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Propositions, attitudinal objects, and the distinction between actions and products

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Propositions, attitudinal objects, and the distinction between actions and products

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Propositions as mind-independent abstract objects raise serious problems such as their cognitive accessibility and their ability to carry essential truth conditions, as a number of philosophers have recently pointed out. This paper argues that 'attitudinal objects' or kinds of them should replace propositions as truth bearers and as the (shared) objects of propositional attitudes. Attitudinal objects, entities like judgments, beliefs, and claims, are not states or actions, but rather their (spatio-temporally coincident) products, following the distinction between actions and products introduced by Twardowski (1912). The paper argues that the action–product distinction is not tied to particular terms in a particular language, but is to be understood as the more general distinction between an action and the (abstract or physically realized) artifact that it creates. It thus includes the distinction between the passing of a law and the law itself and an act of artistic creation and the created work of art.

Keywords: Propositions; artifacts; attitudinal objects; action-product distinction

Propositions as mind-independent truth-bearing entities play a central role in contemporary philosophy of language. Ever since Frege (1918/9), it has become an established view that propositions act as the primary truth bearers, the meanings of sentences, and the 'objects' of propositional attitudes. Given their role as objects of propositional attitudes and the meanings of sentences, propositions must be intersubjectively shareable and thus are taken to be mind-independent. Furthermore, propositions as meanings of both independent and embedded sentences are taken to be entities representing content separated from (illocutionary or attitudinal) force.

Propositions in this sense have been subject to a range of recent criticism, though. As mind-independent abstract objects that belong, according to Frege, to a 'third realm', they raise questions of their cognitive accessibility and their causal interaction with agents. Moreover, the way propositions are formally

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conceived, as sets of circumstances, functions from circumstances to truth values, or structured propositions, and thus formal structures of one sort or another, raises serious difficulties, such as the problem of the truth-directedness and the unity of propositions and the problem of arbitrary identification. Finally, propositions as semantic values of *that*-clauses raise problems for linguistic semantics since *that*-clauses do not appear to act as singular terms referring to propositions. Moreover, quantifiers like *something* that can take the place of *that*-clauses do not appear to range over propositions.

One approach to the conceptual problems for propositions that has recently been pursued by a number of philosophers consists in a return to an act-based, pre-Fregean view of content, in particular by taking predication to be an intentional relation relating an agent to a property and its arguments (Jubien 2001; Hanks 2007a, 2011; Soames 2010, forthcoming; Moltmann 2003a). An important issue that the act-based account raises is the question of what could play the traditional roles of propositions. An answer pursued both by Soames and by Hanks is to identify propositions with types of cognitive acts. There is something fundamentally unsatisfactory about such an identification, however, and that is that cognitive acts do not have the right properties to provide the sort of entity suitable to play the role of propositions. Cognitive acts do not have the right representational, normative, and evaluative properties, and they do not enter similarity relation in the right way. Furthermore, they are not entities suited to play the appropriate role in the semantics of sentences with *that*-clauses or quantifiers in their place.

In this paper, I will argue for a notion of a truth-bearing entity that is distinct both from a proposition and an intentional event, state, or action, and that is the notion of an *attitudinal object* – or the product of a mental or illocutionary event. Attitudinal objects are entities like 'John's belief that S', John's claim that S', 'John's desire that S', or 'John's request that S'. Attitudinal objects, though they belong to a distinct ontological category, share properties both with mental or illocutionary events and with propositions. Like propositions, they are bearers of truth or more generally satisfaction conditions. Moreover, they come close to propositions in that they enter exact similarity relations just in case they share the same content and the same force. But they are as concrete as the corresponding mental or illocutionary event, with which they may share their spatio-temporal location. As such, they do not give rise to the problems that propositions give rise to, such as the problems of cognitive accessibility and truth-directedness. Attitudinal objects are cognitive entities, but they are not cognitive acts, but rather their products.

The notion of an attitudinal object has an important precedent in the work of the Polish philosopher Twardowski (1912), who introduced a general distinction between 'actions' and 'products', with the same aim of conceiving of a cognitively realistic notion of propositional content. The distinction between actions and products includes the distinction between mental actions such as an activity of thinking or an act of judging and the corresponding attitudinal objects, a thought or a judgment, but also that between psychophysical actions such as a screaming or a drawing and their physical products, a scream or a drawing.

However, Twardowski left the distinction between an action and its product at an intuitive level, appealing mainly to linguistically reflected intuitions among different nominalizations (gerunds like *thinking, judging*, and *screaming* as standing for actions and various other sorts of nominalizations such as *thought, judgment*, and *scream* as standing for products). Moreover, he left it unclear what role products play in the semantics of attitude reports.

A central aim of this paper is to show that the distinction between actions and products is a philosophically important one, and hardly just a reflection of two sorts of nominalizations. The action–product distinction arguably is the general distinction that obtains between certain types of actions and the abstract or physically realized *artifacts* that the actions create. There are a range of characteristics that distinguish actions and products, and not only actions and products as they would be described by the two sorts of nominalizations. These are the very same sorts of characteristics that distinguish, for example, acts of artistic creation and the resulting objects of art as well as acts of establishing a law and the law itself.

Attitudinal objects as the products of attitudes lead to a view that radically differs from the standard relational view of propositional attitudes. On the standard view, propositional attitudes are relations to propositions. On the present view, attitudes are not relations to a propositional content, but rather are nonrelational (even if perhaps directed toward objects in the world). Propositional attitudes consist in mental acts or states which have products, and it is those products that act as truth bearers, make up shared contents, and play a role in inferences involving quantifiers like *something. That*-clauses do not take products as their semantic values, but rather serve to partially characterize products, in one way or another.

The notion of a proposition was to an extent motivated by linguistic intuitions, in particular the linguistic view that attitude reports are relational, *that*-clauses singular terms, and quantifiers like *something* quantifiers ranging only over propositions. The present view is that these intuitions were misguided. What should play the role of propositions instead are attitudinal objects or kinds of them.

1.   The motivations for propositions

1.1   *The semantic motivations for propositions*

A central motivation for positing propositions comes from the apparent semantic structure of natural language sentences, namely simple attitude reports such as (1a):

(1) a. John believes that Mary is happy.

Such attitude reports appear to involve *that*-clauses in referential position, providing an argument for the attitude verb. This is reflected in the most common, *Relational Analysis* of such sentences. According to the Relational Analysis,

that-clause complements of attitude verbs take a proposition as semantic value and the attitude verb expresses a dyadic relation between agents and propositions, as below:

(1) b. believe(John, [*that Mary is happy*])

Propositions are also generally considered the entities that quantifiers range over and pronouns stand for that occur in the place of a *that*-clause. In English, a restricted class of quantifiers and pronouns can occur in that position, which includes *something, everything*, and *nothing*, the pronoun *that*, and also relative clauses with *what* as in *what Mary believes*. I call these 'special quantifiers'. Propositions as semantic values of such quantifiers or pronouns appear to be needed to account for the validity of the inferences in (2a, b) as well as sentences such (2c) (Schiffer 2003):

(2) a. John thinks that Mary is happy.
       John thinks something.
   b. Mary believes everything Bill believes.
      Bill believes that it is raining.
      Mary believes that it is raining.
   c. John said that it is raining. What John said is true.

Propositions are taken to be both the meanings of independent sentences and the semantic values of embedded sentences, in particular *that*-clauses..

1.2   *Conceptual problems for propositions*

There are different conceptions of propositions, as entities that fulfill the above-mentioned roles. The two most prominent conceptions are as sets of circumstances (possible worlds or situations) and as structured propositions, that is, as sequences (or other formal structures), consisting of properties or concepts and objects (and perhaps modes of presentation), or semantic values construed otherwise.[1] The first conception is associated with notorious problems in that it identifies propositions that are necessarily true or necessarily false. The second conception, which is now far more common among philosophers of language, avoids such problems by reflecting (to an extent) in the meaning of the sentence itself the syntactic structure of the sentence as well as the way the truth value of the sentence is compositionally obtained.

A range of problems have been pointed out for both conceptions in the philosophical literature, in particular by Jubien (2003) and more recently Soames (2010). Let me only briefly mention those problems without going into an in-depth discussion. The first problem is the *problem of arbitrary identification* (see also Moore 1999). This problem, familiar from Benacerraf's (1965) discussion of the identification of natural numbers with sets, is that the choice of a formal object to be identified with a proposition is, to an extent, arbitrary. The problem arises for the first as for the second conception of propositions. Given the

first conception, nothing in the general conditions propositions that need to fulfill could decide between identifying propositions as sets of circumstances or as functions from circumstances to truth values. Given the second conception, the problem is that, for example, a proposition such as the proposition that John is happy could be represented either as $<$ H, John $>$ or as $<$ John, H $>$ the choice among which appears arbitrary: either pair could fulfill the relevant conditions.

Two further, related problems arise for structured propositions. One of them is the problems of the *truth-directedness* of propositions. That is, why should a mere sequence of entities be true or false? There is nothing inherent in a sequence that would qualify it as a truth bearer. But propositions were meant to be entities that have their truth conditions essentially. The second problem is known as the problem of *the unity of propositions*.[2] This problem arises specifically for the structured-propositions conception of propositions. It is not simply the problem of how an abstract object can have truth conditions at all, but how a proposition as a structured object can have the particular truth conditions it is meant to have, given its constituents and the way they compose the structured object. For example, why should a proposition as a mere sequence of properties and objects have the particular truth conditions that it is meant to have? Why should the relation between H (the property of being happy) and John in the sequence $<$ H, John $>$ be understood in such a way that this structured proposition comes out true in case John is happy? The relation could be understood in many other ways: it could be that the proposition is true just because H and John are different or because John is not H or because John likes H. In fact, it is not clear why the relation between H and John should be understood in any way at all, so as to allow assigning a truth value to the ordered pair.

The problem of the unity of propositions, like the problem of the truth-directedness of propositions, is a problem of the interpretation of a structured proposition. The problem of the unity of propositions specifically is the problem of how to interpret the relation among the propositional constituents in order to obtain the truth conditions of the proposition. It is a problem because a structured proposition simply does not have inherent truth conditions; rather the truth conditions of the structured proposition need to be externally imposed. Whatever external conditions one might impose, the choice of such conditions remains arbitrary.

2. Propositions and cognitive acts: recent approaches

The source of the problem of the truth-directedness of propositions appears that formal objects such as sequences of properties and objects simply cannot be truth-directed without intentionality, without an agent aiming at truth. More recently, a number of philosophers have therefore pursued an approach to the problem of the truth-directedness and the unity of propositions that consists in viewing predication itself as a cognitive act, a relation relating an agent to a

property and its arguments (Jubien 2001; Moltmann 2003a, 2013; Hanks 2007; and Soames 2010). On this view, an agent predicating a property of objects is what makes up the 'glue' among the propositional constituents and ensures truth-directedness. An agent is successful predicating an n-place property of n objects just in case the property holds of the objects.

This approach is presented with different options when dealing with the different kinds of propositional attitudes:

[1] Different cognitive acts of predication are distinguished for as many different attitudes as there are – predication in the belief way, predication in the thinking way, predication in the claiming way, etc. On this view, the attitude verb can itself be taken to describe the relevant act of predication, as in Jubien (2001) and Moltmann (2003a, 2013).

[2] Only a single type of cognitive act of predication is posited which corresponds to the most general attitude of 'entertaining' or 'understanding'. With 'entertaining', an agent does not aim at truth, but simply considers the property holding of the objects in question. On this view, it would be natural to take a *that*-clause to stand for a type of act of cognitive predication and the attitude verb to express a dyadic relation between agents and types of acts of cognitive predication of the most general sort (Soames 2010, forthcoming).

[3] Different types of acts of predication of more general sorts are distinguished. Thus, Hanks (2009, 2011), who pursues this view, takes attitude verbs to express relations to different types of cognitive acts of predication depending on the type of embedded clause. Declarative, interrogative, and imperative (infinitival) clause types, on that view, differ in expressing types of acts of predicating in the assertive, interrogative, and imperative way respectively.

There are of course criteria that may weigh in favor of one or the other option, such as tests whether a *that*-clause can be substituted by a term explicitly referring to a cognitive act of one sort of another. The focus in what follows, however, will be on general problems with identifying propositions with cognitive acts.

3. The distinction between actions and products

3.1 *Twardowski's distinction between actions and products*

There is a serious problem for the act-based approach in general and that is that actions or action types are simply not suited to play the role of propositions, namely as truth bearers and the shared contents of attitudes of different agents. An act or act type simply does not have the right properties, in particular the right representational properties, to play the roles of propositions. However, there is a different sort of mind-dependent entity that can play that role. These are not acts of claiming or states of believing, but rather entities of the sort of 'claims' or 'beliefs'. These are entities that I call 'attitudinal objects'. Claims and beliefs are

by nature entities that are true or false; acts of claiming or states of believing are not. Claims and beliefs are not propositions, though. They are cognitive entities, dependent on an agent. They are the products of cognitive acts, not the acts themselves. The notion of a product of an act will go along with a very different logical form of attitude reports than that of the Relational Analysis.

The distinction between acts and states and the corresponding attitudinal objects is part of a more general distinction between 'actions' and 'products' made by Twardowski ([1912](#)) in an important article, largely neglected, though, in contemporary analytic philosophy.[3] The distinction between actions and products comprises not just the familiar distinction between an action and its enduring physical product, such as an act of writing and the writing (the written work), an act of drawing and the drawing, and act of folding and the fold. It also comprises a less familiar distinction between a mental action or state and its nonenduring mental product, such as a state of believing and a belief, and an act of claiming and a claim, an act of thinking and a thought, an act of judging and a judgment, a state of desiring and a desire, an act of deciding and a decision, and an act of instructing and an instruction. There are, according to Twardowski, psychological actions and products (an activity of thinking and a thought), physical actions and products (an act of folding and a fold, an activity of walking and a walk, an act of jumping and a jump), as well as psychophysical actions and products (an act of claiming and a claim, an act of screaming and a scream).[4] Thoughts, desires, claims, and judgments are non-enduring products that exist only as long as there is the corresponding mental or illocutionary event. However, thoughts, desires, claims, and judgments can be 'reproduced' by performing actions with similar products.

The difference in truth conditions between actions like a claiming or believing and products like a claim or a belief extends to other representation-related properties than truth. A desire is not true or false, but it can be satisfied or not satisfied. This does not hold for a state of desiring, which intuitively is not something that can be satisfied or not. A command cannot be true, but it can be executed. The same can hardly be said about an act of giving a command, which can hardly be executed. An advice can be followed or not, but to follow someone's activity of advising is something quite different. A decision can be implemented or not, but an act of deciding hardly can.

The notion of a product helps approximate the notion of a propositional content. Crucially, what distinguishes products from actions is that products enter similarity relations strictly on the basis of a shared content. An enduring propositional content, one might say, emerges from the production of actions with exactly similar products.[5] Twardowski's distinction between actions and products remains rather suggestive, though. Twardowski appeals primarily to linguistic intuitions reflected in differences among nominalizations (gerunds like *thinking*, *judging, screaming* vs nominalizations like *thought*, *judgment, scream*). While Twardowski appeals to a range of predicates that distinguish between actions and products, he does not give a systematic characterization of the

distinction in terms of the types of properties characteristic of actions and products.[6] He moreover says little about how the distinction is to be understood as such, not even whether it is to be understood as an ontological distinction or merely a distinction in the way one and the same object may be viewed. Twardowski's intuitive description of the distinction focuses on different aspects of entities. Thus, nouns describing products are nouns 'that do not bring to force the aspect of action, but bring to force a different aspect, the "phenomenal" or "static" aspect' (Twardowski 1912, §2). Similarly, in the particular case of a shout, as opposed to a shouting, Twardowski says 'in speaking of the shout, we do in fact abstract from the activity of shouting, treating the shout as an acoustic phenomenon' (Twardowski 1912, §3).[7] I myself will consider the distinction an ontological distinction.

There is a potential source of misunderstanding in the way Twardowski draws the distinction between actions and products, and that is his focus on the linguistic properties of two sorts of nominalizations in particular languages. Twardowski makes use of linguistic examples from Polish (in the first version of the paper), from German (in the second version), and from French (in an incomplete third version).[8] The English translation reflects the distinction equally well: terms for actions are translated by gerunds, *thinking, judging, deciding, scream*; terms for products by various sorts of nominalizations such as *thought, judgment, decision, scream*. It is clear, however, that Twardowski took the distinction to be a fundamental philosophical one, not just one reflecting the semantics of particular nouns found in languages such as Polish, German, and French. In fact, Twardowski (1912, §45) took products to make up the general subject matter of the humanities, thus logic, aesthetics, linguistics, law, etc.

The distinction between actions and products is in fact more compelling in cases not directly tied to two sorts of nominalizations. Indeed it appears to be the very same distinction that holds between an artifact and the act of creating it, including that between an abstract artifact in the sense of Thomasson (1999) and the act of its creation. Artifacts, whether or not they have a physical realization, carry representational and normative properties, but not so for the acts of creating them.

The action–product distinction is also the one that holds between a law (a product which may lack a physical realization, thus an abstract artifact) and the act of declaring or passing it by the relevant legislative body. The law should be followed and can be broken, the act of declaring it hardly can. It is the law that is the carrier of normative, behavior-guiding properties, not the act of establishing it.

The action–product distinction is the same as the one that holds between an object of art and the act of creating it. For some types of objects of art, a material realization is in fact inessential (poems, musical compositions).[9] The object of art may carry representational properties; the act of creation certainly does not. The object of art is the target of aesthetic evaluation, not the act of creating it. This even holds for an artistic performance and the act of performing. Evaluative properties when applied to a performance express an artistic evaluation; but when

applied to an act of performing they may just as well evaluate circumstances of the act that are irrelevant to the artistic value of the performance, the product of the act, for example the amount of physical effort that the act of performing demands. For a performance to be terrible or interesting means that it is so as an artistic production; but for an action of performing to be terrible or interesting, it may be so because of the circumstances or because of features of the action irrelevant to the artistic production. The difference is obvious also with the distinction between a poem or musical composition and the act of creating it. A poem or musical composition may have a range of aesthetic properties which the act of creating hardly need share. The act has as its aim the poem or composition which may be the bearer of beauty, the act as such isn't. The act may aim at beauty, but it is the product of the act that will be the bearer of beauty, not the act itself.

Products can take various relations to their physical realization. Some products, for example, thoughts, judgments, or desires, are entirely independent of a physical realization. Others, poems and musical compositions, may or may not come with a physical realization. Yet other products may have multiple realizations, for examples bronze statues and books. Such products raise notorious difficulties of individuation and counting since it seems possible to talk about a statue as a material objects and as an object of art at once, and so for a book as a concrete copy and as an information object.

An object of art – like a particular thought, claim, or belief and like any artifact – is mind-dependent. It depends for its identity on an agent and his or her intentions. Whatever its material realization may be, it does not belong entirely to the material world but is partly constituted by the intentionality of the agent, as emphasized by Ingarden (1931).

The distinction between actions and products raises the question of what takes priority, the action or the product. Clearly, the product depends for its existence on the act, and not vice versa. However, there is also a dependence of the act on the product: the identity of intentional acts arguably depends on the intended product. While the intentional act may be performed by performing physical acts, the identity of the intentional act clearly depends on what is intended, the product. The act in fact may also inherit certain properties from the product. Thus, *John painted beautifully* means that John produces beautiful paintings, not that the activity of painting as such is beautiful. *John writes well* implies that the product, the written work, is good, not the act of writing as such. The act may depend for its identity on the product; the product certainly depends for its existence on the act.

3.2   *Properties distinguishing actions and products*

Having established the importance of the action–product distinction as such, we can turn to the types of properties that distinguish actions and products. The focus will be on the action–product distinction in general, by looking at the properties of various types of action–product pairs.

As already said, the action–product distinction is very clear in a range of cases, such as works of art and laws; it is less obvious with attitudinal objects that are mental products or have only an auditory physical realization. Because of the focus in contemporary analytic philosophy on the ontology of material objects, (mental or physical) events, and abstract objects, appeal to ontological intuitions as such may not go very far when trying to identify the properties that distinguish attitudinal objects and the corresponding actions. For that reason, it is helpful to also look more closely at the linguistic terms for products and the readings particular predicates display with them. The action–product distinction, even if not part of standard ontology, is certainly part of the ontology of natural language, the ontology a speaker accepts when using natural language.

As mentioned earlier, in the English translation of Twardowski's article, terms for actions generally are gerunds such as *claiming, believing, thinking, desiring, deciding*, whereas terms for products are generally formed with nominalizations such as *claim, belief, thought, desire, decision*. But, action terms can also be formed with the sortals *act* or *state*, and those terms behave just like simple gerunds with respect to the relevant predicates.

3.2.1 *Truth and satisfaction conditions*

One important difference between actions and products is that only products have truth conditions or more generally satisfaction conditions. Beliefs, claims, and judgments have truth conditions, but not so for states of believing and acts of claiming or judging. Desires, hopes, and fears may or may not be fulfilled, but not so for states of desiring, hoping, or fearing. The contrasts below illustrate the acceptability and unacceptability (question-marked) of the corresponding truth-related or satisfaction-related predicates:[10]

(4) a. John's belief / claim that that S is true / false.
    b. ?? John's claiming / believing that S is true / false.
    c. ?? John's belief state is true.
    d. ?? John's speech act (of claiming) is true.

(5) a. John's desire to become a king was fulfilled.
    b. John's request to be promoted was fulfilled.
    c. ?? John's desiring / requesting / hoping was fulfilled.
    d. ?? John's state of desiring was fulfilled.

(6) a. John's decision to postpone the meeting was implemented.
    b. John's command that people leave the building was executed.
    c. ?? John's action of deciding was implemented / executed.
    d. ?? John's act of commanding was fulfilled.

It is a common view that belief (as a state) 'aims at truth', just like acts of artistic creation may aim at beauty. However, it is in fact not the act, but the product that is the carrier of truth or beauty. Thus, if 'aiming at' is the relation between an

object and the norm or value that it is meant to fulfill, then the more direct aim of a belief state or artistic act is the product, not truth or beauty as such.

Certain types of attitudinal objects carry a normative force in virtue of which they can act as carriers of properties of action-guidance. Thus, an advice, an instruction, or a command can be followed or ignored. Such properties can be considered special cases of satisfaction conditions. The minimal pairs below illustrate the way predicates of action guidance are understood differently with products and with actions:

(7) a. John followed Mary's advice.
    b. John followed Mary's activity of advising.
    c. John complied with the instruction.
    d. John complied with the act of instructing.
(8) a. John ignored the command.
    b. John ignored the act of commanding.

To follow a normative product means to comply with its norm, but to follow the action that created it either means to observe it or to perform an action of the same type. To ignore a normative product means not to comply with its norm, but to ignore an action means not to take notice of it.

Of course, also laws and norms themselves have properties of action-guidance, which the acts of establishing them do not have.

3.2.2 Correctness conditions

The truth conditions of certain types of products may be constitutive of the norms that the products themselves are meant to fulfill, that is, they may define their *correctness conditions*. Thus, a belief is correct just in case it is true. For a person's belief to be correct, it need not fulfill conditions of justification or follow any rules or instructions. Predicating correctness of a belief simply means saying that it is true. At least this is how our common-sense notions of correctness and of belief apply (though perhaps not how the way some philosophers may conceive of correctness and of belief). What is important is that the corresponding actions do not share the same correctness conditions, just as they did not share the truth conditions that define the products' correctness. Thus, the correctness of a belief state does not reduce to the truth of what is believed, but rather, if anything, it may be understood as consisting in the fulfillment of other norms, such as instructions to have a particular belief. Truth is not the norm of states of believing, but only of their products, that is, of beliefs.

The same holds for assertions, the products of acts of asserting. An assertion is correct just in case it is true. It need not have followed any other social or justificatory norms. (The way we intuitively understand the correctness of assertions, reflected in the way *correct* applies to products, thus is in conflict with views that take the norm of an assertion to be knowledge, such as Williamson

2000). By contrast, for an act of asserting to be correct, it needs to fulfill whatever the relevant norms are, norms that may vary from context to context. The norm associated with an assertion is always the same: it is truth. By contrast, the norm associated with an act of asserting is entirely context-dependent. In the case of assertions, the discrepancy is particularly striking that holds between the norm associated with the product, which is stable, and the norm associated with the action, which depends entirely on the context.

There are other attitudinal objects besides beliefs and assertions that display the same conditions on correctness. The correctness of a suspicion consists in nothing but the truth of what is suspected. By contrast, an act of suspecting is correct in case it fulfills whatever the contextually relevant norm. An answer is correct just in case it is true (of course, for something to be answer, it needs to address the question in the first place). More generally, attitudinal objects that purport to represent the world have as their condition of correctness just truth, but not so for the acts that produce them, which will have to conform to whatever the relevant contextually given norms are.

The linguistic examples below illustrate this in the understanding of *correct* when applied to terms for products and for actions: with the former *correct* conveys truth; but with the latter it conveys, if anything, conformity with whatever the contextually relevant norms:

(9)   a. Mary's belief that S is correct.

     b. (?) Mary's state of believing that S is correct.

(11) a. John's claim that S was correct.

     b. (?) John's act of claiming that S was correct.

(12) a. John's answer was correct.

     b. (?) John's answering was correct.

Correctness conditions for actions are fundamentally different from correctness conditions for content-bearing objects, the products of the actions.[11]

Note that correctness conditions apply in similar ways to other representations than attitudinal objects, for example certain visual representations, that carry representational adequacy conditions rather than truth conditions.

The correctness conditions of truth-directed attitudinal objects may shed light on the connection between truth and the normativity of mental content, in particular of beliefs. Standard accounts relating truth to the normativity of belief try to establish a link between the truth of what is believed to what should be believed, imposing a truth-related norm on belief states (Gibbard 2003; Boghossian 2003). But this gives rise to difficulties. There may be norms for believing in particular contexts that have little to do with truth. Moreover, such an account cannot be generalized, for example to assertions. A speaker may knowingly assert something false as a way of fulfilling a contextual norm (Boghossian 2003). But the correctness of an assertion (a product) requires nothing more than its truth, just like the correctness of a belief. Restricting the normativity of content to products rather

than relating it to states and acts promises a way of avoiding the difficulties. Given that a belief is correct just in case it is true, this means that the belief, the product, ought to be true. This does not prevent an agent to fulfill whatever norms by engaging or not engaging in a belief state sustaining the belief. Similarly, an assertion is correct just in case it is true, which means that the assertion, the product, ought to be true. This does not mean that an agent could fulfill some norm by engaging in an act of asserting the opposite. Norms associated with products are independent of the norms that may be associated with actions. Products that purport to represent the world are uniformly associated with one norm, that of truth; but not so for the corresponding actions whose norms may vary and in fact may vary from context to context.

3.2.3 *Similarity relations and the involvement of force*

Another important difference between actions and their products concerns similarity relations. The way similarity relations apply to products is in fact central to the notion of a product. For two products of the same sort (beliefs, claims, etc.) to be exactly similar means for them to be the same in content.[12] By contrast, for two actions to be exactly similar, they need to fulfill conditions such as having been performed in the very same way. John's thought is the same as (that is, is exactly similar to) Mary's thought just in case the content of John's thought is identical to the content of Mary's thought. By contrast, for John's activity of thinking to be the same as Mary's, this condition is not generally sufficient (and perhaps not even necessary), rather more conditions need to be fulfilled, such as the way John thought being very similar to the way Mary thought. For actions, the manner in which they are performed is essential, but for products the manner in which they are produced is not. Thus, even if John's quick thinking may not be the same as Mary's slow thinking, their resulting thoughts may be the very same. Similarly, John's quick deciding and Mary's hesitant deciding could not possibly be the same, but John's decision may easily be the very same as Mary's. As these descriptions make clear, relations of exact similarity are reflected in the applicability of *is the same as* in English, which expresses qualitative, not numerical identity.[13]

Attitudinal objects come with a particular force unlike propositions. Thus, attitudinal objects can be exactly similar only if they share the same force. This is reflected in the intuition that identity statements such as the following can hardly be true (Moltmann 2003a, 2013):

(13) a. ??? John's thought that it will rain is also his remark that it will rain.
     b. ??? John's discovery that it will rain is his hope that it will rain.
     c. ??? John's desire to leave is his decision to leave.
     d. ??? John's claim that it will rain is his hope that it will rain.

The examples in (13a–d) differ from the one below, which is trivially true:

(14) John's thought that it will rain is John's thought that it will rain.

The involvement of force in an attitudinal object is also responsible for why attitudinal objects differ in what sort of satisfaction or correctness conditions they are associated with. Attitudinal objects not involving a particular force do not naturally have truth or satisfaction conditions. Thoughts in fact are not really entities that intuitively are true or false (which is reflected linguistically in that *John's thought that he can win the race is true* is not generally judged acceptable by ordinary speakers). By contrast, judgments, claims, and beliefs are (thus *John's belief that he can win the race is true* is unproblematic). The involvement of force, we will see, is also reflected in the way attitudinal objects, as opposed to propositions, are evaluated.

The fact that attitudinal objects sharing the same force are similar just in case they are the same in content is crucial for the status of attitudinal objects as the basis for approximating a notion of propositional content. Sharing of a propositional content in fact amounts to exact or close similarity of attitudinal objects with the same force. The understanding of an attitudinal object involves the physical manifestation of the attitudinal object causing the production of a similar attitudinal object (or its simulation).[14]

3.2.4   *Properties of understanding and content-based causation and evaluation*

Actions and products differ in properties relating to the understanding of their associated content. An utterance may be incomprehensible, but not the act of uttering; an act of uttering being incomprehensible means something quite different. Similarly, understanding an answer means something quite different from understanding the act of answering. Only the former relates to the content of the answer, not the latter.

Attitudinal objects may have causal effects, in particular if they are psychophysical products and thus can be perceived. An utterance, a remark, or a scream can be heard. Also here, there is an important difference between actions and products. Unlike in the case of actions, it is the content of the attitudinal object together with its force that has the causal effect. There difference between actions and products again is particularly clear when comparing the way predicates are understood when applying to terms for actions and for products:

(15) a. John's speaking delighted Mary.
   b. John's speech delighted Mary.
(16) a. John's answer caused surprise.
   b. John's giving an answer caused surprise.
(17) a. John's utterance inspired many comments.
   b. John's act of uttering inspired many comments.

Whereas (15a) may be true in a situation in which it is just the manifestation of John's ability to speak that delighted Mary (regardless of its content), (15b) conveys that it is also the content of John's speech (and just its manner) that was the cause of Mary's delight.

Similar examples can be given for laws as opposed to the acts of establishing them, for poems as opposed to the acts of writing them, etc.

Abstract propositions should not have causal effects, given a common understanding of abstract objects. In fact, 'the proposition that S' can hardly cause surprise or inspire comments. A propositional content as a pure proposition cannot be causally efficacious, but only in connection with an attitudinal or illocutionary force and an agent, that is, as part of an attitudinal object.

Related to properties of understanding and content-based causation are properties of content-based evaluation. Attitudinal objects are evaluated with respect to both their content and force, but not so for actions. A thought being interesting is something quite different from the act of thinking being interesting. It is also something different from an abstract proposition being interesting. Similarly, John's thought process may be unusual, without his thought or the corresponding abstract proposition being unusual.

The same sort of distinction is very clear also in the ontology of art. Objects of art are the carriers of the relevant aesthetic or content-related properties, not the acts of their creation.

3.2.5 *Part-whole Structure*

Another important difference between actions and products concerns part-whole relations. The part structure of attitudinal objects strictly relates to content. A part of a thought, a belief, or a decision is a partial content. By contrast, the part structure of actions is that of events, consisting of temporal parts. Parts of products generally are distinct from parts of actions. Part of John's decision cannot be part of the action of deciding. Part of John's claim cannot be part of the speech act. Part of John's answer cannot be part of John's answering. Clearly, also the parts of a book as an information object are distinct from the parts of the physical copy. The book as a materially realized artifact has in fact two part structures at once, leading to an apparent ambiguity in the notion of part. 'Describing a part of the book' may mean either a part of the information object or a part of the physical object. (There are other artifacts, though, whose parts are the materially realized functional parts. In this case, the part structure is still driven by intention and not just the material itself.)

3.2.6 *Relation to time*

Actions and products also differ in their relation to time. Philosophical views about events and actions generally take them to have their time of occurrence essentially (most obviously when events are identified with space-time regions or property instantiations in times). But there is a strong intuition that the time of creation is not essential for (non-enduring) products. Actions and products may be spatio-temporally coincident, for example a thought and the act of thinking, a scream and the act of screaming, and a decision and the act of deciding. However,

a thought or a scream might naturally have occurred earlier than it did, and a decision could have been made later than it was. It is at least much less natural to say that about a process of thinking, a particular act of screaming, or an act of deciding.[15]

3.3   Kinds of attitudinal objects

The main Fregean argument for propositions being mind-independent was the possibility of propositional contents being shared by different agents. If attitudinal objects take the place of propositions as the truth-bearing objects associated with propositional attitudes, this raises the question of how propositional contents can be shared. The notion of an attitudinal object allows for two answers. First, the sharing of attitudinal objects may consist in the attitudinal objects being exactly similar (though not numerically identical). Second, the sharing of propositional contents may consist in *kinds* of attitudinal objects being shared. Natural language displays not only the first, but also the second option.

   Kinds of attitudinal objects naturally form the referents of terms like *the thought that* S, *the claim that* S, or *the belief that* S, allowing for typical kind predicates:[16]

   (18) a. The belief that god exists is widespread.
         b. John often encounters the expectation that he should become famous.

The sentence below obviously describes the sharing of a kind of attitudinal object:

   (19) John and Mary share the belief that S

Kinds of attitudinal objects are independent of a particular agent, though they still involve a particular attitudinal mode. Kinds of attitudinal objects share representational properties with their instances, again reflected in the applicability of truth- or satisfaction-related predicates:

   (20) a. The belief that John won the race is true.
         b. The expectation that John would become famous was not fulfilled.

Kinds of attitudinal objects may seem as problematic as abstract propositions with respect to their cognitive accessibility and representational properties. However, the notion of a kind that is at stake does not face the problems of abstract propositions. Kinds of attitudinal objects are strictly dependent on the particular attitudinal objects that make up their instances. First, kinds of attitudinal objects are strictly based on similarity relations among particular attitudinal objects. The kind of attitudinal object 'the belief that S' has as its instances a maximal class of exactly similar attitudinal objects. Moreover, except for properties measuring the distribution of instances such as 'being widespread', the properties of kinds of attitudinal objects are generally inherited from their instances. 'The belief that S' is true in virtue of all attitudinal objects of the

form 'd's belief that S' being true, for some individual d. Furthermore, John has encountered 'the belief that S' just in case he has encountered d's belief that S, for some individual d. Of course, kinds will then inherit not only their representational properties from their instances, but also their cognitive accessibility.[17] Kinds also depend for their existence on instances: the hope that it would rain soon no longer existed at a time t just in case for no individual d, d's hope that it would rain soon existed at t.[18]

I will not go into a discussion of how kinds are to be conceived, whether as entities of their own or as mere pluralities of instances (or possible instances).[19] What is important in the present context is that the instances of a kind of attitudinal object are similar in the sense of sharing content and force and that kinds have content-related properties (including truth or satisfaction conditions) in virtue of their instances having those properties.[20]

4. The semantic role of attitudinal objects in the semantics of attitude reports

Attitudinal objects of the sort of particular beliefs or claims as the products of mental or illocutionary actions match the content of an attitude report as a whole and not just the *that*-clause. They act as the semantic values of nominalizations and not as the semantic values of *that*-clauses. This raises the question what role they play in attitude reports without nominalizations, that is, of the simple sort *John thinks that* S. Twardowski himself does not say anything about the role products play in the semantics of attitude reports. However, there is an obvious role of attitudinal objects to play within Davidsonian event semantics.[21] Given the Davidsonian view that verbs take events as implicit arguments, 'actions' would be the implicit arguments of verbs and attitudinal objects their products. Given that *that*-clauses won't denote propositions acting as arguments of the relation expressed by the verb, their semantic role would either be that of characterizing the event argument of the verb or else that of characterizing the product of the event argument. On the first view, referential NPs might be considered expressing referential act types that characterize referential acts that are part of the event, and the predicate an act of predication, predicating a property of the referents of the referential acts.[22] On the second view, the *that*-clauses would express product types characterizing parts of the event argument, in particular products of referential acts and products of cognitive predication. Clearly *that*-clauses characterize products and not actions: *that*-clauses can specify only content-related features of acts, and not features such as having been done honestly, hesitatingly, etc.

I will leave it open in which way exactly a *that*-clause compositionally specifies a property of products. It is actually quite plausible that the semantics of *that*-clauses exhibits a general flexibility, ranging perhaps from the character-ization of 'small' acts composing the product (including referential acts and acts of modification) to acting as a mere measurement of the product, representing its

truth conditions (Matthews 2007).[23] The latter would enable the account to apply to implicit attitudes and beliefs of animals and small children. In any case, the logical form of a simple attitude report as in (39a) would be as in (39b):

(39) a. John thought that S.
     b. $\exists e$(think(e, John) & [*that* S](product(e)))

Special quantifiers such as *something* range over attitudinal objects rather than propositions (Moltmann 2003b, 2013). Thus, sentences with special quantifiers such as (40b) would be analyzed as in (40a):

(40) a. John thought something nice.
     b. $\exists e'$(think(e, John) & nice(e') & e' = product(e))

Special quantifiers may alternatively range over kinds of products. This requires a function 'product-kind', mapping an event e onto the kind of products exactly similar to the product of e. Quantification over kinds of attitudinal objects is involved in the logical form of (41a) in (41b):

(41) a. John thought what Mary thought.
     b. $\exists e\ e'e''$(think(e, John) & e' = product-kind(e) & think(e'', Mary) & e' = product-kind(e''))

This account leaves open how exactly *that*-clauses characterize attitudinal objects and whether there is a unified way or rather different, context-dependent ways in which *that*-clauses do so. In particular, it is neutral regarding the role of predication in the constitution of attitudinal objects. All that is captured is that attitudinal objects play the role of carriers of propositional content, though not as objects of attitudes, but their product.

5. Conclusion

This paper tried to show the importance of the notion of an attitudinal object, within a more general distinction between actions and products. Attitudinal objects are entities that inherently have truth or satisfaction conditions and form natural similarity classes on the basis of a shared content and a shared attitudinal mode. Yet they are as concrete as the corresponding mental events or speech acts, the latter themselves entities unsuited for the roles that propositions were supposed to play.[24] Being cognitive entities with essential truth- or satisfaction conditions, attitudinal objects are able to fulfill the roles of propositions without leading to their conceptual problems. Attitudinal objects share relevant properties with artifacts; in fact they are generally abstract artifacts in the sense of Thomasson (1999). Recognizing attitudinal objects thus goes along with recognizing (abstract) artifacts as belonging to an ontological category of their own, as mind-dependent entities distinct from mental events and abstract objects. The semantic account proposed in this paper was neutral as to the ontological conception of attitudinal objects as abstract artifacts and the conception of their

propositional structure. The account may thus share the recent view that a cognitive notion of predication notion drives the composition of attitudinal objects and provides the solution to the conceptual problems for propositions as abstract objects. However, it is not directly tied to that view, but would allow attitudinal objects as cognitive products to in principle be constituted differently.

Attitudinal objects are not the objects of attitudes, but their products. This is reflected in the semantics of attitude reports in that *that*-clauses serve to characterize the product of the implicit action argument of the verb, rather than taking it as their semantic value. Attitudinal objects instead are the semantic values of nominalizing expressions, such as *John's thought that* S, and kinds of attitudinal objects the semantic values of terms of the sort *the thought that* S. Both attitudinal objects and kinds of attitudinal objects form the domain of entities that special or 'nominalizing' quantifiers in sentential position range over.

Acknowledgements

Notes

1. See, for example, Cresswell (1985), Soames (1987), and King (2007) for structured propositions approaches.
2. See Gaskin (2008) for a recent discussion of the problem, also in its historical context.
3. For a presentation of Twardowski's view in its historical context, see Bobryk (2009), Betti (2010), and Dubucs/Miskiewicz (2010).
4. The category of actions, for Twardowski, includes states, such as belief states. Of course, there are fundamental differences between actions in a narrow sense and states, and the action-product distinction may not apply in the very same way to them. This is an issue, though, that goes beyond the scope of this paper and needs to be pursued on another occasion.
5. A 'shared content' here means a common feature of attitudinal objects, not an entity that attitudinal objects stand in a relation to. Of course, like an enduring propositional content, a shared propositional content might also be viewed as an entity that emerges from the production of attitudinal objects by different agents.
6. More specifically, Twardowski (1912, §22) mentions *define* as a predicate applying to concepts but not the activity of conceiving, *unintelligible* as applying to questions but not the act of posing of a question, *unsolvable* as applying to problems but not to the act of posing a problem, *overlook* as applying to errors but not acts of erring, *unfulfilled* as applying to expectations but not the action of expecting, *implement* as applying to resolutions but not acts of resolving to do something, and *inspiring* as applying to thoughts but to the activity of thinking.
7. The distinction between actions and products that Twardowski draws obviously does not match the distinction that is common in linguistics between event and result nominalizations; result nominalizations are taken to refer to the physical product of an event.

8. The German version 'Funktionen und Gebilde' and the French version 'Actions et Produits' are available on http://www.elv-akt.net/

9. See Thomasson (2004) for discussion.

10. Aune (1967) notes that in English *truly* can act as an adverbial, predicating truth of the described action:

(i) a. John truly believes that he won the lottery.
    b. John truly asserted that Mary is French.

Given Davidsonian event semantics, the described action acts as an implicit argument of the attitude verb and the adverbial as a predicate predicated of it. *Truly* thus appears to on a par with *firmly* and *quickly* in (iia) and (iib), which clearly act as predicates of actions:

(ii) a. John firmly believes that S.
     b. John quickly asserted that S.

This appears a problem to the generalization that actions do not have truth conditions, but only their products. However, a quick look at other languages indicates that English *truly* is exceptional in conveying truth when applied to actions. German and French do not have adverbial counterparts of *wahr* or *vrai* that act that way. The adverbial counterparts *wahrlich* and *vraiment* mean 'really' rather than 'truly', as in the German and French translations of (ib) below:

(iii) a. Hans hat wahrlich behauptet, dass Maria Franzoesin ist.
      b. Jean a vraiment dit que Marie est Française.

Note also that *true* is not felicitous as a noun modifier applying to actions (?? *John's true state of believing*, *??? that true act of claiming that* S), just as *true* cannot apply to actions in predicate position (4c, d). This means that *truly* as an adverbial has a derivative meaning, sharing its meaning with *accurately*. *Accurate* is the adjective that specifically conveys adequacy of the representational content associated with an action (as well as a product).

11. In English, the adverb *correctly* appears to act as a predicate of belief states and acts of assertion, conveying the truth of what is believed or asserted (and it figures in that way in the literature on the normativity of belief):

(i) a. John correctly believes that S.
    b. John correctly claims that S.

However, as for *truly* (Fn 10), there is evidence that the meaning of *correctly* conveying truth and not an indication of a link between the correctness of a belief state with truth. In other words, *correctly* does not express the same property as the adjective *correct*, as in the examples (9)–(12). For example, in German the adverb *richtig* 'correctly' can only mean something like 'effectively', as in (iia), unlike its adjectival correlate, which like the adjective *correct* in English conveys truth when applied to beliefs as in (iib) and some other form of correctness, if anything, when applied to belief states as in (iic):

(ii) a. Hans glaubt richtig, dass die Welt enden wird.
        'John effectively believes that the world will end soon'.
     b. Hans' Glaube ist richtig.
        'John's belief is correct.'
     c. (?) Hans' Glaubenszustand ist richtig.
        'John's belief state is correct'.

12. Note that this does not mean that the products stand in a relation to the same object, a propositional content. Propositional content is to be considered a feature of products, not an object products relate to.

13. By contrast, the *is* of identity, which *does* express numerical identity, seems false of distinct attitudinal objects, at least under normal circumstances (let's say in which John's and Mary's thoughts were not coordinated):

    (i) ?? John's thought *is* Mary's thought.

    Note that the predicate *is identical to* is better in that context:

    (ii) John's thought is identical to Mary's thought.

    This indicates that *is identical to* expresses qualitative identity like *is the same as*, not numerical identity.

14. See also Twardowski ([1912](), §33, §34).

15. The attribution of counterfactual temporal properties appears possible with certain kinds of events. Wars could have taken longer than they did, demonstrations could have taken place at different times than they did, and a death might have occurred earlier than it did. Note, however, that all these cases may involve events as 'products', not as 'actions'. Certainly, *demonstration* and *death* are product nominalizations, contrasting with *demonstrating* and *dying*.

16. Terms for kinds of attitudinal objects are semantically on a par with bare mass nouns and plurals such *gold* or *tigers* when acting as kind terms (Moltmann [2003b](), [2013](), 4).

17. A kind of attitudinal object can be attributed to a particular agent, as below, in which case the agent is required to be the subject of a particular instance of the kind:

    (i) John had the thought that S.

    The construction *John's thought that* S may also involve reference to a kind rather than a particular attitudinal object, specifying that John 'has' the kind in the sense of (i). This needs to be assumed to make sense of sentences like (ii):

    (ii) John's thought that S had also occurred to Mary.

18. Uninstantiated kind, one might think, would provide a way of accounting for the apparent possibility of content-bearing entities that have never been entertained and will never be entertained, let's say in sentences like *there are things no one will never know*. However, kinds as referents of kind terms like *the belief that* S should better not be allowed to be uninstantiated. That is because of the way *exist* is understood with kind terms: *the belief that S exists* is true just in case there is an instance of the belief that S. Also, compare the choice of conditional and indicative mood below:

    (i) a. John might claim that he has won the race. But that would not be true.
         b. John might claim that he has won the race. ?? But that is not true.

    There is a preference of conditional over indicative mood in the second sentence, which indicates that *that* could not just stand for the kind 'the thought that John has won the race' as an uninstantiated kind.

19. For the view that kinds in that sense are not single entities, but pluralities (as many), see Moltmann ([2013]()).

20. Note that *the entertaining that* S is an action nominalization and thus not as suited for capturing the most general kind of attitudinal product on a nontechnical use. *The thought that* S is a product nominalization, though 'thinking' is often considered a positive attitude of acceptance, not the most general attitude that is neither positive nor negative.

21. An alternative account is the neo-Russellian trope-based account, which I pursued in Moltmann (2013, 4). It relies on the neo-Russellian analysis of attitude reports according to which attitude verbs are multigrade predicates taking as arguments the agent as well as the propositional constituents given by the *that*-clause (see also, Moltmann 2013b). On the account of Moltmann (2013, 4), attitudinal objects are tropes, more precisely, instantiations in an agent of a multigrade attitudinal relation applied to the propositional constituents.

22. *That*-clauses would thus express complex event types as roughly in Hanks (2011). But on the present view, *that*-clauses would be predicated of the event argument, rather than providing an argument of a two-place attitudinal relation.

23. For a similar view about structured propositions, according to which *that*-clauses may specify propositions of different degrees of fine-grainedness see Cresswell (1985).

24. Note that in addition, products may have a material manifestation such as a drawing, something which events cannot have.

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