

Singular Truth-Ascriptions: Truth-Operator vs. Truth-Predicate

by D. Rami

[Submitted for publication]

[Please do not quote without contacting me first: dolf.rami@kcl.ac.uk]

ABSTRACT – This paper is concerned with the semantic analysis of sentences of the form ‘That p is true’ and ‘It is true that p’. Intuitively both kinds of sentences can be used to ascribe the property of truth to a (possible) content of a linguistic act. But there are philosophical analyses of such sentences that deny this intuitive attitude in case of both or at least one kind of these sentences. My aim is to defend the intuitive attitude towards these sentences against rival conceptions. More precisely, I will present and defend a view that ascribes the same kind of truth-conditions to sentences of both forms and that therefore holds that corresponding sentences of both kinds express the same propositions. My view will commit me to the assumption that the expression ‘it’ that a sentence of the form ‘It is true that p’ contains does not have an isolable semantic function. This expression only satisfies a specific syntactic purpose.

(1.0) Apparent and genuine singular truth-ascriptions

A singular truth-ascription is an assertion that consists in the ascription of the property of truth to one and only one object. There is a wide range of different properties of truth one might admit and therefore ascribe. In the simplest case we can admit a property of truth *simpliciter*, but we may also admit relational properties of truth that are relativized to languages, times, possible worlds, contexts of use, etc.

It is a rather plausible assumption, I think, that our natural language truth predicates – like the English ‘is true’ – express the property of truth *simpliciter*. On this background we can take most of our natural language uses of the truth predicate at face value and need not to postulate a wide range of elliptic uses of certain relativized truth predicates.¹

It is also plausible to assume that in natural language we mainly ascribe the property of truth *simpliciter* to the contents of certain linguistic and cognitive acts. Philosophers call these contents propositions, but the concept of a proposition is not a natural language concept. If we admit propositions to clarify our tendency to ascribe truth to contents, we have to conceive of the

¹ C.f.: Rami (2009, 355-358).

nature of propositions in such a way that they are possible bearers of the property of truth *simpliciter*.²

On the basis of these four background assumptions (i) that there is a property of truth *simpliciter*, (ii) 'is true' expresses this property, (iii) we mainly ascribe truth to propositions in natural language and (iv) propositions of a certain nature are the bearers of the property of truth *simpliciter*, it seems to be intuitively plausible to assume that we can use sentences of the following two forms in natural language for the same purpose, namely to ascribe the property of truth *simpliciter* to a single proposition:

(1) That p is true.

(2) It is true that p.

At face value, it also seems to be the case that the following two variations of (1) and (2) can be used for fairly the same purpose³:

(3) That p is a truth.

(4) It is a truth that p.

But there are philosophers who tend to draw significant differences between sentences like (1) and (3) on the one hand and sentences like (2) and (4) on the other hand. These differences may not only concern the semantic structure of these sentences, but they may also concern their explanatory status.

In philosophy, it is quite common to conceive of the expression 'It is false that' as a one-place truth-functional sentential operator in analogy to the negation operator of predicate logic. Syntactically, a one-place sentential operator is an expression that can be applied to a single grammatically well-formed sentence to yield a new well-formed sentence. Semantically, a truth-functional operator denotes a truth-function, in our case a one-place truth-function that takes the truth-value of the sentence to which the operator is applied as input and delivers on this basis a truth-value as output and as the designation of the sentence that is the result of the application of the operator. In our case the designated function is the truth-function of *negation* that delivers as

² Not every conception concerning the nature of propositions that philosophers have put forward can bear the property of truth *simpliciter*; e.g. propositions conceived of as sets of possible worlds. C. f.: Rami (2009, 351-368).

³ In philosophical contexts singular truth-ascriptions can be put forward by further variations of (1)-(4) that make use of the philosophical notion of a proposition. These are sentences of the following forms, for example: (a) The proposition that p is true. (b) It is a true proposition that p. (c) That p is a true proposition.

output the truth-value the True (the False), if the input is the truth-value the False (the True). One the basis of this operational interpretation of the expression 'It is false that' the expression 'is false' does not function as a logical predicate and does not contribute the extension or intension of such a predicate to the semantic values of a sentence of the form 'It is false that p'.

People who accept this kind of analysis of the expression 'It is false that' tend to apply a similar analysis to the expression 'It is true that'. The main difference between 'It is false that' and 'It is true that' is that these operators designate different one-place truth-functions. 'It is true that' denotes the truth-function that delivers the truth-value the True (the False) as output, if the input is the truth-value the True (the False). I will call this truth-function in the following the function of *double negation*. One the basis of this operational interpretation of the expression 'It is true that' we are committed to the claim that a sentence of the form 'It is true that p' does not contain a truth predicate that contributes the extension or intension to the semantic value of such a sentence. Therefore, against the background of the operational interpretation of 'It is true that' such sentences cannot be used to perform a singular truth-ascription. In terms of truth-conditions we can then specify the semantic structure of sentences of the form 'It is true that p' in the following way:⁴

(monadic operational interpretation)

The proposition expressed by a sentence of the form 'It is true that p' relative to a context of use k is true iff 'it is true that' designates the function of double negation and the sentence of the form 'p' that a sentence of the form 'It is true that p' contains designates relative to k the truth value the True.

Philosophers who accept the meaningfulness of sentences of the forms (1)-(4), but who reject our intuitive assumption that sentences of these forms can be used to perform singular truth-ascriptions typically commit themselves to the mentioned operational interpretation of sentences of the form 'It is true that p' and 'It is a truth that p' and they propose a quite different analysis of sentences of the form 'That p is true' and 'That p is a truth'. Someone who aims to reject the intuitive impression that sentences of the forms (1)-(4) can be used to perform singular truth-ascriptions and favours an operational interpretation of sentences of the form 'It is true that p' and 'It is a truth that p', has two options concerning sentences of the form 'That p is true' and 'That p is a truth'. He may either accept or reject the claim that at least these sentences can be used to perform singular truth-ascriptions.

⁴ C.f.: Grover (1992, 89-94); Mulligan (2010, §2).

Philosophers that opt for the first option typically commit themselves to the thesis that sentences of the form 'That p is true' and 'That p is a truth' have the truth conditions of singular predications. That is, semantically such a sentence contains two constituents, a referential component that refers to a proposition and a predicative component that expresses the property of truth. In terms of truth-conditions we can specify the semantics of sentences of the form 'That p is true' on the basis of the predicative interpretation in the following way:⁵

(simple predicative interpretation)

The proposition expressed by a sentence of the form 'That p is true' relative to a context of use k is true iff 'is true' expresses the property of truth *simpliciter* and the expression of the form 'that p' contained in a sentence of the form 'That p is true' refers relative to k to one and only one proposition and this proposition exemplifies the property of truth *simpliciter*.

Philosophers that opt for the second option typically do not only reject the simple predicative interpretation concerning sentences of the form 'That p is true' and 'That p is a truth', but they also deny that a property of truth is a constituent of the semantic structure of these sentences. One prominent proponent of this analysis interprets the expression 'is true' as a denominalizing operator that cancels out the nominalizing function of an expression of the form 'that p'. So according to this interpretation 'that p' designates a function that takes all the semantic values of a sentence as input and delivers as output the proposition expressed by this sentence relative to a context of use. And 'is true' designates a function that inverts the nominalizing function: It takes as input the proposition expressed by the embedded sentence 'p' and transfers (as output) the semantic values of this sentence to a sentence of the form 'That p is true'. In terms of truth-conditions we can specify the semantic structure of 'That p is true' in the following way:

(dual operational interpretation)

The proposition expressed by a sentence of the form 'That p is true' relative to a context of use k is true iff 'that' designates the function of nominalization and 'is true' designates the function of denominalization and the sentence of the form 'p' contained by a sentence of the form 'That p is true' designates relative to k the truth value the True.

We now have the following options: The *intuitive attitude* concerning sentences of the form (1)-(4) holds that each of these sentence-forms can be used to perform a singular truth-ascription. There

⁵ Sentences of the form 'That p is a truth' have structurally the same truth-conditions on the basis of the proposed account.

are two versions how one can defend this attitude. According to the first version such sentences can not only be used to perform singular truth-ascriptions, but they have structurally similar truth-conditions and therefore also express the same propositions. According to the second version – although sentences of all four types can be used to perform singular truth-ascriptions – there are slight differences between the truth-conditions of sentences of the form ‘That p is true’ and ‘That p is a truth’ on the one hand and sentences of the form ‘It is true that p’ and ‘It is a truth that p’ on the other hand. These differences concern the semantic status of ‘it’ contained in sentences of the form ‘It is true that p’ and ‘It is a truth that p’. Even though there are these slight semantic differences, according to the second version of the *intuitive attitude* between sentences of the form ‘That p is true’ and ‘That p is a truth’ on the one hand and sentences of the form ‘It is true that p’ and ‘It is a truth that p’ on the other hand, every pair of corresponding instances of these forms expresses the same proposition.

In opposition to these two versions of the *intuitive attitude* there are two versions of a *revisionary attitude* concerning sentences of the form (1)-(4). The *moderate revisionary attitude* accepts that sentences of the form ‘That p is true’ and ‘That p is a truth’ can be used to perform singular truth-ascriptions, but it denies that sentences of the form ‘It is true that p’ and ‘It is a truth that p’ can be used for this purpose. This claim is typically defended on the basis of the given monadic operational interpretation. A philosophically significant version of this *moderate revisionary attitude* not only draws semantic differences between sentences of the form ‘That p is true’ and ‘That p is a truth’ and sentences of the form ‘It is true that p’ and ‘It is a truth that p’, it also draws differences concerning content and explanatory status. Kevin Mulligan has proposed a version of this kind⁶ that holds that sentences of the form ‘It is true that p’ and ‘It is a truth that p’ express propositions that are explanatory more basic than those propositions expressed by corresponding sentences of the form ‘That p is true’ and ‘That p is a truth’. We can make this explanatory priority explicit on the basis of the acceptance and rejection of ‘because’-claims of the following forms:

(5) It is true that p because that p is true.

(6) That p is true because it is true that p.

(7) It is true that p because p.

(8) p because it is true that p.

⁶ C.f.: Mulligan (2010, §2).

Mulligan's view is that (6) and (7) have lots of true instances, but (5) and (8) have no true instances.⁷ A defender of the *intuitive attitude* would in opposition hold that neither (5) nor (6) has true instances and that of the given forms (5)-(8) only (7) has true instances.

The outlined dispute concerning the status of sentences of the form (5)-(8) has philosophical significance. If Mulligan's view were correct, any philosophical account of truth that only concerns the truth-predicate would be at least incomplete or even misrouted; because such an account does not concern the explanatory basic notion of truth that is expressed by the truth-operator. Therefore, a defence of the *intuitive attitude* is also a defence of the adequateness of most current conceptions of truth, which are mainly concerned with semantic values of the truth-predicate.

A *radical revisionary attitude* concerning sentences of the form (1)-(4) rejects the claim that any sentence of the given four forms can be used to perform a singular truth-ascription. On this basis it is in principle possible that sentences of the form (1)-(4) nevertheless have the same semantic structure and truth-conditions. But I think that it is more plausible to defend the *radical revisionary attitude* on the basis of the view that sentences of the form 'That p is true' and 'That p is a truth' have a different semantic structure than sentences of the form 'It is true that p' and 'It is a truth that p'. A typical way to defend this view makes use of the dual and the monadic operational interpretation.

My aim in this paper is to defend a certain variant of the first mentioned version of the *intuitive attitude*. In the next section I will outline the two mentioned versions of the *intuitive attitude* in more detail and I will contrast these conceptions on the basis of their consequences with a version of the *moderate revisionary attitude* based on the monadic operational interpretation.

Before I will do that, let me briefly outline why I think that the *radical revisionary attitude* is an implausible option and why I think a version that is based on the dual operational interpretation is especially problematic.

We intuitively accept that a sentence like 'That dogs bark is true' implies the sentence 'Something is true'. On the basis of the dual operational interpretation we cannot directly account for this fact. We cannot in general account for the fact that we can use 'is true' in combination with quantificational expressions on the basis of this interpretation. So we have to postulate a strange kind of ambiguity between different uses of 'is true' to account for the meaningfulness of generalisations in connection with 'is true' and we also have to treat the mentioned derivation as enthymematic and add a premise that connects the two notions of truth. Both moves are highly

⁷ Mulligan even questions that sentences of the form (5) are syntactically well-formed. C.f.: Mulligan (2010, §4).

implausible. If there is a uniform treatment of 'is true' in all contexts that explains our intuitions concerning certain derivations in the most simple and direct way, then we should favour such an account over the proposed hybrid account. If we treat 'is true' as a genuine predicate, an analysis along this line can satisfy this condition. The same argument could be also extended to argue against the monadic operational interpretation. But I must admit that I am not completely sure whether we intuitively accept that 'It is true that dogs bark' implies that 'Something is true'. The difference between the dual and the monadic operational interpretation is that the former has the consequence that 'is true' has an isolable semantic function. And a uniform treatment of all of these uses seems to be more plausible, than the mentioned hybrid account. But there might be uses of 'is true' where 'is true' is not used as an isolable semantic unit. In this paper, I will try to give independent reasons that put forward the conclusion that uses of 'is true' in the context of 'It is true that' are no plausible candidates for such an exception. Nevertheless, I think that the given argument against the dual operational interpretation is plausible enough to justify our negligence of radical revisionary attitudes in the remaining paper.

(2.0) Three conceptions concerning sentences of the form 'It is true that p'

A moderate revisionary attitude concerning sentences of the form 'It is true that p' and 'That p is true' that is based on the monadic operational interpretation and the simple predicative interpretation has the following consequences:⁸

(the unity thesis)

The expression 'It is true that' contained in sentence of the form 'It is true that p' is an unbreakable/atomic semantic unit.

(the fragment thesis)

The expression 'is true' that a sentence of the form 'It is true that p' contains does not have an isolable semantic function; that is, it is no genuine predicate.

(the non-singularity thesis)

The expression 'that p' that a sentence of the form 'It is true that p' contains does not have an isolable semantic function; that is, it is no referential term.

⁸ C.f.: Mulligan (2010, §2).

(the semantic redundancy thesis)

The expression 'it' that a sentence of the form 'It is true that p' contains does not have an isolable semantic function.

(the dummy subject thesis)

The expression 'it' that a sentence of the form 'It is true that p' syntactically functions as a dummy subject.

The unity thesis is a direct consequence of the monadic operational interpretation. The fragment thesis, the non-singularity thesis and the semantic redundancy thesis are either implied by the unity thesis or the monadic operational interpretation itself. The dummy subject thesis is implied by the unity thesis and further syntactic background assumptions.

On the basis of the rejection or acceptance of these consequences it is possible to distinguish the proposed version of the *moderate revisionary attitude* from two variants of the two different versions of the *intuitive attitude*. The first of these variants rejects four of the mentioned five consequences of the monadic operational interpretation. It only accepts the semantic redundancy thesis. The second version rejects every of the five mentioned consequences.

These three conceptions have one thing in common; they accept the simple predicative interpretation concerning sentences of the form 'That p is true' and 'That p is a truth'. The difference between these conceptions therefore mainly concerns their treatment of sentences of the form 'It is true that p' and 'It is a truth that p' – both their syntactic and their semantic structure. The syntactic differences become most visible if we focus on the expression 'it' contained by sentences of the form 'It is true that p' and 'It is a truth that p'.

According to the version of the *moderate revisionary attitude* given above this expression is syntactically a *dummy subject*. A dummy subject is an expression that has no isolable semantic function. Its only function is to account for the syntactic well-formedness of the sentence. It does not syntactically depend on any other constituent of the sentence and cannot be substituted by any other expression *salva congruitate* or eliminated by means of syntactic transformations that preserve syntactic well-formedness.⁹ A sentence like the following, for example, contains the dummy subject 'it':

(9) It rains in London.

⁹ C.f.: Holler (2005, 87).

It has no semantic function, does not syntactically depend on any other expression and it cannot be substituted or eliminated, because there is no possible transformation of (9) that preserves syntactic well-formedness and that eliminates the 'it'.

Both versions of the *intuitive attitude* reject such a view concerning sentences of the form 'It is true that p' and 'It is a truth that p'. The first mentioned version of this attitude holds the following thesis instead of the dummy subject thesis:

(the correlative subject thesis)

The expression 'it' contained by a sentence of the form 'It is true that p' syntactically functions as a correlative subject.

Like a dummy subject a correlative subject has no semantic function, but syntactically dummy subjects and correlative subjects function in a different way.¹⁰ A correlative subject syntactically depends on some other expression and on this basis it is possible to eliminate the correlative subject by means of a syntactic transformation that preserves syntactic well-formedness.¹¹ The following sentence contains the correlative subject 'there':

(10) There were two men in the room.

It has no semantic function, but it syntactically depends on the expression 'two men'. And on this basis it is possible to eliminate 'there' and transform (10) into the following well-formed sentence:

(11) Two men were in the room.

A defender of the correlative subject thesis can now argue on the basis of the following observation against the dummy subject thesis. A sentence of the form 'It is true that p' contains the correlative subject 'it'. This expression syntactically depends on an expression of the form 'that p' that 'It is true that p' contains. On this basis we can eliminate the expression 'it' and transform a sentence of the form 'It is true that p' into a well-formed sentence of the form 'That p is true'. I think this is *prima facie* a plausible move that can be used against the dummy subject thesis. In order to substantiate it more fully it is not only necessary to specify the syntactic structure of

¹⁰ In the linguistic literature subject expressions that have no semantic function are often called *expletive subjects*. C.f.: Haegeman and Guéron (1999, 41). What I have called *dummy* and *correlative subjects* are two different variations of this kind.

¹¹ C.f.: Holler (2005, 87-89). See also: "In the literature 'it' in ['It is true that the sun shines'] is sometimes referred to as the **anticipatory** subject [...]; the clause which is related to it is sometimes referred to as the **logical** subject or as the **real** subject", in: Haegeman and Guéron (1999, 41).

sentences of the form 'It is true that p' and 'That p is true', but also to provide the transformation rule that allows the transformation of 'It is true that p' into 'That p is true'. We will come back to this topic in the last section of this paper.

The second version of the *intuitive attitude* rejects both the dummy subject and the correlative subject thesis and holds instead of it the following thesis:

(the genuine subject thesis)

The expression 'it' contained by a sentence of the form 'It is true that p' functions as a genuine subject.

This thesis has the consequence that 'it' has a genuine isolable semantic function and therefore is neither a dummy subject nor a correlative subject.

What is the semantic function of 'it' according to the variant of the second version of the *intuitive attitude* in focus? This view complements the genuine subject thesis with the following further view concerning the semantic function of 'it' in sentences of the form 'It is true that p':

(the cataphoric subject thesis)

The expression 'it' contained by a sentence of the form 'It is true that p' semantically functions as a cataphoric pronoun.¹²

A cataphoric pronoun is the counterpart of an anaphoric pronoun. The following sentence contains the expression 'he' used as cataphoric pronoun:

(12) Before he joined the Navy, **John** made peace with his family.

This expression 'he' that is used in (12) stands in a cataphoric relation (preceding its corresponding referential expression) to the expression 'John' and inherits on this basis the referent of 'John'. That is, the reference of 'he' depends on the reference of 'John'. We have to interpret sentences of the form 'It is true that p' and 'It is a truth that p' in a similar way, if we commit ourselves to the cataphoric subject thesis. According to this thesis the cataphoric pronoun 'it' inherits its reference on the basis of a referential dependence between this expression and an expression of the form 'that p' contained by a sentence of the form 'It is true that p'. Defenders of the dummy subject thesis or the correlative subject thesis do not only reject the genuine subject thesis, but also the cataphoric subject thesis.

¹² C.f.: Horwich (1998, 16 Fn. 1); Künne (2003, 350-351).

Let us now finally differentiate the three mentioned conceptions on the basis of the *semantics* they attribute to sentences of the form 'It is true that p'. We have already specified truth-conditions for these sentences by assuming a specific version of the *moderate intuitive attitude*. Now we can also distinguish the two different versions of the *intuitive attitude* concerning the truth-conditions they attribute to sentences of the form 'It is true that p'. According to the first version, which is committed to the semantic redundancy thesis and the correlative subject thesis, such sentences have the following truth-conditions:

(reductive predicative interpretation)

The proposition expressed by a sentence of the form 'It is true that p' relative to a context of use k is true iff 'is true' expresses the property of truth *simpliciter* and the expression of the form 'that p' contained by such a sentence refers relative to k to one and only one proposition and this proposition exemplifies the property of truth *simpliciter*.

According to our second version of the *intuitive attitude* these sentences have truth-conditions rather similar to those provided by the reductive predicative interpretation. The main difference between these two conceptions concerns a further necessary condition that a cataphoric interpretation of sentences of the form 'It is true that p' is committed to. This leads to the following truth-conditions:

(cataphoric predicative interpretation)

The proposition expressed by a sentence of the form 'It is true that p' relative to a context of use k is true iff 'is true' expresses the property of truth *simpliciter* and the expression of the form 'that p' contained by such a sentence refers relative to k to one and only one proposition and this proposition exemplifies the property of truth *simpliciter* and 'it' cataphorically depends on the expression of the form 'that p' that such a sentence contains.

This completes our comparison between three accounts of the analysis of sentences of the form 'It is true that p'. We have distinguished them on the basis of their syntactic and semantic components and consequences. In the next sections I will present and discuss arguments against the unity thesis, the fragment thesis, the non-singularity thesis, the cataphoric subject thesis and the dummy subject thesis. These arguments will provide indirect evidence for the justification of the correlative subject thesis and the reductive predicative interpretation, which I aim to defend.

(3.0) Arguments against the unity thesis

In this section I will present and discuss four arguments against the unity thesis and its consequences outlined above. The first argument is *the argument from parenthetical insertion*.¹³

The main premise of this argument is the following general principle:

(IP) It is only possible to insert parenthetical expressions between major semantic units of a sentence.

A syntactic constituent expression of a sentence is a major semantic unit, if it is the bearer of isolable semantic properties that constitute the semantic properties of this sentence. The monadic operational interpretation says that a sentence of the form 'It is true that p' has two main semantic units: the expression 'it is true that' and a sentence that corresponds to 'p'. So if the monadic operational interpretation is true and (IP) is true, the following parenthetical insertion must lead to a well-formed sentence and be perfectly okay:

(13) *It is true that – as I told you yesterday – Vienna is the capital of Austria.

But in fact such an insertion leads to a sentence that is not well-formed. So if we assume (IP), we can thus conclude that both the unity thesis and the monadic operational interpretation are false. The correct way to insert 'as I told you yesterday' leads to the following well formed sentence:

(14) It is true – as I told you yesterday – that Vienna is the capital of Austria.

The well-formedness of this sentence together with (IP) provides direct evidence for the thesis that an expression of the form 'that p' is a semantic constituent of a sentence of the form 'It is true that p'.

How can a defender of the dual operational interpretation react to this objection? The most straightforward way is to reject (IP) by providing a counterexample. And I think he is right to do so, because (IP) seems to be false. The possibility of parenthetical insertions is not a semantic, but only a syntactic matter. The following sentence provides a counterexample to (IP):

(15) We met Mary – as I told you yesterday – in London.

¹³ This argument can be found in Wilson (1990, 24).

If we accept (IP), we would also have to accept that 'in London' is a genuine semantic unit of the sentence (15). But this is not plausible, because 'London', 'Mary', 'We' and the three-place predicate '... met ... in ...' are the semantic units of (15).

If we focus on a sentence like 'This has a red surface', we can make the following parenthetical insertion 'This has a red – as I told you more than once – surface'. But this insertion should not be used as a guide to the major semantic units of the sentence 'This has a red surface'. Nearly the same can be said concerning the following insertion 'Billy the Kid shot the sheriff – as you will remember – of Lincoln'. The major semantic units of the sentence 'Billy the Kid shot the sheriff of Lincoln' are the expressions 'Billy the Kid', 'shot' and 'the sheriff of Lincoln'. By the way: lots of linguists and philosophers hold the thesis that the copula 'is' is semantically empty, nevertheless we can make parenthetical insertions like the following: This rose is – as you should notice – red. We can interpret this case as evidence against (IP).

(IP) in fact boils down to the following correct principle: If a parenthetical expression can be inserted between two expressions, then these expressions belong to different syntactic units. But the distinction of syntactic units is no reliable guide to distinguish semantic units. Therefore, we cannot reformulate our argument against the monadic operational interpretation on the basis of our syntactic revision of (IP).

The second argument I want to present and discuss is *the argument from prepositional insertion*.¹⁴ This argument focuses its attention on specific sentences that contain the prepositional adverb 'also' in connection with 'is true'. These are sentences as the following:

(16) It is true that Vienna is the capital of Austria and the thought that Berlin is the capital of Germany is **also** true.

This sentence seems to be perfectly meaningful and true. But the preposition 'also' can only then be conceived as meaningful in the context of a sentence like (16), if the meaning and content of (16) is interpreted in such a way that this sentence contains the genuine predicate 'is true' twice. So on the basis of the further plausible assumption that (16) is a meaningful sentence on the basis of its literal meaning, we can conclude that (16) has truth-conditions that are not compatible with a monadic operational interpretation of the constituent sentence 'It is true that Vienna is the capital of Austria' of (16). Therefore, we have an argument against the unity thesis and the fragment thesis as well.

¹⁴ This argument can be found in Künne (2003, 351).

In principle, a defender of monadic operational interpretation has two possibilities to respond to this argument. He can reject the connection between the meaningfulness of the use of ‘also’ in a context like (16) and a universally predicative interpretation of ‘is true’ in such a context. But, in my opinion, there are no plausible reasons to reject this connection, especially if a sentence like (16) contains at least one use of ‘is true’ that has unquestionably a predicative interpretation and is modified by the expression ‘also’. The alternative response is based on the rejection of the assumption that a sentence like (16) is literally meaningful. Mulligan has opted for this response.¹⁵ According to him a sentence like (16) is not literally meaningful; on the basis of the literal reading of such a sentence the use of ‘also’ makes no sense. But a sentence like (16) pragmatically conveys a proposition that is expressed by a sentence that can account for the meaningful use of ‘also’ and we typically conflate this proposition with the proposition literally expressed by (16). In case of (16) the following sentence is the most plausible candidate to fill this role:

(17) The thought that Vienna is the capital of Austria is true and the thought that Berlin is the capital of Germany is **also** true.

A sentence like (17) can be interpreted as containing two predicative uses of the truth predicate without conflicting with the monadic operational interpretation. Therefore, Mulligan’s strategy allows us to block the argument from prepositional insertion.

Without question, this strategy can be used to block our argument, but is it really a plausible strategy? Are there any reasons that allow us to reject this strategy as not quite plausible? Firstly, it can be shown that the pragmatic mechanism that accounts for the fact that (16) pragmatically conveys a proposition that we erroneously conflate with its literal content cannot be conceived of as a *conversational* or *conventional implicature*. The fact that the proposed conflation of pragmatic and semantic content cannot be interpreted on the basis of the standard accounts for this purpose at least weakens the plausibility of Mulligan’s strategy.

The proposition literally expressed by (17) cannot be conceived of as a conversational implicature of (16), because a conversational implicature can be explicitly cancelled without thereby generating a contradictory claim. If the pragmatic mechanism were a conversational implicature, it should be possible to cancel the conversational implicature of (16) by means of using the following sentence:

¹⁵ C.f.: Mulligan (2010, §4).

(18) It is true that Vienna is the capital of Austria and the thought that Berlin is the capital of Germany is **also** true, but it is not the case that the thought that Vienna is the capital of Austria is true.

But even on the basis of monadic operational interpretation sentences of the form ‘The thought that p is true’ are necessarily equivalent with their corresponding counterparts of the form ‘It is true that p’. So it cannot meaningfully be doubted that (18) expresses a contradictory proposition. Therefore we have shown that the mechanism is not a conversational implicature.

The proposition literally expressed by (17) cannot also be conceived of as a conventional implicature of (16), because a conventional implicature survives the embedding into the scope of an expression of the form ‘It is false that’. But the proposition literally expressed by (17) cannot be regarded as the conventional implicature of the following sentence:

(19) It is false that (it is true that Vienna is the capital of Austria and the thought that Berlin is the capital of Germany is **also** true).

So the pragmatic mechanism at issue is also not the mechanism of conventional implicature.

Another argument against Mulligan’s strategy is that we cannot explain why ‘also’ can be used to modify expressions of the form ‘It is true that p’ as well and why we therefore can use sentences like the following in a meaningful way:

(20) It is true that Vienna is the capital of Austria and it is **also** true that Berlin is the capital of Germany.

Against the background of an account that holds the thesis that (16) and (20) both contain the truth predicate twice, we can give a uniform explanation why sentences like (16) and (20) can be used in a meaningful way on the basis of their literal content. A defender of Mulligan’s strategy has to provide an alternative explanation for the meaningfulness of (20).¹⁶ He has to claim that the expression ‘also’ as it is used in (16) has a different logical function than the same expression used in (20). One possibility would be to treat (20) as an elliptic version of the following sentence:

(21) It is the case that it is true that Vienna is the capital of Austria and it is **also** the case that it is true that Berlin is the capital of Germany.

¹⁶ He would by the way have trouble to explain on this basis the meaningfulness of the following claim: (20*) The thought that Vienna is the capital of Austria is true and it is **also** true that Berlin is the capital of Germany.

But such a strategy seems to be just a way of cheating, because we have only deferred the problem one level. On the basis of (21) it remains a mystery why it is possible to modify the predicate 'is the case' by means of 'also' on the one hand, but why it is not possible to modify the predicate 'is true' by means of this expression on the other hand. This strategy even has a further drawback, because we can express a thought that is at least cognitively equivalent with the thought expressed by (20) by using 'is a truth' and the modifier 'further' such that we get:

(22) It is a truth that Vienna is the capital of Austria and it is a **further** truth that Berlin is the capital of Germany.

There seems to be no strategy to explain the use of 'further' in (22) by any plausible elliptic reading of (22) that parallels our paraphrasing (20) by (21). So Mulligan's strategy even needs a further different manoeuvre to cope with sentences like (22). Assuming a predicative reading of 'is true' and 'is a truth' we can provide a unified explanation for all considered cases. Therefore, Mulligan's strategy is not the best explanation of our phenomenon.

Thirdly, we intuitively accept that (22) implies the following claim:

(23) There are at least two truths.

We can provide a direct interpretation of this state of affairs, if a predicative interpretation of 'is a truth' in a sentence like (22) is assumed. But it requires further bridge-principles to explain this inference on the basis of Mulligan's strategy. So again the predicative interpretation is more plausible than Mulligan's strategy. We are allowed to conclude that this literal rendering of our understanding of the mentioned sentences is far more plausible than Mulligan's non-literal interpretation. Therefore, the argument from prepositional insertion provides good reasons that favour a theory that accepts the negation of the fragment thesis over a theory that is committed to the fragment thesis.

A third argument I have to offer against the unity thesis is *the argument from verbal modification*; it is directed against the unity and the fragment thesis. If the expression 'is true' is open to explicit verbal modification relative to a specific context, it has to be conceived of (relative to this context) as a genuine predicate. I will provide several *prima facie* examples of verbal modification that concern 'is true' in the context of an expression of the form 'It is true that p'. I will then argue that some of these examples have to be conceived as genuine verbal modifications. These are my examples:

(24) It is **not** true that the sun shines.

(25) It **was** true that the sun shines.

(36) It is **probably** true that the sun shines.

(27) It is **almost/perfectly/unrestrictedly/merely** true that the sun shines.

These sentences contain examples of explicit verbal modification, because the most straightforward account to provide a semantic interpretation for these expressions is to conceive of them as modifiers of the predicate 'is true'. A defender of the unity thesis must resist this kind of interpretation and argue for the thesis that these superficial cases of verbal modification have to be treated on the semantic level as modifiers of the operator 'it is true that p' and therefore as cases of sentential modification. He may for example claim that sentences like (24)-(27) are elliptic versions of claims of the following form:

(24*) It is not the case that it is true that the sun shines.

(25*) It was the case that it is true that the sun shines.

(26*) It is probable that it is true that the sun shines.

(27*) It is almost/perfectly/unrestrictedly/merely the case that it is true that the sun shines.

These sentences do not contain verbal modifications of the expression 'is true'. But this move is only a way of cheating. There is no reason why we should accept that an expression like 'is the case' can be explicitly verbally modified, while an expression like 'is true' cannot be explicitly verbally modified. It is also implausible to conceive of the given sentences (24*)-(27*) as paraphrases of the corresponding sentences (24)-(27). The relevant pairs of sentences aren't synonymous. But I cannot think of any plausible alternative paraphrases for sentences of the form (24)-(27) for the desired purpose.

The best and most simple explanation of superficial verbal modifications of 'is true' as they are contained in sentences like (24)-(27) treats these expressions as functional modifiers of the truth predicate. Therefore, we have got further evidence that favour a predicative interpretation of sentences of the form 'It is true that p' over an interpretation that is committed to the unity and fragment thesis.

The fourth and last argument I want to present is, I think, even more convincing than the second and third argument. It may be called *the argument from anaphoric binding*. If an expression of the form 'that p' contained by an expression of the form 'It is true that p' can be the antecedent of an anaphoric expression, the unity thesis and the non-singularity thesis are false. In my opinion, we can provide plausible examples that make the antecedent of this conditional true and therefore

allow us to reject the unity and the non-singularity thesis. As a first example I want to consider is provided by the following sentence:

(28) It is true **that Berlin is the capital of Germany**, but Peter believes that **it** is false.

The most straightforward interpretation of (28) interprets the expression 'it' contained by the expression 'it is false' as an anaphoric pronoun, whose antecedent is the expression 'that Berlin is the capital of Germany'. But there is a possibility for a defender of the unity thesis to answer this challenge. He may claim that a sentence of the form (28) is an elliptic version the following sentence:

(29) It is true that Berlin is the capital of Germany, but Peter believes that it is false that Berlin is the capital of Germany.

A sentence like (29) can be interpreted in a way that is compatible with the unity thesis. On this basis (29) contains the sentential operators 'It is true that' and 'It is false that'.

Granted, this is a possible response, but there are further examples that cannot be explained away in the mentioned way. The following two sentences provide such examples:

(30) It is true **that Berlin is the capital of Germany**, but Peter {doubts/rejects} {**it/that**}.

(31) It is true **that Peter deceived his wife** and he regrets {**it/that**}.

The most straightforward interpretation of (30) conceives of the constituent expression 'that' or 'it' as an anaphoric pronoun, whose anaphoric antecedent is 'that Berlin is the capital of Germany'. In case of (31) it is also natural to conceive of 'that' and 'it' as anaphoric pronouns, whose anaphoric antecedent is 'that Peter deceived his wife'. I see no plausible way for a defender of the unity thesis to account for the meaningfulness of (30) and (31). There are definitely no plausible paraphrases of (30) and (31) that allow us to treat (30) and (31) as elliptic sentences. Therefore, I conclude that the argument from anaphoric binding provides plausible reasons against the unity and the non-singularity thesis.

(4.0) An argument against the dummy subject thesis

Each of the arguments I have presented until now was directed against the unity thesis or some semantic theses directly related to this thesis. But as we have seen our three distinguished

conceptions concerning sentences of the form 'It is true that p' are also committed to certain syntactic theses. The considered version of the *moderate revisionary attitude* is committed to the thesis that the expression 'it' that a sentence of the form 'It is true that p' is a so-called dummy subject. I will now offer an argument against this thesis; it is *the argument from subject location*.

Sentences that contain an expression that specifies the logical subject of a sentence can be distinguished from sentences that do not contain such an expression. In the first case we can ask for the (logical or real) subject of a sentence in a meaningful way by means of who- or what-questions and provide a meaningful answer to this question by citing the relevant expression that specifies the logical subject.¹⁷ So on the basis of the sentence 'Peter is hungry' we can formulate the question 'Who is hungry?' and provide an answer by citing 'Peter'. If a sentence contains a dummy subject, we cannot formulate such a meaningful question and provide a meaningful answer. The sentence 'It rains in London' is a sentence that contains the dummy subject 'it'. Its status as a dummy subject is confirmed by our proposed test, because 'Who rains in London?' or 'What rains in London?' are no meaningful questions.

But sentences of the form 'It is true that p' pass our test. One can ask on this basis in a meaningful way 'What is true?' and the relevant expression of the form 'that p' provides a meaningful answer to such a question. Every sentence of the form 'It F's that p' seems to pass this test. We can ask for the logical subject of the sentence 'It is desired by Peter that his mother visits him' by means of the meaningful question 'What is desired by Peter?' and we can answer this question by citing the expression 'that his mother visits him' in a meaningful way. In the same way a sentence like 'There were two men in the room' passes our test and so we can also assume in this case that 'there' is no dummy subject. Our test provides evidence for the thesis that a sentence of the form 'It is true that p' does not contain the dummy subject 'it'. Therefore, we can reject the dummy subject thesis on this basis.

(5.0) Arguments against the cataphoric subject thesis

If the dummy subject thesis is false, then either the correlative subject or the genuine subject thesis is true. I cannot see any further plausible alternatives to these two theses. So if we could now also provide arguments against the genuine subject thesis, we would indirectly justify the correctness of the correlative subject thesis. In case of the expression 'it' contained by a sentence of the form 'It is true that p' this expression can only then be a genuine subject if it can be used in

¹⁷ C. f.: Mulligan (2010, §4).

this context either as a demonstrative, an anaphoric or cataphoric pronoun. If we can provide arguments against these interpretations, we can also reject the genuine subject thesis on this basis.

The first argument I aim to put forward is *the argument from substitution*. This argument provides reasons against an anaphoric, cataphoric and demonstrative interpretation of 'it' in the context of 'It is true that p'. If the expression 'it' is used either as a demonstrative, an anaphoric or cataphoric pronoun, it must be possible to substitute this expression by means of another expression that can fill the same semantic function, like the expression 'this' or 'that' for example, without thereby undermining the meaningfulness or syntactic well-formedness of an expression. The sentence 'It is a piece of cake' contains the pronoun 'it' that can be used in either of the three mentioned ways and our test confirms this, because 'This is a piece of cake' and 'That is a piece of cake' are meaningful sentences that can be used for the same purpose as the sentence 'It is a piece of cake'. But in case of sentences of the form 'It is true that p' such substitutions do not have meaningful sentences as result. It is in no context meaningful to claim 'This is true that the sun shines' or 'That is true that the sun shines'; these sentences are not syntactically well-formed.¹⁸ The test also provides the correct result for the dummy-subject uses of 'it'. 'It rains' is meaningful and well-formed, but 'This rains' or 'That rains' are not. So we have evidence against the cataphoric subject thesis and the genuine subject thesis.¹⁹

My second argument against the genuine subject thesis is a variation of *the argument from subject location*. Let us call it *the argument from thematic identification*. If the expression 'it' would have a semantic function in a sentence of the form 'It is true that p', it could be questioned like any expression that has a thematic role. We can question the 'it' in a sentence like 'It interested me very much', because 'What interested me very much?' is a meaningful question. We can also question the components 'that Peter laughed' 'Peter' and 'laughed' of the sentence 'It is true that Peter laughed' by means of the meaningful questions 'Who laughed?', 'What did Peter do?' and 'What is true?' and therefore identify these expressions as expressions with a semantic function.²⁰ But questions like 'What/Which/Who is true that Peter laughed?' are syntactically ill-formed. In fact, we cannot formulate a meaningful question to question the expression 'it' that a sentence of

¹⁸ The test also shows that there is an important difference between a sentence of the form 'It is true that p' and a sentence like 'It is true, what Peter said'; because sentences of the latter kind pass the substitution test.

¹⁹ C.f.: Haegeman and Guéron (1999, 42).

²⁰ This test can also be used to argue against the unity thesis.

the form 'It is true that p' contains. Therefore, we can conclude on the basis of this failed test that the genuine subject thesis is false.²¹

A third argument I have to offer is *the argument from translation*; it is directed against the cataphoric subject thesis. If 'it' is used as an anaphoric pronoun in sentences of the form 'It is true that p', it must be possible to substitute 'that p' with an expression of the form 'the proposition that p' or 'the thought that p' and preserve the anaphoric connection nevertheless and it must also be possible to translate such a sentence into a different language and thereby preserve the semantic function and meaning expressed. The first of these two requirements leads us from a sentence like 'It is true that the sun shines' to the following sentence:

(32) It is true, {namely} {the proposition / the thought} that the sun shines.

A sentence like (32) seems to be meaningful and at least necessary equivalent with its counterpart 'It is true that the sun shines'. Therefore, the first requirement can be satisfied. What about the second condition? An adequate translation of (32) leads to the following German sentence:

(33) {Sie / Er} ist wahr, {nämlich} {die Proposition / der Gedanke}, dass die Sonne scheint.

An adequate German translation of 'It is true that the sun shines' on the other hand leads to:

(34) Es ist wahr, dass die Sonne scheint.

It is obvious that only (34) contains the expression 'es' that is the German counterpart of 'it'. This fact shows us, I think, that the expression 'it' as it is used in (32) has a different semantic and syntactic status than the very same expression in the sentence 'It is true that the sun shines'. The expression 'it' in (32) obviously functions as a cataphoric pronoun in the same way as the expression 'sie' or 'er' in (33) does. But considering (34) it can be doubted that 'it' also functions as a cataphoric pronoun in a sentence like 'It is true that the sun shines'. Therefore, we have further evidence that the cataphoric subject thesis is false.

As a fourth and last argument I would like to present the *argument from transformation* against the cataphoric subject thesis. If a sentence A contains a cataphoric pronoun, then this sentence can be transformed via a syntactic transformation rule into a sentence B that contains an anaphoric pronoun and A and B are meaningful, syntactically well-formed and express the very same proposition. The following sentence contains the cataphoric pronoun 'he':

²¹ C.f.: Haegeman and Guéron (1999, 42).

(35) Before he joined the Navy, **John** made peace with his family.

It can be transformed in the following way into a sentence that contains an anaphoric instead of a cataphoric pronoun:

(36) **John** made peace with his family before he joined the Navy.

Both sentences are meaningful and well-formed and they obviously express the same proposition. But if we focus on a sentence of the form 'It is true that p' like 'It is true that the sun shines' such a sentence cannot be transformed into a meaningful and well-formed sentence in the presented way. The following sentence seems to be the only possibility of such a transformation:

(37) *That the sun shines, it is true.

But a sentence like (37) seems to be neither meaningful nor syntactically well-formed. So in case of sentences of the form 'It is true that p' our test of transformation concerning cataphoric pronouns fails. Therefore, we have gained further evidence against the correctness of the cataphoric subject thesis.

The three arguments I have presented in this section now allow us to reject the genuine subject thesis and the cataphoric subject thesis. The correlative subject thesis remains the only option on the table concerning the status of the expression 'it' in a sentence of the form 'It is true that p'. In the last section I will discuss two different ways to spell this thesis out in more detail.

(6.0) Two versions of the correlative subject thesis

The correlative subject thesis says that the expression 'it' contained by a sentence of the form 'It is true that p' has no isolable semantic function, but it syntactically depends on an expression of the form 'that p', which is the genuine *logical subject* of the sentence. This means, it should be possible to transform a sentence of the form 'It is true that p' into a sentence of the form 'That p is true' via a specific syntactic transformation rule. In the linguistic literature, two different prominent ways to specify the syntactic structure of a sentence of the form 'That p is true' can be found. Considering both options, we can distinguish two different ways to explain the transformation and therefore also two different ways to formulate and justify the correlative subject thesis.

The first and more orthodox theory concerning the syntactic structure of sentences of the form 'That p is true' holds that an expression of the form 'that p' is of the syntactic type of a sentence [S] and functions as the noun phrase [NP] of a sentence of the form 'That p is true' and the expression 'is true' functions as the verb phrase [VP] of such a sentence.²² We can transform a sentence of the form 'That p is true' into a sentence of the form 'It is true that p' by means of the syntactic rule of extraposition. If we apply this rule, a sentence of the form 'It is true that p' has the following syntactic constituents: 'It' is the noun phrase [NP] of such a sentence. An expression of the form 'is true that p' is the verbal phrase [VP] and this phrase contains as constituents the expression 'is true' that also functions as a verb phrase [VP] and an expression of the form 'that p' that is of the syntactic type of a sentence [S].

If we accept this account, we can explain why 'it' as a constituent of a sentence of the form 'It is true that p' syntactically depends on an expression of the form 'that p' and why the latter expression specifies the logical subject of such a sentence. But although this account gives a description of the assumed dependence, it is problematic in at least two respects.

The first problem concerns the possibility of the general application of the proposed analysis.²³ That is, if the given account is correct, it should not only be possible to analyse sentences of the form 'It is true that p' on this basis; it should also be possible to analyse sentences of the more general form 'It F's that p'. But there seem to be instances of this form that cannot be transformed in the desired way by means of the inversion of the given rule of extraposition, namely the rule of intraposition. The following sentence is meaningful and syntactically well-formed:

(38) It {seems/appears/happens/turns out} that Berlin is the capital of Germany.

But if we apply the rule of intraposition to this sentence we get the following expression, which is not syntactically well-formed:

(39) That Berlin is the capital of Germany {seems/appears/happens/turns out}.

So it seems that the proposed analysis cannot be applied to every sentence of the form 'It F's that p'. This sheds doubts on the given analysis of sentences of the form 'It is true that p'. Why should this sentence behave syntactically different than a sentence like (38)?

But, I think, there is a plausible response to this problem. We may claim that a sentence like (38) is an elliptic version of the following sentence:

²² C.f.: Rosenbaum (1967); Koster (1978, 57); Gazdar et al. (1985, 118).

²³ C.f.: Alrenga (2005, 175-176). A problem in the converse direction is pointed out in Koster (1978, 54).

(40) It {seems/appears/happens/turns out} {to be true/the case} that Berlin is the capital of Germany.

We can now apply the inversion of the rule of extraposition to a sentence like (40) and get the following well-formed sentence as result:

(41) That Berlin is the capital of Germany {seems/appears/happens/turns out} {to be true/the case}.

This strategy can also be applied to a second class of problem cases that concerns passive construction.²⁴ The following sentence is an example of this sort:

(42) It was {hoped/wished/reasoned} that Berlin is the capital of Germany.

It cannot be transformed by intraposition into a well-formed sentence. But if we apply the elliptic strategy, we can transform the counterpart of (42) into a well-formed sentence by means of the rule of intraposition. So it seems that the mentioned problem of generalisation is not insurmountable for the given orthodox account.²⁵

But there is a second and more pressing problem of the orthodox account.²⁶ This problem concerns embeddings of sentences of the form 'That p is true'. The following sentences are meaningful and syntactically well-formed:

(43) I wonder whether it is true that the sun shines.

(44) If it is true that that the sun shines, it does not rain.

(45) It is true that the sun shines and it does not rain, because it is true that the sun shines and it is true that it does not rain.

But if we substitute in these complex sentences a sentence of the form 'It is true that p' with corresponding sentences of the form 'That p is true' this substitution leads to expressions that are no syntactically well-formed sentences:

(43*) *I wonder whether that the sun shines is true.

²⁴ C. f.: Alrenga (2005, 182 -184).

²⁵ There is even a further possibility to account for these exceptions. One may claim that certain verbs pose certain syntactic restrictions on their arguments and therefore the rule of extraposition must be relativized to verbs with certain further parameters. C.f.: Gazdar et al. (1985, 117-119).

²⁶ C. f.: Mulligan (2010, §4).

(44*) *If that the sun shines is true, it does not rain.

(45*) *That the sun shines and it does not rain is true, because that the sun shines is true and that it does not rain is true.

The fact that these substitutions are not possible *salva congruitate* requires explanation, but the orthodox account cannot provide such an explanation. So we are in need of a different account that can provide such an explanation.

There is a second account concerning the syntactic structure of sentences of the form 'That p' that can be used by a defender of the correlative subject thesis and that can also explain the outlined substitution problems. Let us call this account the *alternative account*. According to this account an expression of the form 'that p' that a sentence of the form 'That p is true' contains occupies a rather specific syntactic position. It is called a *satellite* or *topic* position.²⁷ In our case an expression of the form 'that p' occupies a left-peripheral topic-position that is superordinated to a sentence that has the standard syntactic structure consisting of a noun phrase and a verb phrase. This subordinated sentence contains a noun phrase that consists of a so-called *empty* pronoun that is phonetically not realized and has no semantic content, but is syntactically dependent on 'that p' in topic position, which is the logical subject of the whole complex. The verb phrase of the subordinated sentence is the expression 'is true'. The fact that a sentence of the form 'That p is true' contains an expression of the form 'that p' in a superordinated topic position explains why there are certain syntactic restrictions concerning embeddings of a sentence of the form 'That p is true'. Because an expression can only then be used in a topic position if it is cited as the first element in discourse. Therefore, embedded uses of sentences of the form 'That p is true' are not possible if an expression of the form 'that p' contained by such a sentence occupies a topic position.

On the basis of this alternative account we can also provide a syntactic analysis of sentences of the form 'It is true that p' and we can explain how one can move forward and backward by means of syntactic transformations from a sentence of the form 'That p is true' to a sentence of the form 'It is true that p'. A sentence of the form 'It is true that p' does not contain an expression of the form 'that p' in a *satellite* or *topic* position. In this case 'that p' is a subordinated argument of the verb phrase²⁸ that syntactically depends on the correlative pronoun 'it'²⁹, which is the noun phrase of

²⁷ C.f.: Koster (1978, 57-61).

²⁸ It is a controversial matter in the linguistic literature whether in case of sentences of the form 'It is true that p' an expression of the form 'that p' is part of the verb phrase or whether it occupies a further independent position. The

such a sentence.³⁰ The verb phrase contains as first component another verb phrase 'is true' and as second component the expression 'that p' as an expression of the sentential type. The correlative pronoun 'it' has no semantic function, but it is syntactically dependent on the expression of the form 'that p' in the satellite position. The assumption that in a sentence of the form 'It is true that p' the expression 'that p' does not occupy a topic position, but a *subordinated* position as part of the verb phrase explains that sentences of this form can also be used as components of arbitrary complex sentences. It is therefore a wise choice to interpret the correlative subject thesis on the basis of the alternative interpretation of sentences of the form 'That p is true'.³¹

The alternative account also explains why certain sentences of the form 'It F's that p' cannot be transformed into sentences of the form 'That p F's'. Every verb that can be used in a sentence of the form 'It F's that p' can take a sentential expression of the form 'that p' as argument (=sentential subject), but not all of these verbs can be used in connection with an empty pronoun (or any sort of determiner phrase) that fills the verb's argument position and is related by a syntactic dependence relation to an expression in the topic-position. That is, from a syntactic point of view sentences of the form 'It F's that p' are more basic and sentences of the form 'That p F's' can be derived on the basis of a certain rule of transformation that is sensitive to the status of the argument position of a verb that fills the position of 'F'. Verbs like 'seem' or 'appear' are verbs of the second sort that do not allow the mentioned kind of transformation, but such verbs can be modified to expressions like 'seems to be true' that have an argument position that can be filled by an empty pronoun or a complement expression like 'that p'.³²

In the absence of any plausible alternatives to the dummy subject, the genuine subject and the correlative subject thesis and on the basis of the given arguments and provided evidences, I think, we are justified to hold the thesis that the correlative subject thesis explains the function of 'it' in

hierarchical order of the syntactic components ,it' , ,is true' and ,that p' of such sentences is in general a controversial matter in various syntactic theories. McCawley offers syntactic reasons concerning complex sentences that contain at least two expressions of the form 'that p' in favour of a view similar to the view I have presented in this paper. C.f.: McCawley (1988, 98).

²⁹ It is not necessary to hold the correlative subject thesis in this case. We could also defend the alternative account by claiming that 'it' is a dummy subject and does not syntactically depend on an expression of the form 'that p'. Nevertheless, such a sentence can be transformed into a sentence of the form 'That p is true', which contains the phrase 'that p' in a topic position as an isolable semantic unit. So the truth of the dummy subject thesis is compatible with the falsity of the fragment and the non-singularity thesis. But because I think that the given argument against the dummy subject thesis is plausible, I commit myself to the correlative subject thesis.

³⁰ C.f.: „We will refer to the word ,it' used in this way as a *clausal substitute*, and to the clause in its new position as a *pseudocomplement*. By this last name we mean that the clause is understood as the subject of the sentence but takes a position that is appropriate for a complement“, in: Baker (1989, 107).

³¹ C.f.: Alrenga (2005, 177).

³² C.f.: Alrenga (2005, 196-199).

sentences of the form ‘It is true that p’ in the most straightforward and best way. The version of the *intuitive attitude* concerning sentences of the form ‘It is true that p’ and ‘That p is true’ I aimed to defend in this paper is committed to this thesis. If we assume the alternative syntactic analysis of sentences of the form ‘That p is true’, we can explain that there are certain syntactic transformations that allow sentences of the form ‘That p is true’ to be transformed into sentences of the form ‘It is true that p’ and vice versa. The correlative subject thesis also commits us to the thesis of semantic redundancy. So it is plausible to claim from a semantic point of view that sentences of the form ‘That p is true’ and ‘It is true that p’ have the same truth-conditions and express the same propositions, because sentences of the form ‘It is true that p’ and ‘That p is true’ are purely syntactic variations of each other – with some important, but purely syntactic differences. So it seems to be plausible to hold the simple and the reductive predicative interpretation as well. This completes the defended version of the *intuitive attitude* concerning sentences of the form ‘That p is true’ and ‘It is true that p’.

(7.0) Bibliography

- Alrenga, Peter (2005): “A sentential Subject Asymmetry in English and its Implications for Complement Selection”, in: *Syntax*, 8, 175-207.
- Baker, C. L. (1989): *English Syntax*, Cambridge, MA: MIT Press.
- Gazdar, G., Klein, E., Pullum, G. and Sag, I. (1985): *Generalized Phrase Structure Grammar*, Oxford: Blackwell.
- Haegeman, L. and Guéron, J. (1999): *English Grammar*, Oxford: Blackwell.
- Holler, Anke (2005): *Weiterführende Relativsätze*, Berlin: Akademie Verlag.
- Horwich, Paul (1998): *Truth*, 2nd Edition, Oxford: Clarendon Press.
- Koster, Jan (1978): “Why Subject Sentences Don’t Exist”, in: Keyser, S. J. (eds.): *Recent Transformational Studies in European Languages*, Cambridge, MA: MIT Press, 53-64.
- Künne, Wolfgang (2003): *Conceptions of Truth*, Oxford: Clarendon Press.
- McCawley, J. D. (1988): *The Syntactic Phenomena of English*, Vol. 1, Chicago: University of Chicago Press.
- Mulligan, Kevin (2010): “The Truth Predicate vs. The Truth Connective. On Taking Connectives Seriously”, in: *Dialectica*, forthcoming.
- Rami, Adolf (2009): *Wahrheit und Deflation*, Paderborn: mentis.
- Rosenbaum, P. S. (1967): *The Grammar of English Predicate Complement Constructions*, Cambridge, MA: MIT Press.
- Wilson, W. K. (1990): “Some Reflections on the Prosentential Theory of Truth”, in: Dunn, J. M. and Gupta, A. (eds.): *Truth or Consequences*, Dordrecht: Kluwer, 19-32.