

# Chapter 2

## ‘Truth Predicates’ in Natural Language

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**Abstract** The aim of this paper is to take a closer look at the actual semantic behavior of what appear to be truth predicates in natural language and to re-assess the way they could motivate particular philosophical views. The paper will draw a distinction between two types of apparent truth predicates: type 1 truth predicates such as in English *true* and *correct* and type 2 truth predicates such as English *is the case*. It will establish the following points:

1. Type 1 truth predicates are true predicates, predicated of a representational objects of some sort, such as sentences, propositions, and entities of the sort of beliefs and assertions.
2. *That*-clauses with type 1 truth predicates do not act as referential terms, referring to propositions as truth bearers, but rather specify the content of contextually given attitudinal objects, such as ‘John’s belief that S’ or ‘Mary’s claim that S’.
3. Type 2 ‘truth predicates’ do not in fact act as truth predicates, but rather express the relation of truthmaking, relating a situation or ‘case’ to the content of a *that*-clause.

### 2.1 Introduction

The notion of truth has given rise to a great variety of philosophical views. Some of those views have been motivated by appeal to natural language, in particular the linguistic status and semantic behavior of what appear to be truth predicates, such as *true* in English. The aim of this paper is to take a closer look at the actual semantic behavior of apparent truth predicates in natural language and to re-assess the way they could motivate particular philosophical views.

*True* is not the only expression in English acting as an apparent truth predicate, and the paper will discuss other expressions in English (and German) as well that appear to convey truth. They include *correct* and *right* (in some of their uses), as well as *is the case*. Note that I call the relevant expressions ‘apparent truth predicates’ since it is

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controversial whether they really act as predicates predicating truth, and in fact only one among two types of expressions that I will discuss turns out to consist in actual truth predicates. The label ‘truth predicate’ will just serve to simplify the discussion.

The paper argues for a sharp distinction among two types of apparent truth predicates. *Is true* belongs to what I will call ‘type 1 truth predicates’; *is the case* belongs to what I will call ‘type 2 truth predicates’:

*Type 1 truth predicates*

(1) That S is true.

*Type 2 truth predicates*

(2) That S is the case.

The paper will also discuss *right* and *correct* as type 1 truth predicates, since *right* and *correct* despite their more general normative meaning convey truth with *that*-clauses as well as certain noun phrases. Type 2 truth predicates in English also include the predicates *occur* and *is so*.

The paper will establish several important points about the two types of truth predicates:

1. Type 1 truth predicates cannot be viewed as ‘operators’, ‘connectives’, or ‘anaphoric devices’, as has been claimed in some of the philosophical literature. Rather they are predicates predicated of a representational object of some sort. Such representational objects include sentences, propositions, beliefs, and assertions.
2. *That*-clauses with type 1 truth predicates do not act as referential terms, referring to a proposition as the truth bearer. Rather they have the function of specifying the content of a contextually given representational object. With *correct* and *right*, such objects cannot be sentences or propositions, but must be mind-dependent objects of the sort ‘John’s belief that S’ or ‘Mary’s claim that S’ (or perhaps kinds of such objects), that is what I call ‘attitudinal objects’ (Moltmann 2003a, 2013).<sup>1</sup> There is evidence that the same holds for *true*.

Point 2 is important since it would mean that propositions as abstract, mind-independent objects are not involved in the semantics of *that*-clauses with type 1 truth predicates, as on deflationist or ‘modest’ accounts of truth. Instead it opens the door for philosophical views tying the notion of truth primarily to the intentionality of mind-dependent objects, such as beliefs and claims.

Furthermore, the use of normative predicates such as *correct* to convey truth is at least compatible with a view according to which truth as constitutive of the normativity of beliefs (and related attitudinal objects) is a notion prior to the notion of truth applicable to sentences and propositions. The semantic behavior of other type 1 truth predicates that will be discussed is particularly suggestive of such a view.

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<sup>1</sup> Note that attitudinal objects are not mental or illocutionary acts. They differ, most importantly, in that they have truth- or satisfaction conditions. They are thus proposition-like, but yet mind- and agent-dependent, see Moltmann (2003b, 2013).

3. Type 2 'truth predicates' do not in fact act as truth predicates, but rather express the relation of truth-making, relating a situation, or rather a 'case', to the content of a *that*-clause. Natural language thus does not just reflect the notion of truth, but also that of truth-making.

The appendix will briefly discuss two other apparent truth predicates in English, namely *is a fact* and *is the truth*. It will argue that they involve a more complex syntactic structure than what is apparent and do not serve to predicate truth.

## 2.2 Type 1 Truth Predicates

### 2.2.1 Basic Properties of Type 1 Truth Predicates

*Is true* is the truth predicate in English that has received the most philosophical attention. But there are other truth predicates that behave in relevant respects alike and thus classify as type 1 truth predicates. In particular, the normative predicates *is correct* and *is right* act as truth predicates when applied to *that*-clauses. We will later see that taking into account such predicates will be important for understanding truth predication in general.

In what follows, I will not discuss particular philosophical views about the status of *is true* in detail, but restrict myself to discussing the adequacy of a number of assumptions or claims that have been made in the philosophical literature about the linguistic status of *is true*.

Let us start with some very general linguistic properties of *is true*.<sup>2</sup> First, *is true* allows both for clausal subjects, as in (3a), and for extraposition, as in (3b):

- (3) a. That the sun is shining is true.  
b. It is true that the sun is shining.

Moreover, *is true* allows for certain quantifiers and pronouns in place of *that*-clauses in subject position, such as *everything* and *that*:

- (4) a. Everything is true.  
b. That is true.

This does not hold for extraposed clauses, though (as is always the case, whatever the predicate):

- (5) a. It is true that S.  
b. \* It is true everything/that.

The reason is that noun phrases (NPs) can never appear in that position.

Another important fact about *is true* is that it allows for referential NPs in subject position, namely NPs referring to entities such as propositions, sentences, beliefs, or claims:

- (6) a. The proposition that S is true.

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<sup>2</sup> As can easily be verified, the negative truth predicate *is false* exhibits the very same properties.

- b. The sentence ‘S’ is true.
- c. John’s belief that S is true.
- d. John’s claim that S is true.

Related to that is the (often overlooked) fact that *true* can act as an adnominal modifier of those same NPs:

- (7) a. the true proposition that S
- b. the true sentence ‘S’
- c. John’s true claim that S

Various philosophers have developed views of the notion of truth focusing on the clausal structures in (3a, b). Some philosophers in particular have proposed views concerning the formal status of *true* in the clausal construction. Thus, Ramsey (1927) held that *is true* in that construction is simply redundant. That is, *that S is true*, on that view, means the very same thing as S. Grover et al. (1975) proposed that *is true* it is simply an anaphoric device. Roughly, on their view, *that is true* in the discourse context *It is raining. That is true.* is simply a device permitting re-use of the preceding sentence. Finally, there is the view according to which *is true* is an operator or connective (or part of an expression acting that way, an expression that would include *that*), a view recently defended by Mulligan (2010).

Such views all give priority to the clausal construction over the construction in which *is true* applies to a referential NP, or they focus entirely on the clausal construction. The operator/connective view of *is true* moreover gives priority to the extraposition structure. In the next sections, we will see that the assumptions that the clausal structure takes priority is untenable, as is the assumption that the extraposition structure takes priority over the subject clause structure.

## 2.2.2 *The Priority of the Clausal Construction*

*True* in predicate position accepts both *that*-clauses and ordinary referential or quantificational NPs in subject position, and it naturally occurs as an adjectival modifier of the latter. In general, it seems, type 1 truth predicates come both with clausal and nominal constructions, and if they involve an adjective (like *true*), the adjective will have an application as an adnominal modifier. There is no evidence for the priority of the clausal construction. Moreover, the semantic contribution of *true* appears exactly the same in the clausal and the nominal construction.

There are adjectives that like *true* can appear in predicate position with clausal subjects, but with which the clausal construction displays a distinctive ‘sentential’ semantics, unlike with *true*. Examples are the adjectives *possible* and *probable*. *Possible* and *probable* in predicate position behave like sentence adverbials in two respects. First, *possible* and *probable* have adverbial counterparts that act as sentence adverbials. Thus (8a) and (8b) are equivalent:

- (8) a. Possibly/Probably, John will be late.

b. It is possible/probable that John will be late.

Second, the subject *that*-clause with *possible* and *probable* cannot be replaced by an explicit proposition-referring NP without change in meaning:

(9) The proposition that John will be late is possible/probable.

(9) does not mean what (8a) and (8b) mean. Rather it states that the existence of a proposition as an abstract object is possible/probable. Failure of substitution of a coreferential term is a good indication of the nonreferential status of a *that*-clause. With *possible* and *probable* as predicates, *that*-clauses do not act like singular terms referring to propositions and they do not specify the content of any object whatsoever to which *possible* and *probable* could apply as predicates. Rather, in predicate position, *possible* and *probable* appear to retain the very same semantic function that they have when acting as sentence adverbials.

The same two diagnostics for a sentence-adverbial function of an adjective in predicate position fail to apply to type 1 truth predicates. First of all, *true* lacks a sentence-adverbial counterpart, though it has an adverbial counterpart modifying the VP:

- (10) a. John truly believes that S.  
b. John truly said that S.

Given the common Davidsonian analysis of VP adverbials, *truly* here acts as a predicate, namely of the Davidsonian event argument of *believe* and *say*—or an entity closely related to it, an 'attitudinal object' of the sort of a belief or a claim, just as *true* does in (11a, b):<sup>3</sup>

- (11) a. John's belief that S is true.  
b. John's claim that S is true.

Furthermore, with *true*, a replacement of the subject clause as in (12a) by a referential NP referring to a proposition (or another suitable object) as in (12b) is generally possible:

- (12) a. That S is true.

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<sup>3</sup> For a discussion of uses of *truly* as in (10a, b) see Aune (1967). In Moltmann (2013, Chap. 4), I argue that acts and states, such as a 'John's act of claiming' or 'John's state of believing' do not have truth conditions; only the corresponding attitudinal objects do, that is, entities of the sort 'John's claim' or 'John's belief'. This may be a problem for the Davidsonian account of *truly* in (10). The Davidsonian account appears problematic anyway, though, because the adverbial use of *truly* as in (10) does not seem to be available in all languages. For example, it is not available in German, which lacks an adverbial form of *wahr* 'true' with the right meaning. German has the adverbial form of *richtig* 'correctly'. But as an adverbial *richtig* cannot convey truth. Thus, (ia) is impossible, even though *richtig* can act as an adverbial with other predicates, as in (ib) and (ic):

- (i) a. ??? Hans glaubt richtig, daß es regnet.  
'John believes correctly that it is raining.'  
b. Hans hat das Wort richtig geschrieben.  
'John has written the word correctly.'  
c. Hans hat das Wort richtig verwendet.  
'John used the word correctly.'

b. That proposition that S is true.

There is another important difference between *probable/possible* and type 1 truth predicates. With *that*-clauses, *true* displays an *anaphoric effect* that *possible* and *probable* don't. Thus, (13) suggests that *that* S has been claimed or considered by someone in the context of discourse, whereas this is not the case for (14a, b):<sup>4</sup>

(13) It is true that Mary is guilty.

(14) a. It is possible that Mary is guilty.

b. It is probable that Mary is guilty.

Unlike (13), (14a, b) are perfectly acceptable in a context in which 'Mary is guilty' was not under discussion or has not been entertained by anyone. The anaphoric effect indicates that *is true* is in fact predicated of a contextually given attitudinal object, let's say a claim, supposition or 'acceptance'.

There is also a somewhat weaker effect than a strictly anaphoric one that *is true* and *is correct* may convey, and that is a concessive effect. That is, (13) may just concede that Mary is guilty (continuing then with *but . . .*), without requiring that to have been maintained by someone in the context. This effect can be considered a special case of the anaphoric effect, involving accommodation rather than a link to the previous context of conversation. That is, it will involve adding a suitably general kind of attitudinal object to the 'common ground', of the sort 'the thought that Mary is guilty' (which need not require a particular agent to actually have entertained the thought that Mary is guilty). On this use, *is true* is predicated of a hypothetical supposition, which amounts to an act of conceding.

To summarize then, there *are* predicates allowing for *that*-clauses in English that display a distinctive 'sentential' semantics, but type 1 truth predicates do not belong to them.<sup>5</sup>

### 2.2.3 Modifiers of Type 1 Truth Predicates

A further argument against the priority of the clausal construction is the interpretation of modifiers of type 1 truth predicates. Modifiers such as *partly* and *to some extent* are equally applicable with *that*-clauses and with NPs in subject position:

(15) a. That the students are intelligent is partly true.

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<sup>4</sup> An anaphoric effect is also noticeable with *is possible* and *is probable* when the *that*-clause is in subject position:

(i) That John is inexperienced is possible/probable.

A plausible explanation is that *that*-clauses do not actually occur in subject position, but only in topic position (Koster 1978) (see also Fn11).

<sup>5</sup> Note that subject clauses with *possible* and *probable* allow for a replacement by *everything* or *that*, an indication that such quantifiers and pronouns do not go along with a referential function of the *that*-clause. See also Fn 10.

- b. It is partly true that the students are intelligent.  
 (16) a. That John is incompetent is to some extent true.  
 b. It is to some extent true that John is incompetent.

The modifiers *partly* and *to some extent* are modifiers that relate to the part-whole structure of the object of which the predicate is predicated, in this case the content, in a suitable sense, of the *that*-clause.<sup>6</sup> The semantics of such modifiers is hard to account for on a 'sentential' semantic analysis of the *is true*-construction.

### 2.2.4 *The Apparent Priority of the Extraposed Form and the Referential Status of the Subject Clause*

Since extraposed clauses cannot be replaced by quantifiers or anaphora, the extraposition structure seems to reflect the logical form of a sentence in which *true* plays the role of an operator or connective, rather than acting as a predicate (Mulligan 2010),<sup>7,8</sup>

There is not much linguistic support for the extraposition structure being prior to the subject-clause structure, however. First of all, extraposition is always possible with (one-place) predicates allowing for a subject clause, regardless of the content of the predicate. This includes predicates such as *is interesting*, *is shocking*, or *was the subject of a great debate*, for which true predicative status is hardly implausible. Second, extraposition is equally available with infinitival clauses, which arguably do have the status of referential terms, unlike *that*-clauses. Unlike *that*-clauses, infinitival clauses can 'flank the identity sign', one of Frege's criteria for referential terms:

- (17) a. \* That John lives is that John works.  
 b. To live is to work.

Infinitival clauses arguably stand for action types.<sup>9</sup> As such, they are replaceable by explicit descriptions of actions, at least with predicates such as *correct*, *right*, and

<sup>6</sup> For an account of partial truth see Yablo (2014).

<sup>7</sup> More precisely, *true* will have to be considered part of an expression acting that way, namely *is true that* (Mulligan 2010).

<sup>8</sup> Sometimes *it is true (that)* cannot just be a connective, for example when it hosts tense, which may require a particular temporal interpretation, as well as temporal or modal adverbials:

- (i) a. This was true.  
 b. This may be true.  
 (ii) Last year it was still true that S.

*True* can go along with other copular verbs than *be*:

- (iii) That S became true/remained/seems true.

Thus, the view that *it is true* acts as an operator/connective may have to restrict itself to only part of the semantic function of that expression. But see the discussion in Grover et al. (1975).

<sup>9</sup> See, for example, Portner (1997) for such a view.

wrong. Below we see that those predicates allow for infinitival clauses both in subject position and extraposed:

- (18) a. To address Mike as ‘Sir’ is correct.  
       b. It is correct to address Mike as ‘Sir’.  
 (19) a. To take advantage of others is wrong.  
       b. It is wrong to take advantage of others.

(20) shows the possibility of replacing the infinitival clauses by explicit descriptions of actions:

- (20) a. Actions of addressing Mike as ‘Sir’ are correct.  
       b. Actions of taking advantages of others are wrong.

Clearly then, whether a clause is in subject position or extraposed does not bear on its referential status.

### 2.2.5 *The Referentially Dependent Status of that-Clauses*

Subject clauses can be replaced by certain quantifiers and pronouns, such as *something* or *that*. However, there is evidence that *that*-clauses in subject position, as elsewhere, are not themselves referential.<sup>10,11</sup> In particular, in subject position *that*-clauses are not referentially independent. This is an important point, though generally not acknowledged in the semantic literature. First of all, a *that*-clause in subject position is not by itself a proposition-referring term. A *that*-clause in subject position can also stand for a fact or a possibility, and what kind of entity it stands for depends strictly on the predicate. This can be seen with the evaluative predicate *nice* below:

- (21) That S is nice.

(21) allows only for a reading on which *nice* evaluates a fact, even though *nice* could in principle evaluate a proposition (as in *the proposition that S is nice*) or a possibility (as in *the possibility that S is nice*). Only in the presence of a suitable predicate can a *that*-clause in subject position stand for a proposition, as in (22a), or a possibility, as in (22b):

- (22) a. That S/The proposition that S implies that S’.  
       b. That John might get elected/The possibility that John might get elected is excluded.

<sup>10</sup> Quantifiers and pronouns like *everything* and *that* themselves in fact are not indicators of the referentiality of the expression they may replace. See Moltmann (2003a, 2004, 2013) for discussion.

<sup>11</sup> In fact, *that*-clauses in apparent subject position, it has been argued, are actually not in subject position but rather in topic position (Koster 1978). The topic position is not a referential position, as seen below, where *really happy* appears in topic position:

- (i) Really happy, he will never be.

This means that in subject position a *that*-clause does not on its own refer to a proposition, a possibility, or a fact. Rather it serves to only characterize a proposition, a possibility, or a fact depending on the predicate. The semantic role of a *that*-clause is that of specifying the content of a proposition-like object of the kind required by the predicate, an object to which the property expressed by the predicate can then apply.

The semantic role of subject clauses to only partially characterize the argument of the predicate goes along well with the account of the anaphoric effect of *is true* given earlier. With *is true*, a *that*-clause specifies the content of the relevant (contextually given or accommodated) attitudinal object (or kind of attitudinal object), of which *true* is then predicated.

### 2.2.6 Consequences for Deflationist View of the Content of 'True'

One general issue in the philosophical discussion of truth is the question of the status of *true* as a predicate expressing a property. On the face of it, *true* appears no different from an ordinary predicate. Deflationists deny that *true* expresses a true property, but they do not necessarily make claims about the syntactic status of *true*. Thus, Horwich's (1990) version of deflationism is sufficiently carefully formulated so as to not make direct claims about the linguistic status of *true*. The view maintains only that what constitutes having the concept of truth is the knowledge of the equivalence schema below, where [] is a nominalization function (roughly corresponding to *that*):<sup>12</sup>

(23) [S] is true iff S.

Yet some assumptions about the semantics of sentences with the predicate *is true* are made nonetheless. Most importantly, the account gives priority to the clausal construction: (23) is applicable only when *true* applies to a *that*-clause and not when it applies to a referential NP. (23) moreover treats a *that*-clause as a proposition-referring term (with the aim of giving justice to the possibility of replacing the *that*-clause by quantifiers like *something*, anaphoric pronouns like *that*, and descriptions of the sort *what John said*). Given (23), the application of the truth predicate amounts to the denominalization of the proposition-referring term (a *that*-clause) and the use of the sentence thus obtained.

In view of the lack of referential independence of *that*-clauses discussed in the preceding section, the deflationist view faces the problem that the subject clause by itself just could not stand for a proposition. This is not a serious problem, though, since in (23) just one particular nominalization function introducing propositions may have been chosen in the presence of the predicate *true*. More of a challenge is the anaphoric effect associated with *is true*, which indicates that it is not a proposition, but a contextually given or accommodated attitudinal object (or kind of attitudinal

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<sup>12</sup> For a closely related view see Künne (2003).

object) that *true* is predicated of. There is further support for such an account of *that*-clauses with *true* as a type 1 truth predicate and that comes from normative truth predicates such as *correct* and *right*. With *that*-clauses, normative truth predicates simply *could* not apply to propositions.

### 2.2.7 Normative Truth Predicates

*Correct* and *right* (as well as their negative counterpart *wrong*) act like truth predicates in some of their uses, but they obviously have a more general normative meaning. They differ in that respect from *true*, which I will call a *representation-related truth predicate*. The semantic behavior of normative truth predicates is significant in that it bears both on the analysis of *that*-clauses with truth predicates in general and on the question of the priority of different notions of truth.

*Correct* and *right* are predicates that appear to express truth with *that*-clauses (in subject position and when extraposed):

- (24) a. That John is the director is correct/right.  
b. It is correct/right that John is the director.

In that role, *correct* and *right* display the very same anaphoric effect as *true*, illustrated by the contrast with *possible* and *likely* below:

- (25) a. It is correct/right that John is inexperienced.  
b. It is possible/likely that John is inexperienced.

*Correct* and *right* also act as truth predicates with referential NPs referring to attitudinal objects such as beliefs and claims:

- (26) a. John's belief that S is right/correct.  
b. John's claim that S is right/correct.

*Correct* and *right* have a more general normative meaning, though. This is what allows *correct* and *right* to apply also to decisions, punishments, movements, proofs, and conclusions:

- (27) a. John's decision was right.  
b. John's punishment was right.  
c. The dancer's movements were correct.  
d. The proof was correct.  
e. The conclusion that Mary is guilty is correct.

With their more general meaning, *correct* and *right* express the fulfillment of the relevant norm (be it a moral value, a rule, an instruction, or logical validity).

The normative aspect is apparent also when *correct* and *right* are predicated of certain types of truth bearers such as explanations, and answers, in which case they do not simply predicate truth:

- (28) a. The explanation that Mary was tired was correct.



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