

Tensed Meaning: A Tenseless Account

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Abstract

If, as the new B-theory of time maintains, tensed sentences have tenseless truth conditions, it follows that it is possible for two sentence-tokens to have the same truth conditions, but different meanings. This conclusion forces a rethink of the traditional identification of truth conditions with meaning. There is an aspect of the meanings of tensed sentences which is not captured by their truth conditions, and which has so far eluded explanation. In this paper I intend to locate, examine and explain this feature of tensed meaning.

1. Introduction

The B-theory of time claims that there are no tensed facts. The old B-theory tried to prove this by showing that tensed or A-series expressions could be eliminated from natural language. It claimed that any tensed sentence (a sentence locating an event or state of affairs in the past, present or future) could be translated, without loss of meaning, by a tenseless sentence (a sentence locating an event or state of affairs in the static B-series). The conclusion it drew from this translatability claim was that, since tensed expressions were not needed to completely describe reality, there is no feature of reality to which they refer. That is, if tense can be eliminated from language without any loss of meaning, that shows that there is, in

reality, no distinction between past, present and future, and no flow of time. As it turned out, the old B-theory of time was wrong about the possibility of eliminating tense from natural language. It is not possible to translate tensed sentences into tenseless sentences without some loss of meaning.

The A-theory of time has always thought that tensed expressions cannot be eliminated from natural language without some attendant loss of meaning. The conclusion it draws from this untranslatability claim is that, since tensed expressions are needed to give a complete description of reality, there is a feature of reality to which they refer. That is, there really is an objective distinction between past, present and future, and time really does flow, in some sense. The new B-theory of time accepts that tense cannot be eliminated from natural language, but denies that this entails that time itself is tensed. Tensed expressions, those that reflect the distinction between past, present and future, and the associated flow of time with respect to this distinction, merely pick out features of our representations of temporal reality, rather than features of temporal reality itself. Thus, according to the new B-theory, tense is a feature of language that picks out no feature of reality. If the new B-theory is right, it follows that tense is both irreducible, (it cannot be eliminated from language without some loss of meaning) and non-referring (there is nothing in reality to which it refers). It is this feature of tensed language that I wish to locate and examine in this paper.

Quentin Smith (1987, 1993) claims to unearth a contradiction in D. H. Mellor's (1981) version of the new B-theory of time. In this paper I defend the new B-theory against this objection. My defence brings into focus the notion of tensed meaning that stands in need of explanation. It transpires that a tensed sentence-token and the tenseless sentence that states its truth conditions both have the same truth conditions, but are untranslatable by each other. Thus, there is an objective difference in meaning between them that cannot be discerned in their truth conditions. What is

this difference? What accounts for it? I take David Kaplan's (1989) distinction between character and content as the model for my account of the notion of tensed meaning. My proposal is to adapt Kaplan's distinction to render it consistent with the token-reflexive version of the new B-theory of time. Ultimately I will strengthen the doctrine of the new B-theory of time that tense is an irreducible feature of language and thought, but not a feature of time at all. Furthermore, my account will supplement this theory of time by providing an account of tensed meaning, a notion that has hitherto remained unexplained.

2. Smith's argument against Mellor's B-theory of time

Quentin Smith (1987, 1993) argues that D. H. Mellor's (1981) version of the new B-theory of time fails.¹ According to Smith, Mellor's theory is self-contradictory. The contradiction is this: since Mellor's theory is a version of the new B-theory, he holds that tensed sentences cannot be translated by tenseless sentences (he subscribes to the untranslatability thesis). The reason that Mellor advances in support of the untranslatability thesis is that no tenseless sentence can translate a tensed sentence because they have different truth conditions. However, he also holds that a tensed and a tenseless sentence-token can state the same fact, and this is equivalent to the claim that they have the same truth conditions. So, Mellor holds both that tensed and tenseless sentences have *different* truth conditions, which is the reason why they cannot translate one another, and that tensed and tenseless sentence-tokens can state the same fact, and thus, must have the *same* truth conditions.

¹ In *Real Time II* (1998) Mellor relinquishes the token-reflexive version of the new B-theory of time that he defended in *Real Time* (1981). He adopts instead a date version of the new B-theory of time. His reason for doing so is that he thinks the token-reflexive version "cannot cope with propositions like 'there are no tokens now', which can be true even though they can have no true tokens." (Mellor (1998) pp. xi-xii) I argue elsewhere (Dyke, forthcoming) that, properly understood, the token-reflexive version of the new B-theory can cope very well with sentences, tokens of which would all be false.

L. A. Paul (1997) defends Mellor against this argument of Smith's. She argues that Mellor is not committed to the second of these inconsistent claims. That is, a tensed sentence and the tenseless sentence that states its truth conditions do not state all and only the same facts, so they don't have the same truth conditions as each other. Using Mellor's examples, the tensed sentence *S*, "It is now 1980", and the tenseless sentence *U*, "*S* occurs in 1980", both state the fact that *S* occurs in 1980. However, *U* states an additional fact, according to Paul. It states that its tokens, if true, are true regardless of when they are tokened. (Paul, (1997) 58) But this is simply false. It is not the case that tenseless sentences state the fact that their tokens, if true, are true regardless of when they are tokened. This is true *of* tenseless sentences, but it is not something that tenseless sentences themselves express. Consequently, unless there is some other fact that *S* states, but *U* doesn't (or vice versa), Mellor must still address Smith's argument.

What are Mellor's options here? On the face of it, he must choose whether or not it is possible for tensed and tenseless sentences to have the same truth conditions. If Smith is right, then making this choice will force him to give up either the untranslatability thesis or the thesis that tensed and tenseless sentence-tokens can state the same fact. If he gives up the untranslatability thesis, then his theory collapses into the old B-theory of time, and it has been conceded that this fails. But if he gives up the thesis that tensed and tenseless sentence-tokens can state the same fact, then he jeopardises his conclusion that time consists just of a B-series. This is because it leaves room for the A-theorist to argue that there are facts which can be stated only by tensed sentence tokens, namely, tensed facts: facts about the pastness, presentness or futurity of events. But Mellor wants to deny that reality contains any tensed facts.

Perhaps the obvious question to ask at this juncture then is this: is it possible for a tensed and a tenseless sentence to have the same truth conditions? Returning to

the examples used above, consider a token *S* of “It is now 1980” and a token *U* of “*S* occurs in 1980”. *S* is a token of a tensed sentence and *U* is a token of a tenseless sentence. According to Mellor’s version of the new B-theory of time, *U* states *S*’s truth conditions. That is, *S* is true if and only if *S* occurs in 1980. But do *S* and *U* have the same truth conditions as each other? What are the truth conditions of *U*? *U* is true if and only if *S* occurs in 1980. So *S* and *U* do have the same truth conditions. They are both true if and only if *S* occurs in 1980. But Mellor maintains that they do not have the same truth conditions. What reasons does he give for this curious claim? He argues that *S* and *U* cannot have the same truth conditions because *S* is a token of a sentence-type whose tokens can have different truth-values, while *U* is a token of a sentence-type whose tokens all have the same truth-value. And no two sentences that are this different can possibly translate each other.

Mellor is conflating talk of sentence-types with talk of sentence-tokens. The difference between tensed and tenseless sentences that he points to as the reason why they cannot translate each other is a difference between tensed and tenseless sentence-types. But the question at issue is whether a tensed sentence-token can have the same truth conditions as a tenseless sentence-token. He writes:

S is true if and only if it occurs in 1980. If a sentence giving another’s truth conditions means what it does ... *S* should mean the same as “*S* occurs in 1980”. But these sentences have different truth conditions. In particular ... if *S* occurs in 1980 that is a fact at all times. You need not be in ... 1980 to meet true tokens of ... “*S* occurs in 1980”. But you do need to be in 1980 to meet [a true token of] *S*.

(Mellor (1981) p. 74).

The difference referred to by Mellor is a difference between tensed and tenseless sentence-types, and not between tokens of those types. It is true that the truth-values

of tokens of tensed sentence-types vary according to when they are produced. For example, two tokens of the sentence-type “The ceremony is over” may have different truth-values, because one is produced before the end of the ceremony, and the other just after. It is also true that the truth-values of tokens of tenseless types do not vary according to when they are produced. For example, two tokens of the sentence-type “The party occurs after the ceremony” will have the same truth-value regardless of when they are produced. Either they are both true, or they are both false. But the behaviour of sentence-types is irrelevant to considerations of whether a *particular* tensed token has the same truth conditions as a *particular* tenseless token. And using Mellor’s own examples we can see that they can have the same truth conditions. *S* (a token of a tensed sentence-type) and *U* (a token of a tenseless sentence-type) have the same truth conditions. Pointing to differences between the types of which they are tokens cannot undermine this fact.

It is worth remembering that the reason why Mellor wishes to deny that the tokens *S* and *U* have the same truth conditions is that he believes that this provides him with grounds for denying that *S* and *U* can translate each other. If he is forced to concede that they do have the same truth conditions, as it seems that he is, does he thereby relinquish his grounds for denying that they can translate each other? I will argue that, from the fact that *S* and *U* have the same truth conditions, it does not follow that they can translate each other. So, *pace* Smith, Mellor’s theory does not collapse into the old B-theory of time.

The new B-theory of time accepts that tensed sentence-tokens are untranslatable by tenseless sentence-tokens. The main argument for this thesis is that a tensed sentence-token and a token of the tenseless sentence that states its truth conditions do not convey the same information. Gale (1968) argued that tensed sentences entail tenseless sentences, but the converse entailment does not hold. For example, the tensed sentence “*X* is present and *Y* is future” entails the tenseless

sentence “X is earlier than Y”, but the latter sentence entails nothing about the A-series locations of X and Y. In an earlier paper (Gale (1962)), he illustrates the difference in the information conveyed by tensed and tenseless sentences using the following example. Joe’s job is to inform his military company when the enemy are within 100 yards of their position. If Joe shouts the tensed sentence “The enemy are now within 100 yards” his company is duly warned of their position and may take appropriate action. If, however, he tries to capture the information contained in this tensed sentence in terms of the tenseless relations between the event he is reporting and his utterance of the sentence, or the time at which he utters it, he will be unable to warn the company of the danger. If, for example, Joe shouts “The enemy are within 100 yards at 2.15pm”, his company will not be warned unless they know that it is *now* 2.15pm, and this is a piece of tensed information. The conclusion that Gale draws from his arguments is that, since tense cannot be eliminated from language without also eliminating the ability to convey certain information, time itself must be tensed. The emergence of the new B-theory of time showed that this conclusion is unwarranted. Even though tense cannot be eliminated from language, all that follows is that language and thought are irreducibly tensed; time itself need not be.

So, a tensed sentence-token and the tenseless sentence that states its truth conditions (according to the new B-theory of time) do not convey the same information, and thus they are not synonymous with each other and cannot translate each other. A token, *u*, of “The enemy is now approaching” and the tenseless sentence “The enemy’s approach is simultaneous with *u*” do not mean the same thing. This fact, however, as we have seen, is no impediment to their having the same truth conditions. The obtaining of the same state of affairs in the world (the simultaneity of *u* and the enemy’s approach) is necessary and sufficient for the truth of both of them, despite the fact that they cannot translate each other.

The same is true of Mellor's own examples of a token *S* of "It is now 1980" and a token *U* of "*S* occurs in 1980". They both have the same truth conditions, but they cannot translate one another. Indeed, the reasons Mellor gives for thinking that tensed and tenseless sentences do not have the same truth conditions (Mellor (1981) p. 74), are actually reasons why they do not have the same meaning.

With this resolution of the problem facing Mellor's theory, the token-reflexive version of the new B-theory of time is safe. One question, however, remains unanswered. It is commonly thought that the truth conditions of a sentence-token are supposed, in some sense, to give its meaning, or at the very least that there is some significant connection between a sentence's truth condition and its meaning.² However, as the foregoing discussion has shown, it is possible for two sentence-tokens to have the same truth conditions while having different meanings. So, it is possible for there to be an objective difference in meaning between two sentence-tokens that is not discernible in their truth conditions. Having the same truth condition is necessary, but not sufficient, for having the same meaning. What is this difference in meaning?

3. A difference in sense

In presenting her date version of the new B-theory of time, Michelle Beer (1988) suggests that a tensed sentence-token and the tenseless sentence that states its truth conditions are co-reporting, but differ from each other in sense. They are co-reporting in that they report the existence of the same state of affairs, or the occurrence of the same event. So, for example, the tensed sentence-token, *c*, "It is now raining" uttered at *t*, and the tenseless sentence, *d*, that, according to Beer, states *c*'s truth conditions "It rains at *t*" both report the existence of the same state of affairs. They both report that it rains at *t*. But since they cannot translate each other, they differ from each other in sense. Unfortunately, Beer does not offer any further

² See, for example, Davidson (1967, 1990), Devitt and Sterelny (1999) p. 20.

thoughts on the nature of this difference in sense. She has merely identified, but not addressed the problem.

Quentin Smith (1990) seeks to remedy this situation by arguing that Beer's co-reporting theory is consistent with the claim that, of the co-reporting sentence-tokens *c* and *d*, only *c* ascribes an irreducible tensed property to the state of affairs reported by it. Furthermore, he claims, the difference in sense between *c* and *d* just is the fact that *c*, but not *d*, performs this additional linguistic function. So, it seems that Smith is prepared to accept the claim of Beer's co-reporting theory (and of the new B-theory in general) that *c* and *d* both report the existence of the same tenseless state of affairs. But he wishes to add to it the claim that the tensed sentence-token ascribes an irreducible, monadic property of presentness to the state of affairs reported by both sentence-tokens.

This cannot be right, and for the following reason. Smith acknowledges, by accepting Beer's premises, that sentence-tokens *c* and *d* have the same truth conditions, but since they cannot translate one another, they differ in meaning. Since they have the same truth conditions, the difference between them in meaning, whatever it is, is not to be found at the level of truth conditions. Each sentence picks out the very same extra-linguistic entities and ascribes the very same properties to them and relations between them. But to argue, as Smith does, that the difference between them in meaning consists in the fact that only one of them ascribes a monadic tensed property to these extra-linguistic entities is to deny that the difference between them is not to be found at the level of truth conditions. It is, rather, to claim that there *is* a difference between them in the extra-linguistic entities they each pick out, since one, and only one, of them picks out a monadic tensed property as a constituent of reality. A difference such as this would reveal itself in the truth conditions of *c* and *d*.

However, despite the fact that Smith's attempt to identify the sense of a tensed sentence token is unsuccessful, it may be the case that the difference in meaning between *c* and *d* is explained by the fact that they have different senses. After all, this case is not dissimilar to Frege's puzzle of identity, in which there is a difference in meaning between two sentences that is not discernible at the level of reference. The expressions "the Morning Star" and "the Evening Star" have the same referent, but they differ in sense. They each convey different information about their common referent. It may be that the way in which they differ is the same as the way in which "now", uttered at time *t*, differs from "at *t*", as these are also expressions with the same referent but different meanings.

Perry, Castañeda,³ and others, noted that indexical expressions have roles. The role of the indexical "now" is that it refers, on any occasion of utterance, to the moment at which it is uttered. The role of the indexical "here" is that it refers, on any occasion of utterance, to the place at which it is uttered. Can we identify the role of an indexical with its sense?

There are a number of reasons for thinking that the role of an indexical is equivalent to the sense of a non-indexical expression in the way Frege intended. Firstly, according to Frege, the sense of a non-indexical expression determines its reference.⁴ An expression picks out the extra-linguistic entity that is its referent in a particular way. It is this way in which the referent is picked out, the mode of presentation of the referent, that is its sense. Co-referring terms pick out their common referent in different ways, and thus differ from each other in sense. The role of an indexical also determines its referent. For any occasion of utterance, an indexical expression picks out a feature of its context of utterance as its referent on that occasion. Secondly, Frege insists that senses are objective features of an

³ Perry (1977, 1979), Castañeda (1989).

⁴ Frege, (1892) p. 61.

expression's meaning.⁵ By this he means that they are publicly available: when we grasp the sense of an expression, we each grasp the same thing. The role of an indexical expression is also publicly available: when we learn how to use an indexical expression, we each learn the same thing. Finally, the sense of an entire assertoric sentence is the thought it expresses, and it is made up of the senses of its constituent expressions.⁶ A sentence containing an indexical expresses a complete thought. If that thought is made up of the senses of its constituent expressions, then it follows that the indexical expression possesses a sense.

Despite these similarities between senses and roles, John Perry⁷ has presented powerful arguments against the idea that the role of an indexical can be subsumed under the notion of a Fregean sense. According to Perry, indexicals pose a problem for Frege because, for example, if "today" has the same sense on Monday as it has on Tuesday, then a sentence containing it must express the same thought on both occasions. But if two tokens of a sentence express the same thought, then they cannot differ in truth-value. A Monday token of "The games commence today" may be true, while a Tuesday token of the same sentence is false. So "today" cannot contribute the same sense to this sentence on each occasion. An alternative might be to say that the sense of "today" changes from day to day. But the role of "today" (ie, what we know when we know how to use the word correctly) doesn't change; it always picks out as its referent the day on which it is uttered.

Frege's account of sense has two components, which cannot both be satisfied by the role of an indexical. Firstly, sense determines reference, but since different tokens of an indexical have different referents, it follows that they must each have different senses. Secondly, the sense of an expression is objective (capable of being

⁵ Frege, (1892) p. 60.

⁶ Frege, (1892) p. 62.

⁷ Perry (1977).

grasped by any language user) and invariant between occasions of use. Now, while the role of an indexical remains invariant across occasions of use, and can be grasped by each language user, it picks out a different referent on each occasion of use, so the role cannot be the sense. The problems of attributing a Fregean sense to indexicals are particularly acute in the case of “I”. The reference of “I” changes from language user to language user, and so, therefore, must the sense. It follows that the sense expressed by “I”, would be unique and private to each individual, which contravenes Frege’s requirement that senses be objective and available to all. Thus, Perry concludes, and I think he is right, that indexicals do not have Fregean senses.

4. Kaplan’s distinction between character and content

In the remainder of this paper I present my own account of the nature of tensed meaning. My account draws on Kaplan’s distinction between character and content. However, Kaplan’s account of this distinction naturally generates a date version of the new B-theory of time, which, as I have argued elsewhere,⁸ is flawed. I will discuss Kaplan’s distinction in his own terms and show how it can apply to the difference in meaning between tensed and tenseless sentences that have the same truth conditions. I will then show how Kaplan’s central insights can be preserved within the token-reflexive version. Finally I will develop an account of the distinction between character and content that is consistent with the token-reflexive version of the new B-theory of time.

Kaplan (1989) identifies two different kinds of meaning. The first kind of meaning is the *content*, or “what is said” (Kaplan (1989) p. 500). The content of an utterance of the sentence-type “Grass is green,” is that *grass is green*. At the risk of sounding trivial, that is its content because that is what the sentence says. Now, suppose I produce an utterance of the sentence-type “I am going to the opera tomorrow” on Friday, and Fred produces an utterance of the same sentence-type on

⁸ Dyke, (forthcoming).

Tuesday. Suppose it is the case that I am going to the opera on Saturday, and Fred is going to the opera on Wednesday. Each of our utterances is true, and they are utterances of the very same sentence-type. However, it cannot be denied that each utterance says something different from the other. My utterance is about me and Saturday's opera. Fred's is about Fred and Wednesday's opera. The utterances have different contents, even though they are utterances of the same sentence-type.

A sentence with no context-dependent components has the same content in every context in which it is uttered. For example, the sentence "The 2000 Olympics take place in Sydney" will have the same content in every context in which it is uttered. Context-dependent sentences, on the other hand, can express different contents in different contexts. Furthermore, tokens of different sentence-types can express the same content as each other in the appropriate contexts. For example, a token uttered by me of "I am hungry" and a token uttered by you of "You are hungry", addressed to me, can be said to have the same content, according to Kaplan. A temporal analogue of this example would be a token of "It is raining today" uttered on Saturday, and a token of "It rained yesterday" uttered on Sunday. According to Kaplan, these two tokens have the same content. Their common content is that it rains on Saturday. So, two tokens of different sentence-types can have the same content.

What is the relationship between the content of a sentence-token and its truth condition? Consider a token, *e*, of the sentence-type "Daniel is the only son of Nick and Gwenda". The content, of this sentence-token, or "what it says" is that Daniel is the only son of Nick and Gwenda. Now consider a token, *f*, of the sentence-type "I am the only son of Nick and Gwenda" uttered by Daniel. The content, or "what is said" by this sentence-token in this context is that Daniel is the only son of Nick and Gwenda. For ease of exposition we could use angle-brackets to enclose the content of a sentence-token. So, the content of *e* is <Daniel is the only son of Nick and

Gwenda>, and the content of *f* is <Daniel is the only son of Nick and Gwenda>. But now notice that, following the date theory's recipe for giving truth conditions for sentence-tokens, the content of both *e* and *f* is also its truth condition.

If the date theory's recipe for giving truth conditions for sentence-tokens is correct, then the content of a sentence-token in a particular context is equivalent to its truth condition in that context. The truth conditions of tokens of a non-context-dependent sentence-type are the same on each occasion of use, and tokens of such a sentence-type have, in Kaplan's terminology, a fixed content. Tokens of context-dependent sentences, on the other hand, have different truth conditions for each occasion of utterance. For example, tokens of the sentence-type "It rained yesterday" have different truth conditions whenever uttered, because the time of utterance itself enters into the truth conditions. In Kaplan's terminology, distinct utterances of this sentence-type have different contents from each other.

The other half of Kaplan's distinction is the notion of character. The character of a sentence, or of an expression is "that which determines the content in varying contexts" (Kaplan (1989) p. 505). Thus, the character of an expression is a function that takes one from the context of that expression's utterance to its content in that context. Non-context-dependent expressions, which have the same content in all contexts, have a fixed character.

The character of an indexical expression, for example, "here" or "now" is the function that determines the content in each context. So the character is that which we learn when we learn how to use such expressions correctly. We learn that, in order to discern the content, or what is said by an utterance of "here" we have to look to a certain feature of the context in which it is uttered, that is, we have to identify the spatial location in which it is uttered. The character is thus, in one sense, a constant part of the meaning of a context-dependent expression. We employ the

very same function on each occasion of its utterance to identify the varying content of such an expression. Thus, Kaplan notes “It is natural to think of it [the character] as *meaning*.” (Kaplan (1989) p. 505).

We now have at our disposal an exposition of Kaplan’s distinction between character and content. In the next section I will employ this distinction in an examination of tensed and tenseless date sentences in order to see if it sheds any light on the objective difference between them in meaning that does not reveal itself in their truth conditions.

5. The characters and contents of tensed and tenseless sentences

My first task is to examine whether the character/content distinction is capable of providing an account of the difference in meaning between a tensed sentence-token and the tenseless sentence that states its truth conditions. Since Kaplan’s account of the distinction is given in terms that generate a date version of the new B-theory, I will undertake this task in those terms. Briefly, the date version of the new B-theory of time assigns tenseless truth conditions to tensed sentences, where those truth conditions include a reference to a date, or a B-series time. The token-reflexive version of the new B-theory assigns tenseless truth conditions to tensed sentences, where those truth conditions include a reference to the token of the tensed sentence itself. I have argued elsewhere⁹ that there are serious problems associated with the date version of the new B-theory, problems to which a token-reflexive version of the new B-theory is immune. If the character/content distinction proves promising, I will then consider whether the token-reflexive version can consistently be combined with it without sacrificing anything valuable along the way.

⁹Dyke, (forthcoming).

Consider a token, g , of the tensed sentence-type “The volcano is now erupting”, uttered on 1 July 2000, and a token, h , of the tenseless sentence-type “The volcano erupts on 1 July 2000”. According to the date version of the new B-theory of time, h states g 's truth conditions. g and h also have the same truth conditions as each other. They are both true if and only if the volcano erupts on 1 July 2000. Thus, we have an instance of the general problem being addressed in this paper. We have two sentence-tokens that differ in meaning, but that difference is not discernible in their truth conditions. Can the character/content distinction shed any light on what accounts for the difference between them?

Sentence-tokens g and h have the same content. They each say the same thing about the world, viz., \langle the volcano erupts on 1 July 2000 \rangle . However, g and h differ from each other in character. g is a token of a sentence-type that has a context-dependent character. Different tokens of this sentence-type, produced in different contexts, will have different contents from each other. h , on the other hand, is a token of a sentence-type with a fixed character. Its tokens have the same content in every context in which they are produced. So, g and h have the same content when taken in their respective contexts, but they are not synonymous. They differ from each other in a significant aspect of their meaning. They are tokens of types with different characters.

Kaplan's distinction between character and content provides us with a good explanation of why indexicals cannot be translated by non-indexicals, and why tensed sentences cannot be translated by the tenseless sentences that state their truth conditions. An utterance of “now” at time t refers to t via its character. That *particular* utterance of “now” has the same referent as an utterance of the non-context-dependent expression “at t ”. But these expressions are not synonymous with each other because they differ from each other in character. The expression type “now” has an indexical character, while the expression type “at t ” has a fixed character.

Given a particular context, the same time can be picked out indexically, or via a definite description, but this does not establish synonymy between two such expressions, nor between sentences containing such expressions. So, even though two expressions may have the same content, it doesn't follow that they can translate each other.

Neither is an indexical synonymous with the rule, explicitly stated, that determines its reference on any occasion of utterance. In other words, to suppose that "now" is synonymous with, for example, "simultaneous with this utterance", or some other expression that states the rule that tells us how to determine the reference of "now", is to confuse character with content. The character gives us a procedure to follow in order to identify the reference of an indexical on any occasion of utterance, but the statement of that procedure itself is not identical with the content of the indexical. Kaplan notes:

Meanings tell us how the content of a word or phrase is determined by the context of use. Thus the meaning of a word or phrase is what I have called its *character*. (Words and phrases with no indexical element express the same content in every context; they have a fixed character.) To supply a synonym for a word or phrase is to find another with the same *character*; finding another with the same *content* in a particular context certainly won't do ... For two words or phrases to be synonyms, they must have the same content in every context.

(Kaplan (1989) p. 521)

Thus, neither the statement of the rule that determines the reference of an indexical, nor a definite description of the referent of an indexical in a particular context, satisfy the conditions for synonymy with the indexical itself. It is instructive to notice that when the old B-theory tried to translate tensed sentences by tenseless

sentences, it tried to do it in one of these two ways. Some old B-theorists tried to replace an occurrence of an indexical with a definite description of the indexical's referent in its context. This generated a date version of the translation claim. Others tried to replace an occurrence of an indexical with a statement of the rule that determines an indexical's referent (for example, 'simultaneous with this utterance'). This generated a token-reflexive version of the translation claim. Kaplan's remarks illustrate why both attempts were bound to fail.

An important difference between character and content is that character, as a kind of meaning, applies to sentence-, word-, and expression-*types*. Content, on the other hand, applies to occurrences of sentences, words and expressions in contexts (i.e., *tokens* of those types). (Kaplan (1989) p. 524) I have argued elsewhere¹⁰ that we can only legitimately talk of the truth conditions of sentence-tokens. Sentence-types, as such, do not have truth-values, since different tokens of them can have different truth-values in different contexts. It follows that there cannot be a unique condition that is necessary and sufficient for the truth of a sentence-type. Now, if the notion of content is only applicable to sentence-tokens, while character is only applicable to sentence-types, an answer to our problem begins to emerge. Sentence-tokens *g* and *h* cannot be synonymous, even though they have the same content, because they are tokens of types with different characters. Being tokens of types with different characters, there is an objective difference in meaning between them. But since they have the same content, and content is identified with truth conditions, the difference in meaning between them cannot be discerned in their truth conditions.

6. A token-reflexive account of the distinction between character and content

Kaplan's distinction between character and content yields a date version of the B-theory of time. This is because of his insistence on the direct reference theory of indexicals. To insist on the direct reference theory of indexicals is to maintain that,

¹⁰Dyke, (forthcoming).

for example, a token of “now” refers directly to the time at which it is uttered. Consequently, the time, referred to by some name, definite description or date, being the referent of “now”, will occur in the truth conditions of a sentence-token containing it. Kaplan’s reasons for insisting on the direct reference theory of indexicals are that he wishes to emphasize the distinction between the way an indexical, or other context-dependent expression, picks out its referent, and the way a non-context-dependent expression picks out its referent.

The character of an indexical expression-type is a function from context to content. It tells us what the content of a particular token is when produced in a particular context. So the content of a token of an indexical is some feature of its context. For example, the content of a token of “here” is the location in which it is uttered. The content of a token of “I” is the person who utters it. The character of a non-indexical expression type is fixed. It picks out the same content in all contexts. The content of a token of this sort is thus picked out by a wholly different mechanism. The characters of these tokens pick out their referents via a mediating definite description, or sense. The token-reflexive version of the B-theory of time recognizes this distinction between the way in which indexical expressions pick out their referents and the way in which non-indexical expressions do so. The difference between this version and the date version is that the former claims that context-dependent expressions pick out their referents via a token-reflexive mechanism. The date version, on the other hand, claims that they do so via a referring mechanism. Consequently, the insights which Kaplan wishes to preserve by insisting on the direct reference theory of indexicals ought also to be preserved on a token-reflexive theory of indexicals. If this is correct then it ought to be possible to combine the distinction between character and content with the token-reflexive version of the new B-theory.

Consider again the tensed sentence-token, g , “The volcano is now erupting,” and, this time, a token, i , of the tenseless sentence that states g ’s truth conditions, according to the token-reflexive version of the B-theory. The token i is “The volcano erupts simultaneously with g ”. According to the token-reflexive B-theory, g and i have the same truth conditions. They are both true if and only if the volcano erupts simultaneously with g . However, g and i are tokens of types with different characters. g is a token of a type with a context-dependent character, while i is a token of a type with a fixed character.

The combination of the token-reflexive theory with the distinction between character and content differs from Kaplan’s account in a significant way. The content of a context-dependent sentence-token is not identical with its token-reflexive truth conditions. This is more easily seen in the use of personal indexicals. Consider the following scenario. Bob says to Kath “You look awful.” Call this utterance j . The token-reflexive truth conditions of j are that it is true if and only if the addressee of j looks awful. But it cannot be the case that the content of Bob’s utterance is <the addressee of j looks awful>, because that is not *what Bob says*. The content of Bob’s utterance is that <Kath looks awful>. Bob conveys that content using a token of a sentence-type with a context-dependent character, viz., a sentence-type containing the personal indexical “you.”

The implications of this for temporally context-dependent sentence-tokens are as follows. The tensed token, g , is a token of a sentence-type with a context-dependent character. Its tenseless token-reflexive truth conditions are that g is true if and only if the volcano erupts simultaneously with g . But the content of g is not <the volcano erupts simultaneously with g > because that is not *what g says*. The content of g is <the volcano erupts on 1 July 2000>. So the token-reflexive account does not permit the identification of content with truth conditions. Is this a problem? I submit that it is not a problem, and that it actually offers a more perspicuous account of the

relationship between character, content, and truth conditions than a date version of truth conditions does.

According to Kaplan, the meaning of a tensed sentence-token is the product of two components of meaning. Its content is just the extra-linguistic state of affairs picked out, or referred to, by that sentence-token. The character, being a function from context to content, incorporates into the meaning of the sentence-token the perspective from which that extra-linguistic entity is picked out. Returning to my example of a token, *g*, of "The volcano is now erupting," uttered on 1 July 2000, its content, as we have seen, is <the volcano erupts on 1 July 2000>. The character of the sentence-type, *G*, of which *g* is a token, contributes to the meaning of *g* the perspective from which that state of affairs is referred to. For ease of exposition we could enclose the character of a sentence-type in square brackets. The character of *G* is thus: [The content of any token, *g*, of *G*, is that the volcano erupts at the same time as *g*]. The character of a sentence-type is thus a general formula that delivers the content of any token of it in its particular context.

According to the date version of the new B-theory of time, the truth conditions of a tensed sentence-token are just its content. That is, the token is true if and only if the extra-linguistic state of affairs picked out by the token exists. According to the token-reflexive version of the new B-theory of time, by contrast, the truth conditions of a tensed sentence-token are the link between character and content. The token is true if and only if the extra-linguistic state of affairs picked out by the token (its content) exists, *and* that state of affairs is temporally related to the token as specified by its character. The truth conditions state how the extra-linguistic state of affairs and the perspective from which they are referred to must be related in order for the token to be true.

The implications of this for Bob's token, *j*, of "You look awful," addressed to Kath are as follows. The character of *J* (the sentence-type) is [the content of any token, *j*, of *J*, is that the addressee of *j* looks awful]. In this particular context, the addressee of *j* is Kath, so the content of *j* is <Kath looks awful>. The truth conditions provide the link between character and content; they state how the extra-linguistic state of affairs referred to (the content) must be related to the perspective from which it is referred to in order for the token to be true. The truth conditions of *j* are that it is true if and only if the addressee of *j*, who in this context happens to be Kath, looks awful.

How does this carry over to the temporal case of *g* and *i*? *g* and *i* have the same truth conditions. They are both true if and only if the volcano erupts simultaneously with *g*. They are tokens of sentence-types with different characters. The character of *G* is [The content of any token, *g*, of *G*, is that the volcano erupts at the same time as *g*]. The character of *I* is [The content of any token, *i*, of *I*, is that the volcano erupts simultaneously with *g*]. The character of *G* is context-dependent; it will deliver a different content for each token of *G*, since a feature of the context of utterance is part of that content. The character of *I* is fixed; it delivers the same content for each token of *I*. Since *g* is uttered on 1 July 2000, its content is <the volcano erupts on 1 July 2000>. The content of *i* is <the volcano erupts simultaneously with *g*>. Thus, *g* and *i* have the same truth conditions, but they differ in content and character. It follows that there is an objective difference in meaning between them, but that difference in meaning does not reveal itself in their truth conditions.

Another difference between the token-reflexive version and Kaplan's concerns Kaplan's claim that two tokens of different sentence-types can have the same content. Consider a token, *k*, of "It is raining today" uttered on Saturday, and a token, *l*, of "It rained yesterday" uttered on Sunday. According to the account I am

developing, these two tokens have the same content. Their common content is <it rains on Saturday>. According to the date version of the new B-theory, their common content is identical with their truth conditions. They are both true if and only if it rains on Saturday. On the token-reflexive version however, they have the same content, but different truth conditions, which reflects the fact that they are tokens of types with different characters. The character of *K* is [The content of any token, *k*, of *K*, is that it rains on the same day as *k*]. The character of *L* is [The content of any token, *l*, of *L*, is that it rains on the day before *l*]. These different characters pick out, in the case of *k* and *l*, the very same extra-linguistic state of affairs, so they have the same content in these contexts.

What these tokens have in common is the extra-linguistic entity that they refer to, the event of Saturday's rain. They differ from each other in the temporal separation between that event and the utterance about it, and the token-reflexive account makes this explicit, whereas the date version does not. Two such tokens still "say the same thing" because they have the same content, but their truth conditions are different, as they should be, because in order to be true each token must be temporally related to that event in a different way. Thus, the token-reflexive version recognizes that we may talk about the same extra-linguistic entities, but from different temporal perspectives, and it adjusts for that different perspective token-reflexively.

The token-reflexive version of Kaplan's distinction between character and content accounts for the objective difference in meaning between a tensed sentence-token and the tenseless sentence that states its truth conditions just as well as did Kaplan's own version. The particular tokens, *g* and *i*, have the same truth conditions as each other, but they remain untranslatable by each other in virtue of the fact that they are tokens of sentence-types with different characters. As it turns out, *g* and *i* also differ in content; they do not say the same thing. But they are made true by the

existence of the same state of affairs (the simultaneity of *g* and the volcanic eruption).

Kaplan's distinction between character and content can be combined with a token-reflexive version of the tenseless truth conditions of tensed sentences. When it is so combined it yields an account of the objective difference in meaning between a tensed sentence-token and the tenseless sentence that states its truth conditions. Indeed, I would argue that the conjunction of Kaplan's distinction and the token-reflexive theory is more fine-grained and sensitive to the many facets of meaning than Kaplan's own date version of it. It is capable of accounting for how the truth-value of a sentence-token depends on the temporal relation between what the sentence is about and the occurrence of the token itself. Furthermore, this conjunction supports the conclusion that temporal reality is tenseless, since the objective difference in meaning between tokens such as *g* and *i* does not require the existence of tensed temporal reality in order to be explained.

7. Conclusion

My aim in this paper has been to reveal an aspect of the meanings of tensed sentences, and to provide a tenseless account of it. Tensed meaning reveals itself when we compare a tensed sentence token with a token of the tenseless sentence that states its truth conditions. For any pair of sentences like this, we can see that they do not mean the same thing. But we can also see that they do have the same truth conditions. So tensed meaning does not reside in the truth conditions of tensed sentences. What we can conclude from this is that there is more to meaning than truth conditions. This additional component of meaning is a feature of the character of sentence-types. Since, when we assign truth conditions, we do so for sentence-tokens, it should therefore not surprise us that the difference in meaning does not reveal itself there.

I hope to have shown that Kaplan's distinction between character and content can be successfully combined with the token-reflexive version of the new B-theory of time. This combination provides us with an adequate explanation of tensed meaning, and it does so without appealing to the existence of tensed facts.

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