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Rigidity and Content

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According to the description theory of names, the content of a proper name such as ‘Aristotle’ can be given by a definite description such as ‘the last great philosopher of antiquity’. However, as Saul Kripke conclusively demonstrated in his seminal work, Naming and Necessity, proper names such as ‘Aristotle’ are modally rigid. That is, in every metaphysically possible world in which the actual referent of the proper name exists, the reference of that proper name, when evaluated with respect to that world, is the same as its actual one, and in every metaphysically possible world in which the actual referent does not exist, the proper name does not designate anything else. However, the most plausible candidates for content-yielding descriptions are typically not modally rigid. Following Kripke, philosophers of language have generally concluded that, since there are metaphysical possibilities in which the most plausible content-yielding descriptions differ in extension from the proper names whose contents they allegedly provide, the description theory of names must be false.

However, this argument against the description theory of names relies crucially on the following premiss, which I shall henceforth call the Rigidity Thesis. The premiss is that if a term t is modally rigid, and another term t’ is not modally rigid, then t and t’ do not have the same content. My purpose in this chapter is to contest the Rigidity Thesis.

According to the Rigidity Thesis, a rigid designator and a non-rigid designator cannot have the same content. The Rigidity Thesis is, on the face of it, a thesis about the content of terms. However, according to Frege’s context principle, the content of a term is parasitic upon the content of utterances of sentences containing it.
Thus, it is worth bearing in mind that the Rigidity Thesis is, fundamentally, a thesis about the content of assertions of sentences.

I will level two sorts of arguments against the Rigidity Thesis. In the first section I will argue that any notion of content which satisfies the Rigidity Thesis does not satisfy a fundamental principle linking content to use. If this is correct, then the notion of content which emerges from Kripke’s work is far more problematic than has been previously recognized. In the second and third sections I will argue that the Rigidity Thesis is unmotivated. That is, I will argue that the classical arguments for it are less than compelling.

There are two general models of philosophical explication. The first is rational reconstruction. When one rationally reconstructs a concept, one does not concern oneself with faithfulness to some pre-theoretic notion. Only those features of the intuitive notion that can, in Carnap’s words, be ‘rationally justified’ are to be features of the reconstructed concept. A rational reconstruction is judged by how fruitful the reconstructed concept turns out to be. The second model of philosophical explication is a description of some intuitive, pre-theoretic notion. This should be judged on how much it matches our pre-theoretic intuitions about the concept. Every actual philosophical explication is a confusing mixture of both models.

What is of concern to us in this chapter is the project of giving a philosophical explication of the notion of the content of an assertion. The project of giving a philosophical explication of this notion is no different in the above respect from other philosophical explications. Simply describing ordinary usage of locutions such as ‘what John said’ will certainly not lead to any sort of theoretically fruitful concept. However, completely abandoning any pre-theoretic notion of content may leave us with nothing about which to theorize fruitfully. I begin this section with an attempt to flesh out this project more fully. Within the framework I develop, I will give a more detailed formulation of the Rigidity Thesis. I will then argue for certain principles which any adequate notion of content must meet. Finally, I will argue that a notion of content which satisfies the Rigidity Thesis does not meet one of these principles.

Asserting that $p$ is an act. As Richard Cartwright writes, ‘We sometimes contrast saying (asserting, stating) with doing; but in a wider sense to say something is to do something’. As with any act, we must distinguish the act type from the act token. The act type is asserting that $p$. A token of this type occurs when, on a particular occasion, someone asserts that $p$. But apart from the act type, asserting that $p$, and a given tokening of that type, we must also recognize the content of the assertion. The content of an assertion is not an act; it is not ‘done’. It is, as Cartwright writes, ‘not the sort of thing that can be done’.

At least one of the things which one accomplishes with the act of assertion is to distinguish possibilities. By asserting that $p$, I am distinguishing the possible circumstances in which it is true that $p$, from those in which it is not true that $p$. There are two points to make about this observation. First of all, for many substitutions of different sentences for ‘$p’ and ‘$q’, asserting that $p$ is a different action from asserting that $q$. Now, kicking Paul is a different action from kicking Clem, if Paul is not Clem. Analogously, we account for intuitive distinctions between asserting that $p$ and asserting that $q$ by allowing the possible circumstances to differ in the two cases.

The second point is that the sense of possibility here is completely neutral. It is the sense of possibility invoked when one, in the course of a proof in mathematics, asserts that there are three distinct possibilities. On a straightforward account of mathematical assertion, one cannot take the possibility in question to be metaphysical. What is prima facie metaphysically impossible could very well, from the perspective of this notion, count as possible. Since to assert that $2 + 2 = 4$ is clearly to do something different from asserting that Peano Arithmetic is incomplete, in this neutral sense of possibility, they are true in different circumstances.

The unexplanatory nature of this sense of possibility in question provokes two opposing reactions. First of all, one could, with

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1 For instance, it has been argued that our ordinary intuition that ‘Hesperus is Phosphorus’ and ‘Hesperus is Hesperus’ say different things cannot be preserved on a systematic, reconstructed notion of meaning. But if it could be shown that our ordinary intuition that ‘Bill Clinton is President’ and ‘$2 + 2 = 4$’ say different things also cannot be preserved, we would view the result as casting doubt on the very project of systematically characterizing a notion of content.


3 Ibid. 36.
Robert Stalnaker, attempt to reduce this notion of possibility to metaphysical possibility. On this account, the content of an assertion that p and an assertion that q are the same just in case they distinguish different metaphysical possibilities. One must, however, reanalyse the content of apparent metaphysical impossibilities to make them come out metaphysically possible after all. The second route one could take is to deny that talk of possibility in this context is to be taken as explanatory at all. For if we try to explain the difference in assertoric content between an utterance of ‘2 + 2 = 4’ and ‘PA is incomplete’ by invoking different possible circumstances in which they are true, there may be no other way to describe the different circumstances except by appealing to the difference in assertoric content to be explained. If this is correct, then one does not need to invoke metaphysical possibility at all in distinguishing the contents of assertions: some other account does the required work.

How does one assert that p? The typical method is to utter some sentence. Sentences are sequences of word-types. Utterances are tokens of these sequences produced by utterers. Now, one may utter some sentence, but fail to assert anything at all. For present purposes, we shall abstract away from this possibility, and assume that any utterance of a sentence on an occasion in fact asserts something. Furthermore, in what follows, we consider only utterances of ‘simple’ sentences, that is, sentences not containing any modal vocabulary.

With these distinctions in place, we may now broach the issue of rigidity. I shall take rigidity to be a property of (non-sentential) word-types. The thesis under consideration, stated in terms of the content of an assertion, is as follows. If one utters a sentence containing a rigid term, then one has asserted something different from what one would have asserted had one uttered, on that very same occasion, any sentence differing from the original one only in the substitution of a non-rigid term for the rigid one. Loosely following Michael Dummett's terminological practice, let us say that the content of an assertion which is made by uttering a sentence S is the assertoric content of that utterance of S. Then the thesis under consideration is that if S and S' are two sentences which differ only in that one contains a rigid term where the other contains a non-rigid term, then no two utterances of S and S' can have the same assertoric content.

It will be useful to have a notion of content for sub-sentential expressions. Since assertoric content is fundamentally a property of utterances in contexts, the content of a sub-sentential expression will also be taken relative to a context. We restrict our attention to terms, for simplicity's sake. Consider two terms (word-types), t and t'. We shall say that t has the same content, with respect to a context c, as t', just in case, for any sentence S which contains t as a constituent, an utterance u of S in c would have the same assertoric content as an utterance of a sentence which results from S by replacing t' for t. Then the Rigidity Thesis can be stated as: no rigid term ever has the same content as a non-rigid term. I shall henceforth call this thesis RT.

If RT is not to be trivially false, we must make a further distinction. For sentences could, in a rather intuitive sense, say the same thing in one context, though not in many others. Consider, for example, a context in which it is obvious to all participants that John is a man. In such a context, there may be no felt difference between asserting that John is a bachelor, and asserting that John is unmarried. However, in other contexts, in which John's sex is unknown, there would clearly be such a difference. Similarly, in a context in which it is obvious that John is the tallest man in the room, there may be no felt difference between asserting that John...
likes Mary, and asserting that the tallest man in the room likes Mary. Thus, we must come up with some notion of the content of an assertion, according to which such contexts do not count as refutations of RT.

Though this task requires several idealizations, I think it none the less can be accomplished. For even in contexts in which it is known that John is the tallest man in the room, there is a sense of content in which asserting that the tallest man in the room likes Mary and asserting that John likes Mary have different contents. Let us distinguish what is communicated by an utterance of a sentence from what the utterance of that sentence expressed on that occasion. We shall take both what is communicated as well as what is expressed by the utterance to be objects of the same kind—in vague parlance, ‘truth-conditions’, or ‘propositions’.

The notion of what an utterance of a sentence expresses and what an utterance of a sentence communicates are related by the following principle, which we may call the Expression-Communication Principle, or ECP:

If an utterance u of a sentence S expresses something different from an utterance u’ of another sentence S’, then, generally, for any normal context c, had S and S’ been uttered in c, they would have communicated different things.

Let me briefly say a few words about the concepts invoked in this Principle. By a normal context I mean one in which the speakers are competent with all of the words in the sentences being uttered, and the sentence is used as it standardly is. The notion of a sentence being standardly used perhaps is characterizeable with the use of something analogous to Grice’s ‘central range of speech acts’. By ‘competent speaker’ I mean someone who is considered authoritative with respect to that term in that community. Contexts thus count as normal relative to the sentences being uttered. From now on, I shall use ‘context’ to mean ‘normal context’.

We shall take assertoric content as explicating the notion of what an utterance expresses. ECP reflects the following obvious truth. If utterances of S and S’ express different things, then, in most cases, or generally, there will be differences in what S and S’ are used to communicate in assertions. Thus, ECP reflects the obvious truth that differences in what is expressed should be reflected in a general difference in the use of those sentences in assertions.

It is also worth emphasizing that the legitimacy of the Gricean attempt to reduce applied timeless meaning to utterer’s-occasion meaning depends crucially on the truth of ECP. If ECP is false, then no reduction of literal meaning to intended meaning is possible. However, even one who lacks such reductive aspirations should none the less accept ECP, since even if literal meaning is not reducible to intended meaning, there surely must exist entailment relations between the two.

Suppose RT is true. Then, if t is rigid, and t’ is non-rigid, for any two sentences S and S’ which differ only in that t occurs in the former where t’ occurs in the latter, any utterance of S expresses something different from an utterance of S’. RT is worrisome for the following two reasons.

The first reason is that there seem to be obvious counter-examples. Consider, for example, the two terms ‘the president’, and ‘the actual president’. Suppose Bill Clinton drops by for a surprise visit. I could convey this by uttering either:

1. The President of the United States came by for a visit;

2. The actual President of the United States came by for a visit.

The difference between (1) and (2) does not appear to be a difference in assertoric content. For the difference between utterances of (1) and (2) is not reflected in truth conditions. It is rather one of ‘colouring’, or ‘tone’, like the difference between typical unphilosophical usages of ‘truth’ and ‘absolute truth’. I would use ‘the actual President’, rather than just ‘the President’, not to distinguish different possibilities, but rather for emphasis, to convey my surprise. None the less, one term is rigid, while the other is not, so,


12 Though let me emphasize that such intuitions of what is and is not truth-conditional are, of course, just as defeasible as similar intuitions about what is asserted. For they depend upon a certain conception of what truth conditions are, which may turn out to be theoretically less motivated than another. However, I believe that no notion of truth condition can incorporate everything which Frege called the associations of an expression, and the difference between (1) and (2) is only accountable in terms of this latter category. See Gottlob Frege, ‘Logic’, in his Posthumous Writings, ed. H. Hermes, F. Kambartel, and F. Kaulbach, trans. P. Long and R. White (Chicago, 1959), 126-51, at 139 ff.
according to RT, sentences containing them must say different things.

The second reason why RT is worrisome is more theoretical. As we have seen, the background knowledge of the participants in a context affects what is communicated by an utterance of a sentence. By invoking the distinction between what is expressed and what is communicated, these effects may be mitigated somewhat. Yet surely, what is expressed is linked to what is communicated at least via ECP. But even where S and S' are simple sentences, RT implies that speakers typically communicate different things by uttering them. But what reason is there to believe that the distinction between rigidity and non-rigidity, by itself, provides for the existence of such a difference?

Consider the following example, due to Gareth Evans. Suppose I wish to talk about a world in which the zip was never invented—one in which the inventor of the zip, whoever he may be, went into advertising instead of the business of invention. For this purpose, I may wish to introduce a proper name into the language via the following reference-fixing stipulation:

(a) Let ‘Julius’ denote the inventor of the zip.

I then can proceed to suppose that Julius went into advertising instead, and try to imagine what the world would be like without his invention. Now, according to the Rigidity Thesis, ‘Julius’ and the inventor of the zip have different contents, because ‘Julius’ is rigid, whereas ‘the inventor of the zip’ is not. But if, as seems obvious in this case, competence with the name ‘Julius’ requires knowing the reference-fixing stipulation, then it is by no means clear that two sentences such as:

(3) Julius was born in New York,
(4) The inventor of the zip was born in New York

can ever be used to communicate different things in a normal context, much less be generally used to communicate different things.

Here are two further examples, due to Michael Dummett. Consider the name ‘St Anne’. This name was introduced centuries ago to name the mother of the Virgin Mary, about whom nothing else is known. It is thus plausible that anyone who is competent with the name knows that it refers to the mother of the Virgin Mary. However, ‘St Anne’ is rigid, whereas ‘the mother of the Virgin Mary’ is not. The second example is the name ‘Deutero-Isaiah’, introduced to name the author of the latter half of the book of Isaiah. It is by no means clear that utterances of two sentences, differing only in that one of these terms is replaced by the other, can typically communicate different things. However, RT, conjoined with ECP, implies just this.

More generally, suppose that there is some non-rigid definite description DD such that anyone who uses the name N on a regular basis knows that it denotes the bearer of that name. Then, despite the fact that the name is rigid while the description is not, competent speakers typically would communicate the same thing by an utterance of a sentence containing the name as they would by uttering the sentence with the description replaced by the name. The fact that most proper names do not have the same content as any non-rigid expression seems not so much due to a modal distinction as to the fact that there is usually no one definite description which all speakers who use a name on a regular basis know applies to its referent.

There are two responses the defender of RT could give in reply to these worries. The first would be to bite the bullet, and maintain that despite intuitions to the contrary, rigidity and non-rigidity, by themselves, make a difference to what is communicated. The second response would be to claim that the occurrence of a rigid term in an utterance of one sentence, and a non-rigid term in an utterance of another, is sufficient to conclude that the assertoric contents are different, even if utterances of the sentences typically communicate the same things. This second response thus involves the denial of ECP. Both of these responses require motivation. The

The defender of RT might respond here by maintaining that (1) and (2) conventionally implicate different things, and therefore express different things. For (2) might be said to conventionally implicate that the utterer is surprised at the fact that the president came for a visit, whereas (1) carries no such implication. However, as Grice has often maintained, two utterances may conventionally implicate different things, yet say the same thing. See H. P. Grice, 'Logic and Conversation', in Studies, 22-40, at 25 ff. I believe the difference between utterances of (1) and (2) falls in this category. Even if the conventional implicature exists, it is not of the sort which affects assertoric content, since (2) would be true even if the utterer expected the visit.

One might reply that the term is rigid, since Mary necessarily had whatever mother she had. It is for this reason that Dummett introduces the next example.
first requires an argument that the distinction between rigid and non-rigid expressions does, after all, always affect what is communicated. The second requires an argument that a notion for which ECP does not hold is a notion of content at all.

I shall not treat the first of these responses in this chapter, for there seem to me to be many clear counter-examples. Furthermore, even if there were no actual counter-examples, it certainly is possible to have a language containing names like 'Julius', and this possibility alone is sufficient to refute the first of these responses. Thus, I shall consider instead, in the final two sections, the second of these responses, that is, arguments which imply that utterances of two sentences could have different assertoric contents, even if utterances of them typically would communicate the same thing.

II

In this section I shall discuss how considerations from the formal semantics of natural language bear upon the evaluation of RT. I shall begin by introducing a thesis about content which implies RT. This thesis, as we shall see, follows from a trivial modal semantical fact, if there exist entailment relations between the notion of content discussed in the previous section and modal semantic value. We then consider two theses which, if true, would establish the required entailment relations. The first of these proceeds from general considerations about semantic value, and its relation to content. The second identifies content with modal semantic value. Both of these theses, I shall argue, are false.

In lecture I of Naming and Necessity, Saul Kripke considers two possible versions of a 'cluster of descriptions' theory of names. The sole difference between these two theories lies in the fact that one theory, but not the other, accepts the following thesis: 17

15 Those who are not inclined to confuse the results of formal semantic theory with those of the philosophy of language may skip this section.

16 A terminological note: the expression 'semantic value' is to be interpreted relative to a semantic theory. By the semantic value of an expression relative to a semantic theory T, I mean whatever entity T assigns to that expression via either its axioms or its theorems.


(*) The statement, 'If X exists, then X has most of the φs' expresses a necessary truth.

According to Kripke, the distinction between these two theories can be characterized as follows. On the theory which embraces Thesis (\(\ast\)), the cluster of descriptions gives the meaning of the name, whereas someone who rejects Thesis (\(\ast\)) doesn't think that the cluster is part of the meaning of the name. 18

Instead of 'cluster-theories', let us consider 'one-description' theories. This theory differs from Kripke's in that one accepts, while the other rejects:

\(\ast\) The statement, 'If X exists, then X is the \(\varphi\) expresses a necessary truth.

Such 'one-description' theories are certainly false, and no contemporary philosopher holds such a view. But using this theory will simplify our exposition considerably, without prejudicing the discussion.

Thus, we have two theories of proper names, which differ only in that one embraces, and the other rejects, Thesis (\(\ast\)). As we have seen, according to Kripke, the way to describe the difference between these theories is that according to the one that accepts Thesis (\(\ast\)), the description gives the meaning of the proper name, whereas according to the theory that rejects Thesis (\(\ast\)), it does not. Considering only possibilities in which \(\varphi\) refers, it thus is the case, on Kripke's view, that

If an expression \(\varphi\) has the same meaning as an expression \(\psi\), then the sentence \(\\text{if } \varphi \text{ then } \psi\) must express a necessary truth.

Let us call this the Meaning Assumption, or MA.

What is relevant for our purposes is that a principle very similar to MA implies RT. This principle I shall call the Content Assumption, or CA. It is as follows:

If an expression \(\varphi\) has the same content as an expression \(\psi\) in a context \(c\), then an utterance in \(c\) of the sentence \(\\text{if } \varphi \text{ then } \psi\) must express a necessary truth.

If CA is true, then RT is true. For let \(e\) be some rigid expression, and \(e'\) some non-rigid expression. Then utterances of \(\\text{if } e \text{ is } e'\) are not necessary, and hence, by CA, \(e\) and \(e'\) do not have the same

18 Ibid.
content relative to any context. Whether or not Kripke has, by his acceptance of MA, endorsed CA, depends upon what Kripke intended to express by his use of the term ‘meaning’.

A central concern of Kripke’s was with expressions which had hitherto resisted treatment from the perspective of formal semantics. In particular, Kripke’s semantics revolutionized the study of quantified modal logic. Kripke’s semantics revealed the semantic import of sentences of languages which combined modal operators with quantifiers. This showed why sentences such as the Barcan Formula and its converse made controversial metaphysical claims. Finally, Kripke showed how to develop axiom systems which had the appropriate metaphysical neutrality. 19

The axiom system developed by Kripke in ‘Semantical Considerations’ lacked designators—it contained neither constants nor free variables. 20 But axiom systems which lack constants seem inappropriate as representations of ordinary modal discourse. However, it was well known that adding non-rigid designators led to rather drastic failures of traditional logical laws. If proper names could be shown to be rigid, then the task of representing modal discourse with the use of quantified modal logic would become that much easier. 21

It is thus tempting to take Kripke’s use of an expression such as ‘meaning’ as meaning semantic value in a standard modal semantics. This interpretation of Kripke’s talk of meaning would also justify Kripke’s belief in the obviousness of MA. For if this is what Kripke had intended by his use of ‘meaning’, then MA would be a trivial consequence of the standard definition of identity.

Let ‘Val’ express the denotation function from expressions of the object-language and possible worlds to the extensions of those

20 Free variables were given the closure interpretation, to block the derivation of the Converse Barcan Formula.
21 It is often assumed that the failures of substitution are due to the nature of the terms in the language. However, Robert Stalnaker has persuasively argued that they are due instead to a failure to recognize the difference between an arbitrary formula and a predication. Though present conceptually in the extensional first-order theory, the difference becomes important when one adds intensional operators. If one uses Stalnaker’s version of Substitution, no difficulties result when combining quantified modal logic with a language—suitably emended to account for the above-mentioned difference—containing non-rigid terms. See Robert Stalnaker, ‘Complex Predicates’, Monist (1977).

expressions in those worlds. In other words, $\square \text{Val}(e, w)^1$ denotes the extension of $e$ taken with respect to $w$. If $e$ is a singular term, then $\text{Val}(e, w)^1$ denotes an individual; if $e$ is a predicate-expression, then $\text{Val}(e, w)^1$ denotes a set of individuals; and if $e$ is a sentence, then $\text{Val}(e, w)^1$ denotes a truth-value. Furthermore, assume the following as semantical axioms governing the object-language expressions, ‘$=$’ and ‘$\sim$’:

(a) $\square p^1$ is true iff $\forall w (\text{Val}(p, w) = t)$;
(b) $\text{Val}(\# e = e^1, w) = t$ iff $\text{Val}(e, w) = \text{Val}(e^1, w)$.

If ‘meaning’ in the statement of MA means semantic value in a standard modal semantics, then we may state it as follows:

$(\text{MA}^\circ) \forall w (\text{Val}(e, w) = \text{Val}(e^1, w))$ iff $\square \# e = e^1$ is true.

MA follows trivially from these standard axioms.

However, Kripke’s talk of meaning almost certainly invokes a pre-theoretic concept. Thus, we should resist the temptation to identify his use of the term with semantic value in a modal semantics. One might, however, think that the triviality of MA implies the triviality of CA. That is, one might think that CA is itself a direct consequence of the definition of identity in a traditional modal semantics. But this view is mistaken. For MA, on our interpretation of it, employs the notion of semantic value, which is explicated in terms of functions from possible worlds to extensions. CA, on the other hand, alludes to the intuitive notion of content. One can move from MA to CA only if there exist entailment relations between the possible worlds notion of semantic value, and the notion of content discussed in Section I.

It might be thought that the required entailment relations which allow one to move from MA to CA stem, not from the particular notion of semantic value employed by modal semantic theories, but rather from a more general thesis about the relation of content to semantic value. In particular, one might hold the following thesis, which we shall call the Semantic Value Principle, or SVP:

Sameness of content (relative to a context $c$) implies sameness of semantic value in any interesting, true semantic theory.

Once the theoretical fruitfulness of modal semantics is accepted, SVP allows one to move from MA to CA. For if two terms have

22 Warning: I am also using ‘$=$’ as the sign for the identity relation in the metalanguage.
the same content relative to some context, then the two terms must receive the same semantic value, and in particular, the same modal semantic value.

However, SVP is false. Consider, for example, Kaplan's theory of indexicals.²³ According to Kaplan, utterances by me of 'I study philosophy' and 'Jason Stanley studies philosophy' express the same thing. Thus, relative to certain contexts, 'I' and 'Jason Stanley' have the same content. But these two expressions receive different semantic values according to the semantic theory—they have different 'characters'. These differences in character do not show that the two expressions cannot, relative to some contexts, have the same content.

A denial of RT commits one to the thesis that, relative to some contexts, a rigid designator can have the same content as a non-rigid designator. Thus, a denial of RT commits one to the thesis that the distinction between rigidity and non-rigidity does not always affect content. Just as the semantic differences between 'I' and 'Jason Stanley' do not imply that in contexts in which I use the expressions, they do not have the same content, so, modulo the truth of CA, the semantic differences between a rigid designator and a non-rigid designator do not imply a difference in content relative to simple sentences.

It is also worth while pointing out that even a 'weakened' version of SVP, which states that if two sentences always have the same assertoric content, then they must have the same semantic values, is false. A classical failure of weakened SVP comes from the tense logical treatment of 'now'. Any utterance of a simple sentence, such as:

(5) John is running

is obviously equivalent in assertoric content to what would be expressed by an utterance, in the same context, of:

(6) Now, John is running.

But utterances of (7) and (8) equally obviously differ in assertoric content:

(7) It will be the case that John is running.

(8) It will be the case that now, John is running.


But one does not want to infer, from the possible divergence in truth-value between (7) and (8), to a divergence in what is expressed by utterances of (5) and (6). None the less, to account for (7) and (8), there will have to be some difference in the semantic clauses for (5) and (6), that is, some difference in their semantic value.

Indeed, the central problem logicians faced in introducing an operator expressing 'now' into tense logic was to maintain the intuitive equivalence of (5) and (6), without (false)ly predicting that (7) and (8) would receive the same truth-value.²⁶ That is, how to give a semantics which allows

(a) $\phi \leftrightarrow N\phi$

to be valid, but invalidates:

(b) $F\phi \leftrightarrow FN\phi$

and its ilk.²⁵

Thus, from the fact that utterances of two sentences, such as (5) and (6), always have the same assertoric content, one cannot conclude, with weakened SVP, that they must be assigned the same semantic value.²⁶ The explanation for the failure of weakened SVP is that semantic values are assigned in order to explain how an expression embeds in more complex constructions. However, two sentences could embed differently, yet none the less 'say the same thing'. As Dummett writes:

Someone who is able, for a given sentence, to classify specifications of possible states of affairs into those that are adequate for an assertion made by uttering it, as a complete sentence, on any given occasion, and then to

²⁵ In order to achieve this result, tense logicians, following Hans Kamp, give different semantics for $\phi$ and $N\phi$. The truth of a formula is taken relative to a pair of times: the time of evaluation and the time of utterance. A formula $N\phi$, considered as evaluated with respect to $t$ and as uttered at $t'$, is true just in case $\phi$ is true, considered as evaluated with respect to $t'$ and as uttered at $t$. To make (a) valid, consider only those pairs $<t', t>$ of times in evaluating the truth of a formula in an interpretation. Cf. Kamp, 'Formal Properties', 239, definition 16.
²⁶ Another example of the failure of weakened SVP, due to Michael Dummett, is the differences between $A$ and $TA$ on a three-valued semantics. Utterances of these sentences say the same thing. Yet they embed differently under negation. If $A$ is truth-valueless, then so is $\neg A$. But in this case, $\neg TA$ is true. See Michael Dummett, The Logical Basis of Metaphysics (Cambridge, 1991), 48. There are many other examples of failures of weakened SVP.
classify the adequate ones into those that render it correct and those that render it incorrect, may be said to know the assertoric content of the sentence. It does not at all follow that he knows enough to determine its contribution to the assertoric content of complex sentences of which it is a sub-sentence. What one has to know to that may be called its ingredient sense; and that may involve much more than its assertoric content. Ingredient sense is what semantic theories are concerned to explain.\(^{27}\)

Semantic value is intended as an explication of what Dummett calls ingredient sense, rather than assertoric content.

Thus, SVP is false. Two expressions may have the same content, relative to some contexts, despite the existence of significant semantic differences between them. Hence, there must be something special about modal semantic value, such that any difference in it implies a difference in content. One particularly clear way of establishing this connection is via the following thesis:

The content of an occurrence of an expression is its semantic value according to a standard possible-worlds semantics.

Let us call this thesis, the Modal Account of Content, or MAC for short. According to MAC, what is asserted by a sentence is the set of metaphysically accessible worlds in which that sentence is true, and the content of a complex expression is derived from the content of its parts, in a manner reflected by an appropriate semantical derivation.

MAC, together with MA\(^6\), entails CA. For assume MAC is correct, and consider uses of two expressions e and e'. If they are assigned the same content, then, by MAC, they express the same function from metaphysically possible worlds to truth-values. Thus, by MA\(^6\), an utterance of \(\square \ e = e'\) is true. But, by MAC, the semantic value of the utterance \(e = e'\) is the set of metaphysically possible worlds in which the sentence is true. Hence, the sentence \(e = e'\) expresses something necessary.

However, MAC is obviously false. No one believes that the assertoric content of an utterance of ‘2 + 2 = 4’ is the same as the assertoric content of an utterance of ‘Peano Arithmetic is incomplete’. The only view known to me which might be thought to support MAC is that of Robert Stalnaker. After all, Stalnaker takes what is expressed by a sentence to be a set of possible worlds.

\(^{27}\) Dummett, The Logical Basis of Metaphysics, 48.

However, upon closer inspection, it can be seen that Stalnaker’s theory does not actually embrace MAC. For Stalnaker believes that ‘both demonstrative expressions and proper names are rigid designators—terms that refer to the same individual in all possible worlds’.\(^{28}\) Thus, he holds that:

(9) \(\Box \text{Hesperus is Phosphorus}\)

is true. If Stalnaker embraced MAC, then he would consequently hold that utterances of:

(10) \(\text{Hesperus is Phosphorus}\)

expressed the necessary proposition. Yet, for Stalnaker, utterances of (10) do not express the necessary proposition. Rather, they are contingent; they express Stalnaker’s ‘diagonal proposition’. Thus, what is expressed by an utterance of (10) is not always—and in fact is rarely—what it is predicted to be on a traditional modal semantics. Indeed, on Stalnaker’s theory, MAC fails rather badly.

It is worth pausing to comment on Stalnaker’s seemingly paradoxical view that, though an utterance of (10) is contingent, (9) is none the less true. Surely the most natural reading of a sentence such as (9) is that it attributes necessity to ordinary utterances of (10). What is going on? I believe that what is really behind his theory is a denial of at least the spirit of CA. What underlies endorsing the contingency of an utterance of (10), and the truth of (9), seems to be the recognition that in certain cases the metaphysical status of an utterance is irrelevant to its assertoric content. Stalnaker’s treatment of (10) reveals a sensitivity to the deep connection between the notion of assertoric content, on the one hand, and informativity, on the other.\(^{29}\) But by accounting for this informativity in terms of metaphysical contingency, he seems to be conflating the very distinctions which Kripke correctly drew.\(^{30}\)

Be that as it may, though Stalnaker at least believes that a traditional modal semantics provides the right kind of meaning for an utterance—a set of possible worlds—he still does not think that the semantic value of an utterance of any sentence is simply the set


\(^{29}\) See e.g. ‘Assertion’, 284, principle 1.

\(^{30}\) Of course, he is knowingly conflating these distinctions, in order to solve the problem of intentionality.
of metaphysically accessible worlds in which it is true. But most other philosophers reject MAC on different grounds. According to a typical view, for example, the correct semantic theory is one that assigns to utterances not sets of possible worlds, but rather structured propositions of one form or another. Thus, this view rejects MAC because traditional modal semantics does not provide the correct semantical paradigm for utterances. None the less, on this view, RT is true.

If RT could be shown to be true, then ECP would be false. Thus, it is crucial to see whether an argument for RT can be provided. In the next section we turn to more general considerations about the relation between assertoric content and modal status which could provide a basis for RT.

III

In this section I first consider an argument that RT follows from 'ordinary language' considerations. I shall conclude that this argument is flawed and, more generally, that arguments for RT depend upon questionable assumptions about the relation between assertoric content and metaphysical possibility. Finally, I shall end with a positive suggestion—really a proposal for future research—about the proper place of the distinction between rigid and non-rigid expressions.

The following argument for RT can be culled from the preface to Naming and Necessity. Let t be a rigid term, and t' a non-rigid one. Now consider the following two simple sentences:

(11) t is t.
(12) t is t'.

Surely, what an utterance of (11) says is (metaphysically) necessary. But, given our assumptions, what an utterance of (12) says is not necessary. But then, by Leibniz's Law, what an utterance of (12) says and what an utterance of (12) says cannot be the same thing. Hence, the assertoric content of (11) is different from the assertoric content of (12). But (11) and (12) are simple sentences. Hence, t and t', by the definition of content in Section I, have different contents.

To evaluate this argument, consider a variation of it. Take the following two sentences:

(13) Mary is a motorcycle mechanic, but she is interested in refuting anti-realism.
(14) Mary is a motorcycle mechanic, and she is interested in refuting anti-realism.

Suppose John utters (13), and Bill utters (14). Now, what John said presupposed that motorcycle mechanics generally are not interested in anti-realism, but what Bill said did not presuppose this. Since John uttered (13) and Bill uttered (14), we thus may conclude, by Leibniz's Law, that what an utterance of (13) says and what an utterance of (14) says cannot be the same thing. Hence, the assertoric content of an utterance of (13) is different from the assertoric content of an utterance of (14).

However, for those who accept talk of presupposition, utterances of (13) do have the same assertoric content, or truth conditions, as utterances of (14). The fact that different utterances give rise to different presuppositions does not imply a difference in truth conditions. A presupposition theorist would not (and should not) be swayed in her conviction by the fact that English speakers regularly use such locutions as 'what John said presupposes'. Clearly, only a theoretical argument to the effect that no principled distinction between what is presupposed and what is asserted can be drawn would threaten the presupposition theorist's position.

More generally, once one begins to take ordinary uses of 'what is said' at face value, no two distinct terms will have the same content. For instance, suppose John utters:

(15) Bachelors are unmarried men.

Suppose that Bill does not know the meaning of the word 'bachelor'. A perfectly ordinary way of describing what occurred would be to say that what John said was news to Bill. Yet of course what (16) says would not be news to Bill:

(16) Bachelors are bachelors.

Thus, since what (15) says is news to Bill, and since what (16) says is not news to Bill, we may conclude, by Leibniz's Law, that what (15) says and what (16) say are different; that is, that they have
different assertoric contents.31 Since (16) results from (15) by substituting the term ‘bachelors’ for ‘unmarried men’, the two terms have different contents.

Obviously, something is wrong with this sort of argument. The illegitimate step is the last one. Bill is not a competent user of the word ‘bachelor’. Hence, whether an utterance containing that word is news to Bill has nothing to do with its assertoric content. Similarly, Kripke’s argument is something of a non sequitur. What needs to be established is that the modal status of an utterance is relevant to its assertoric content. That is, what needs to be shown is that (metaphysical) necessity and contingency are properties of the assertoric content of an utterance. For it is only then that we can use Leibniz’s Law to conclude that a difference in modal status entails a difference in assertoric content. But Kripke’s argument assumes, rather than argues, for this thesis.

None of this would be news to Kripke. Kripke himself does not take his ordinary language argument as decisive, but rather relegates it to the status of ‘indirect evidence’.32 The only reason I have dwelt upon it is because it seems to be the only argument advanced by Kripke which, if true, would demonstrate the truth of RT. Another consideration raised by Kripke which could be marshalled in support of RT is, in his words, ‘that we have a direct intuition of the rigidity of names, exhibited in our understanding of the truth-conditions of particular sentences’.33 It would be difficult to account for this intuition, unless we suppose that the rigidity of a term affects what we understand (i.e. the assertoric content).

Kripke’s appeal to intuition here raises difficult questions about the role of intuition in philosophical theorizing. There is no question that certain kinds of intuitions are crucial in philosophy. Examples of these include a speaker’s intuitions about different possible interpretations of a given sentence, or, in the case of

Ethics, clear intuitions about the rightness of a given act. However, Kripke’s intuition is not an instance of either of these kinds.

The notion of truth condition is one which itself requires a philosophical explication. Thus, the thesis that rigidity is relevant for individuating the truth conditions of unmodalized sentences is a philosophical thesis. Now, a philosophical thesis can be justified by appealing to ‘lower-level’ intuitions which the philosophical thesis helps explain. For instance, a philosophical thesis about content gains support if it accounts for ‘lower-level’ intuitions of the form: an utterance u of a sentence S says something different from an utterance u’ of a sentence S’.34 But Kripke’s intuition is not a ‘lower-level’ intuition. Rather, it is a ‘direct’ intuition about the truth of a substantive philosophical claim.

Some might maintain that this fact automatically shows the illegitimacy of Kripke’s appeal to intuition.35 However, I think it is incorrect to discount the intuition on these grounds alone. The correct response is rather to grant that there is some intuition which underlies Kripke’s remarks, but to deny that it has the consequences which Kripke believes it to have. What should be granted to Kripke is that a grasp of rigidity is required for some (perhaps quite important) uses of proper names. But if one wishes to use the intuition in support of RT, then one must provide an argument to the effect that the relevant use is the use of proper names in the speech act of assertion.

One such argument might come from a consideration of the notion of a truth condition. For surely, it might be argued, the notion of truth condition is a modal notion. However it is explained, it should fall out that knowing the truth condition of a sentence implies knowing in what possible circumstances the sentence is true. Since the sentences:

(17) Aristotle was fond of dogs
(18) The last great philosopher of antiquity was fond of dogs
do differ in truth value in some metaphysically accessible world, then surely their truth conditions are different.

The problem with this argument is that it presupposes that the

31 Kripke’s original argument proceeds by considering propositional anaphora, signalled by the use of ‘that’. However, ‘that’, if anything, is even looser than ‘what is said’. Consider, for instance, the naturalness of such locutions as ‘That’s news to me’.
32 See e.g. Kripke, Naming and Necessity, 23: ‘[V]arious secondary phenomena, about ‘what we would say’, such as the ones I mention in the monograph and others, give indirect evidence of rigidity’.
33 Kripke, Naming and Necessity, 14. This consideration is advanced more in support of claims other than CA and RT.
34 Of course, these lower-level intuitions are, as I have been emphasizing throughout, none the less quite defeasible.
Rigidity and Content

First of all, there is a well-supported notion of truth condition according to which not every metaphysically possible circumstance is relevant for individuating assertoric content. Consider again the relation between ‘The F’ and ‘The actual F’. As we saw in Section I, utterances of simple instances of the schema, ‘The F is G’ and ‘The actual F is G’ seem to have the same assertoric content. Why do we seem to have the intuition that utterances of such sentences say the same thing, despite the fact that they typically differ in truth-value in some metaphysically accessible world? One explanation is that the link between modality and truth conditions only implies that sameness of truth conditions entails that in every possible situation in which the words have the meaning they actually do, whenever one of these is uttered truly, the other could have been uttered truly instead.36 That is, if two utterances u and u' have the same assertoric content, then in any possible circumstance in which u is uttered, u' could have been uttered, without a change in truth-value.

Notice that ‘any possible circumstance’ cannot be construed as any metaphysically possible circumstance. For there are metaphysically possible circumstances in which the meanings of the words differ. If this is indeed the constraint which modal notions place on sameness of truth conditions, then only those possibilities are relevant in which the words have the meaning they actually do.37 Thus, if this conception of truth condition is correct, not every metaphysically possible world can be considered relevant in individuating the content of an assertion.

The second difficulty facing the defender of the truth-condition argument is that, even if the correct explanation of truth condition

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36 The distinction between this conception of truth condition and the Kripkean conception of truth condition has its roots in the distinction that is standardly made between strong (or ‘traditional’) validity and weak validity in logics for indexical expressions (e.g. Kaplan, 'Demonstratives', 54ff., and Harold Hodes, 'Axioms for Actuality', Journal of Philosophical Logic, 13 (19847), 27-34, at 28). According to the Kripkean conception of truth condition, if two utterances of φ and ψ in context c have the same truth conditions, then an utterance in c of ‘φ ψ’ must be strongly valid, whereas on the other conception of truth condition, if two utterances of φ and ψ in context c have the same truth conditions, then the sentence ‘φ ψ’ need only be weakly valid.

37 Places in which it is argued that this is the correct modal constraint on truth conditions include Dummett's appendix on Kripke in The Interpretation of Freges Philosophy (see esp. 965), Gareth Evans, 'Reference and Contingency', in his Collected Papers (Oxford, 1985), 178-213, at 207, and, most explicitly, in Martin Davies and Lloyd Humberstone, 'Two Notions of Necessity', Philosophical Studies, 38 (1980), 1-30, esp. 16-17.

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[Further text continues on the next page.]
is not that just suggested, it is still difficult to see why every metaphysical possibility should be relevant for individuating assertoric content. When (17) is uttered (in a non-modal context), why should every esoteric metaphysical possibility be relevant in accounting for successful communication between competent speakers? If understanding an utterance of (17) requires being able to distinguish between possibilities, then surely only those possibilities that are 'open' in some epistemic sense, are relevant.

That the argument from truth conditions is often appealed to in support of RT is a touch ironic. For a central moral of Kripke’s work is that many philosophical arguments, such as that for the contingency of identity, fail because they equivocate between different senses of the term ‘possible’. Stemming, as it does, from pre-Kripkean times, it is difficult to avoid the suspicion that the alleged relation between the content of an assertion and metaphysical possibility is supported by precisely the type of equivocation between senses of possibility which Kripke warned us to avoid.40

As we have seen, the ultimate motivation for RT is the idea that a necessary condition for two utterances to have the same assertoric content, or truth conditions, is that they have the same truth-value when evaluated with respect to every metaphysically possible world. This is a significant, non-obvious thesis about the identity conditions of assertoric contents. It thus requires either some independent justification, or the production of a philosophically interesting notion of content according to which it is obvious. It remains to be seen whether either of these tasks can be accomplished.

Before we conclude, I would like to make one positive, albeit tentative, suggestion concerning the proper place of the distinction between rigid and non-rigid expressions. As we have seen, the thesis that modal properties hold of the content of assertions implies the Rigidity Thesis. Thus, if the Rigidity Thesis is false, then so is the thesis that modal properties hold of the content of assertions. However, this raises the following puzzle. If, as I in essence have been arguing throughout, modal properties do not hold of the contents of assertions, from what do the modal properties of an utterance arise? Necessity and contingency are not merely properties which hold fundamentally of utterances. Rather, they stem from some deeper source.

I believe it fruitful to locate semantic differences between expressions which do not always affect the content of assertions in the use of those expressions in other speech acts. In accordance with this, my suggestion is that the modal semantic value of an expression arises, not from its use in assertions, but rather fundamentally from its use in the speech act of counterfactual supposition. Our assertions are made with a background of shared presuppositions, some of which serve to fix the references of our expressions. A central purpose of supposition is to suppress these often quite fundamental presuppositions, and to imagine what the world would be like if they were false. Rigidity allows us to speak of the denotations of our expressions in counterfactual situations in which our shared assumptions do not hold. But this does not show that rigidity affects the content of ordinary assertions, where competent speakers may always employ these presuppositions.

Conclusion

Our discussion has left several questions open. Most markedly, we have not attempted a positive account of the relation between the intuitive notion of assertoric content and semantic value. The relation between these notions raises several issues. For instance, ‘The President is the president’ and ‘The actual President is the president’ have the same assertoric content, but the assertoric content of the two sentences that result from embedding them respectively under ‘It is (metaphysically) possible that’ do not. Yet to say that two sentences can share the same assertoric content, but contribute different things to the assertoric content of sentences containing them, is simply to deny that there is a function which maps the assertoric content of the parts onto the assertoric content of the whole. Thus, the intuitive notion of assertoric content is not compositional. Attempts to represent the assertoric content of an utterance as a semantic value, which I believe to be a central

40 Ludwig Wittgenstein, Tractatus Logico-Philosophicus (New York, 1988), is generally thought to contain the first formulation of the truth condition argument. Yet it is obvious from 4.464 of the Tractatus (p. 99) that Wittgenstein fails to distinguish between epistemic and metaphysical necessity. Carnap, the other famous pre-Kripkean proponent of the truth condition argument, of course completely rejects an independent category of metaphysical necessity. See also Michael Dummett, ‘The Social Character of Meaning’, in his Truth and Other Enigmas (Cambridge, 1978), 420–30, at 423.
motivation behind Stalnaker’s paper, ‘Assertion’, are open to the kind of critique discussed in Section II, precisely because it seems that compositionality is a principle governing semantic values tout court. Whether we should follow Dummett in denying that the intuitive notion of assertoric content is to be directly accounted for by a compositional semantic theory, or follow Stalnaker in altering semantic theory to allow for a more direct expression of this notion, is unclear.41

It is sometimes maintained that, from a certain non-epistemological perspective, the differences between utterances of the sentences ‘Hesperus is Phosphorus’, and ‘Hesperus is Hesperus’ are unimportant.42 What I have been emphasizing in this chapter is that from a perspective motivated by the attempt to give an account of assertoric content which has some relation to use, the differences between rigid and non-rigid terms are unimportant. I do not thereby mean to suggest that rigidity is an unimportant semantic phenomenon. My point is rather that, generally, the philosophy of language has misplaced its consequences.43

41 See Kripke, Naming and Necessity, 20–1, where he gives voice to a similar pessimism about representing the objects of belief as semantic values as Dummett does about so representing the objects of assertion: ‘My view that the English sentence “Hesperus is Phosphorus” could sometimes be used to raise an empirical issue while “Hesperus is Hesperus” could not shows that I do not treat the sentences as completely interchangeable. Further, it indicates that the mode of fixing the reference is relevant to our epistemic attitude toward the sentences expressed. How this relates to the question what “propositions” are expressed by these sentences, whether these “propositions” are objects of knowledge and belief, and in general, how to treat names in epistemic contexts, are vexing questions. I have no “official doctrine” concerning them, and in fact I am sure that the apparatus of “propositions” does not break down in this area.’

42 In particular, by advocates of ‘Russellian Singular propositions’. I do not mean to endorse this position here.

43 I am especially indebted to Richard Cartwright, Richard Heck, and Robert Stalnaker. Without their input, the paper simply could not have been written. Timothy Williamson and Sanford Shieh also merit special thanks. In addition, I have benefited from discussions with George Boolos, Noam Chomsky, Lenny Clapp, Michael Glanzberg, Joe Lau, Peter Ludlow, and Daniel Stoljar.

6

The Realism of Memory

JOHN CAMPBELL

Memory seems to be a way of spanning temporal perspectives: a description of the world formulated at one time is used when describing it at another. So, for example, if I am asked to recall the events of the evening of 17 March 1990, I summon up the description I formulated then, and, with appropriate changes in tense, use it to say how things were then. This procedure assumes that there is a single temporal reality onto which all one’s various temporal perspectives face, so that the judgements I make at one time can be the basis of knowledge at a later time. This characteristic of memory brings our ordinary reliance on it into conflict with any view which opposes realism about the past. My aim in this chapter is to explain more fully the conflict between memory and anti-realism; to show that a kind of realism is engraved in our memories. I shall begin with some remarks on the rationale for anti-realism about the past, and then go on to discuss the conflict with our ordinary reliance on memory.

The motive for anti-realism here has traditionally been a desire not to understand hypotheses about particular past happenings in a way which makes it forever impossible to find out whether they are true.1 It receives extended discussion by the American pragmatists. There is, for example, a good statement of the point in C. I. Lewis:

The assumption that the past is intrinsically verifiable means that at any date after the happening of an event, there is always something, which at least is conceivably possible of experience, by means of which it can be

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1 The classic statement of the problem of scepticism for a realist view of the past is Bertrand Russell, The Analysis of Mind (London, 1921), 159–60.