reflected in the choice of light verbs: a conclusion is ‘reached’ rather than ‘made’, a thought ‘occurs’ (or else is ‘had’) rather than is ‘made’. By contrast, a claim, an assumption, or a decision is ‘made’. In some cases, two different verbs are available (a decision or judgment is ‘made’ or ‘reached’).

**5.4. Twardowski’s action-product distinction and the aspect theory of products**

The action-product distinction, as was mentioned, can be found in the work of various philosophers in phenomenology and early analytic philosophy, but it was elaborated the most by Twardowski (1911). However, it is important to distinguish the linguistic motivations for the distinction that Twardowski presents and the philosophical importance Twardowski attributes to products from the particular way in which Twardowski, conceived of the distinction, namely as a distinction among two aspects of an act. I consider that way of drawing the distinction problematic and likewise the somewhat similar suggestion recently made by Bronzo (2020).

Twardowski argued for the distinction between actions and products based on two sorts of deverbal nominalizations in Polish, German, and French (in three versions of the same articles in those languages), a distinction found in the very same way in English: gerunds such as *claiming, judging, deciding*, and *requesting* are terms for actions; nominalizations such as *claim, judgment, decision,* and *request* are terms for products. Twardowksi made a range of linguistic observations about the differences between actions and products. These include the observation that products, but not actions, permit predicates of truth or satisfaction; that products, but not actions, are evaluated on the basis of content (*John’s speaking was surprising* – *John’s speech was surprising*), and that products but not actions enter similarity relations on the basis of content but not actions. Products, not actions, for Twardowski are truth bearers (or bearers of satisfaction). For that reason, products, not actions, are the things that play a role in logic and form the subject matter of the humanities in general. By introducing the notion of a product Twardowski aimed to overcome the problems of psychologism prevalent at the time while maintaining a close connection between logic and cognition, with products as mind-dependent truth bearers.

Twardowski was very well aware that the notion of a product raises the issue of how agents can share a content and of how the content of an assertion can be understood by the addressee. For him, for two people to share a content means that they produce similar products. In particular, understanding an assertion means that the assertion causes the production of a product similar to the assertion. The stabilization of a content over time for Twardowski consists in a causal chain of such a production of similar products.

For Twardowski, products like claims and thoughts are distinguished from the more familiar, material products by being non-enduring. Twardowski in fact took products such as claims and thoughts to be temporally and spatially coincident with the action that produced them. Twardowski’s view of actions and products being spatio-temporally coincident is linked to the fact that he included in the action-product distinction what he took to be a distinction between a *physical action* and its *nonenduring, nonmaterial product*. This is the apparent distinction between a walking and the walk, and a shouting and a shout, a distinction that appears reflected in the same linguistic contrast between two sorts of nominalizations as the distinction between mental and illocutionary acts and their products. In fact, Twardowski took the distinction between a physical action and its apparent non-enduring product to be revealing as to the nature of the distinction itself. For Twardowski the distinction between the walk and the walking is one between two different aspects of the same entity: a walk constitutes a different aspect of the act that is the walking, similarly, a shout focuses on an act as an acoustical phenomenon rather than the performance of the same act. Let me call this the ‘Aspectual Theory’ of products. For Twardowski every action, physical or mental, comes with a product, which would be reflected in the general availability of two sorts of nominalizations (*walk* - *walking*, *shouting – shout*, *jumping – jump*).

Bronzo (2020) correctly points out an unwanted consequence of this view of the action-product distinction. The action-product distinction would then apply not only to the standard action-product pairs like the constructing of the bridge and the bridge. Rather, there would be another entity, the ‘construction’, that would be the product of the constructing. Moreover, engaging in constructing the bridge would come with its own product, the engagement in the constructing of the bridge. This obviously leads to an absurd multiplicity of products, which (apart from the physical product) would be spatio-temporally coincident with the corresponding multiplicity of actions.

The view that actions and products are just two aspects of the same thing in fact does not capture the intuitive distinction adequately. A judgment cannot just be a different aspect of something that would also be an act of judging, and an assertion cannot just be a different aspect of an act of asserting. For this requires that the product coincide temporally with the act, which, we have seen, cannot be right. One reason is that there are products that could exist only at the end of the act. A second reason is that there are illocutionary and mental products that come with a validity and thus endurance beyond the act that produced them. Third, the Aspectual Theory would make the action-product distinction inapplicable to modal objects and the actions that may have produced them. Modal products, we have seen, display the very same characteristic properties as attitudinal objects, but may easily last beyond the act that produced them. The aspectual theory in general also has difficulties explaining why actions and products take different existence predicates (*be valid, obtain* vs. *happen, take place*).

Another concern about the Aspectual Theory of the action-product distinction is that there seem to be no expressions that allow reference to an act in a way that is neutral between the two aspects. This is quite different from well-discussed cases of an entity having two different facets, such as a book, with its information-based and material-object facet: the noun *book* is neutral as to the two facets that one may be referring to on a particular use.

These points of critique also apply to a version of the Aspectual Theory that was suggested by Bronzo (2020) as an alternative to Twardowski’s and which does away with the notion of a product. For Bronzo, nouns for actions and nouns apparently standing for products stand for different aspects of the same act, in virtue of their descriptive content.

A non-gerundive nominalization such as *assertion* refers to the content-related, truth-evaluable aspect of an act of assertion, the assertion as viewed as being truth-evaluable, as having a content-based part structure, as coming with the norm of truth. By contrast, the gerund *asserting* refers to the action as such. This version of the aspectual theory is likewise inapplicable to mental and illocutionary products that endure past the act that produced them, as well as to modal products.[[32]](#footnote-32) Bronzo’s suggestion moreover rests on the problematic assumptions that acts are primary truth bearers and should explain the truth aptness of content bearers. Truth pertains just to an aspect of acts. How can it be intelligible that an act should have a content-related aspect relative to which it no longer has a temporal part structure, for example, when the act as such has just that? No account is given how an action could possibly be the bearer of a content-based aspect, when content-related properties go against our intuitive notion of an action when referred to as such.

It is in fact better not to apply the action-product distinction to the distinction between a walk and a walking. Given that *walk* is a count noun and *walking* a mass noun, the semantic distinction between the nouns *walk* and *walking* may better be accounted for in terms of the content of the mass-count distinction applied to events, which means as an aspectual distinction.[[33]](#footnote-33) *Walk* describes an event as completed, as having a boundary, *walking* describes the event as an unbounded activity.

By setting apart the distinction between a walk and a walking, the alternation between the two sorts of nominalizations will display the action-product distinction only to the extent that the nominalizations are based on attitude verbs. A walking will not have a product and a jump only if the jump is intended to exemplify particular relevant features such as a height at a competition. Whether an action has a non-material (possibly non-enduring) product depends on the agent’s intentions, which the product ontologically depends on. The distinction between an action and product thus holds only between an act and its intended product, which comprises the relation between actions and the intended material product and the relation between an action and the intended non-material product, such as an assertion and a thought.

In addition to material, physical and non-physical products, there are things such as artistic performances that need to be recognized as products. These are spatio-temporally coincident with the actions of performing. Thus, a dance is the aesthetic product of a dancing event and opera performance is an artistic product of an event of performing. What matters for the product are the aesthetic features, but not irrelevant features of the act of performing. Likewise for certain linguistic acts, phatic acts of making sounds *with the intention* of realizing a particular phonological or morpho-syntactic structure should count as produces. Products of this sort will be spatio-temporally coincident with the corresponding act and have a temporal part structure that is at least aligned with that of the act. They are thus not enduring products, unlike enduring illocutionary, mental, and modal products and unlike material products. This will be relevant in Chapter 6 when the ontology of s-objects is extended to phatic objects (for the semantics of quotation).

**6. Summary: Attitudinal and modal objects and related categories**

While attitudinal and modal objects are hardly recognized in contemporary metaphysics, they are clearly part of our ordinary ontology that pertains to the mind, to communication, as well as to the social world. Attitudinal objects are particularly well-reflected in natural language, in most obviously in nominalizations of all attitude verbs such as *claim, thought, judgment, decision, promise, offer, invitation, request, demand, suggestion, desire, intention, belief,* and *hope,* which all exhibit stable semantic behavior displaying the characteristic properties of attitudinal objects. Attitudinal objects, even though they are well-reflected in natural language, are not in any way language-dependent. They exist whether or not a language has terms standing for them. Attitudinal objects may correlate with acts or states, but they are sharply distinct from acts and states in the properties they may have. Some attitudinal objects have the status of products of acts, in the sense of abstract (non-material) artifacts generated by acts or being ontologically dependent on them. As in the case of material artifacts, it is the product not the act that is the carrier of representational and relevant normative properties. This is holds in particular for truth and correctness (in the sense of truth).

Attitudinal objects and Davidsonian events (that is, events in their roles as implicit arguments of verbs) have very different motivations. Davidsonian events are meant to be the objects to which adverbials apply, whereas attitudinal objects are mind-dependent entities that are bearers of truth or satisfaction conditions and are the entities which *that*-clauses are predicated of. Events are not bearers of truth or satisfaction conditions or other content-related properties. The attempt to derive the representational ability of content bearers from the acts that may have created them is just as misguided as would be an attempt of trying to derive the ability of artifacts to represent from the act of creating them. A thermometer does not represent temperature because the act of making the thermometer does so. Likewise, a claim does not represent truth because of a truth-directed speech act.

Modal objects share the characteristic properties of attitudinal objects. Modal objects are less well-reflected in natural language, but they play an equally important role in our ordinary ontology. Finally, there are intensional objects, which come with satisfaction and generally some properties of concreteness. Intensional objects, attitudinal, and modal objects together form the category of S-objects, objects whose main characteristics is to be bearers of satisfaction conditions.

1. The criterion, for example, distinguishes beliefs and claims from emotional states such as happiness and anger, which also go with clausal modifiers, but which do not permit specificational sentences:

   (i) a. ??? John’s happiness is that he won.

   b. ??? John’s anger is that he did not win.

   Emotional states like happiness and anger are not themselves bearers of satisfaction conditions, but rather they are relations toward facts (or possibilities). This means that in (ia, b) the *that*-clause gives the object, not the content of the mental state being described. See Chapter 7. [↑](#footnote-ref-1)
2. These are not ordinary cases of co-predication dealt with in the pertinent literature (Pustejovsky 1985, Asher 2010). This literature focuses on conjunction of predicates of different sorts, allowing conjuncts to apply to different developments of an underspecified entity referred to by the subject term. Compositionally such an account would not be available in (3a, b), which requires a modifier to apply to the semantic value of the noun and then the predicate to apply to that. [↑](#footnote-ref-2)
3. The same adverbials apply to complex attitude predicates, which means that the same event occupies an implicit argument position of the light verb:

   (i) a. John finally made the assumption.

   b. John with little effort reached the conclusion that S.

   By contrast, nominal attitudinal constructions do not generally permit the same predicates as noun modifiers, at least on the same event-related reading:

   (ii) a. ?? John’s final assumption

   b. ?? John’s conclusion with effort [↑](#footnote-ref-3)
4. In previous work I called mental objects ‘cognitive products’, making use of the notion of a product as discussed in Section 5.1.). The term ‘mental object’ is better suited for a category that also includes, for example, volitional and certain emotive states. [↑](#footnote-ref-4)
5. We also remember facts. These will later be construed as modal objects (Chapter 7). [↑](#footnote-ref-5)
6. See Thomasson (1999) for the notion of artifacts involving generic agency. [↑](#footnote-ref-6)
7. Kinds need not be conceived as single abstract objects, but may rather be viewed as pluralities of (possible and actual) instances, as I argued in Moltmann 2013a) for both kind terms of the sort of bare plurals (*giraffes*) and bare mass nouns (*wood*) and terms for kinds of attitudinal objects such as *the belief that* S. However, there are actually two types of NPs for kinds of attitudinal objects: definite singular NPs like *the claim that* *Mary is a genius* and bare plurals like *claims that Mary is a genius*. Certain kind predicates such *be widely believed* are less suited for the latter and it is tempting to assimilate such kind terms such as *the Siberian Tiger*, which certainly stand for single abstract objects rather pluralities of instances. [↑](#footnote-ref-7)
8. Some nouns are polysemous, standing for an illocutionary product or a modal object, for example *permission*, *offer*, and *invitation.* [↑](#footnote-ref-8)
9. See, however, Correia ( ) for a critique of an objectual conception of the notion of an essence: if essence itself is an object, it should also have an essence. However, it will depend on how an entity like an essence itself is conceived whether that is problematic. An essence may be conceived as a trope of objects, their substantive form, and then it depend on how tropes are conceived, what sort of essence essences themselves will have. [↑](#footnote-ref-9)
10. For a critique of propositions as being unable to be causally efficacious see also Devitt (2013), who defends the view that thoughts act as content bearers instead. [↑](#footnote-ref-10)
11. See Moltmann (2021) for a detailed discussion of existence predicates in natural language. [↑](#footnote-ref-11)
12. Note, though, that *occur* with an additional experiencer is applicable to thought: a thought can occur to someone. [↑](#footnote-ref-12)
13. Note that nominalizations such as *permission* and *offer* are polysemous, permitting reference to both an illocutionary product and a modal product. [↑](#footnote-ref-13)
14. Bronzo (2020) criticizes my view of illocutionary and mental products as artifacts based on the claim that endurance is a characteristic feature of abstract artifacts, in (incorrect) reference to Thomasson (1999). But endurance is not essential for abstract artifacts. Thomasson herself takes literary works that are no longer remembered to have gone out of existence, and laws obviously need not endure beyond their intended validity. This is also an option for works of art, such as improvisations .Bronzo claims that non-enduring abstract artifacts are ‘unintelligible’, but that is quite mistaken. When it comes to an important notion of descriptive metaphysics such as that of an artifact, the procedure should be to first clarify how that notion is in fact understood given our ordinary judgments, before declaring it unintelligible. This requires careful considerations regarding our intuitions about various instances of the notion. [↑](#footnote-ref-14)
15. Validity may also apply to declarations, the products of declarative illocutionary acts, and the abstract state that goes along with the declaration may be said to ‘obtain’ at a particular time and space:

    (i) a. The declaration of war is still valid.

    b. The state of war still obtains.

    See Moltmann (2013b) for more on the notion of an abstract state. [↑](#footnote-ref-15)
16. See Moltmann (2017). [↑](#footnote-ref-16)
17. Hanks (2017) points at the availability of *truly* as an adverbial event predicate apparently conveying truth in English:

    (i) a. John truly believes that he won the election.

    b. John truly said that he won the election.

    However, there appears to be a peculiarity about English adverbials that they can be predicated an action or state and thereby attribute a property of the corresponding attitudinal object. Other languages, for example German, French, Italian do not allow the adverbial version of ‘true’ to convey truth when applied to an action or state (*wahrlich; vraient, veramente*), as the French translation of (ia) illustrates:

    (ii) Jean crois vraiment qu’il a gagné l’élection.

    By contrast, no language-particular variation is attested regarding the inapplicability of *true* to actions or states, or *correct* on a reading on which it just conveys truth.

    Interestingly, predicates of falsity seem to be better as adverbials, illustrated for German below:

    (iv) Er glaubte / behauptete, faelschlicherweise dass es regnet.

    ‘He believes falsely that it is regnet.

    Clearly, this is a linguistic topic requiring much further investigation. [↑](#footnote-ref-17)
18. The failure of events and states having satisfaction conditions was noted by Twardowski (1911), who drew the contrast to between acts and products (see Section 5). [↑](#footnote-ref-18)
19. See Moltmann (2014, 2017b). [↑](#footnote-ref-19)
20. Types of action may also mean actions that may be realized in different ways. John’s obligation as a soldier and Mary’s obligation as a defense minister may be the same in the sense that it is fulfilled by both serving their country. But serving one’s country can be done in different sorts of ways. Thanks to Hans-Martin Gaertner for pointing this out to me. [↑](#footnote-ref-20)
21. See Moltmann (2013, Chap. 4, 2014, 2017a). [↑](#footnote-ref-21)
22. [↑](#footnote-ref-22)
23. See Wiegel (2022) for a semantic analysis of *double* when applied to events. [↑](#footnote-ref-23)
24. However, *part of* can apply to what is described as a ‘content’, picking out a partial content:

    (i) Part of the content of the sentence *John came and Mary left* is that John came. [↑](#footnote-ref-24)
25. Of course if propositions are construed in truthmaker terms, the notion of part in the sense of partial content does apply to them (Yablo 2015, Fine 2017b)) [↑](#footnote-ref-25)
26. The adverbial *partly* seems to be able to apply to propositions clearly relating to a partial content, as in (i):

    (i)The proposition that John is incompetent is partly true.

    However, *partly* does not directly relate to the part structure of the subject referent, but may relate to an entity closely related to it, such as the content of a sentence, as in (iia), which is not equivalent to (iib):

    (ii) a. The sentence ‘John is incompetent’ is partly true.

    b. Part of the sentence ‘John is incompetent’ is true.

    See Yablo (2015) for the observation and Moltmann (2017a) for an analysis. [↑](#footnote-ref-26)
27. See Chapter 6 for the notion of a locutionary content bearer (locutionary object). [↑](#footnote-ref-27)
28. It has been argued, though, that emotions are subject to conditions of correctness (Deonna and Teroni 2022). Roughly, on that view, John’s fear of a storm is correct if John judges a storm as dangerous. Conditions of correctness are of a different sort, though, from conditions of satisfaction and are not on a par with content. [↑](#footnote-ref-28)
29. See Moltmann (2003b, 2013a). [↑](#footnote-ref-29)
30. Thomasson (1999) takes abstract artifacts to be entities that lack a specific spatio-temporal location. That notion is suited for works of art, such as musical compositions or plays, which may have physical manifestations, but are not tied to their spatio-temporal location. [↑](#footnote-ref-30)
31. Further support for the classification of attitudinal objects as artifacts comes from their teleogical status, reflected in the applicability of *correct*. Just as attitudinal objects with a word/mind-to-world direction of fit are correct in case they are true, certain artifacts can be correct in that same sense. Thus, a thermometer can be correct, though not true. [↑](#footnote-ref-31)
32. Bronzo (2020) appears to take enduring modal products to be artifacts and as such to be distinct from truth-evaluable aspects of acts. But this would leave it a mystery why modal products share the same characteristic properties as (non-enduring) attitudinal objects. [↑](#footnote-ref-32)
33. See Moltmann (2017) and also Bronzo (2020). [↑](#footnote-ref-33)