

Chapter 2

The Ontology of Attitudinal and Modal Objects

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Attitudinal and modal objects play a central role on the view developed in this book, that is, objects we refer to as claims, judgments, assumptions, ideas, hypotheses, claims, needs, obligations, and permissions, or more generally satisfiable objects (satisfiables). The project of this book is to show that starting out with an ontology of attitudinal and modal objects 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 approach 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 satisfiables form an ontological category of their own, distinct from that of events, of states, or of propositions. It will elaborate the ontology of satisfiables in two respects.

First, it will clarify what sorts of properties characterize satisfiables, in particular their possession of satisfaction conditions. The satisfaction conditions of satisfiables 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, however, 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 an act-related attitudinal object constitutes just an aspect of the act, rather than an entity distinct from it.

1. The ontology of satisfiable objects

With these preliminaries we can turn to the ontology of satisfiables. The nature of satisfiables is reflected in linguistic data, but also in general intuitions not strictly driven by linguistic data. Satisfiables 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.

1.1. 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.¹ In addition, attitudinal objects include locutionary objects, entities that correspond to Austinian locutionary acts. Locutionary acts are, roughly, acts of merely presenting or entertaining a content. The corresponding speech-act related locutionary objects are utterances or what one may call ‘sayings’. There are also locutionary acts in the realm of the mental, acts of thinking or merely entertaining a content. The corresponding mental locutionary objects are what one may call ‘thoughts’. Locutionary objects play an important role in the semantics of verbs of saying (and thinking) as well as in the semantics of quotation (which will be elaborated 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 5

¹ 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.

and 6. 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*, *guess*).

1.2. The role of attitudinal objects in thought and communication

Attitudinal objects play an important role in our mental life: we remember ideas, thoughts, hypotheses, not pure contents, that is, propositions.² 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 of an attack may make John afraid, the thought that he may be killed may make him shudder, the fear that the situation is hopeless 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.

² We also remember facts. These will later be construed as modal objects (Chapter 7).

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), data that are exactly parallel to those with terms for kinds of material objects, such as (18c), which requires identity of John's and Mary's car for it to be true, and (18d), which requires sameness of type:

- (18) a. ?? John's claim is Mary's claim.
 b. John's claim is the same as Mary's claim.
 c. ?? John's car is Mary's car.
 d. John's car is the same as Mary's car.

Agent-dependence looks 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*).³ 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.

1.3. 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.⁴ That is because they accept typical kind predicates like *be widespread* and trigger existential readings ranging over instances with episodic predicates like *encounter*. They are in that respect like kind terms in Carlson's (1977) sense. Carlson argued that bare (determinerless) plural and mass nouns like *giraffes* and *gold* stand for kinds both with typical kind predicates such as *be widespread* and with episodic predicates like *encounter*. With such kind terms, episodic predicates display a reading existentially

³ See Thomasson (1999) for the notion of artifacts involving generic agency.

⁴ Note that (19a, b) could not involve reference to propositions: propositions cannot be widespread or be encountered by John.

quantifying over instances (*John never encountered giraffes*). Whereas Carlsonian kind terms take the form of bare plurals and mass nouns, terms for kinds of attitudinal objects take most naturally the form of definite NPs.⁵

What are kinds of attitudinal objects? Kinds may be conceived in various ways, and a particular choice as to how kinds are to be conceived is not needed in the present context.⁶ What is most important 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 2.5.3):

- (21) a. John and Bill share the belief that Mary is guilty.
 b. John and Bill both made the claim 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 both engaged in thinking* does not imply that John and Mary were thinking the same thing, but only that they engage in the same kind of activity.

1.4. Modal objects

Modal objects are entities like obligations, needs, permissions, offers, invitations options,

⁵ There are also bare plurals and mass nouns for kinds of attitudinal objects:

- (i) a. Claims that mathematics is easy are rare.
 b. John never encountered claims that mathematics is easy.

However definite NPs like *the claim that mathematics is easy* are clearly more commonly used. While the difference between the two sorts of terms for kinds of attitudinal objects is certainly interesting, I will focus on definite kind terms in the context of this book.

⁶ 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*.

strategies, dispositions, laws, and essences. Modal objects share the characteristics of attitudinal objects, which distinguish 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 similar 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, 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. However, it generally has a different lifespan, being able to last beyond the act that may have produced it.⁷ Being able to endure past the act that created them is a characteristic feature distinguishing modal objects from attitudinal objects such as thoughts and remarks (though not attitudinal objects like claims and demands, which may themselves have a modal component).

Modal objects clearly play a role in our ordinary ontology. Obligations, permissions laws, rules, abilities, and dispositions obviously play a role in our social ontology, and we have very clear intuitions about them, not strictly tied to language. Modal objects are not always overtly reflected in English. In particular, modal auxiliaries such as *can*, *must*, *may*, and *should* are associated with modal objects of deontic and circumstantial sorts, but they do not come with nominalizations. Yet English has the noun *need* that can stand for both deontic and circumstantial modal objects. Moreover, besides nouns for deontic modal objects (*obligation*, *permission*), there are various nouns for circumstantial modals, such as *ability*, *option*, *strategy*, and *possibility* (as in *there is an option / strategy / possibility to avoid a collapse of the building*). There are hardly any nouns for epistemic modal objects in English (and perhaps natural language in general. The only exception is *possibility*, which can stand for epistemic possibilities (*the possibility that John might be late*) as well as circumstantial possibilities (as in *there is a possibility of opening the bottle*).

⁷ Some nouns are polysemous, standing for an illocutionary product or a modal object, for example *permission*, *offer*, and *invitation*.

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.

Quite independently of natural language, there also purely philosophical motivations that have been put forward in favor of modal objects or closely related notions. Thus, based on a range of philosophical motivations, Vetter (2015) has developed a theory of circumstantial 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. Given the ontology of satisfiable objects, dispositions and abilities are modal objects that come with satisfaction conditions. More precisely, they come with conditions of realization or manifestation, which means a disposition or ability is satisfied by particular actions or events that realize or manifest it.

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 essentiality operator O_F for individuals that are F : $O_F S$ is understood as ‘ S is true in virtue of the nature of thing that are F ’ see also Chapter 4, Section 5). While Fine does not take essence to be an object, this is at least one way of understanding Aristotle’s notion of an essence.⁸ 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, for example deontic modal objects such as particular permissions and obligations; others, such as essences, dispositions, and capabilities depend on a particular individual in a non-agentive role: Socrates’ essence depends on Socrates, the disposition of the glass to break depends on the glass, Joe’s capability of sleeping depends on Joe.

Modal 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.⁹

⁸ See, however, Lowe (2018) 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.

⁹ Moreover, epistemic modal objects such as the possibility that John might be sick may involve a generic dependence of the interlocutors.

However, unlike attitudinal objects, modal objects need not depend on an agent. For example, circumstantial modal objects such as the possibility that it will rain or the need for a new hospital do not depend on a particular agent.

1.5. Characteristic properties of attitudinal and modal objects

1.5.1. Properties of concreteness and endurance

Unlike propositions, 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 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

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, where thoughts are mental entities on a naturalized understanding.

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 act-related attitudinal objects may very well endure past the 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. This is reflected in the choice of tense in specificational and predication 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 that is not so for attitudinal objects like assertions and requests, which may endure past the act that produced them. This is illustrated below, in a context in which John made his utterance in the past:

- (22) 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 predication sentences shows the same thing:

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

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

- (24) a. John’s claim (which he made yesterday) was / is disturbing.
 b. John’s demanding (yesterday) extra coffee was / ??? is disturbing.

Existence predicates also show the difference between enduring and nonenduring attitudinal objects. Natural language does not just contain a single existence predicate *exist*, but

a range of existence predicates, including *happen*, *occur*, *hold*, *obtain*, and *be valid*.¹¹ *Obtain*, *hold*, and *be valid* are predicates that convey both validity and existence, notions that coincide for entities like rules and laws.¹²

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’.¹³ 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 *hold*, *obtain*, and *be valid*:

(25) John’s claim / offer / promise still obtains / still holds / is still valid.

By contrast, attitudinal objects such as thoughts, ‘sayings’ (utterances) and guesses do not come with an intended validity, which would allow them to endure past the act that produced them.

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 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.¹⁴ The endurance of

¹¹ See Moltmann (2020c) for a detailed discussion of existence predicates in natural language.

¹² See again Moltmann (2020c) on the equivalence between existence and validity for laws.

¹³ Note, though, that *occur* with an additional experiencer is applicable to thought: a thought can occur to someone.

¹⁴ Note that nominalizations such as *permission* and *offer* are polysemous, permitting reference to both an illocutionary product and a modal product.

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.¹⁵ 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, arguably, 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.

¹⁵ 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.

- 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*:¹⁶

- (28) a. The law that one must have a passport still obtains.
 b. That one must have a passport is still true.

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

1.5.2. Content-related properties

Satisfiable 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, rather than shared features of a performance

[3] Having a part structure strictly based on partial content rather than temporal parts.

These features together distinguish attitudinal and modal objects as an ontological category 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 and modal objects have a content; they also indicate that they come with a particular sort of content, based on the notion of a truthmaker, rather than a possible world.

2.5.2.1. Satisfaction predicates of attitudinal and modal objects

¹⁶ 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.

Satisfiable objects come with 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:¹⁷

[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 go with different types of attitudinal objects, as we will see in the next sections.

2.5.2.2.1. 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 Chapter 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 or standard.

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

¹⁷ See Moltmann (2017a).

fulfillment of an action-guiding norm when we refer to speech acts or other actions, and not truth.¹⁸

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*).

2.5.2.2. 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 fulfilment also include predicates of violation, such as *contravene*, *violate*, *ignore* (in the sense of 'violate'), and *break*. Predicates of fulfilment 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

¹⁸ 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*; *vraiment*, *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) Hans glaubte / behauptete, faelschlicherweise, dass es regnet.
- 'John believes falsely that it is raining.'

Clearly, this is a linguistic topic requiring much further investigation. What is important in the present context, however, is the fact that *true* in standard predicate position acts as a predicate of attitudinal objects and not of acts:

- (v) a. John's claim is true.
- b. ??? John's speech act is true.

‘satisfied’ and a state of hoping can hardly be ‘fulfilled’.¹⁹ 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. Truthmakers include actions that can be described by agent-related satisfaction predicates (*fulfill*, *take up*, *obey*, ...).

Satisfiable 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 satisfiables 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 failing to take up a permission or accepting an invitation or offer.

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

2.5.2.2.3. Predicates of realization

¹⁹ The failure of events and states having satisfaction conditions was noted by Twardowski (1911), who distinguished them from what he called ‘products’ (see Sect. 5).

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 satisfiables. Of course the question is why satisfiables go with different predicates of satisfaction. This issue will be addressed in Chapter 3, which will give an account of that selection based on truthmaker theory and a normative construal of the notion of direction of fit.

2.5.3. Similarity relations based on sameness of content

The second content-related type of property of satisfiables consists in that satisfiables of the same types enter similarity relations strictly on the basis of being the same in content. Thus, 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* are understood as:²⁰

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

b. John's act of claiming / John's speech act was the same as Mary's.

(30a) can only state the sharing of (a partial) content, not the sharing of a way of performing a speech act. By contrast, for actions as in (30b) to be the same, they need to share features of their performance; sharing of content is neither sufficient nor in fact necessary. 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).

²⁰ See Moltmann (2014, 2017b).

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 obligation 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 of the same type as Mary's actions satisfying hers).²¹

2.5.4. Part structure based on partial content only

Satisfiables have only one part structure based on partial content.²² This is reflected in the fact that part-structure related expressions exhibit a single reading when applied to satisfiables, relating to partial content. Again this is a feature distinguishing satisfiables 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 partial contents, not the temporal parts of states. The partial-content reading is the only way in which *part of* can be understood when applied to satisfiables. In fact, all part-related expressions, not just *part of* display such a reading, 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*.²³ When applied to attitudinal objects, *double* specifies two content-related parts (or in fact two attitudinal objects generated by the same act), as in

(33). By contrast, when applied to events it specifies two eventive parts, as in (34):²⁴

²¹ 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.

²² See Moltmann (2013, Chap. 4, 2014, 2017a).

²⁴ See Wiegel (2022) for a semantic analysis of *double* when applied to events.

- (33) a. a double threat
 b. a double insult
- (34) a. a double pirouette
 b. a double murder

Part-related expressions do not really apply to propositions, with a clear intuitive understanding.²⁵ 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.²⁶

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 (Yablo 2015). Truthmaker semantics, by contrast, has been developed specifically to account for that notion, and the fact that satisfiable objects display the notion of partial content is one motivation for conceiving of their content in terms of truthmaker semantics (see Chapter 3).²⁷

Even physically realized attitudinal objects (e.g. claims) fail to have a physical part structure, given linguistically reflected intuitions. 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. Let's adopt the traditional (if controversial) notion of

²⁵ 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.

²⁶ Of course, if propositions are construed in truthmaker-semantic terms, the notion of part in the sense of partial content does apply to them (Yablo 2015, Fine 2017b, Moltmann 2017c).

²⁷ The adverbial *partly* seems to be able to apply to propositions clearly relating to a partial content 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 (2017c) for an analysis.

endurance of an entity as complete presence throughout time the entity exists (Lewis 186, p. 202).²⁸ Then attitudinal objects endure throughout a time because with their content-related parts they are capable to be completely present throughout the time.

1.5.5. The source and scope of satisfaction conditions for attitudinal and modal objects

The property of having 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 light 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 predication acts that, on their view, are constitutive of them.

It may not be obvious that all attitudinal and 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. Yet the verbs *sigh*, *scream*, and *exclaim* take clausal complements and thus should have satisfaction conditions. The reason may be the nominalization of verbs describing locutionary acts with an emotion pick out the emotion only, not the locutionary content bearer that the emotion accompanies.²⁹ Pure emotions in general do not come with satisfaction conditions, that is, emotive states such as anger and happiness. They do not tolerate predicates

²⁸ See Hawley (2023) for a discussion of the notions of endurance and of temporal part.

²⁹ See Chapter 6 for more on the notion of a locutionary content bearer, that is a 'saying' or locutionary object.

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 the satisfaction conditions of an emotive state.³⁰ 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.

2. 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.):³¹

- (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.

³⁰ It has been argued 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.

³¹ See Moltmann (2003b, 2013a).

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.

3. Intensional objects

Attitudinal and modal objects belong to the category of satisfiable objects, entities which are characterized by particular content-related properties and properties of concreteness. There is another semantically relevant type of entity that displays the same sorts of properties, though it may involve different kinds of satisfiers. These are ‘intensional objects’ (to use a somewhat misleading term), which include what we refer to as ‘searches’, ‘needs’, ‘purchases’, ‘debts’, ‘offers’, and ‘acceptances’. Intensional objects 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*. Satisfiables thus comprise attitudinal, modal, and intensional objects.

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’ by John as a result of the search (e.g. bought or rented). 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, that is, entities-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.

4. The relation of attitudinal and modal objects to acts

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. Even though, as we have seen, that attitudinal objects differ sharply from acts in the kinds of properties they may have, 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.

4.1. 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 products 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 without a physical realization plays a prominent role in Twardowski's work (which I will discuss shortly). However, it is not a distinction that is exclusive to Twardowski, and in fact Twardowski (at least on one interpretation) conceived of the distinction in a way that I will not adopt myself (Section 6.4.). The notion of a product in the intuitive sense in which it applies to entities like judgments, assertions, requests, and decisions can be found in the work of philosophers prior to Twardowski. In fact Twardowski (p. 84f, Fn 25) himself mentions Bolzano, Bergman, Stumpf, Meinong, and Witasek as philosophers that were aware of the distinction between

actions and products.³² The notion of a product, in particular that of a work of art, also plays an important role in the work of Roman Ingarden (1931), a student of Twardowski's. It also plays an important in Gilbert Ryle (1949, chap. 9), according to whom terms for acts are to be part of the 'language of biography' and terms for products like *judgment*, *discussion*, and *abstraction* to be part of the 'language of reviews of books, lectures, reports'.³³

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 (nonmaterial) product is temporally coincident with the act that produced it. 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, 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 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 or decision 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') 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, mental, and modal products to be artifacts produced by acts. Mental and modal products will be abstract artifacts, though, in that they lack a physical

³² Thus, Twardowski cites Bolzano 'Bei den Worten: ein Urteil... eine Behauptung stellen wir uns sicher nichts anderes vor, als etwas, das durch Urteilen ... und Behaupten hervorgebracht ist.' ('With the words 'a judgment ... a claim... we certainly imagine nothing else than what has been produced by judging.... and claiming' - my translation) (Wissenschaftslehre, v. I, p. 82.). Twardowski also cites Bergman (*Reine Logik*, E.S. Mittler und Sohn 1879, pp. 1-3, 10-12, 38-39), saying 'Bergman, who follows Bolzano in his very resolute differentiation of product from action, ultimately refers to a thought, concept, or judgment as simply products that correspond to actions.'

³³ Thus Ryle (1949, chap. 9) says 'I hope to show that the words 'judgment', 'deduction', 'abstraction' and the rest belong properly to the classification of the products of pondering and are mis-rendered when taken as denoting acts of which pondering consists. They belong not to the vocabulary of biography but to the vocabulary of reviews of books, lectures, discussions, and reports. They are referees' nouns, not biographers' nouns.' (Ryle 1949, chap. 9, p. 285 f.).

realization.³⁴ Abstract artifacts are familiar from musical works, literary works such as poems (which may have not been written down), fictional characters, and laws (Thomasson 1999).³⁵ I will adopt the view that abstract artifacts are created (Thomasson 1999), rather than discovered (Dodd 2000).

There is an important critique of abstract artifacts as entities created by acts that has discussed in the literature on literary and musical works of art. That is that abstract artifacts cannot be caused by the actions that have created them, since causation is a relation between concrete entities (Irmak 2020). The same critique has been applied to the notion of an attitudinal object as an abstract artifact by Bronzo (2020) and 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 object that is 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 in order to last for a particular time or under particular conditions.

We can now to the important question mentioned earlier, namely on what sorts of acts attitudinal objects as products depend. The act on which an attitudinal product depends is not really the act 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

³⁴ 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.

³⁵ Further support for the classification of attitudinal objects as artifacts comes from their teleological 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.

musical works, on the creationist view I have adopted: 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 the various acts that lead to the letter. This is so not only for mental acts. There are also predicates for physical actions that make reference to the intended product, such as *to circle*, *to underline*, and *to surround*. Here again the act described is individuated in terms of the physical product. In many cases, thus, the attitudinal object is ontologically prior to the act described by the attitude verb. This means that the act is more transparently described in terms of a complex predicate such as *reach a conclusion* or *make an assumption*, rather than the simple verbs *conclude* or *assume*. This gives further motivation for the derivation of attitude verbs from complex predicates (light verb – attitudinal object noun) which this book pursues (see in particular Chapter 5).

Artifacts in general and illocutionary, mental, and modal products in particular, on the present view, inherit their ability to represent from the intentions involved in their creation, rather than that being the result of the acts themselves that lead to their creation. The view thus differs from 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).

4.2. Attitudinal objects as results of acts

The distinction between an action and a corresponding act-related attitudinal object cannot always be taken to be the distinction between an action and its product. Some attitudinal objects have the status of entities resulting from an 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 of course it is not the gerundive nominalizations

claiming, assuming and speculating that describe the acts that produce those attitudinal objects; the gerundive nominalizations rather describe a more complex act individuated in terms of the product).

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’).

4.3. Attitudinal objects and states

State-related attitudinal objects likewise can hardly be viewed as products, at least not products produced by the corresponding state, since states do not lead to new objects. Thus, a belief may have been produced by a state of believing. A belief, though, may have been produced by a thought. Yet 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).

There is further question to address, namely what to make of the difference between attitudinal objects like beliefs and hopes and attitudinal states, such as states of belief or hope. More linguistically put, this would be the difference between the denotations of nouns like *belief* and *hope* and denotations of gerunds such as *believing* or *hoping*, or explicit state-referring terms *belief state* and *state of hope*, which are; more or less co-extensional.³⁶ Unlike beliefs and hopes, belief states and states of hope do not exhibit variable intensity (*John’s deep belief that god exists*, **John’s deep believing that god exists*, **John’s deep belief state that god exists*; *John’s great hope that the war will end*, **John’s great hoping / state of hope that the war will end*). Moreover, belief states and states of hope do not possess satisfaction conditions (*John’s belief is true*, ??? *John’s believing that the war has ended is true*, ??? *John’s belief state is true*; *John’s hope that he would win was fulfilled*, ??? *John’s hoping that that he would win was fulfilled*, ??? *John’s state of hope was fulfilled*).

³⁶ Unlike gerunds, *belief state* and *state of hope* sound like technical philosophical terms. Yet they seem to co-extensional with gerunds, setting aside an apparent different in mass-count status (gerunds are mass nouns, *state* is a count noun).

A plausible conception of states of believing or hoping is in terms of Kim's (1976) theory of events. Kim (1976) proposed an implicit definition of events based on properties, individuals and times, stating that an event $F(P, a, t)$ dependent on a property P , and agent a , and a time exists just in case a has P at t , and two events are identical just in case they depend on the same properties, individuals and times. It is generally agreed that Kim's account is better suited as an account of facts rather than events, since the account does not permit events to have properties not fixed by the implicit definition itself, such as properties of concreteness like being perceivable, entering causal relations, having a particular manifestation.³⁷ But the account is also suited for a notion of an abstract state, that is, a kind of state that fails to come with a location, with a particular manifestation, and with causal relations (Maienborn 2007, 2020). What we refer to as a 'state of belief' and a 'state of hope' side with abstract states in that they do not come with variable intensity (and thus lack a particular manifestation) and do not come with satisfaction conditions (since the implicit definition fails to fix those). Unlike facts, states, intuitively, can obtain at different times, which means that abstract states should depend just on a property (or relation and an individual (or several individuals)). We can then say that 'John's believing that the war will end' is 'John's having the belief that the war will end'. This means it is a state that depends on a two-place property of 'having', John, and the attitudinal object that is John's belief. Likewise 'John's hoping that the war will end' will be 'John's having the hope that the war will end'. This gives the following Kimean account of attitudinal states:

(38) A Kimean Account of Attitudinal States

- a. For an attitudinal object d , the having relation H , and an agent a , the state $F(H, a, d)$ exists at a time t if H holds between a and d at t .
- b. For attitudinal objects d and d' , the having relation H , and agents a and a' ,
 $F(H, a, d) = F(H, a', d')$ iff $d = d'$ and $a = a'$.

'Having' is to be understood as the ontological dependence relation between an agent and an attitudinal object. Given that (38) is an implicit definition, attitudinal states won't have any inherent properties not fixed by (38), such as possessing variable intensity or satisfaction

³⁷ The distinction between events and facts based on different types of acceptable predicates is originally due Vendler (1967, chap. 5). Vendler (1967, p. 132). points out that what he called 'narrow containers', predicates that describe temporal, spatial, and certain manner-related properties can apply only to events (as denoted by nominal gerunds and deverbal nominals), but not to the things denoted by verbal gerunds or *that*-clauses, facts or proposition-like entities.

conditions. Given this proposal, attitudinal states are derivative with respect to attitudinal objects: they ontologically depend on the latter.

4.4. Twardowski's action-product distinction and the Aspectual 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, in particular an interpretation of Twardowski's view on which it is a distinction between 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 connects the distinction between actions and products to two sorts of deverbal nominalizations in Polish, German, and French (in three versions of the same article in those languages). The distinction appears 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. Twardowski 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. Products, not actions, for Twardowski are truth bearers (or bearers of satisfaction conditions). For that reason, for Twardowski, products, not actions, are the things that play a role in logic and form the subject matter of the human sciences 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 being 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 productions of similar products.

For Twardowski, products like claims and thoughts are distinguished from the more familiar products, material products like books and letters, by being non-enduring. Twardowski in fact took products such as claims and thoughts to be temporally coincident with the action that produced them. Twardowski's view of actions and products being 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 non-enduring, 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. When discussing the distinction between a physical action and its apparent non-enduring products, Twardowski (1911, p. 80) appears to take the distinction to be one between two different aspects of the same entity: product nouns such as *jump* and *race* 'do not bring into relief the aspect of action'... instead 'they bring to the force a different aspect, one that might be termed the 'phenomenal or 'static' aspect'. He also says 'When we speak of the shout, we abstract from [the activity of shouting] treating the shout as an acoustical phenomenon on a par with a roar, a rustle etc.' Twardowski 1911). He admits that in the case of fighting and fight, 'terms for actions and for products' may even pose as merely two ways of grasping the same thing'. In the case of to err and error and bending and bend, the distinction in meaning between verb and noun is quite pronounced, these nouns being entirely free of the functional aspect.' (Twardowski (1911, p. 81). He emphasizes later again 'there is a continuum from those cases in which the product virtually coalesces with the action that produces I, through instances in which the distinctness of action and product becomes increasingly sharp.' (Twardowski 1911, p. 83). At the same time, Twardowski takes non-enduring products to be on a par with material, enduring products, and he point out sharp differences in the attribution of properties: concepts can be defined, but not the activity of conceiving; saying that a question is unintelligible is not saying that the act of posing questions is unintelligible; overlooking an error is not overlooking the action of committing the error; expectations can be fulfilled and resolutions implemented, but not 'actions' of expecting or resolving. Thoughts being inspiring is not the same acts of thinking being inspiring (Twardowski 2011, p. 91).

Given this, it is not at all obvious that Twardowski takes the action-product distinction to consist just in different aspects of one and the same thing, an action. Yet, his view has been

interpreted as such (van der Schaar 2006, Bronzo 2020). Let me call this the ‘Aspectual Theory’ of the action-product distinction.³⁸

The view that actions and products are just two aspects of the same thing in fact does not capture the intuitive distinction adequately. First, it would leave it a mystery why material products are in many ways like non-enduring mental or psychophysical products. Material products like street signs share with non-enduring products the ability of having satisfaction conditions and other content-based properties. If non-enduring products are just aspects of an action, the parallel remains entirely mysterious (and Twardowski clearly recognizes the parallel between non-enduring and material products).

Second, if a judgment is a different aspect of something that would also be an act of judging, and an assertion a different aspect of an act of asserting, 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. The Aspectual Theory would make the action-product distinction inapplicable to modal objects and the actions that may have produced them. Deontic modal products, we have seen, display the very same characteristic properties as attitudinal objects, but they 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 (*take place* for actions, *be valid* for (certain) products).

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.³⁹

³⁸ Bronzo (2020) points out an unwanted consequence of the action-product distinction, if the distinction is guided by the presence of verb-nominalization pairs in the language. It would then apply not only to standard action-product pairs like ‘the constructing of the bridge’ and ‘the bridge’, but overgenerate in such a way that the action of constructing of the bridge would come with its own product ‘the construction of the bridge’, and the action of ‘engaging in constructing the bridge’ would come with its product, the ‘engagement’ in the constructing of the bridge. The existence of such additional apparent terms for actions and for products, Bronzo, argues, leads to an absurd multiplicity of products, which (apart from the physical product) would be spatio-temporally coincident with the corresponding actions. It is not clear to me that Twardowski would subscribe to such a strictly language driven action-product distinction. I myself consider engage a stative verb that would not come with a product in the first place.

³⁹ Twardowski in the first part of his article takes product nouns to be ambiguous between standing for actions or products. However, his observations about the applicability of predicates to actions and products make clear that the view cannot be correct.

These points of critique also apply to a version of the Aspectual Theory that was suggested by Bronzo (2020) and which does away with the notion of a product. For Bronzo, nouns for actions and nouns apparently denoting 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 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. The problem for any version of the Aspectual Theory is that it fails to capture the similarity between material products and nonenduring ‘products’ (or aspects of acts), and that it is inapplicable to mental and illocutionary products that endure past the act that produced them, as well as to modal products.⁴⁰

Bronzo’s view moreover rests on the problematic assumption that acts are primary truth bearers and explain the truth aptness of content bearers (see Section 1.5.5.). Just like other act-based approaches to propositions, no account is given how an action could possibly be the bearer of content, when content-related properties go against our intuitive notion of an action when referred to as such. More specifically the Bronzo’s view faces the challenge to explain why content-related aspect not only goes together with satisfaction conditions, but also, for example, involves a part structure based on partial content, rather than a temporal part structure, when the act as such seems to just have a temporal part structure.

It is in fact better not to apply the action-product distinction to the distinction between merely physical entities, such as 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.⁴¹ *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

⁴⁰ 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.

⁴¹ See Moltmann (2017) and also Bronzo (2020).

on the agent's intentions, which the product ontologically depends on. The distinction between an action and a 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 the 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 products. 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 satisfiables is extended to phatic objects (for the semantics of quotation).

6. Conclusions

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 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 satisfiables, entities whose main characteristics is to be bearers of satisfaction conditions.