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The A-Theory of Time, The B-Theory of Time, and 'Taking Tense Seriously'

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Abstract

The paper has two parts: First, I describe a relatively popular thesis in the philosophy of propositional attitudes, worthy of the name 'taking tense seriously'; and I distinguish it from a family of views in the metaphysics of time, namely, the A-theories (or what are sometimes called 'tensed theories of time'). Once the distinction is in focus, a skeptical worry arises. Some A-theorists maintain that the difference between past, present, and future, is to be drawn in terms of what *exists*: growing-block theorists eschew ontological commitment to future entities; presentists, to future and past entities. Others think of themselves as A-theorists but exclude no past or future things from their ontology. The metaphysical skeptic suspects that their attempt to articulate an 'eternalist' version of the A-theory collapses into merely 'taking tense seriously' – a thesis that does not imply the A-theory. The second half of the paper is the search for a stable eternalist A-theory. It includes discussion of temporary intrinsics, temporal parts, and truth.

1. Introduction

Sadly, the great metaphysician J. McT. E. McTaggart is now remembered mainly for what must be his worst argument: the infamous argument for 'the unreality of time'. But even this 'philosophical "howler" ' (as C. D. Broad rightly called it[1]) includes enough insightful analysis to have made it a natural starting point for most subsequent work on the metaphysics of time. McTaggart gave the name 'A-series' to 'that series of positions which runs from the far past through the near past to the present, and then from the present through the near future to the far future, or conversely'; and the name 'B-series' to '[t]he series of positions which runs from earlier to later, or conversely'.[2] McTaggart's rather bland labels have stuck, and been put to further use. The 'determinations' (his word), or properties, *being past*, *being present*, and *being future* are generally called the 'A-properties'. The relations of *being earlier than*, *being later than*, and *being simultaneous with*, are the 'B-relations'. These days, philosophers are said to hold an 'A-theory of

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[1] Broad 1938, 316. (McTaggart's argument, and Broad's incisive criticism of it, are included in van Inwagen and Zimmerman 1998, 67–79.)

[2] McTaggart, 1927, 10.

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time' or a 'B-theory of time', depending upon their attitudes to these properties and relations.

On the face of it, there are two radically different views one could take about the A-properties and B-relations. Some philosophers posit an objective distinction between what is present and what is past and what is future; naturally, such philosophers are called 'A-theorists'. The A-theory is almost certainly a minority view among contemporary philosophers with an opinion about the metaphysics of time. Several of the most prominent 20th century philosophers were outspoken A-theorists, including C. D. Broad, Arthur Prior, Peter Geach, and Roderick Chisholm,[3] and the view is still defended by a vocal minority.[4] Although A-theorists disagree about many details, they agree that the present is distinguished from past and future in a way that is not relative to any other temporal thing, such as a context of utterance, a time, or a frame of reference. 'B-theorists', by contrast, deny the objectivity of any such distinction. Their name is Legion.[5]

Presentism is an extreme form of the A-theory. Analogous to actualism in modal metaphysics, it is the doctrine that all reality is confined to the present – that past and future things simply do not exist, and that all quantified statements that seem to carry commitment to past or future things are either false or susceptible of paraphrase into statements that avoid the implication. Some have alleged that there is no real difference between the metaphysics of presentists and that of B-theorists; but if no genuine disagreement can be found here, then parallel reasoning is likely to lead to the absurd conclusion that there is no difference between the modal realist, such as David Lewis, and the rest of us – we who seriously doubt whether there are concrete worlds at no spatiotemporal distance from our world.[6]

Some other A-theorists, though not presentists themselves, are like the presentists in distinguishing themselves from B-theorists by the restrictions they place upon what exists. 'Growing Block' theorists, such as C. D. Broad, regard future events and things as non-existent, and present things as special only in being the

[3] Broad, 1923 (an excerpt in which Broad defends an A-theory is reprinted in van Inwagen and Zimmerman 1998, 82–93); Prior 1970, 2003c; Chisholm, 1990a, 1990b, 1981a; and Geach 1972.

[4] Hinckfuss 1975; Lucas 1989; Lowe 1998, ch. 4; Bigelow 1996; Merricks 1999; Markosian 2004; Crisp 2004, 2003; Tooley 1997 (although see note 13 below for reservations about Tooley's status as A-theorist); Smith 1993a; Craig 2000; McCall 1994; Ludlow 1999; Schlesinger 1980, 1994; Adams 1986; and Forrest 2005. See also Zimmerman 1996, 1998, 1997b; and Gale 1968 (Gale has since repudiated the A-theory).

[5] Frege 1984 (see esp. 370); Russell 1938, ch. 54; Williams 1951; Quine 1960, §36; Grünbaum 1967, ch. 1; Smart 1963, ch. 7; Smart 1987; Lewis 1976, 1979, 2004; Mellor 1981, 1998; Horwich 1987; Sider 2001; Le Poidevin 1991; Oaklander 1991; Savitt 2000; Saunders 2002.

[6] The skeptical worry is expressed in Lombard 1999; and Callender 2000. But see Sider 1999; and Crisp 2004.

latest parts of a four-dimensional reality. According to the 'Growing Blocker', to become past is merely to cease to be on the 'cutting edge' of the growing four-dimensional manifold of events.

In this paper, I am mainly interested in would-be A-theorists who reject presentism, the Growing Block theory, and any other proposed A-theory that draws the metaphysical line between past, present, and future in terms of what exists. The A-theorist I wish to consider is (what I shall call) an 'eternalist', someone who maintains that every event, time, and individual exists, whether past, present, or future.

One might well ask: *Are there* any eternalist A-theorists? And if the answer is 'No', or 'Not many', then what is the point of this exercise? 'Not many' seems to be the right answer to the first question. But there are a few philosophers who, by my lights, are eternalist A-theorists. Quentin Smith and William Lane Craig are both card-carrying A-theorists; Timothy Williamson certainly *seems* to be drawing a deep and important distinction between present things and past or future things (and he does not say, or even slyly hint, that it is, ultimately, a merely relative distinction).[7] But Smith, Craig, and Williamson are all perfectly happy to allow for quantification over any individual that ever exists, and to allow names for dinosaurs and Martian outposts as substitution instances in true sentences.[8] And none of the three thinks that such quantification and naming is in any way *misleading* – i.e., that it is strictly false unless understood as shorthand for something else. For example, they do not interpret such talk in a way analogous to the interpretation Alvin Plantinga gives to quantification over, and names for, merely possible individuals: According to Plantinga, such quantification and

[7] Williamson 1999. I suspect that Williamson would disavow commitment to non-actual and non-present things; he would rather say that everything is actual and everything is present. Nevertheless, he draws a distinction between, on the one hand, things and events wholly in the past or future (dinosaurs, Martian outposts, the kickoffs of last year's and next year's Superbowl games, etc.) and, on the other hand, things and events that are not wholly in the past or future. According to Williamson, the latter (which it is very natural to call 'things and events that are present') are different in all sorts of important ways from the former (which it is natural to call 'things and events that are nonpresent').

[8] Smith and Craig would not accept my description of their views, as they do not accept the Quinean approach to existence I shall presuppose in this paper. (For description and defense of the sort of Quineanism I would endorse, see van Inwagen 2004, esp. 113–124.) Smith and Craig depart from Quineanism for very different reasons, however. Smith takes *existence* to be something more than just what is expressed by the quantifier; it is an irreducible property that comes in degrees (Smith 2002). Craig denies that existence is a property; he accepts that to be committed to the existence of something is just to be willing to quantify over such things *when speaking a tensed language*. So far forth, he seems to agree with many Quinean presentists. But it appears that he is not *really* a Quinean about existence and ontological commitment. For he treats quantification over past and future individuals *in a tenseless language* as unproblematic and irrelevant to questions about what exists, even if such tenseless languages allow one to say things that are *true* and that are not equivalent to any tensed claims. Cf. Craig 2000, 210–211.

names merely provide ways of making generalizations about and referring to *haecceities* of individuals – and haecceities are abstract objects, individual essences that exist even if nothing exemplifies them (see Plantinga, 1978). Williamson rejects such downplaying of quantification and naming in both the temporal and the modal case; he argues that there is no acceptable way to deny the existence not only of entirely past and entirely future entities, but even of *merely possible* entities (Williamson 1999).

Eternalist A-theorists may be few in number, but their position is important because it is *very hard* to be an A-theorist and a non-eternalist. The Growing Block theory of time is extremely unpopular, and there are reasons for its unpopularity.[9] (In fact, so far as I know, there are only two *genuine* Growing Blockers left: Peter Forrest and Robert M. Adams.[10]) Although presentism appears to be the most popular version of the A-theory, presentism also faces serious objections, brought on by its extremely sparse ontology. Given my presentist inclinations, I should like to think all the outstanding problems will one day be resolved. (Perhaps if enough younger philosophers come to see the light and commit themselves to the lifelong defense of presentism . . .) But there is no denying that the problems for presentism are deep and difficult, and that presentists have a great deal of work ahead of them.[11]

So long as there are reasons to be an A-theorist that are not simply reasons to be a presentist or Growing Blocker, an eternalist A-theory should hold considerable interest. If it turns out to be unstable or untenable, that would make the choice between A-theory and B-theory starker, and leave the A-theorist with fewer ways to respond to some extremely serious objections. And, as a matter of fact, an eternalist version of the A-theory does face a serious charge of incoherence or instability, as shall appear. The view can become hard to distinguish from a certain version of the B-theory: namely, one that 'takes tense seriously' in a way I shall explain in the first half of this paper.

[9] For a trenchant criticism of the Growing Block view, see Merricks 2005. Merricks's arguments work well against Growing Blockers like Broad, who think that events and individuals do not change intrinsically when they pass from being present to being past. A Growing Block theory need not include this thesis, however. Some Growing Blockers may want to adopt a doctrine I offer them in section 5, below.

[10] See Forrest 2005; and Adams 1986, 322. Michael Tooley is a self-described Growing Blocker. But does Tooley really deny the existence of future things, as Forrest and Adams do, and as Broad did in *Scientific Thought*? Although Tooley denies that future things exist *yet*, he nevertheless accepts that they *do exist*: 'Quine's claim that tenseless quantification is fundamental must be accepted . . .', and 'Tenseless quantification does presuppose that the future is actual *simpliciter*' (Tooley 1997, 305). So he can avoid objections to the Growing Blocker's denial that future things exist by . . . accepting that future things exist!

[11] Sider 2001, is a *vade mecum* of problems for presentism. See also Lewis 2004. For a sampling of presentist attempts to deal with some of these problems, see: Ludlow 1999; Bigelow 1996; Zimmerman 1997b; Crisp 2003; and Markosian 2004.

The metaphysical debate between A-theorists and B-theorists is often described as a dispute between 'tensed' and 'tenseless' theories of time, or between those who 'take tense seriously' and those who do not. If the description is apt, no B-theorist *could* 'take tense seriously'. As tense is clearly a linguistic category, and time is not a part of speech (e.g., time is not a verb or a sentence; it does not fall under any linguistic category), the supposed equivalence of these labels should raise suspicions. Seriousness about tense, as I shall understand it, is an affirmation of the ineliminability of *temporally perspectival propositions*[12] in explications of our propositional attitudes and their linguistic expression. By 'temporally perspectival propositions' I mean things that play the role traditionally assigned to propositions (objects of propositional attitudes like belief, doubt, etc.; primary bearers of truth and falsehood), but that are not immutable with respect to truth-value – i.e., they are things that can be true at some times, false at others. Seriousness about tense is a doctrine that has appealed, for similar reasons, to A-theorists (e.g., Roderick Chisholm; see Chisholm 1981b, 49–52), B-theorists (e.g., David Lewis; see Lewis 1979, 143–44 and 146–48), and philosophers who, so far, have no particular stake in the metaphysics of time (e.g., David Chalmers[13]). So understood, taking tense seriously will turn out to be perfectly compatible with the B-theory of time.

The second, more speculative, half of the paper is a search for a fundamental metaphysical disagreement about time that could separate an eternalist A-theorist from a B-theorist who takes tense seriously, in my sense. As shall appear, the line between eternalist A-theorist and serious-tensing B-theorist can easily slip out of focus, unless considerable emphasis is placed upon metaphysical claims about truth, exemplification, and the nature of persistence. Ultimately, I do not doubt that an eternalist can *be* an A-theorist. But my (admittedly sketchy and provisional) exploration of the various possible grounds for a substantive disagreement between her (the eternalist A-theorist) and the serious-tensing B-theorist (a hypothetical 'he' throughout the second half of the paper) suggests that options are limited, and that they have a way of collapsing into one another.

[12] I borrow the expression 'perspectival proposition' from Ernest Sosa, though I shall use it in a more general way than he does. For Sosa's particular version of perspectivalism about propositions, see Sosa 1983a and 1983b. I am sure that I have borrowed more than just the term 'perspectival proposition' from Sosa's papers, which nicely set up the problems of belief *de se* and *de nunc* described here.

[13] Someone clearly 'takes tense seriously', in the sense I shall describe, if they feel that propositional attitudes are best understood as relations to sets of what Quine called 'centered worlds'. For Chalmers's use of centered worlds in a two-dimensional semantics, see Chalmers 1996, 56–65; and, for more detail and some discussion of the temporal case, Chalmers 2002.

2. *A-theories of time and seriousness about tense*

Sometimes A-theorists are called 'tensers' because they 'take tense seriously'; while B-theorists are 'detensers'. But if by 'A-theory' one means the view that the present time is metaphysically privileged, it is not obvious that the A-theory is equivalent to a thesis about the importance of tenses in natural languages or even in ideally regimented languages. And there are other doctrines in the vicinity that have more to do with tense. For example, there is the claim that any decent theory about the objects of propositional attitudes will say that they closely resemble tensed sentences in the following way: they may be true at some times, but not others. And this is certainly *not* the same as what I have called the A-theory, because (as I shall argue) one can hold the view while insisting that, really, all times are on the same footing – that there is no particular time that is objectively special.

I shall belabor this point, as it provides my way of sneaking up on the question: What should an eternalist A-theorist regard as the real metaphysical basis of her disagreement with B-theorists?

Tensed and 'tenseless' verbs

It is natural, nearly inevitable, to think that the sentences we write down and utter are true or false in virtue of their expressing *propositions* that are true or false in some more basic sense.[14] And when 'taking tense seriously' is advocated in the context of a robust theory of propositions, it takes on the feel of a distinctive metaphysical thesis – though perhaps only because of the metaphysical status granted to the things that are said to correspond to tensed sentences. Ultimately, I shall try to show that, even if one takes propositions seriously as abstract entities fit to serve as the objects of propositional attitudes, simply affirming that they are 'irreducibly tensed' (i.e., capable of being true at some times and not others) does not automatically make one an A-theorist. One must say a good deal more about other matters in order to arrive at a definite thesis about the metaphysics of time.

A proposition is meant to be something that can be expressed in many different ways. It can be believed by one person and disbelieved by another. And, at least in the case of a proposition that is not about a particular sentence or thought, it would have existed and been either true or false even in the absence of all sentences or thoughts. This familiar conception of the ultimate bearers of truth and falsehood[15] can be conjoined with an A-theory or a B-theory. An A-theorist had better insist that many propositions can change their truth-values over time.

[14] For a classic statement of the need to posit propositions, see Cartwright 1987.

[15] For a representative sampling of philosophers who defend propositions, so conceived, see: Bolzano 1972, 20–31; Frege 1984; Russell 1973; Church 1956; Plantinga 2004, 229–33; Bealer 1982; and Soames 2002.

If she did not, what would happen when she attempts to articulate the foundational A-theoretic thesis that *one* time is objectively special – special in a way that makes it *the present*? The proposition expressed would have to be true, unchangeably; and then the A-theory would turn into the implausible thesis that the present is stuck at a particular moment on a particular day. Many B-theorists maintain the contrasting view that the things we believe, doubt, etc., and report with declarative sentences, are always 'eternal propositions' – things that could not possibly change from true to false, or vice versa, over time.

It is tempting to call propositions that can change truth-value, 'tensed propositions'; and those that cannot, 'tenseless propositions'. But it is potentially misleading as well. After all, if propositions are non-linguistic things – independent of any particular language in which they might be expressed – they cannot literally exhibit tense. And those who think we always believe eternal propositions do not deny that we express our beliefs by uttering tensed sentences. Still, there is an understandable temptation to call propositions 'tensed' if they can be true at some times and not others. Sentences with verbs in various forms of present, past, and future tense may be true when uttered at one time, but false when uttered at another; and the difference in truth-value of the sentence may be due entirely to the difference in time of utterance, not to any other differences in the contexts of utterance. So non-eternal propositions are obviously rather like such tensed sentences. Now suppose there are sentences in which the tense of the verbs cannot be responsible for differences in truth-value when uttered at different times. If other contextually determined aspects of such a sentence's meaning are held constant between occasions of use or contexts of evaluation, the sentence will either express a truth always or never. If there are such things as truly 'tenseless' verbs, their use would create sentences of this sort.

One need not argue about whether there is, in English, a form of the verb worthy of the label 'tenseless' – something that linguists would recognize as belonging in the same category as 'present', 'future', 'past', etc. What is important is that there are, even in ordinary language, mechanisms for reliably generating tenseless sentences – sentences that will not change from true to false when uttered at different times, leastwise not because of the tense of the main verb. The qualifications 'at such-and-such time', 'at some time or other', and 'at all times' are often used to render a present tense verb effectively tenseless. If I were now to utter the words 'I am in New Jersey', a listener would normally take me to be describing my *present* location. But suppose I said, while consulting my calendar in order to answer questions about my whereabouts in the past, and my availability in the future: 'I am in New Jersey on January 12, 2004'. No one hearing that statement (especially in those circumstances) would take me to be saying that I am in New Jersey right *then*; they would not think that what I said implies the proposition I could express by means of a significantly present tensed 'I am in

New Jersey'. And there is obviously no conflict between my being in New Jersey on January 12, 2004, and the proposition expressed by my use of 'I am not in New Jersey on January 12, 2005'.

If adding such qualifications is enough to create tenseless sentences, it is a simple matter to introduce more general methods for creating tenseless sentences. One can define a form of tenseless predication that is equivalent to implicitly adding the qualification 'at some time or other' to a sentence in the ordinary present tense. Another form of tenseless predication would result from implicitly adding 'at every time at which it/he/she exists'. Eventually, it will become important to distinguish these two ways of insuring that predication results in tenseless sentences. If a syntactically present-tensed verb phrase *F* (containing no explicit mention of a time) occurs in a simple predicative statement that implies that the subject satisfies the predicate at some time or other, but not necessarily at the time that would have been picked out as 'now' (had the statement contained the word 'now'); then I shall call this use of the verb 'sometime-tenseless'. From a sometime-tenseless '*x* is *G*' and ordinary present tense '*x* exists', the ordinary present tense '*x* is *G*' does *not* follow. On the other hand, if the sentence implies that the subject satisfies the predicate at every time the subject exists, then I shall say that the verb occurs in an 'always-tenseless' form. (One might define a different always-tenseless form of the verb, according to which a thing that is always-tenselessly straight has to exist and be straight throughout all of history; but, assuming that few things exist eternally, this would be a much less useful form of tenselessness.)

Although it is not crucial to the arguments of this paper, it is tempting to think that the two forms of tenseless verb just described have a place in ordinary English. Sometimes, especially in formal contexts such as lectures or scholarly monographs, present-tense verbs are used in such a way that they imply little or nothing about which events are present, past, or future. While listening to a speech about religious figures, one is not misled into making inferences about anyone's *present* whereabouts or state of health when told, 'The Beloved Apostle takes his final breath on the island of Patmos'. Here, the present-tense verb 'takes' might seem to be in the 'historical present tense' – equivalent to 'took or takes' (and so not truly and completely tenseless). And one might well suppose that the difference between this historical present-tense 'takes' and the ordinary present tense constitutes a difference in logical form. In that case, the category 'historical present' would deserve a place of its own in the semantics of ordinary English.

But then there is a good case for a tenseless form of the verb in ordinary English. If the sentence about the Apostle is in the historical present, then any sentence of this same type uttered at any time would imply that St. John had either just finished dying at that moment or at some earlier time. But if the historical present is a distinctive semantic category, it is plausible to suppose that the

semantics of English should make room for full-blooded 'sometime-tenseless' predication as well. 'Take', when used in a sometime-tenseless way, would be equivalent to 'takes at some time or other', or 'took, takes, or will take'. Now suppose the lecturer had continued the sentence about Saint John with the clause: '. . . unlike the current pope who probably takes his last breath in Vatican City.' Surely the most natural thing to say about this longer sentence is that the syntactically present-tense verb, 'takes', in both its occurrences, fails to indicate anything about the temporal locations of the deaths of famous Christians.

Other plausibly sometime-tenseless verbs to be found in ordinary English are generic or dispositional, e.g., 'Liz smokes' and 'Dean limps'.[16] And one might also make a case for always-tenseless verbs as a semantic category. Good candidates for always-tenseless verbs may be found in lawful generalizations, such as 'Water flows downhill'.

Perhaps all these apparent examples of tenseless verbs are misleading. Perhaps it is a mistake to think that, in English, there are semantically distinguishable categories corresponding to sometime-tenseless and always-tenseless predication. I leave it to linguists to settle the criteria for calling a distinction 'part of the semantics' of a language; and I leave it to them to answer the question whether, for English, sometime-tenseless or always-tenseless predication belongs in this category. What matters for present purposes is that these forms of predication can be introduced by means of something that is familiar enough: adverbial phrases like 'at such and such time', combined with the syntactically present tense. (Henceforth, if a verb is italicized, it is either sometime-tenseless or always-tenseless.)

It becomes important, later on, that ordinary English provides the materials with which to introduce generic tenseless talk. I argue that eternalist A-theorists must admit to being able to understand the kinds of tenseless sentences that appear in a B-theorist's truth-conditions for tensed sentences.

The date analysis and the token analysis

I construe the question whether to take tense seriously as the question whether something other than eternal propositions is required to play the role of the things that are: the objects of our propositional attitudes, and the truths and falsehoods that can be expressed using tensed sentences. A venerable tradition (upheld by Bolzano, Frege, and Russell[17]) would say 'No'. These hardline detensers allege that, whenever I say something true, some true eternal proposition is the content of what I said; it is the semantic value of the sentence I uttered. According to

[16] I owe this suggestion to Liz Camp.

[17] See Bolzano 1972, 32; Frege 1984, 358; Russell 1973, 32; Russell 1986, 42–3 and 217.

hardline detensers, the very idea of a 'proposition' that varies in truth-value is a mistake.

But what eternal proposition do I express when I say that the eclipse is starting, for instance? Detensers suggest that the present tense of the copula (or other verb) draws the time of utterance into the meaning of the sentence in one way or another. One popular proposal for the mechanism at work is the 'date analysis', according to which the present tense of the verb effects a concealed but very direct reference to a particular time. The eternal proposition expressed by the sentence about the eclipse would be at least as perspicuously expressed using a tenseless sentence that mentioned the time of utterance by a proper name: 'The eclipse *starts* at *t*', where '*t*' is a name for the time at which I spoke.

Another approach is the 'token-reflexive' analysis of tense. A 'token-reflexive' statement *type* is one such that all its instances (or 'tokens') are self-referential, including explicit reference to the particular instance of the statement-type. A sign that says 'Read this sentence out loud' could be said to be giving a token-reflexive command. 'Can you hear this statement?' is a token-reflexive question, one that includes a phrase that designates the utterance – the instance, or 'token', of a spoken sentence – of which it is a part. The token-reflexive theory of tensed verbs claims that tense functions in a similar way. A present tense verb in a statement such as 'The eclipse is starting', is a device for saying something about the utterance itself; the statement means something like 'The eclipse *starts* simultaneously with this very utterance'.

The date and token-reflexive theories are the most familiar detensing strategies, but there are further possibilities for detensers to explore. The token-reflexive analysis implies that the present tense introduces a hidden description of a time. One might agree with the principle, but posit descriptive content other than 'the time of this utterance'. Perhaps the context of a conversation might be thought to include an unspoken description of a designated time – sometimes, but not always, identical with the time of the conversation itself – that is especially relevant to evaluating present-tense sentences. Here is a crude example in which a description other than 'the time of this utterance' might seem to be associated with the present tense: While watching a person in a home video, one asks, 'What is he doing now?' It would be natural to take 'the time at which the video was being shot' as the contextually determined meaning of 'now', and as part of the meaning of the present tense copula. Generalizing, a detenser might think that context determines a relevant description *whenever* the present tense is used; and that making the description explicit allows one to express the same proposition as did the original sentence, using tenseless verbs.

Date, token-reflexive, and other detensing analyses can be extended in natural ways to other tenses. Past tense verbs, for example, make claims about how things were earlier than the time *t* introduced by the tensed verb (the date analysis), or

earlier than the utterance in which the verbs are being used (the token-reflexive analysis).[18]

The 'new' B-theory of time

Many philosophers now doubt the adequacy of any translation scheme that provides every tensed sentence with an eternal proposition as its meaning. Quite a few (though by no means all[19]) admit at least this much: that more than eternal propositions are required in telling the full story of what we mean by tensed sentences, and in describing the contents of beliefs typically expressed using tensed verbs. Some philosophers of language will take the date or token-reflexive analysis to provide a proposition that corresponds perfectly adequately to 'what is said' by means of a tensed sentence (what John Perry calls the 'official content' of the sentence; and David Kaplan just its 'content'; see Perry 1997, and Kaplan 1989); but then these philosophers will go on to posit some *other* semantic value – something 'content-like', but not an eternal proposition – and they will use this other item to explain the intuitive differences in belief states reported by tensed and tenseless sentences, and the intuitive similarities in belief-states that have different truth-values merely because they occur at different times. This second kind of content is something that can be the same in distinct utterances of 'The eclipse is starting', utterances that occur at different times and can vary freely in truth-value. Examples of the second kind of content-like semantic-values include Kaplan's 'meanings', which include what he calls 'character'; Perry's 'belief-states' (Perry 1979) or (more recently) 'content-sub-m' (Perry 1997); and Robert Stalnaker's 'diagonal propositions' (Stalnaker 1981). These philosophers may be called 'soft detensers'. On their views, although significantly tensed statements have eternal propositions for 'official contents', they also have another semantic aspect that is not captured by an eternal proposition. The extra element associated with tense is likened to a 'mode of presentation' – a special way in which an eternal proposition can be expressed or thought.

There is a more radical moral that some philosophers draw from the difficulties faced by detensing strategies like the date- and token-analyses: These philosophers say that the correct semantics of tensed talk and of the thoughts reported in tensed

[18] The analysis of the past tense is not completely trivial. Suppose I have often fought with my brother, but that today his injury was entirely accidental. When I say, 'I wasn't trying to hurt him', I mean neither: 'There was a time in the past at which I was not trying to hurt him'; nor: 'For every time in the past, I was not trying to hurt him at that time'. These are 'indefinite' claims about the past, and the ordinary past tense of English verbs expresses something more 'definite'. For a survey of approaches to the past tense, see Kuhn 1989.

[19] Mark Richard will have no truck with anything other than eternal propositions for the meanings of sentences; he makes an interesting case against appealing to *any* semantic features of tensed sentences in explaining how they differ in cognitive role from their de-tensed correlates. See Richard 2003.

language should *not* divide the semantic value of 'that the eclipse is starting' (in sentences like 'Zimmerman believes that the eclipse is starting') into two elements: an eternal proposition and some sort of 'mode of presentation'. On this more radical view, there is only one thing expressed by my utterance of 'The eclipse is starting', and only one object of the propositional attitude I report with these words; and the only reasonable candidate is *not* an eternal proposition, but rather something that is neither eternally true nor eternally false. Philosophers who draw this conclusion claim that these non-eternal propositions are better suited to the role of the objects of propositional attitudes described in tensed language. They will be happy to admit that sometimes we succeed in expressing propositions that are eternally true or eternally false; but they insist that, more often than not, we express non-eternal propositions.

It is this latter sort of philosopher whom I will call a 'serious-tenser'. A serious-tenser (such as David Lewis, D. H. Mellor, Arthur Prior, or Roderick Chisholm; see Lewis 1979, 146–8; Mellor 1998, 58–69; Prior 2003, 27–37; and Chisholm 1979, 346–49) takes tensed sentences such as 'I am sitting' to express non-eternal propositions, things that may change their truth-value. If the objects of propositional attitudes are the main bearers of truth and falsity, and also the items among which logical relations hold, then eternal propositions belong to the same species, or are of the same logical type, as the ones that change their truth-value. So seriousness about tense vindicates (at least partially) tense logic. The point of logic is to describe the most general patterns of truth-preserving inference. Eternal and non-eternal propositions would seem to stand in straightforward logical relations to one another; the non-eternal truth that I am sitting implies the eternal truth that I sit at some time or other. Tense logic has room for eternally true and eternally false propositions; but standard logical systems, like the propositional calculus, have no room for non-eternal propositions. So the logic of eternal propositions must turn out to be a fragment of the logic of non-eternal propositions.

The debate I am describing between detensers and those who take tense seriously may be a deep and important one. On the other hand, perhaps it is not so deep; perhaps there are simply different things one can mean by 'what is said', 'the proposition expressed by such-and-such sentence', etc. Eternal propositions may be part of the best theory of one kind of 'meaning', while temporarily true propositions are part of the best theory of the other kind. And philosophers emphasizing one sort of meaning of a sentence may simply be more interested in one than the other. But, deep or shallow, it is easy to see that this debate is not equivalent to the one exercising A-theorists and B-theorists. Some serious-tensers (like Lewis and Mellor) insist that the source of the ineliminability of tensed propositions is simply the fact that much of what we believe is 'perspectival'. And this reason for taking tense seriously does not imply that one time is special, as

A-theorists believe. It also provides no reason to think that tense logic is *metaphysically* significant, however accurate it might be as a theory of the inferential relations among the objects of propositional attitudes. If other temporal perspectives differ from mine only in that I am not *at* them, then it is possible, in principle, to give a complete description of reality 'as it is in itself', *sub specie aeternitatis*. A logic that is only good for eternal propositions is perfectly adequate for describing how things are 'in themselves'.

Tense is not the only phenomenon that has led philosophers of language to posit 'perspectival propositions'. The nature of the serious-tenser's commitment to propositions that are only true from the perspective of the present time can be illuminated by comparison to other cases that have seemed to some philosophers to require a parallel move: namely, propositions that are only true from the perspective of the actual world, or of the person thinking the thought.

3. Perspectival thought

Worlds, selves, and times

It is possible to regard 'actually', 'I', and 'presently' as functioning in very similar ways – as words that enable us to express *perspectival propositions*, propositions not true or false absolutely, but only true or false from the perspective of a world, an individual, or a time.[20] Philosophers have been led to posit perspectival propositions in their attempts to describe the nature of the thoughts expressed by sentences that make implicit or explicit reference to the actual world or that include first person reference. Philosophers who make these moves might be said to be 'taking actuality seriously' and 'taking the first person seriously'; and their strategy is precisely analogous to that of taking tense seriously by introducing temporally perspectival propositions. As it is clearly possible to introduce perspectival propositions of the first two sorts without supposing that any particular world or person is 'special', the same should be possible in the temporal case. So one may take tense seriously while not supposing that any particular time is truly special – and, therefore, while not being an A-theorist. The present section is something of a detour: By examining the reasons given for positing the other two kinds of perspectival proposition, I hope to show the plausibility of the claim made by B-theorists like Lewis and Mellor: Taking tense seriously carries no commitment to the A-theory.

Imagine that you are talking with a modal realist – say, David Lewis – who thinks that the actual world is just one possible world among many, and intrinsically no different from any of the others. According to Lewis, there are golden mountains – because there are possible worlds that contain real gold piled up as

[20] Prior 2003b, is an extended exploration of this theme, and the inspiration for much of what follows.

high (and packed as densely) as any of our mountains. Do we speak falsely, then, when we say, 'There is no golden mountain'? No, because ordinary thought and talk includes a tacit restriction to what is actually the case. Suppose our modal realist (unlike the real Lewis) believes in genuine transworld individuals – believes that I, for example, exist in possible worlds where I do not become a philosopher, where I am taller, where I live longer, etc. When someone says, at my funeral, 'Zimmerman's entire adult life was spent as a philosopher', does she speak falsely (by the modal realist's lights), because of my completely unphilosophical selves in other possible worlds? The modal realist should say: No, because there is an understood restriction to the way I am in the actual world. But one might offer different accounts of how these sorts of tacit restrictions work.

A brief sketch of (what Alvin Plantinga would call) a 'depraved semantics' for a simple modal language helps illustrate the nature of the perspectival propositions that modal realists might need. A 'pure semantics' (in Plantinga's sense; see Plantinga 1974, 126–28) need not be related in any significant way to the ostensible subject matter of the language being studied. It matches up entities with bits of the object-language, and the entities to which it appeals need only be sufficiently complex to model logical relations among interpreted sentences. A 'depraved' semantics is supposed to do quite a bit more. The things it uses to explicate the meaning of a sentence should seem, intuitively, to have something to do with the meaning of the sentence; and the jobs associated by the semantics with parts of the sentence (e.g., referring to objects, attributing properties to things, referring collectively, etc.) should seem to be what they are actually being used to do.

Semantical theories of parts of a language, or idealizations of parts of a language, are offered in many different spirits. Those interested primarily in the formal properties of a language will feel free to make use of entities in their semantics that have nothing to do with the typical subject matter of that part of language, or entities they may not even think exist (e.g., someone who doubts whether there really are such things as numbers might still have no qualms about using them as the 'objects' corresponding to the names in a language for which she is giving a semantics, for purposes of proving that the language has certain formal properties). Often, however, semantics are intended to do much more – to provide recipes for stating truth-conditions that reveal the inferential relations among propositions expressed by sentences in the target language, but that *also* are in some sense *about the same subject matter* as the original sentence. The uttermost depravity would be that of a semantics that provided meaning-preserving analyses of sentences in the object language. Those skeptical of such notions as 'meaning-preserving analysis' will think it is a mistake to set the provision of such a thing as the goal of a semantics. But who can doubt that some semantics come closer than others to 'retaining the same subject matter' in the object- and

meta-languages? And it is clear that one may take the entities mentioned in one's proposed semantics (e.g., properties, sets, functions, etc.) with more or less ontological seriousness. Plantinga's 'depravity' is, I take it, a combination of these two factors. It must come in degrees, because they do: a semantics is more depraved the more tightly it is tied to the true subject matter of the target sentences and (what the theorist takes to be) the true ontology. Depravity is a good thing in a semantics, if one wants a theory that shows how we manage to use parts of a language to say things about various parts of the world, and one would also like the theory to be consistent with other things one believes – including one's ontological views.

Plantinga and Robert Stalnaker both offer depraved semantics for modal discourse; their semantics make use of 'possible worlds' and individuals existing 'in' those worlds. There is much that divides them, of course. Stalnaker thinks that the truth-conditions offered up by his semantics can provide an analysis of what we mean when we make modal claims; he is utterly depraved.[21] Plantinga's depravity does not go quite so far. The possible worlds that appear in his semantics, unlike Stalnakers, are introduced as maximal consistent propositions – ones that are possibly true and that imply, for every proposition, either that it is true or that it is false.[22] If his semantics provided an 'analysis of what we mean', then each modal claim would have an infinitely long analysis. Though falling short of an analysis of the meaning of modal sentences, Plantinga's semantics is nothing like a 'pure semantics'; it is intended to provide truth-conditions for modal claims in terms of things that Plantinga accepts in his ontology and that are closely connected to the subject matter of the modal claims.

I want, ultimately, to describe a kind of B-theorist serious-tenser (typified by David Lewis and D. H. Mellor, though here I abstract away from many of the details of their views) who says that a semantics specifying tenseless truth-conditions can be given for tensed statements; and the semantical claims this B-theorist offers are 'depraved', i.e. the truth-conditions are supposed to reflect the subject matter of the tensed sentences, and to illuminate their meanings; and they are supposed to appeal only to things that really exist and conditions that actually hold (when the target sentences are in fact true). The semantics on offer is nevertheless not *utterly* depraved: the tenseless truth-conditions are not alleged by this B-theorist to be anything like analytically equivalent to or the literal meanings of the original tensed claims.[23] Parallel depraved semantics of this intermediate

[21] Stalnaker 2003, ch. 1.

[22] Plantinga actually defines worlds as maximal, consistent states of affairs; but his states of affairs are proposition-like entities. Cf. Plantinga 1974, ch. 4.

[23] This sort of intermediate depraved semantics is an instance of what is now often called the 'New B-Theory of Time'. For numerous perspectives on the New B-theory, see Oaklander and Smith 1994.

sort have been given for modal and 'egocentric' logic, and their structure and purpose in those cases helps make clear how little metaphysics is implied by the corresponding way of taking tense seriously. Examination of these parallel semantics will show why I agree with Lewis and Mellor: Taking tense seriously can be motivated and affirmed without one's incurring commitment to the existence of a metaphysically privileged present.

Modal logic and de-actualized propositions

No one denies the heuristic value of giving a semantics for modal logic in terms of possible worlds, in the way Kripke taught us to do (in, e.g., Kripke, 1963). Here is a very simple Kripke-style semantics for modal logic:

A 'model structure' is an ordered triple (w, K, R), where w is the actual world, K is the set of all possible worlds (including w), and R is a reflexive, symmetrical, transitive relation on K (so the resulting modal logic is S5). If W^1 stands in R to W^2, then, according to the intended interpretation, W^2 is 'possible relative to' W^1 – that is to say, it is one of the worlds that is relevant, from the point of view of W^1, to determining what is possible.

A 'model' is a model structure plus a function, V, from pairs consisting of an atomic formula ('p', 'q', etc. for propositional modal logic) and a world (W^1, W^2, etc.) to a truth-value – truth or falsehood, depending upon whether p is true or false of that world (i.e., whether p would have been true, had that world been actual).

A function V^* assigning truth-values at worlds to all the formulas of the language, relative to an assignment V, is given recursively. V^* agrees with V on the truth-values of atomic formulas at worlds, and is extended to complex formulas along these lines:

(1) $A\&B$ is assigned True at a world W iff A is True at W and B is True at W, otherwise it is False at W.

(2) $\sim A$ is assigned True at W iff A is not assigned True at W, otherwise $\sim A$ is False at W.

(3) $\Box A$ is assigned True at W iff A is assigned True at every W^* such that $W\ R\ W^*$ (i.e. W^* is possible relative to W); otherwise, $\Box A$ is False at W.

The possibility operator, $\Diamond$, is defined as $\sim\Box\sim$.

(4) Truth, period, is Truth at the actual world; so A is true iff A is True of w, and otherwise false.

The extension of this approach to predicate logic utilizes such rules as:

(5) x is F is assigned True at W iff x is in the domain of things existing at W, and in the set of things-that-are-F-at-W.

A notion of validity can be defined as truth on every model.

This semantics provides truth-conditions for all the well-formed statements of this simple modal language. The truth conditions for atomic sentences will have the form '*p* is true iff *p* is True at *w*', and the rules show how to generate them for all the other sentences of the language. Now suppose one thought that these biconditionals, under the intended interpretation (e.g., the elements of *K* are worlds, *w* is the actual world) could be turned into something like analyses of the meanings of the sentences they describe; that to believe the proposition that one could express using the sentence 'p' is to believe the proposition that *p* is True at *w*; that to believe something one could report by saying 'Necessarily, *p*', is to believe that *p* is True at every possible world. Turning the semantics into an attempt to state meaning equivalences of this sort would just turn $\Box$ and $\Diamond$ into $\forall$ and $\exists$ restricted to possible worlds. And there are many reasons to doubt whether this is adequate.

For one thing, many philosophers can only get themselves to believe in possible worlds if they can regard them as somehow reducible to something more respectable, like propositions or state-descriptions. Suppose (with Plantinga and many others) that '*x* is a possible world' needs defining in terms of maximally complete, consistent state-descriptions: for example, '*x* is a set containing, for every proposition, either that proposition or its negation; and it is possible that the propositions in the set all be true together'. On this assumption, someone who put forward the above semantics as explicating 'what we mean' with our modal talk would have us saying things that suck us into an infinite regress of worlds within worlds. And so Plantinga offers possible worlds semantics as a depraved semantics of the intermediate sort: His gloss on possible worlds semantics appeals only to things Plantinga accepts in his ontology (e.g., propositions and individual essences); the things to which he appeals do seem, intuitively, to have something to do with the subject matter of the object-language modal sentences; but the truth-conditions following from the semantics are not intended to provide statements that give a meaning-preserving analysis of the corresponding statements made using the object-language.

A modal realist, on the other hand, might take these truth-conditions more seriously, and offer them as the heart of a reductive theory of modality. But notice what the modal realist's truth conditions imply about the proposition expressed by '*p*' and the property attributed by means of 'is *F*': to believe the proposition that *p*, for instance the proposition that there is a golden mountain, is to believe, of something that is true at some worlds and not others, that it is true at the actual world. Reference to the actual world is suppressed in the sentence, '*p*' (e.g., 'There is a golden mountain'), but – on the hypothesis that these biconditionals give meaning equivalences – it *is* part of the meaning of the sentence nevertheless.

Some philosophers will reject this proposal about the meaning of modal sentences because they think that, since there are no such things as possible worlds, sentences expressing modal claims could not be about them. They will likely agree that the Kripke-style semantics is heuristically useful; but, if possible worlds do not exist, they had better not be required for the truth of things we believe.

But there is another, quite different reason to deny that the derived biconditionals give meaning equivalences – a reason that Lewis accepts, and that has nothing to do with worries about the existence and nature of possible worlds. Lewis would reject the suggested meaning equivalences because they do not take seriously enough the role of actuality in our thought. If the right-hand sides of these biconditionals really express *de-actualized* propositions, they are of the sort that is either true in every world or false in every world. And de-actualized propositions alone cannot fill all the roles that propositions are required to play in a theory of the meanings of sentences and the objects of propositional attitudes. The following sort of story helps to explain why:

Imagine a god-like being who exists in several of Lewis's possible worlds (never mind that Lewis himself rejected transworld individuals), and who could describe every single possible world in maximal detail. It seems that he could know what all the worlds are like without knowing what world he is in.[24] So, if acquiring a true belief is to be construed as coming to stand in a certain relation to a new proposition, when the god learns something about what is actually the case, he must come to stand in the relevant relation to something that is not a de-actualized proposition – after all, the being knows all of those already. What remain are things that are not de-actualized – things that can be true of some, but not all, worlds. If one chooses to use the label 'proposition' for anything that can be the object of propositional attitudes, like believing, doubting, etc., then one who accepts this line of reasoning will say that there are propositions true of some but not all worlds. Even the modal realist, then, who can take statements about worlds at face value, has reason to suppose that propositional attitudes of belief, doubt, etc. must take as their objects *not* propositions expressed by the de-actualized truth-conditions, but rather the kind of things that are true at some worlds but not others. David Lewis, the paradigmatic modal realist, endorsed this conclusion. But he rightly insisted that accepting it does not imply that the actual world is, in fact, radically different from other possible worlds. It only implies that the things we call propositions are, typically, more like properties of worlds. And if we want (somewhat perversely) to reserve the word 'proposition' for just those things that can be utterly non-relative bearers of truth, then only de-actualized propositions are 'real' propositions.

[24] For Lewis's development of the idea that propositions are properties of worlds, see Lewis 1979, 136–7; for the two gods who inspired my transworld god, see p. 139.

So a modal realist could offer the Kripke-style semantics as a depraved semantics, but one that stops short of utter depravity, as it cannot be used to provide meaning-preserving analyses for all the targeted propositions. Despite the de-actualized language in which the semantic theory is stated, the Lewis-style modal realist can claim to be 'taking actuality seriously' by denying that the propositions expressed by the de-actualized truth-conditions are the same as the objects of our propositional attitudes. Lewis provides objects for our everyday propositional attitudes that are perspectival, not de-actualized. But he can still deny that there are any *genuine* truths besides de-actualized ones; the things we express by sentences like 'There are no golden mountains' are simply not the sort of thing that can be true or false, *simpliciter*; they are True-in-*w* or False-in-*w*, and those features are on all fours with being True-in-*w** or False-in-*w**, when *w** is a different possible world from ours. Other worlds such as *w** are no less real, concrete, or interesting, intrinsically, than the one we happen to inhabit – or so says the Lewis-style modal realist.

An opponent of Lewis's modal realism (an actualist) will agree with Lewis about the failure of these truth-conditions to give meaning equivalences. She will agree with Lewis that, to be omniscient, the god must be related by belief to some further thing besides the de-actualized propositions used in the truth-conditions. But she will think that the extra object of belief is *not* merely true relative to some worlds and not others; it is simply true, true in as non-relative a way as anything can be true. For example, the proposition *that there is no golden mountain* is not something that merely stands in the True-at relation to some-worlds, and the False-at relation to others. It has the property Lewis reserves for none but de-actualized propositions – it is true *simpliciter*. Similarly, properties Lewis will regard as relations to worlds will be taken to be non-relational by the actualist. 'Being a philosopher for all of one's adult life' is not only a name for a relation that holds between me and some worlds, but not others. It can also be used to refer to a property that I have, quite simply and absolutely.

Despite these differences concerning which things have non-relative truth and which properties can be had non-relatively, the actualist agrees with Lewis about the importance of 'taking actuality seriously'. Ordinary sentences typically express, and ordinary objects of propositional attitudes typically are identical to, things that are not true-in-every-possible-world-if-true-in-any.

Egocentric logic and impersonal propositions

Lewis and Chisholm (independently and simultaneously) argued that the propositional contents of beliefs expressed in the first person cannot be identical with 'impersonal' propositions, i.e. propositions that are *not* merely 'true-relative-to-

a-person'.[25] John Perry (Perry 1977, 1979) provides memorable examples that illustrate the phenomena motivating the Lewis-Chisholm approach to first-person belief. Perry describes a messy shopper who, unknowingly, leaves a trail of sugar from the bag in his grocery cart. He notices the trail, and follows it, trying to find the messy shopper. He even catches a glimpse of someone he takes to be the messy shopper in a mirror, but then loses track of him. Finally, he discovers the truth, and exclaims: 'I am the messy shopper!' As Lewis and Chisholm point out, this sort of sentence could be described as expressing the self-attribution of the property *being the messy shopper*. But is there a proposition true of everyone if true of anyone, something that is more than just 'true of me', that represents the new information acquired by the messy shopper? None of the possible 'fillings' of the property, so that you get an impersonal proposition, seems equivalent to the new thought: Not the proposition *that Ted is the messy shopper*, *that the thinker of this thought is the messy shopper*, *that the man in the mirror is the messy shopper*, nor even the Kaplanesque *that dthat man is the messy shopper* (Kaplan 1979). So Lewis and Chisholm advise us to give up the search for an impersonal proposition, and take self-attribution as the most fundamental form of belief, and the property that is self-attributed (*being the messy shopper*), all by itself, as the object of belief.

A wrinkle not discussed by Lewis and Chisholm is how their first-person propositional objects should be understood as premises and conclusions in arguments. As logic is about norms governing reasoning, and any object of a propositional attitude is a potential subject of reasoning, one who accepts their conclusion should admit the viability of (what Prior called) an 'egocentric logic' of properties of persons (Prior 2003c, 2003d, 2003e). In egocentric, '*p*', '*q*', etc. stand for things like 'sitting', 'standing', 'being such that Nixon is president', etc. To affirm one of them is to self-ascribe it – e.g., for me to self-ascribe 'sitting' is for me to believe that *I* am sitting. A Kripke-style semantics could be given for egocentric logic of (the simplest kinds of) statements involving the first person. It would run along the following lines – but, for reasons that are becoming familiar, Lewis and Chisholm will say that the biconditionals it generates for first-person sentences merely give *truth-conditions*, not meaning equivalences:

A 'model structure' for egocentric is still an ordered triple (*I*, *K*, *R*); but, on the new intended interpretation, *K* is the set of all persons, including the distinguished individual, *I*, who is to be identified with the speaker. The reflexive,

[25] See Lewis 1979; and Chisholm 1981b. Hector-Neri Castaneda drew attention to the problem Lewis and Chisholm aim to solve (in Castaneda 1966, and elsewhere); and John Perry discussed it at length, offering his own, less radical, solution (Perry 1977, 1979).

transitive, symmetrical relation *R* can now be thought of simply as 'co-existing with'.[26]

Again, a 'model' is a model structure and function *V* from pairs consisting of an atomic formula and a person in *K* (P^1, P^2, etc.) to a truth-value – true or false, depending upon whether *p* is true or false of that person (i.e., whether *p* would be true of me, *were I that person*).

The recursive *V** assigning every sentence a truth-value at each person in *K* now includes an 'everybody operator' *L* (and a defined 'somebody operator' *M*), allowing speakers to make unquantified statements in egocentric that are about everybody (somebody).

(1*) *A&B* is assigned True at a person *P* iff *A* is True at *P* and *B* is True at *P*, otherwise it is False at *P*.

(2*) *~A* is assigned True at *P* iff *A* is not assigned True at *P*, otherwise *~A* is False at *P*.

(3*) *LA* is assigned True at *P* iff *A* is assigned True at every *P** such that *P R P** (i.e. *P** and *P* co-exist); otherwise, *LA* is False at *P*.

MA, defined as *~L~A*, means that *A* is true relative to somebody.

(4*) Truth, period, is truth for me; so *A* is True iff *A* is True at *I*, and otherwise false.

Again, validity is truth on every model.

Truth-conditions for all the sentences of the object language can be derived from these rules. But if I took the biconditionals stating these truth-conditions, under the intended interpretation for egocentric, as statements of the meanings of the sentences, *L* and *M* would be turned into $\forall$ and $\exists$ restricted to persons; and 'I am the messy shopper' would mean the impersonal proposition *that Zimmerman is the messy shopper* (or some proposition that is true relative to everyone). But then propositions would all be impersonal, and (without some further story about first person grasp of propositions) impersonal propositions do not seem to do justice to the fact that I come to believe something new when I learn that I, myself, am the messy shopper.

[26] In order to make egocentric perfectly analogous to tense logic, Prior puts more structure into his relation 'R'. (Prior's approach is entirely axiomatic, so he does not actually provide a semantics specifying a relation of 'relative accessibility'; but it is obvious how to give a Kripke-like semantics for his egocentric logics.) Tense logic has two pairs of analogues to $\Box$ and $\Diamond$: 'It has always/sometimes been the case that', and 'It will always/sometimes be the case that'. Prior interprets one pair of analogues to $\Box$ and $\Diamond$ as 'It is true of everyone/someone taller than me . . .' and the other as 'It is true of everyone/someone shorter than me . . .' (Prior 2003d). Or he imagines everyone is ordered by relative goodness; in that case, 'R' is 'being better than' (Prior 2003e).

The Lewis-Chisholm approach to the first person requires a way of saying that, from the proposition *that I am the messy shopper*, it follows *that someone is the messy shopper* – a logic that does not require that the first sentence expresses an impersonal proposition. The propositions of such a logic look for all the world like properties of persons. They can be given impersonal truth-conditions, relative to a choice of speaker or thinker. And, when using the impersonal language in which the semantics is stated and the impersonal truth-conditions given, it makes sense to say that, really, nobody is special. But still, the first person is taken seriously because sentences that use the first person are used to express thoughts that are not impersonal propositions; some propositional attitudes have, for their objects, personally-perspectival propositions – propositions the truth or falsity of which is relative to persons.

There are only a few modal realists who reduce modal notions to explicit talk about worlds – leastwise, worlds as real and concrete as the actual world. But almost everyone is a 'personal realist'; each of us believes that there really are such things as persons, that he or she is one of them, and that the truth of first person thoughts is determined by the properties had by the thinker of those thoughts. But one can accept all of this, accept the literal truth of the truth conditions for first person ascriptions that mention the speaker, and still 'take the first person seriously'. One can, like Chisholm and Lewis, insist that, if we want to use 'proposition' as a name for the objects of propositional attitudes like believing, doubting, etc.; and if acquiring new beliefs, for instance, must involve a change in attitudes toward propositions; then not all propositions are of the impersonal sort – they are not all true-of-everyone-if-true-of-anyone. Granted, this makes the objects of propositional attitudes look like properties of persons; but of course that is exactly what Chisholm and Lewis say that they are.

An egocentric analogue of actualism ('personalism', to steal and abuse a term) is very hard to imagine. Perhaps there is some kind of not-merely-epistemological solipsism that would qualify. In any case, only the maniacally egocentric could be this sort of personalist.

Tense logic and de-tensed propositions

The reasons typically given for supposing that some propositions are temporally perspectival are very similar to the sorts of reasons just canvassed for the ineliminability of modally and personally perspectival propositions.

Lewis agreed that there were similar reasons for treating the objects of propositional attitudes as non-eternal – i.e., as things that can be true at some times and false at others, and that consequently look very much like properties of times, at least to a B-theorist (Lewis 1979, 146). Suppose that kidnappers tell their victim the exact times at which he will be taken to various places during the night. Still,

he may fall asleep in the trunk of the car, and wake up wondering, 'Am I at the abandoned warehouse now?' The victim learns something when the trunk is opened and he sees that he is at the warehouse – despite the fact that he already knew that he *is* at the warehouse at such-and-such times.[27]

A Kripke-style semantics for temporarily true propositions proceeds much as in the modal case, but with two primitive operators: *G* and *H*, meaning 'it is always going to be the case that' and 'it has always been the case that', respectively. Each is a kind of necessity, one relative to the future and the other to the past.

In the temporal case, the intended interpretation of the model structure (*N*, *K*, *R*) would make *K* the set of all past and future times. The distinguished member of *K*, *N*, is to be thought of as 'now', the present time. *R* is an irreflexive, asymmetrical, transitive relation on *K*. Suppose that T^1 and T^2 are members of *K*, and that T^1 stands in *R* to T^2; then, on the intended interpretation, T^2 is 'later than' T^1. 'T^1 *R* T^2' means 'you *will* get there (T^2) from here (i.e., T^1)', i.e., if you are trying to figure out, from the point of view of T^1, how things will go, T^2 is one of the worlds you need to look at – what happens there is something that will happen later.

A 'model', again, is a model structure plus a function *V* assigning truth-values to atomic formulas at the various times in *K*. The recursive definition of the function extending truth-values at times to all other formulas is just as in the other two cases, except for the need to introduce two basic modal operators, each analogous to □, one for the future, and one for the past.

(1**) *A*&*B* is assigned True at a time *T* iff *A is* True at *T* and *B is* True at *T*, otherwise it *is* False at *T*.

(2**) ~*A* is assigned True at *T* iff *A is* not assigned True at *T*, otherwise ~*A is* False at *T*.

(3**) *GA* is assigned True at *T* iff *A is* assigned True at every *T** such that *T R T** (i.e. *T** is later than *T*); otherwise, *GA is* false at *T*.

'*F*', defined as '~*G*~', is the usual choice for a tense operator representing 'It will (at some time or other) be the case that . . .'.

(4**) *HA* is assigned True at *T* iff *A is* assigned True at every *T** such that *T** *R T* (i.e. *T** *is* earlier than *T*); otherwise, *HA is* false at *T*.

'*P*', 'It was (at some time or other) the case that . . .', is defined as '~*H*~'.

(5**) Truth, period, is truth at the present time; so *A* is True iff *A is* True at *N*, and otherwise false.

[27] Philosophers of language are always questioning the poor guy locked in the trunk; e.g., Kaplan 1989, 536.

These are rules for propositional logic; tensed predicate logic will require semantical clauses such as:

(6**) *x* is *F is* assigned True at *T* iff *x is* in the domain of things existing at *T*, and in the set of things-that-*are*-*F*-at-*T*.

A simple tense logic along these lines is, of course, too crude to represent many of the phenomena associated with the tenses of verbs in natural languages, and other terms and connectives that interact with tense. Even the simplest past tense sentences, like 'Zimmerman sat down', do not seem to be equivalent to the sort of indefinite past tense sentences that result from modifying 'Zimmerman sits down' with '*P*'. And, as soon as 'now' and other means of referring to times are added to a very simple tensed language, massive complications are required in the logic.[28] Still, it must be admitted that the temporal operators *H*, *G*, *F*, and *P* function in a way that is quite similar to the workings of actual tenses; after all, it is very easy for those innocent of tense logic to get the hang of their meaning by means of the briefest and breeziest of natural language paraphrases.[29] Biconditionals derivable from this sort of semantics might be offered, by a B-theorist, as giving the truth-conditions for the sentences of a fragment of English, or at least for a primitive sort of pseudo-English – a modified form of English from which all means of referring to temporal relations, other than tense, have been banished; and within which only the tenses generated by *H*, *G*, *F*, *P*, and their iterations, are allowed. It is surprising how fully one can describe the world using little more than these conceptual tools (Prior, 1967).

Many B-theorists – e.g., Russell; the Smart of Smart, 1963; and Grünbaum – felt an obligation to provide something like meaning-preserving analyses of tensed sentences that made use of nothing but tenseless verbs; and some philosophers (e.g., Gale) took the B-theorists' failure as vindication of the A-theory. If the Kripke-style semantics for tense logic generated eternal propositions to serve as the meanings of sentences of a simple tensed language, that would have been a major victory for these B-theorists.

But reflection upon the propositional attitudes of the kidnapping victim, and a host of similar cases, has convinced many philosophers, including many B-theorists, that no de-tensed semantics can deliver up propositions equivalent in meaning to all tensed sentences. The biconditionals derivable from the above

[28] For a classic attempt to add 'now' to tense logic, see Kamp 1971. For an overview of subsequent work on tense logic with 'now', see Burgess 1984, 121–24.

[29] Although there must be some similarity between actual tense and the temporal operators of tense logic, I am prepared to admit that the best semantics for English may not represent tenses of verbs modally. For discussion of objections to the idea that tenses function like operators, along with brief descriptions of the most popular rival approaches to tense, see King 2003.

semantics for a simple tensed language include: *A* is true iff *A is* True at *N*. Could the tensed sentences displaying the logical forms of this primitive tense logic be regarded as having the same meaning as the sentences on the right hand sides of such biconditionals? It is natural to suppose that the man in the trunk comes to know a proposition he did not know before when the trunk is opened, and he thinks, 'I am now at the abandoned warehouse'. But what he says to himself does not seem to mean the same thing as any eternal statement of the form 'I *am* at the warehouse at *N*'. This de-tensed sentence expresses an eternal truth if it is true at all; and so the name '*N*' must be a bare label for the time in question, one that does not imply that the time in question is present. The man could have known eternal truths of that sort before being let out of the trunk, so they cannot be what he learns when it opens.

Of course A-theorists will accept this line of argument. They believe there are objective facts about which time is present; and a predication of 'being present' to just one time cannot be true if the sentence used is de-tensed, expressing an eternal proposition. But some B-theorists have accepted it as well. These so-called 'new B-theorists', including David Lewis and D. H. Mellor, insist that no particular time is *really* any different from any other, despite the ineliminability of a designated 'now' in the semantics of tensed language. The new B-theorists are, then, not nearly so ambitious as the old. They do not see themselves as in the business of providing tenseless sentences that 'mean the same thing as' tensed sentences, by any reasonable standard of meaning equivalence. The new B-theorists admit that the propositions we grasp include temporally perspectival ones, and that they cannot be traded in for temporally non-perspectival ones without falsifying the phenomena that are to be explained: namely, the nature of propositional attitudes like belief, and of the thoughts expressed in tensed sentences. But they believe – and I am inclined to agree – that the ability to give depraved, de-tensed truth-conditions for an important class of tensed assertions is enough to justify their claim to have given a theory of the most basic sort of temporally perspectival thinking, and to have done so without positing a privileged present.

The morals to be drawn from the three Kripke-style semantics

Lewis thinks that the truth-conditions for sentences of the modal and egocentric languages that are derivable from the Kripke-style semantics can be taken perfectly straightforwardly, even if the tenseless sentences on the right hand side of these biconditionals cannot be regarded as giving the meanings of the perspective-infected objects of thought expressed by the sentences on the left. $\Box$ and $\Diamond$ are ways of talking about what is true at other worlds, *L* and *M* are ways of talking about what is true of other persons. And so atomic propositions in these logics are true of some worlds or persons and not others, and therefore resemble

(according to Lewis, are) properties of worlds or persons. Lewis would regard the above semantics for tense logic in the same spirit: *G*, *H*, *P*, *F* provide ways of talking about what is true at other times, so that the *p*, *q*, etc. of propositional tense logic are very like (according to Lewis, are) properties of times. In each of the three cases, one can still argue for the indispensability of modal, egocentric or tense logic along similar lines: One could know all the non-perspectival propositions (the de-modalized, impersonal, and eternal propositions) without knowing what is true actually, or true of oneself, or true at present; therefore, the non-perspectival propositions do not exhaust the objects of propositional attitudes.

In the temporal case, a B-theorist like Lewis – or anyone, B-theorist or A-theorist, who is also an eternalist – can accept that propositions expressed by tensed sentences change truth value, but assert that a Kripke-style semantics in terms of times does at least give the truth conditions of the tensed propositions relative to the assumption that some time, *N*, is the present time. The B-theorist and the A-theorist eternalist can both offer the semantics in a spirit of depravity – that is, they can use the semantics as the heart of their theories about the workings of tensed thought and talk. It can be put forward as much more than a 'pure semantics'. After all, it appeals only to things that, according to an eternalist metaphysics, really do exist, and to conditions that really can hold. But the depravity of the semantics does not require the delivery of meaning equivalences between tensed sentences and de-tensed sentences, identities between the propositions expressed by tensed sentences and eternal propositions; depravity does not require what I earlier called 'uttermost depravity'.

In the temporal case, as in the modal and egocentric cases, insistence upon the need for perspectival propositions need not signal a presupposition that the locus of the perspective is special. Lewis thinks that ordinary sentences express propositions that are only true relative to the actual world, and true relative to the speaker, not because he believes there is anything special about one world, or one person. Really, all worlds are on a metaphysically equal footing, as are all persons. It is a peculiarity of our thought and talk that it is 'self-locating'. This requires that propositional attitudes take objects that are not de-actualized, and that are not impersonal. But one may still take the wildly implausible view that all possible worlds are as concrete as the actual world, and the starkly obvious view that all persons are, metaphysically or ontologically, on a par. Similarly, one may deny that the propositions we think and express are eternal propositions, without thinking that there is anything special about the present moment or present things and events.

In each of the three cases, someone who offers the above sorts of truth conditions regards perspective-relative truth as essential for explaining some features of *us*, of our thoughts and the sentences expressing our thoughts; but he also

provides a theory of *what we are doing* by means of such perspectival thinking, a theory that is stated in completely non-perspectival terms: the truth-conditions given are de-actualized, de-personalized, and de-tensed propositions.

Of course, many philosophers will back away from the radical move of introducing perspectival propositions as the best response to the puzzles about the god who does not know which world is his, or the messy shopper, or the person in the trunk. At least, many philosophers of language will reject perspectival propositions as the 'official content' (as Perry puts it) of the relevant thoughts and sentences; many will attempt to deal with the worrisome apparent differences in propositional attitudes without positing differences in the objects of those attitudes – at least, not the objects that are properly evaluated for truth and falsehood. But the strategy of introducing propositions that are only true relative to the problematic entities – worlds, times, and selves – has appealed to philosophers in each case. Those who take propositions to be 'sets of centered worlds' take care of all three forms of perspective-relativity at once.[30]

4. B-theorist serious-tenser vs. A-theorist eternalist: What is the difference?

In the remaining sections of the essay, I shall be comparing the views of a B-theorist who takes tense seriously in this way with those of a hypothetical, would-be A-theorist who accepts the existence of all objects and events, past, present and future – that is to say, she accepts an unreduced eternalist quantifier, ranging over a single domain including everything that has ever or will ever exist. This eternalist A-theorist wants to say that, in addition to the four-dimensional universe, there is the 'moving spotlight' of presentness passing over the block or moving through it. But what might she mean by this? What does she posit that is missing from a B-theorist's metaphysics?

Note, first of all, that the eternalist A-theorist has the materials to provide the very same truth-conditions given by the serious-tensing B-theorist. The B-theorist gave truth conditions for tensed '*p*' in terms of '*p is* True at *N*', and claimed that '*p is* true at N' expresses an eternal proposition, always true if true at all. I gestured at the notion of predication that would be used in a B-theorist's truth-conditions for (tensed) '*x* is *F*': it is a matter of being in the set of things-that-*are*-F-at-N; and – given the tenseless condition for set membership, plus eternalism – this is a once-for-all set, it is not the sort of thing that can change its members over time.[31] Presumably, the A-theorist eternalist can at least *make sense* of such

[30] See, e.g., Lewis 1979, 147–8; and Chalmers 1996, 56–65. As Lewis notes, the idea of taking sets of centered possible worlds as propositional objects is suggested, but not adopted, by Quine (Quine 1969)

[31] For set-like things that have different members at different times, see Gasking 1960.

locutions. She has the times (whether thought of as slices of a substantival space-time or as mere sets of events), and the things located at them. Furthermore, she can see that the B-theorist's expression '*is* True at *N*' is a predicate that cannot be only sometimes true of a proposition. In the discussion of tensed and tenseless sentences and propositions, near the beginning of this essay, I pointed out how easy it is to turn a simple, present tense sentence such as 'I am in New Jersey' into a sentence expressing a tenseless proposition about my whereabouts: 'I *am* in New Jersey on February 23, 2005'. In the sort of scenario envisaged earlier, the latter sentence is spoken while I consult my calendar – perhaps I am simultaneously addressing a police detective's questions about my whereabouts at the time of a crime and my availability for further questioning. The A-theorist eternalist must also recognize that the set of things-that-*are*-*F*-at-*N* cannot change members. If sentences of the form '*x is F* at *T*', as used in the B-theorist's truth conditions, express eternal propositions; then the predicate in such sentences, '*is F* at *T*', must be true of an individual always or never. So an eternalist has no choice but to admit that 'the set of things-that-*are*-*F*-at-*N*' always refers to the same things.

I am assuming that being true at a time and having a property at a time are not strange technical notions, invented by the B-theorist. They are already being used, in English, to express propositions guaranteed to be eternally true or eternally false; and it would be disingenuous of the A-theorist to pretend not to understand how they work. 'Being in New Jersey at 9:54 p.m., February 8, 2005'; 'crossing the Delaware on December 25, 1776'; these can easily be predicated of individuals in such a way that eternal propositions are expressed. And because we understand these uses of temporally-indexed predicates, we surely can understand a proposition's being true at a time, and a thing's satisfying a predicate at a time (so long as we understand the notions of truth and satisfaction). So our eternalist A-theorist must admit that she understands the tenseless truth-conditions given by the B-theorist, and that she can give them, too.[32]

What, then, does the eternalist A-theorist believe that the serious-tensing B-theorist does not? What must the former philosopher add to seriousness about tense in order to arrive at a view that says something distinctive about time, and not just about semantics or the temporally perspectival nature of thought? One obvious move, made by many A-theorists, is to deny the existence of past and future things, events, and times. The analogous move in the modal case is even more popular: To deny that there are any worlds other than the actual one, and to

[32] The argument of this section, to carry conviction, would have to take account of Ludlow 2004. Considering his closely argued case for the impossibility of a tenseless metalanguage would be out of place here, given the breathtakingly abstract and breezy level at which the arguments of my paper are being conducted.

deny the existence of merely possible entities more generally. Only a solipsist can accept a similar thesis about other persons.

But of course denying the existence of past and future things is precisely the move the eternalist A-theorist refuses to make. So what *other* doctrine might she set forth as the crux of her metaphysical disagreement with the B-theorist?

Tensed truth-conditions

Both eternalist A-theorist and serious-tensing B-theorist affirm that the objects and events of other times exist. The latter maintains that the semantics for tensed sentences that can be given in terms of what is true at earlier and later times provides truth-conditions for tensed propositional contents. Does the eternalist A-theorist deny this? I have argued that she cannot. So what does she believe that would be rejected by any self-respecting B-theorist?

One natural thing for an A-theorist to say at this point is that the tenseless truth-conditions do not tell the whole story: In addition to these tenseless truth conditions, there are *tensed* truth conditions for the same tensed sentences. E.g., '*x* is *F*' is true iff *x* is included in the set of things that are (i.e., *presently* are) *F*. Unlike the tenseless semantics, a semantics stated in a tensed meta-language may be thought to be able to generate meaning-preserving analyses of the sentences of the object-language: the tensed truth-conditions may be thought to be 'giving the meaning of' the tensed sentences in a way no tenseless truth-conditions could (according to serious-tensers of all stripes).

But I do not see why the B-theorist serious-tenser should deny that such truth conditions hold; after all, he is no enemy of inescapably tensed language and temporarily true objects of propositional attitudes. The A-theorist may pound her fist and say, 'On my view, tensed predication is *more fundamental* than tenseless predication; I explicitly *define* the tenseless form of a verb in terms of its significantly tensed version'.[33] But it is a nice question what 'more fundamental' should be taken to mean in this context, and how to understand the claim about direction of definition. Both A-theorist and serious-tenser B-theorist agree that the meaning of tensed statements cannot be analyzed in terms of tenseless ones. And the serious-tenser B-theorist may well admit that every proposition expressible using

[33] At least one philosopher who is an eternalist A-theorist (according to my definition of 'eternalist'; see note 8, above) is reluctant even to insist upon the need to define tenseless locutions in terms of tensed language; and so is in no position to claim that tensed predication is more fundamental than, because definitionally prior to, tenseless predication. William Lane Craig is willing to take as true, and in need of no translation into tensed terms, tenseless sentences whose truth depends upon tenseless quantification over everything that has ever existed or will ever exist. And he is willing to say that non-present individuals in the domain of the quantifier in a tenseless sentence 'do have (tenselessly) reality' even when they are not present and so do not exist in Craig's favored sense of existence – namely, availability to be quantified over in a tensed language. See Craig 2000, 210.

tenseless verbs is also expressible by a tensed sentence – a sentence that uses tensed verbs, but happens to be either eternally true or eternally false. The A-theorist should certainly want to be able to understand any proposed, plausibly meaningful sentence using tenseless verbs as equivalent to some combination of tensed claims contrived so as to guarantee either eternal truth or eternal falsehood. Assuming this can be done, the serious-tenser B-theorist should be willing to accept that each of his tenseless truth-conditions is equivalent to something expressible using only tensed verbs.

The fundamentality and priority of tensed talk and tensed truth conditions is most naturally taken to be a matter of the direction of analysis. Tenseless expressions, such as '*is* true at *T*' and '*is F* at *T*', are to be analyzed or defined in terms of tensed expressions. The A-theorist may well offer the following sorts of tensed definitions:

(D1) p *is* True at *T* = df It was, is or will be the case that: *p* is True and *T* is present.
(D2) *x is F* at *T* = df *x* is *F* and *T* is present.

But the serious-tensing B-theorist, no enemy of tensed language, ought to admit that the *definiens* of each proposed definition articulates a necessary and sufficient condition for the truth of its *definiendum*. The only disagreement could be in the proposed direction of analysis.

Insofar as *direction of analysis* is a cognitive notion, indicating priority and posteriority in our acquisition or understanding of concepts, the serious-tensing B-theorist is likely to agree that the proposed definitions put things the right way round. In the *ratio cognoscendi*, perspectival thought comes first. If direction of analysis is to provide a basis for a deep difference in views about the nature of time, it must be understood in some more objective way – a reflection of the *ratio essendi*, whatever exactly that is.

Putting much weight upon direction of definition is problematic not only because a non-cognitive notion of definitional priority is hard to make out. It will also be problematic for any eternalist A-theorist who takes some tenseless claims to lack definitions in tensed terms. If there are numbers or other abstracta existing 'outside of time', or if there is a timelessly eternal God, an eternalist A-theorist might well want to describe such entities and their relations to temporal items in tenseless terms. And it will prove difficult, I should think, to find tensed definitions equivalent to these radically tenseless statements.

Still other tenseless sentences will be hard to define in tensed terms, even given an eternalist ontology. Many objections to presentism are based on the difficulty of grounding relational claims about nonsimultaneous things. Some of these problems will not simply go away as soon as an A-theorist adopts eternalism;

irreducibly tenseless sentences seem essential to the description of certain types of cross-temporal relations, for example.[34] If so, an A-theorist who is an eternalist because of such problems for presentism will have reason to deny that all tenseless talk can be defined in tensed terms.

I suggest that the best way for the eternalist A-theorist to articulate a distinctive view about time is *not* to rely upon a subtle claim about which side of a necessary biconditional is *really* being defined, and which is doing the defining. The A-theorist claims that the tensed terms such as those used in the definiens of (D1) and (D2) (and, for that matter, in most spoken English) are really terms for things – propositions, properties, relations, or something else – that can have no place in a respectable B-theorist's metaphysics. The B-theorist may be able to give tenseless truth-conditions for tensed ascriptions of truth and tensed predication (relative to a choice of a particular time as 'the present'); but he cannot accept that tensed attributions of truth and tensed predications perform the functions that – according to her, the A-theorist – they in fact perform. What needs spelling out, then, is the 'real function' of tensed talk, and why it cannot be accepted by the B-theorist.

The essence of the A-theory is the objectivity of the distinction between past, present, and future. What is presently true is true, *simpliciter*, not merely true relative to a time or utterance or situation. One source of temporary truths is the fact that there are temporary properties that some things exemplify, *simpliciter* – in other words, properties that are not merely exemplified relative to a time, utterance, situation, or anything else. The doctrines of temporary truth, *simpliciter*, and of temporary exemplification, *simpliciter*, seem likely (and closely interrelated) ways of making the A-theorist's point: namely, that present things and events are objectively special. Both strategies will be explored at length in the remainder of this paper.

If tensed sentences do something that no self-respecting B-theorist can allow, something to do with non-relative temporary truth or non-relative temporary exemplification; then the eternalist A-theorist should look for this 'something more' in the vicinity of a non-relative truth-predicate that applies to tensed sentences or a non-relative form of predication that yields temporarily true sentences. I say 'in the vicinity' advisedly, however. Insistence upon non-relative truth-predicates and non-relative predication will surely not, by itself, distinguish the eternalist A-theorist and serious-tensing B-theorist. Does the latter admit that there is, in English, a predicate 'is true' that applies to names for temporarily true things, like the proposition *that it is snowing*, to yield genuine

[34] Sider raises some particularly hard problems of this sort about states of motion (Sider 2001, 27–35). Although he is arguing against presentism, this particular objection is just as serious for any A-theorist who seeks translations of all tenseless sentences in terms of the tenses of orthodox 'slice-operator' tense logic.

sentences? Of course he does. Does he admit that such predication is non-relational? If that simply means that the concatenation of the name of a temporarily true proposition ('That it is snowing') and this truth predicate ('is true') can form a complete English sentence without the addition of a term for a time or a phrase of temporal qualification . . . well, then of course he does. Any competent English-speaker knows as much. Similarly, the B-theorist admits that English contains a sort of non-relational predication, even of temporary predicates. At least, he must admit this much: 'is straight' and 'is bent', when preceded by the name of an individual, yield a complete English sentence without the addition of any words indicating temporal qualification; and the named individual may, over time, change its shape. What the A-theorist needs to find is not a thesis about *language*, but a thesis about *the world*; she needs to say that tensed sentences describe some non-linguistic fact that is important to A-theorists but anathema to B-theorists. Language-based notions of non-relational predication will not do the trick.

One way some A-theorists have tried to distinguish themselves from B-theorists is to insist that tensed sentences that change their truth-values over time nevertheless succeed in expressing genuine propositions, not mere properties of times (compare Prior 2003b). A B-theorist of Lewis's stripe is happy to identify the semantic value of a significantly tensed sentence with a property of times. A tensed proposition just is a property of times, says Lewis, and its being true relative to a time is simply a matter of its being exemplified by the time in question. One might, with Prior, put one's foot down here and insist that the big difference between the eternalist A-theorist and serious-tensing B-theorist is just that the former thinks tensed sentences express, and tensed truth-conditions describe, *genuine propositions*; and their genuineness consists in their not being exemplifiable *by* anything, i.e., in their not being properties of times.

But is it inevitable that the serious-tensing B-theorist admit that propositional attitudes expressed by means of tensed sentences have properties of times as their objects? Suppose our B-theorist is a nominalist (in the traditional sense of the term, not the Harvard sense[35]): that is, he rejects universals, although he may accept sets. Suppose he is the sort of nominalist who treats monadic predicates as connoting sets of individuals satisfying the predicate, and who therefore admits sets of times as the semantic values of tensed sentences. He analyzes the fundamental B-theoretic semantic notion '*A is* true of *T*' as meaning '*T is* a member of the set of *A*-ish times'. Does he thereby treat tensed sentences as expressing properties of times in the sense rejected by our Prior-inspired A-theorist? Suppose the A-theorist in question also accepts the existence of sets. Then, because she is

[35] At Harvard, one may believe in universals but still be a nominalist so long as one repudiates sets. (For a brief discussion of the peculiarities of the Harvard nominalists, see Zimmerman forthcoming(a).)

an eternalist, she also accepts that there are the sets of times used by the B-theorist in his tenseless truth conditions for tensed propositions. To distinguish herself from the B-theorist, must she insist that, corresponding to tensed sentences, there be some semantic value that is more than a mere set of times at which the sentences are true? Does her A-theoretic commitment boil down to a rejection of nominalism, an insistence that something more than a set of instances is required to be the semantic value of a predicate?

It would be exceedingly odd for the A-theory/B-theory debate to end here. And I do not think that it does. A disagreement about the fundamentality of tensed truth is possible no matter what ontology of propositions and properties one adopts – whether the meaning of a tensed sentence is taken to be a set of times or a set of sentence tokens or a property of times or some other sort of abstract object. For, whatever their metaphysical nature, one may insist that some of these things are true, *simpliciter*, and that this class includes ones that will become or once were false. That is, the A-theorist may distinguish between, on the one hand, various kinds of relative truth – true-at-a-time, true-simultaneously-with-such-and-such-event, etc. – and, on the other, a kind of truth that is not relative to anything. Given this notion, it does not matter what ontological status one gives the tensed truth-bearers; what matters is that they are susceptible of a kind of truth that is non-relative but, nevertheless, changeable. One may express this insistence upon a non-relative kind of truth by the denial that tensed propositions are properties of times, without presupposing that nominalism is false – provided that 'proposition' and 'property' are not meant to carry too much metaphysical freight. If 'proposition' just means 'whatever is the semantic value of (a certain kind of) sentence (i.e., ones that can be used to report what one believes)' and 'property' just means 'something that cannot be true all by itself, but only "true of" something'; then Prior's move is equivalent to the simple insistence upon non-relative truth.

Construing the difference between an eternalist A-theorist and a serious-tensing B-theorist as fundamentally a disagreement about *truth* raises an interesting question: Could the non-relative nature of truth for temporarily true propositions be insisted upon by a *deflationist* about the truth predicate?

Although the A-theorist deflationist will be allergic to a truth predicate, she does have perfectly straightforward deflationist explications of the tenseless locution, ' "*p*" is True at T', that appears in the Kripke-style semantics. Something like the schematic principle at the heart of most deflationary theories, 'p is true iff p', is available to the A-theorist who would make sense of '*being* True-at-a-time' without explicit mention of *truth*:

(A) '*p*' *is* True at *T* iff: It was, is or will be the case that: *p*, and *T* is present.

The truth-deflating A-theorist, if she is an eternalist, is in the same boat as other A-theorists: the B-theorist's tenseless truth-conditions are perfectly cogent and

adequate. And the serious-tensing B-theorist accepts tensed truth-conditions, too. So what does she, the A-theorist, say that the B-theorist denies? The A-theorist who does not countenance serious, non-eliminable use of a truth predicate cannot very well say that the fundamental difference is to be found in the non-relative truth of temporarily true propositions.

Perhaps the deflationist A-theorist could stress the notion of a *complete* statement or a *complete* proposition, insisting that tensed sentences like 'It is snowing' can be used to make complete statements or express complete propositions. But this does not sound like a thesis the serious-tensing B-theorist should deny. It is a claim about what sorts of things form complete units for certain purposes within a theory about human *cognition*; it does not immediately imply anything about the metaphysics of time. At any rate, A-theorist emphasis upon a notion of 'cognitive completeness' will be encountered in the next section, as part of an attempt to ground the A-theory in a metaphysical thesis about temporary monadic properties. The merits and weaknesses of this move will be discussed in more detail there.

If one assumes that the difference between the A-theory and B-theory is based upon the fundamentality of tensed truth, a deflationist about truth will have trouble discerning a deep metaphysical difference between the two (a result that some deflationists will no doubt welcome – yet another metaphysically-loaded notion deflated!). Because deflationism about truth has considerable appeal, it is worth exploring the possibility of locating the fundamental metaphysical divide elsewhere.

5. Non-relational exemplification of temporary monadic properties

Suppose, then, that the A-theorist does not want to put so much weight upon a non-relational property of *being true*. One need not be madly anti-metaphysical to see the appeal of a 'thin' conception of truth, according to which the notion is dispensable – at least dispensable in the context of affirming the truth of an expressly articulated proposition (Soames 2003). And that sort of context is the one that would be used by the A-theorist who tried to distinguish herself from the B-theorist by emphasizing the truth, *simpliciter*, of particular examples of temporarily true propositions. Suppose, then, that our eternalist A-theorist sets aside tensed truth, and instead emphasizes the non-relational exemplification of monadic properties by individuals that change with respect to those properties. Let us see how much mileage she can get out of this idea, without having to fall back upon an appeal to temporary truth, *simpliciter*.

It will become important to distinguish between *monadic properties*, and *intrinsic properties*. 'Intrinsic' and 'monadic', as I use the words here, are terms for independent concepts; if it is true that all intrinsic properties are monadic, this

should be a substantive thesis.[36] A property is monadic if it can be satisfied by or true of an individual, with no qualification or relativity to anything whatsoever. *Being read by Zimmerman on November 1st, 1975* can be attributed to my copy of '*Giant-Size X-Men: Number 1*' without qualification. So it is a monadic property of the comic book, because it is true of a thing without qualification to a time or anything else. But, as 'intrinsic' is usually understood, this property would not be intrinsic. It is an extrinsic fact about the comic that I read it then. Here is a rough-and-ready characterization of 'intrinsic', as applied to the properties of concrete objects in space: a property of such a thing is intrinsic to a thing at a time iff it is a property a thing has just in virtue of the way it is at that time, and not in virtue of its relations to anything other than its own parts and that time.[37] (I should *not* want to completely rule out the possibility of treating an object's intrinsic properties as relations to times. I think there is a useful notion of 'intrinsic property' that does not foreclose the possibility of such things being, really, relations to times.)

The A-theorist need not take a stand on the hotly debated question whether the properties we intuitively think of as intrinsic – e.g., shape, mass, density, etc. – are really monadic (i.e., are really capable of being exemplified, *simpliciter*). What is important, for her purposes, is that *some* genuinely monadic properties can be had by things that change with respect to those properties. That being said, I shall nevertheless assume that *being bent*, *being straight*, etc. are among the best candidates for temporary monadic properties, and use them as paradigms of the plausibly genuinely monadic.

The A-theoretic principle that is meant to be captured by insistence upon non-relational exemplification is this: When a person's body is (presently) bent or straight, or when a concert is (presently) loud or quiet, that is just how the body or concert is, period. A thing's being bent or straight, loud or quiet, is very different from its *having been* or its *going to be* any of those things. The way an object is, now, is the way it *really* is; its relationship to the way it was or will be is much less robust, much less direct. *Having been bent* is like *being possibly bent*; it is to stand in some relationship to the property *being bent*, a relationship that is indirect and highly qualified. If one regards possible worlds and past times

[36] The notions of monadic and relational properties to which I appeal are intended to be the same as Lewis's (Lewis 2002); the distinction is between kinds of 'structured attributes', not predicates. For worries about the relations among the two sides of this distinction and those of the intrinsic/extrinsic contrast, see Humberstone 1996.

[37] For a slightly more serious attempt to analyze intrinsicness, see Appendix A of Zimmerman 1997a; and, for an even more serious attempt, see Langton and Lewis 1998. Our theories make use of a very similar (combinatorialist) strategy, although theirs is much more fully developed than mine, dealing with many objections I do not discuss (and, in fact, had not even considered). There has been considerable further criticism and defense of the Langton-Lewis proposal (see the papers by Marshall and Parsons, Langton and Lewis, Sider, Weatherson, Lewis, and Hawthorne, in Marshall *et al.* 2001).

as very similar, then the modification of the 'having' will be of the same sort in the modal and temporal cases. For example, if both worlds and times are maximal, consistent conjunctions of propositions (eternal and temporally-perspectival, respectively), as Prior and Chisholm thought; then for our A-theorist to be possibly bent or for her to have been bent is for there to be a possible world or past time that implies the proposition that she is bent. In both cases something – and the very same sort of something – 'gets between' her and the property. 'Contrariwise', she may insist, 'if I am seated at present, then I am seated, full-stop; I can truthfully say that there is nothing at all separating me from *being bent*.'

Both the eternalist A-theorist and the serious-tensing B-theorist should agree that presently seated people are bent, and persons wholly in the past are neither bent nor straight. They should agree that present rock concerts are loud, take place in stadiums, etc.; and that past ones, though they exist, are not loud, are not taking place in stadiums, etc. Past objects and events lack many of the empirically detectable properties that characterize them when present. So much eternalist A-theorist and serious-tensing B-theorist have in common. The A-theorist under consideration in this section adds the following claim to distinguish herself from the B-theorist: A tensed predication of loudness to a concert ascribes a genuinely monadic property that the concert gains and loses; but the B-theorist's tenseless truth-conditions make use of '*being*-loud-at-*T*', making 'being loud' a relational term, and the property *loudness* a relation to times. Perhaps *having been loud* is a relation, says our A-theorist, but not *being loud*.

As in the case of non-relative truth, insistence upon non-relative exemplification of monadic properties can survive translation into various ontological systems – competing metaphysical theories about the nature of exemplification and properties. First, consider someone who takes exemplification of a property to be really a matter of satisfaction of a predicate-type. She will surely say that some cases of satisfaction require two or more things and some only one. Our A-theorist will then say 'being to the left of' is satisfied by pairs of objects; 'being bent' by only one. I can satisfy this predicate all by myself; when describing what satisfies 'being bent', or what this predicate is true of (to use Quine's locution), one need only mention *me*, not me and a time. Consider, instead, someone who takes set-membership to be the basic form of exemplification. She will say that relational predicates correspond to sets of pairs, monadic predicates to sets of individuals. And the A-theorist who is stressing exemplification *simpliciter* will insist that 'being bent' is of the latter sort.

Note that the B-theorist cannot, on the face of it, say that '*x* is loud' attributes a genuinely monadic property, and '*x* is loud' is true if and only if *x has* this property and *is* located at the present moment. In the discussion of tensed and tenseless verbs of section 2, above, the two varieties of tenseless verbs were distinguished: Always-tenseless and sometime-tenseless. Whichever way one

takes the tenseless verbs in the proposal, the results are unsatisfactory. Suppose they are always-tenseless. Something is always-tenselessly loud iff it is loud whenever it exists. Many things are loud that are not always-tenselessly loud; a concert going on now may be loud, though it has had its quieter moments. But if it ever fails to be loud, it *is* not always-tenselessly loud; and this proposed truth condition would imply that the concert is not presently loud. So the proposed tenseless truth-conditions cannot use always-tenseless verbs. Suppose they make use of sometime-tenseless verbs. In that case, with *being loud* construed as a monadic property, anything going on now that is ever loud will turn out to be (presently) loud. But again, this is the wrong result. If the truth conditions appropriate right now for a tensed predication of loudness are that the concert *be* (sometime-tenselessly) loud and located in the present time, then a rock concert going on now will qualify as loud if it ever is. But of course not all rock concerts are loud all the way through; even one of Motorhead's concerts has its quieter moments – for example, that pregnant pause before the final power chord is struck.

But some B-theorists give tenseless truth-conditions for tensed predications of 'is bent', 'is straight', etc. that *seem* to allow for the monadic nature of the properties ascribed. Of course the B-theorist who says that *x* is bent iff *x is* bent at *T*, and then treats '*is* bent at' as expressing a relation to a time, has not so far shown any room in his view for monadic bentness. But there are other theories about the meaning of the tenseless sentence form '*x is F* at *T*'. One that allows that '*is F*' stands for a monadic property is the following: '*x has* a temporal part *y*, *y is F*, and *y is located at T*'. The tenseless '*is*' of '*y is F*' should be taken to be an always-tenseless copula. To predicate *is F* of *y* always-tenselessly is to say that tensed ascriptions of 'is F' would be true throughout *y*'s existence. So, if *y is* bent, it could never be true to say, using a tensed copula, '*y* is straight'. The B-theorist's tenseless '*y is* bent' is the attribution of a monadic property to *y* – it is true of *y*, *simpliciter*, i.e., it can be truly attributed without need of temporal qualification.

An eternalist A-theorist who seeks to distinguish herself from a B-theorist of this sort must do more than merely affirm that some things exemplify monadic bentness, and that some things are only temporarily bent. She must also insist that the things that are only sometimes bent are the very things that have the monadic property. They are not bent merely in virtue of relations to something else that has monadic bentness. What she must reject is some element of the doctrine of temporal parts.

The doctrine of temporal parts = Plenitude of Parts + TP Inheritance

Here is what I shall mean by 'the doctrine of temporal parts' – or just 'temporal parts', for short. It is the combination of two distinct doctrines: (a) a view about the number of objects one finds in the same place at the same time, made out of the same parts at that time ('Plenitude of Parts'); and (b) a thesis about the way

persisting objects inherit certain of their contingent, temporary properties from the shorter-lived things with which they coincide ('TP Inheritance').

Nowadays, most of those who believe in something like temporal parts believe in *instantaneous* temporal parts. That is, they are prepared to define 'x is a temporal part of y' in the way Theodore Sider has suggested.[38] He proposes that a notion of 'parthood at a time' can be regarded as unproblematic from the point of view of all parties to debates about persistence (though the friends and foes of temporal parts will give it rather different glosses, ultimately). Then instantaneous temporal parts may be understood on these lines:

(D3) *x* is a *temporal part* of *y* at *t* = df (i) *x* exists only at *t*; (ii) *x* is a part of *y* at *t*; and (iii) *x* has a part in common, at *t*, with everything that is a part of *y* at *t*.

The doctrine of temporal parts then becomes the thesis that, 'necessarily, each spatiotemporal object has a temporal part at every moment at which it exists' (Sider 2001, 59).

The earliest and most influential champions of a theory of persistence in terms of something like temporal parts were, however, unwilling to posit instantaneous temporal parts. Bertrand Russell and C. D. Broad, for example, both held that objects persist by having different temporal parts at different times[39]; but they did not believe in instants or anything instantaneous. Instants of time and instantaneous parts of events and things are, they believed, logical constructions. Whitehead's method of extensive abstraction was the tool with which they constructed surrogates for instantaneous things out of sets of infinitely-many nested, temporally extended things – e.g., a set of periods that 'hones in on' the supposed instant of time or instantaneous temporal part.[40]

Because Russell and Broad affirmed that persisting objects are spread out in time just as they are spread out in space, with a different part for each filled spatiotemporal region, there ought to be a doctrine of temporal parts that subsumes both their metaphysics of persistence and that of the believers in instantaneous temporal parts.

Elsewhere (Zimmerman 1996), I have proposed a slightly more general notion of 'temporal part', an extension of Sider's basic idea. Let '*T*' and '*T**' range over intervals and instants, if instants there be. (To make the definition simpler, *T* is allowed to count as a subinterval of itself, and *x* as a part of itself.)

[38] For details, see Sider 2001, 55–62.

[39] Cf. Russell 1957, esp. 123–24; Broad 1923, 393; and Broad 1925, 146.

[40] Cf. Russell 1927, ch. 26; Russell 1954, ch. 28; and Broad 1923, ch. 1 (Broad only works out a method of construction for spatial points, but makes it clear that he accepts Whitehead's constructivist approach for instants of time as well).

(D4) x is a temporal part of y during T = df (i) x exists during and only during T; (ii) for every subinterval T^* of T, there is a z such that (a) z is a part of x during T, (b) for all u, u has a part in common with z during T^* iff u has a part in common with y during T^*; and (iii) y exists at times outside of T.

A doctrine common to temporal parts theorists of all stripes may be stated in terms of the 'parts of time'. Those who believe in instantaneous temporal parts presumably believe that time has instants as parts; while those who believe there are no instantaneous parts presumably also believe that time consists entirely of extended periods, instants being mere logical constructions. Both parties, then, should accept the following:

> *Plenitude of Parts:* Any non-instantaneous object has a different temporal part during each of the different parts of time at which it exists.

As 'the doctrine of temporal parts' is a term of art, one should not really argue with those who would simply identify the doctrine of temporal parts with something like Plenitude of Parts.[41] But, among those who accept Plenitude, there remains a significant divide. Philosophers on one side of it are, as a matter of fact, happy to call themselves believers in temporal parts; while those (very few) on the other side are not. So it makes sense to reserve the label 'temporal parts' for more than just Plenitude. More importantly for present purposes, this further doctrine is relevant to whether a serious-tensing B-theorist has the means to accept temporary monadic properties.

Given Plenitude of Parts, whenever a persisting object exists, there are many things in the same place, with all the same locally displayed properties. There is a very popular strategy for making such massive co-location seem benign – a strategy that I take to be central to a temporal parts metaphysics. A host of similar objects can 'fit' in the same place at the same time without a doubtful multiplication of things with the same electrical charge, or things feeling the same pains, etc., for the following reason: All the longer-lived things in that space-time region share a temporal part that exists *only* in that space-time region; and all the longer-lived things exemplify the same locally manifested properties in virtue of the same fact: the fact that their common temporal part confined to that region displays these properties in the most fundamental way. The longer-lived things have a certain charge at that time, or are in pain at that time, etc., in a derivative sense –

[41] Sider, for example, is perfectly aware that there are further important doctrines about persistence that are typically packaged together with Plenitude, and that it is possible to accept Plenitude while denying them. But he explicitly chooses to identify the doctrine of temporal parts ('four-dimensionalism', in his terminology) with Plenitude of Parts alone (see Sider 2001, 55–62; see esp. 60).

in virtue of having a part that exists just then and that is nonderivatively charged or in pain or . . . .

This strategic move separates traditional defenders of temporal parts from the few non-traditional advocates of Plenitude. The traditional defenders of the doctrine of temporal parts want to say that, as a matter of necessity, persisting objects inherit a certain class of temporary properties from their temporal parts. The properties in question are, very roughly, the intrinsic properties of a thing. (Recall that, by 'intrinsic property', I do not simply mean 'monadic property' – although temporal parts theorists are usually eager to point out that they, unlike some metaphysicians, are able to construe intrinsic properties as genuinely monadic features of the temporal parts that exemplify them most directly.)

Inheritance of properties from temporal parts is typically emphasized by the friends of temporal parts in response to the following sort of allegation: 'It is absurd to suppose that, co-located with me, there are countless objects shaped just like me, and exemplifying all the same intrinsic properties – including mental states, like being in pain.' (The objector apparently assumes that at least some mental states are intrinsic.) In response to this sort of objection, the temporal parts theorist typically grants that there are many things that are bent, pale, feeling pain, etc. right where I am now. Anything that has my current temporal part as a part exhibits all those properties now. But there is only one *primary* bearer of these properties, only one thing that is bent, pale, in pain, etc. in the most fundamental sense; and all the other things inherit these properties by having it as a part.

Some properties really seem as though, if there are two things with the properties sharing all the same parts at some level, one of them must have the properties in virtue of the other's having them in a more fundamental sense. But which ones are they? The standard example of property inheritance used by Lewis and many others is three-dimensional shape. If an object is bent at a time, that is because its temporal part existing *only* at that time is bent in some more fundamental way. More generally, but still very roughly, any property had by an object at a time should be inherited from a temporal part that exists just at that time, so long as having the property depends only upon how the object is at that time. It would be a mistake, however, to say that the properties that must be inherited by wholes from temporal parts are all and only the *intrinsic* properties of the temporal parts. Temporal length is one property that is clearly *not* passed from a temporal part to the longer things that include it – a temporal part of me may be exactly ten minutes long, but *I* do not inherit the property of being exactly ten minutes long in virtue of having a part with this property. But spatiotemporal shape, including temporal length, is as likely a candidate for intrinsicness as anything; so it is not safe to say that all intrinsic properties of temporal parts are inherited by wholes.

There may be room for disagreement among the friends of temporal parts about precisely which properties must live this dual existence, exemplifiable in derivative and nonderivative ways. But the following more restricted thesis seems fairly plausible, and something like it is central to Lewis's temporal parts metaphysics[42]: For every intrinsic property *that can be had temporarily*, it is necessary that an object have such a property at *t* in virtue of having a temporal part with the property that exists only at *t*, and that exemplifies the property in a more direct manner than does the object itself. In other words, it is the *potentially-temporary intrinsics* that must be inherited by changing persisting objects from their temporal parts:

(D5) *P* is a potentially-temporary intrinsic property = df *P* is an intrinsic property, and it is possible that there be a thing which has *P* at some times but which also exists at times when it lacks *P*.

This definition does not rule out the possibility that there be *some* things that could have a potentially-temporary intrinsic property but that could *not* have had it only temporarily. If there are essentially instantaneous temporal parts, for example, it would be impossible for one of them to have intrinsic properties at some times that it lacks at others; but many of the properties of an instantaneous temporal part will still be potentially-temporary intrinsics, as longer-lived things can have and then lose them. (According to the temporal parts theorist, the persisting thing that has and then loses such a property does so in virtue of having temporal parts with the property, and then temporal parts without it. Other metaphysics of persistence will tell a different story about having and losing an intrinsic property. Hopefully, (D5) is understandable to all parties involved in disputes about temporary intrinsics.)

I reserve 'doctrine of temporal parts', then, for a theory incorporating Plenitude and the claim that potentially-temporary intrinsic properties are exemplified in the most fundamental way by short-lived things, and that longer-lived persisting things acquire them in virtue of relations of overlap with the shorter-lived things. Most contemporary defenders of such a combination of views would, I suspect, agree with Lewis's account of the way in which the exemplification of temporary intrinsic properties by temporal parts is more fundamental, or less derivative, than the exemplification of temporary intrinsics by larger wholes: at bottom, the intrinsic is a monadic property. When a persisting thing has an intrinsic property temporarily, it does so in virtue of having a temporal part that exemplifies what I shall call a 'monadic version' of the property:

(D6) *P** is the monadic version of *P* = df *P* is a potentially temporary intrinsic property; *P** is a monadic property; and, necessarily, for all *x* and every

[42] Compare Lewis 1986, 202–205; and Lewis 2002.

> period *T* (or instant *t*), if *x* exemplifies *P* during *T* (at *t*), then there is a temporal part of *x* that exists just during *T* (at *t*), and that has *P** throughout *T* (at *t*).

Lewis's doctrine of the inheritance of intrinsic properties from temporal parts amounts to the following:

> *TP Inheritance:* If *P* is a potentially-temporary intrinsic property exemplified by *x* throughout a period *T* (or at an instant *t*), there is a *y* such that: (i) *y* is a temporal part of *x*, (ii) *y* exists only during *T* (at *t*), and (iii) *y* exemplifies the monadic version of *P* throughout *T* (at *t*).

There is room, perhaps just barely, for a kind of metaphysics that accepts Plenitude of Parts while rejecting TP Inheritance. Ernest Sosa and John Hawthorne defend views of this sort; and there are hints of it elsewhere.[43] As I understand Sosa and Hawthorne, they reject any doctrine according to which all persisting objects inevitably exemplify some important class of intrinsic properties in a derivative fashion, in virtue of the intrinsic properties of shorter-lived things with which they coincide. I suspect that it is largely because of their rejection of any such inheritance principle that they do not describe their views as versions of a temporal parts metaphysics, despite their acceptance of Plenitude.

One might say that, according to a temporal parts metaphysics, shorter things always come first. Hawthorne and Sosa reject this idea, insisting that, at least sometimes, a shorter-lived thing may be parasitic upon one of the longer-lived things with which it coincides; and a longer-lived thing may have intrinsic properties in a way that is as fundamental as can be.[44] In Hawthorne's case, the

[43] See Sosa 1987; and Hawthorne forthcoming(a), forthcoming(b). I take Stephen Yablo's theory of 'contingent identity' to imply Plenitude; and I suspect it is intended to be consistent with the denial of TP Inheritance (see Yablo 1987, esp. 304). Shoemaker 1988, includes an ingenious argument for an 'extreme permissive view' that implies Plenitude (or something like it) without TP Inheritance (as, on the extreme permissive view, a pair of overlapping objects with radically different persistence conditions must exemplify distinct, equally fundamental, causally relevant properties). However, Shoemaker gazes into the abyss, but then draws back (a sensible reaction!).

I also suspect that some versions of ontological relativity ultimately have the effect of rejecting TP Inheritance while accepting Plenitude. I should think Eli Hirsch, for example, would accept the possibility of a suitably comprehensive English-like 'language', largely agreeing with English in what sentences count as true and false, that uses the words of Plenitude of Parts to express a true thesis. On the other hand, Hirsch seems opposed to TP Inheritance. (See Hirsch 2002)

[44] For Sosa, the potentially persisting, most fundamental things are portions of matter. If hunks of matter do persist through time, as they very well may, any longer- or shorter-lived things coinciding with them supervene upon the existence and properties of the matter with which they coincide; and the matter does not supervene upon the existence and properties of the supervenient things.

alternative metaphysical picture seems to be this: Among the hosts of persisting objects guaranteed by Plenitude, there is a privileged class of persisting objects; and part of their privileged status is due to the fact that they exemplify temporary, natural, intrinsic properties in the most fundamental way possible. Although there are plenitudes of objects overlapping with the privileged objects, the non-privileged things only exist and have the properties they do in a derivative fashion – only in virtue of sharing parts with one of the privileged, longer-lived things.

The distinction between a 'genuine' temporal parts metaphysics and the Sosa-Hawthorne view becomes relevant if the eternalist A-theorist tries to distinguish herself from the serious-tensing B-theorist by putting weight on the notion of the temporary exemplification of monadic properties.

Temporal parts in the tenseless truth conditions

First, let us see what happens to an eternalist A-theorist who *accepts* the doctrine of temporal parts.[45] According to this would-be A-theorist, whenever an object x has a potentially temporary intrinsic property F for a period or instant T, but lacks it at other times, there is another thing that coincides with x during T, and that *is* F (always-tenselessly). So a tensed ascription of F to x right now will be true iff there *is* a y (namely, a temporal part that is always F) such that y *shares* a complete decomposition with x at the present moment, and y *is* F (where the predication is always-tenseless, and so implies permanent possession of F whenever y exists). The eternalist A-theorist will deny that this is what the tensed statement *means*, but so will the serious-tensing B-theorist (for the reasons given above, i.e., the impossibility of analyzing the meaning of tensed sentences in tenseless terms). So, once again, the A-theorist has all the materials to hand that the B-theorist uses in constructing tenseless truth conditions; and we are left looking for the precise locus of their disagreement. It can no longer be based upon the exemplification of genuinely monadic temporary properties of things, as our A-theorist has now agreed that these monadic properties are (always-tenselessly) *exemplified* by the things that exemplify them most directly.

The eternalist A-theorist who rejects the doctrine of temporal parts, on the other hand, can point out that, according to her, the materials with which to construct tenseless truth-conditions are *not* ready to hand. Her rejection of temporal parts could consist in denying that there are plenitudes of coincident objects, at least one for every monadic property a persisting thing might gain or lose; or,

[45] And there are such philosophers: e.g., Quentin Smith (Smith 1993b) and Berit Brogaard (Brogaard 2000).

if she accepts that there are shorter-lived coincident things, it could consist in her denying that persisting things inevitably have temporary intrinsics in virtue of relations to shorter-lived things with the *truly* monadic versions of these intrinsic properties. In other words, either Plenitude of Parts is false, or TP Property-Inheritance is false.

Suppose our eternalist A-theorist chooses the following thesis as the root of her disagreement with the serious-tensing B-theorist: There are genuinely monadic properties exemplified by things that do not always have them. Does this seem like the place to stake out a distinctive view about the nature of *time*, about the objectivity of the divide between past and future?

Well, there are certainly worse places to attempt to draw a metaphysical line. Unlike the distinction between those who take tense seriously and those who do not, it has the merit of being a metaphysical disagreement about the world as opposed to a basically semantical disagreement about the proper analysis of propositional attitudes and the sentences we use to express them – that is, a disagreement about the nature of thinking and talking.

Most A-theorists are in the grip of a certain picture of the world (I speak from personal experience, being still in its grip, myself): They feel that some events and things, the ones that are presently happening or that presently exist, are much more, well . . . *real* than all the others. Those of us who are presentists take this intuition with deadly seriousness; but, as I pointed out at the beginning, we have a hard row to hoe. The eternalist A-theorist has things easier, because she is nowhere nearly as serious as the presentist about the unreality of past and future things. But she might use the notion of a genuinely monadic intrinsic property to define a mode of existence that she could sensibly regard as more 'robust' than past or future existence. Present things and events, she might say, have monadic versions of the sorts of intrinsic properties we ordinarily ascribe to them, while entirely past things and events do not. The distinction being made by this sort of non-presentist A-theorist can plausibly be regarded as a distinction between things that are 'concrete' and things that are more 'ghostly'. Present objects are the ones that have causally significant, locally manifested intrinsic properties – e.g., shape, mass, charge, etc.; and perhaps also mental states, such as being in pain – in a truly monadic way, and therefore not merely in virtue of relations to something else. Having a monadic property worthy of the name 'being in pain' is a more direct way to be in pain; having monadic mass is a more direct way to be massive. Present events, too, have monadic versions of their own types of intrinsic properties, properties that they did not yet have while future, and that they lose when past. A rock concert going on now is loud; a flash of lightening is bright. Loudness and brightness may be regarded as monadic properties of these events, properties they lose as soon as they are past. Past and future things and events stand in more indirect relations to the most important intrinsic prop-

erties they displayed while present, or they have radically modified versions of these properties.[46]

It has been suggested that an object or event located entirely in the past or future is not even properly regarded as a member of (what we would normally call) its kind. If the eternalist A-theorist emphasizes the loss of monadic properties as things become past, she will no doubt say that the Beatles's final performance still exists, despite the fact that it is no longer loud, no longer located on the roof at Abbey Road, etc. But she might go further, and deny that it is even a concert. This sort of A-theorist eternalist would say similar things about past *objects*. For example, she would agree with John Cleese's 'Mr. Praline': A dead parrot is not a parrot; it is an ex-parrot.[47]

In fact, I advise all non-presentist A-theorists (both eternalist 'moving-spotlighters' and also 'growing-blockers' – those who deny the reality of the future, only) to accept the following two theses: (i) It is *only when present* that events and objects have their most interesting temporary intrinsic properties, including all properties in virtue of which they have causal impact upon their immediate environment; when they cease to be present, they fail to have these properties, and instead merely stand in the more indirect relation of *having had* them (indeed, as I have suggested elsewhere, their coming to be past might well be taken to *simply consist in* their losing some interesting class of intrinsic properties). (ii) A ball is only *truly* spherical, a person is only *truly* happy, a toothache is only *truly* painful, an explosion is only *truly* bright, etc. when it exemplifies monadic intrinsic properties upon which these qualities supervene. It is in virtue of its intrinsic properties that an individual or event has many of the features we most care about – the ones that make us say, as a thing or event ceases to be present, 'thank goodness that's in the past' or 'too bad that's in the past', depending upon whether they are features we like or dislike. In this way, A-theorists who believe in the continued existence of past events, such as last week's toothache, can still provide a fairly satisfying explanation of what we are 'thanking goodness for' when a painful event is over. My toothache may

[46] So I admit that, if there were two properties worthy of the name 'redness', one of which was monadic, the other of which was relational, then things with the monadic property would be intrinsically red while things with the merely relational property need not be. But this does not mean that I accept Lewis's claim (in some versions of his argument from temporary intrinsics for temporal parts) that intrinsic properties like redness cannot be relations to times. There is a big 'if' in what I affirm; and even if I go on to suppose that there are monadic intrinsics, I can still deny that his argument should persuade those who reject my reasons for positing monadic intrinsics.

[47] Compare: 'A past table is not a table that no longer exists; it is no longer a table' (Williamson 1999, 195).

still exist; but, thankfully, it no longer has any of the qualities that bothered me.[48]

I do not find this combination of views very attractive, myself. Once 'being *really F*' is taken to imply 'having a monadic version of *F*', it becomes hard to believe in entirely past things: rocks that do not *really* have any mass or shape, explosions that do not *really* emit light or sound, etc. That is a large part of my reason for being a presentist (see Zimmerman 1996, forthcoming (b)). Nevertheless, I think it is the best combination available to the non-presentist A-theorist.

Return to non-relativized temporary truth?

Appeal to temporal parts is not the only way B-theorists have tried to leave room for genuinely monadic but changeable properties. So, even if she repudiates temporal parts, the eternalist A-theorist may still run into trouble if she claims that the basic difference between her and the serious-tensing B-theorist is that only she can accept the non-relational exemplification of changing intrinsic properties.

What is being insisted upon by the A-theorist is the monadic nature of some temporary properties, properties that characterize a thing at only some of the times at which the thing exists. What is being ruled out is the need for further 'completion' of properties like loudness or bentness in order for a thing to exemplify the property; in particular, nothing like a *time* need be 'added' to the property and the thing in order to make the proposition that the thing has the property 'complete'. But what is this notion of 'completion' if it is not simply: 'complete enough to be *true in a non-relative fashion*'? If it were merely 'complete enough to serve as the object of a propositional attitude', then the B-theorist could regard being loud as requiring only one term to be complete, and so to be monadic in a cognitive sense – monadic with respect to its role as a part of an object of thought. And she could even accept a metaphysics of properties and relations according to which *being loud* and *being bent* are really relations that hold between things and times; they are only monadic relative to the parochial interests of a theory of human cognition – to call them 'monadic' in this context is merely to say that they are fit to play a certain role in a theory about propositional attitudes. She could admit that the propositions *that Zimmerman is bent* and *that the concert is loud* are, as a matter of metaphysical fact, properties of times. Still, suppose one is asking whether a given item, such as the property of times, *Zimmerman's being bent at* __, is complete enough to be the object of a propositional attitude without addition of a time. An answer of 'Yes' will be given by a serious-tenser like Lewis. Serious

[48] This doctrine would provide the growing-blocker with an answer to objections like those of Merricks 2005, and Braddon-Mitchell 2004. For a somewhat different reply to their style of argument, see Forrest 2004.

tensers explicitly deny that a time plays a role in the *thought* that I am bent or that the concert is loud; and so bentness and loudness only need to be combined with *one* thing in order to yield the content of a whole thought. The serious-tensing B-theorist can plausibly argue that, if a thought can be complete when it consists in the attribution of a property to just one individual, then the property in question displays a *kind* of monadicity – cognitive monadicity.[49]

This is no abstract worry. There are eternalist, B-theorist philosophers who reject the doctrine of temporal parts yet hope to hang on to the thesis that being bent, being straight, and so on, are monadic, temporary properties of changing things. The claim is sometimes fleshed out in terms of the idea that there is something proposition-like that contains nothing more than the individual and the temporary property it exemplifies; no further thing, such as a time, intrudes. In Graeme Forbes's version, the thing that contains only the individual and the monadic property is said to be a 'state of affairs type', something that has 'state of affairs tokens' at the various places and times at which it obtains or occurs. Sally Haslanger describes the view in some detail (she calls it 'SOFism', for 'State-Of-'Fairs-ism') and then catalogues its merits:

> To summarize, then, the SOFist account of change seems to be this: There are enduring things wholly present in token states of affairs obtaining at different times (endurantism [i.e., denial of temporal parts]); in states of affairs such as the candle's being straight and the candle's being bent, the properties *being straight* and *being bent* are qualities of the candle (not relations to times); and these properties are incompatible. There is no contradiction because the two states of affairs types involving incompatible properties (*the candle's being bent* and *the candle's being straight*) don't have tokens at the same time. This would seem to be an option that preserves many of our original intuitions: an object can endure through a change in its intrinsic properties.[50]

What should the eternalist A-theorist say to this, if she thinks that only she can really recognize the possibility of enduring individuals exemplifying monadic temporary properties? What should she say if she is trying to ground her metaphysical disagreement with the B-theorist in non-relative exemplification of monadic properties, but *not* in non-relative temporary truth (perhaps because she is a deflationist about truth)? The proposition-like thing posited by the B-theorist (e.g., Forbes's 'state of affairs type') is supposed to contain just the individual and the property; and this, in turn, is supposed to imply that the property in question

[49] Ted Sider has made me see the similarity between this notion of 'merely cognitive monadicity' and that of 'merely cognitive definitional priority', discussed above – the *ratio cognescendi*, which is supposed to contrast with some kind of *ratio essendi*. Earlier, I dismissed an attempt to distinguish A-theorist and B-theorist by means of a non-cognitive 'direction of definition', claiming that the notion was too murky to be of much use; I now wonder whether that approach is any worse off than the one I shall offer the A-theorist in this section.

[50] Haslanger 2003, 345–6.

is monadic, in some sense. The eternalist A-theorist will naturally want to know more about this beast, the proposition-like thing.

It *could* be thought of as a simple mereological sum of the individual plus *being bent*; or an ordered pair of the two; or a structured property of times composed of the individual and the relation *being bent at* __. Lewis identified the proposition expressed by the tensed sentence 'Zimmerman is bent' with the property of a time, *Zimmerman's being bent at* __. If there is nothing obviously wrong with that identification, then something like the sum or pair of Zimmerman and *being bent* should serve the SOFist's purposes – that is, the sum or pair ought to be complete enough to stand as candidate for the role of 'object of propositional attitude'. The B-theorist can put forward something like the sum of Zimmerman and *being bent*, or the pair <Zimmerman, *being bent*>, or some other proposition-like thing; and he can insist that, because the thing serves as the content of a complete thought but does not include a time, the semantic value of the predicate 'is bent' when I affirm that 'Zimmerman is bent' is not a relation to a time. At least, it does not have to be a relation simply to do its job as part of the object of a propositional attitude.

Is there something that the sum of Zimmerman and *being bent*, the pair <Zimmerman, *being bent*>, and other candidates for temporarily true proposition cannot do without relativization to a time? Some job that would make them look like the property *Zimmerman's being bent at* __, in disguise; thereby rendering their *being bent* component less than truly monadic? The obvious answer is: None of them is complete enough to serve as the bearer of non-relativized *truth*, only truth-at-a-time.

If the A-theorist responds in this way to a B-theorist's attempt to make room for temporary, genuinely monadic properties; then she is back where she started, characterizing their disagreement in terms of non-relativized truth. If SOFists and other B-theorists can make a plausible case for ascribing a *sort* of monadicity to temporary intrinsics like *being bent*, then the A-theorist will almost certainly have to distinguish their *faux* monadicity from her *real* monadicity in terms of non-relative truth for temporarily true propositions. In this eventuality, the attempt to ground the fundamental difference between eternalist A-theorist and serious-tensing B-theorist in exemplification, *simpliciter*, rather than in truth, *simpliciter*, will have failed.

6. Primitive presentness?

Some A-theorists, like Ned Markosian and Quentin Smith, posit a special property of *presentness*. It is a primitive property, they say; we know it when we see it, but there is no more to be said about it. Now one might think that an eternalist A-theorist who accepts the existence of such a property has all she needs to distin-

guish herself from any B-theorist, serious-tensing or not. The movement of primitive presentness through the sum total of all that ever has or ever will have existed constitutes the heart of the A-theory, she may insist; and this passage of presentness through the four-dimensional block of things and events is something no self-respecting B-theorist can allow.[51] An A-theorist positing primitive presentness adds something to the 'ideology' of her metaphysical theory of time, though her ontology is the same as the B-theorist's. If it could have no place in any B-theory, presentness would be the locus of a fundamental disagreement about time, and there would be no need for the eternalist A-theorist to emphasize non-relative truth for propositions or non-relative exemplification of monadic properties.

I will suggest that serious-tensing B-theorists may have reason to accept a primitive property that is at least hard to distinguish from an A-theorist's primitive presentness; and that such a B-theorist can even insist that this primitive property is genuinely monadic, without having to use the SOFistical strategy of the previous section – i.e., defining monadicity in cognitive terms.

There is considerable appeal to the idea that the eternalist A-theorist and serious-tenser B-theorist differ over the meaning of 'is present', and that the A-theorist thinks it is used to ascribe a unique type of property, one that could not be accepted by a B-theorist. It is natural to suppose that the eternalist A-theorist and the serious-tensing B-theorist would take very different attitudes towards the time singled out as the present time in the sort of tenseless truth conditions that both are able to give for tensed claims. The B-theorist will surely want to say that the time designated as the present in a model is not, in and of itself, different from any other – that is what makes him a B-theorist. The time is selected because it is the time at which the semantics is being described or used. An A-theorist, on the contrary, should suppose that the privileged time is objectively privileged, and unlike all others; and our eternalist A-theorist is now proposing to analyze its special status in terms of primitive presentness. The serious-tensing B-theorist is almost certain to regard 'now' and 'presently' as indexical terms, picking out a time directly, not by means of some descriptive feature. And, as a serious-tensing B-theorist, he thinks that the tenseless truth-conditions sketched above tell the whole story about how the present tense functions: present tense verbs contain a sort of *hidden* index, introducing particular times into the truth conditions for particular utterances or tokens of sentence-types, though not by explicit description of the time as 'the time of utterance'. On the other hand, an A-theorist who accepts primitive presentness may regard all these linguistic devices ('now', 'presently', and the present tense of verbs) as explicitly or implicitly *descriptive*, picking out one time in virtue of its special quality – presentness.

[51] This is the view found in Smith 1993a. A rather different A-theory, in which presentness and existence itself come in degrees, is defended in Smith 2002.

While I believe that a difference can be made out at this point, it requires some buttressing – some further assumptions about the non-relational nature of presentness. Making the assumptions explicit turns the disagreement into one that is similar, perhaps equivalent, to the disagreement over non-relativized truth.

The A-theorist in question is appealing to a primitive property that characterizes exactly one time, the present time; but it is also a property that past events and times and things did have and future ones will have. Now suppose a B-theorist serious-tenser were given some reason to believe that there is a property that characterizes a time only at itself and at no other time, and were to call that property 'presentness'. Then he, too, would accept the very same tensed statements about which particular things have, did have, and will have presentness. The serious-tensing B-theorist's tenseless truth conditions for the tensed claim that a given time *t* has presentness are that *t has* it at *N*, the present moment; so *t* has presentness iff it *has* presentness at the present moment, and the B-theorist has reached superficial agreement with the A-theorist that only one moment has presentness. The tenseless truth conditions for the tensed claim that a time *t* was present are that it *is* present at *t** and *t* is* earlier than the present moment; so *t* was present iff *t is* simultaneous with some *t** (namely, itself) that *is* earlier than the present moment. (Assuming that a time only 'exists at' itself, these tenseless predications remain true whether they be construed as sometime-tenseless or always-tenseless.)

The B-theorist serious-tenser has here paid lip-service to primitive presentness as a property of only one time, but displays his true B-theorist colors by providing truth conditions for tensed statements that are not themselves significantly tensed – the conditions are eternally true if true at all, and the present moment is just one time among many, salient for determining the truth or falsehood of tensed sentences only because we happen to be at it. But the mere fact that he can give these tenseless truth-conditions cannot be what separates him from the eternalist A-theorist; for, as we have seen, she has the materials to provide the very same sorts of tenseless truth-conditions as those given by the serious-tensing B-theorist. The A-theorist understands the B-theorist's tenseless truth-conditions for the ascription of presentness, and cannot deny that they are adequate to the B-theorist's limited goals. The serious-tensing B-theorist wants to find a sentence giving the truth-conditions for a tensed object-language sentence, but not necessarily a sentence with the same meaning as the tensed sentence. The tenseless truth-conditions are not intended as an analysis or paraphrase of the perspectival proposition expressed by the tensed sentence; they are merely supposed to state the circumstances under which the tensed sentence expresses a truth, relative to the choice of a single time as the present. The non-eternal proposition expressed by the tensed sentence can be true at some times and not others; the truth-conditions cannot, although they do explain what it takes for the non-eternal proposition to be true of a particular time.

Furthermore, the B-theorist probably *does* have reason to posit a primitive, notion of 'presentness' – something that each time has at itself alone, and that can be used in this way to give tenseless truth-conditions for ascriptions of presentness. *Being simultaneous with*, a relation that can hold between an event and another event or an event and a time, may well be regarded by the B-theorist as a primitive relation; relations of spatiotemporal distance are good candidates for fundamentality in most philosophers' books. And this primitive relation holds between a time and only one other time, namely itself. If the A-theorist really takes presentness as a primitive notion, and the B-theorist's relation of simultaneity holding between a time and itself is also primitive, it is not clear what the A-theorist can say to distinguish the two – except perhaps to insist that the B-theorist's notion is in fact relational, and A-theoretic presentness is not.

Suppose, then, that the eternalist A-theorist points out that presentness in the B-theorist's tenseless semantics must be relational, a relation that holds between any given time and just one other time, namely, itself. By contrast, the A-theorist claims that being present is a *monadic* property of times. She could say: 'If presentness were genuinely monadic, and a time *t* had it, your attempt to give tenseless truth conditions for the assertion that *t* has presentness would fail; to say, tenselessly, that only one time *has* it is to say that the present is stuck; to say that every time *has* it is to deny the A-theory claim that one time is special.' In the previous section, I discussed a strategy by means of which a serious-tensing B-theorist could try to undermine the A-theorist's notion of *truly* monadic properties. This strategy, if successful, could be used here to force the eternalist A-theorist to appeal to 'truth, *simpliciter*' in order to explain the sense in which presentness is truly monadic; and then the appeal to presentness would have come to depend upon the appeal to non-relative truth for propositions. However, even if the B-theorist were *not* to implement this strategy, he has the means to pay lip-service to the A-theorist's demand for monadic, temporary presentness.

The serious-tenser B-theorist can say that, just as there is, in addition to the primitive dyadic relation *identity*, a primitive monadic property *self-identity*; similarly, in addition to the primitive dyadic relation that holds between a thing and a time, *being simultaneous with*, there is a primitive monadic property of times, *being self-simultaneous*. If the B-theorist is willing to posit such a primitive property of times, the A-theorist will be hard-pressed to deny that it is equivalent to her property of presentness. If each is a primitive, and if a thing has one at a time iff it has the other at that time, it will be hard to discern a difference. And the B-theorist can plausibly argue that his primitive notion of presentness (i.e., *self-simultaneity* of times) does play the same role. He can admit that every time *has* his sort of primitive, monadic presentness, while insisting that only one has it – where the 'having', in the latter case, is significantly tensed. There is, on his view, a perfectly respectable way for something instantaneous to temporarily have a truly monadic property,

consistent with his B-theoretic scruples – i.e., with his ability to give tenseless truth-conditions. Consider something that, like a time, is instantaneous. A stick that happens to exist for no more than an instant can *be* straight, where the tense of the verb is always-tenseless (recall that a thing qualifies as 'being always-tenselessly straight' so long as it is straight at every time at which it exists). An instantaneous stick can also *be* straight if the copula is sometime-tenseless. Nevertheless, if the stick does not exist now, it is wrong to say that the stick is straight. For an instantaneous thing *x*, '*x* is (presently) straight' can be given the truth-conditions: *x is* straight and *x is* located in *N*, the present time. (For non-instantaneous things and some range of properties with respect to which they cannot change, the same truth-conditions can be given.) As an instant of time is, perforce, instantaneous, the moral may be applied to the case of a time's being present. To be *presently* present a time must both *be* present (a monadic feature that tenselessly applies to each time) and also *be* located in the moment that is being picked out by uses of 'now', the time that plays the role of the present in the tenseless truth-conditions being given for tensed statements. A time is, trivially, located at only one time, namely itself; so although all times *are* present, and presentness is (the B-theorist may suppose) monadic, nevertheless only one is present because only one is located at the time relevant to the truth of current utterances.

If the B-theorist gives these sorts of truth-conditions for instantaneous things, he can affirm that presentness is primitive and monadic, but had by only one time. They are truth-conditions that appeal only to things that the eternalist A-theorist accepts (times, a primitive monadic property things only have when they are present, and tenseless predication); so there can be no complaint there. The disagreement cannot be about whether, when using a tensed copula, only one time can be affirmed to be present. Both agree that the answer is, 'Yes', and the B-theorist's tenseless truth conditions yield this answer. And as the property of presentness ascribed in these tensed sentences really is monadic, on the B-theorist's view, both he and the eternalist A-theorist agree that presentness can be had *simpliciter* by something that will not and did not have it.

It appears that the appeal to primitive presentness, even coupled with insistence upon its monadic but temporary nature, has not isolated a thesis that clearly distinguishes eternalist A-theorist from serious-tenser B-theorist. If that is right, then the appeal to primitive presentness goes nowhere.

7. Conclusion

What do I take myself to have shown in this paper? Nothing terribly conclusive, I fear.

One thing is, I hope, fairly clear. There is a doctrine worthy of the label 'taking tense seriously' that is held by A-theorists and some B-theorists alike. This

doctrine must be carefully distinguished from the A-theory itself, which is intended to be a view about the metaphysics of time, not a philosophical theory about the nature of tensed sentences and the thoughts they are used to express.

If an eternalist A-theorist wants to say what distinguishes her theory of time from that of a B-theorist, she must take account of the presence of serious-tensing B-theorists; and I have tried to show that distinguishing herself from them can be tricky. Beyond this point, my claims became more tentative, and my arguments more impressionistic. Our A-theorist's best bet seemed to be to affirm something no self-respecting B-theorist should accept: A non-relativized kind of truth that applies to propositions that are only temporarily true. Reliance upon non-relativized temporary monadic exemplification, instead of non-relativized temporary truth, was seen to require denial of some part of the doctrine of temporal parts. And it also seemed vulnerable to skeptical attack. An A-theorist unwilling to appeal to a proposition's being 'true, *simpliciter*' may have trouble distinguishing what she means by 'monadic properties' from some B-theorists' *faux* monadic properties. Appeal to presentness as a primitive property did not to seem to be an *independent* means by which to draw the line between A-theorist and B-theorist. If these admittedly somewhat sketchy arguments pan out, they support the conclusion that no eternalist A-theorist can afford to take a deflationary approach to the notion of truth.*

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