LIBERATED PRESENTISM

(numerous corrections and refinements since the previous posting)

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After the preliminaries, I show that there is a sense of "exist(s)" that permits the posing of a substantive issue between presentists and eternalists. Then I seek to invigorate a neglected variety of presentism, on which nonpresent¹ things can belong to domains of discourse. The aim is to show the superiority of this form of presentism, not to argue the preferability of presentism to its competitors. Still, It will be instructive to compare the presentism advocated here with eternalism.

There are seven interrelated doctrines that make trouble for presentism. The doctrines, clarified at the start of section 4, are that only existents can belong to sets, be quantified over, be referred to, have properties, bear relations, be constituents of propositions, and serve as truthmakers. The doctrines are all true if (my final formulation of) eternalism is, but are widely accepted even by presentists, whose ingenuity in reconciling presentism with the doctrines has made a view that should be simple, uncontrived, and commonsensical into one burdened by complication, artifice, and implausibility. In section 4, making no distinction between existence and being, I show that presentism can be liberated from the thrall of these inimical doctrines. Presentism combined with the denials of all of the doctrines is "liberated presentism."²

For our formulations of the ontologies, the domain will be the set of present and nonpresent things. The suitability of the formulations depends on arguments yet to come, which conclude that (a) presentists can hold that nonpresent things aren't things (though they were or will be), but can be referred to as such, and (b) it's not trivially true (if true at all) that only existents (beings) can belong to domains of

¹ By "nonpresent" we'll always mean "past or future." (We won't count atemporal things as nonpresent.) By "past" and "future" we'll always mean "wholly past" and "wholly future."

²Its only other advocate, so far as I know, is Mark Hinchliff. By far the fullest statement of Hinchliff's ideas is his unpublished dissertation, A Defense of Presentism (Princeton University, 1988). Some elements of his position are found in Mark Hinchliff, "The Puzzle of Change," in Philosophical Perspectives 10 (1996), 119-36 (see especially 124-25); and in Mark Hinchliff, "The Identity of the Past," in Time and Identity, ed. James Campbell, Michael O'Rourke, and Harry Silverstein (Cambridge: The MIT Press, 2010), 95-110. The latter offers a broader perspective and remains largely above the fray of the basic arguments and counterarguments. Unsurprisingly, our positions differ on some points, such as what grounds truths about the past and whether existing can be equated with being something (I say yes). My paper differs in its arguments (partly because it responds to different arguments and addresses different issues); in its formulations (for example, of the doctrines and the temporal ontologies); and, importantly, both in its substantiation of the existence of a sense of "exists" suitable for stating the temporal ontologies and in showing that liberated presentism allows for the reduction of A-judgments to B-judgments. I hope that an accessible, concise, and enhanced presentation will secure more consideration for what seems to me a decidedly superior brand of presentism. Nathan Salmon sometimes strikes similar chords, though he does not employ, at least not consistently, the time-silent "exists" needed for formulating the doctrines from which presentism needs liberating. Nathan Salmon, "Existence," in Philosophical Perspectives 1, ed. James Tomberlin (Atascadero: Ridgeview, 1987): 49–108. Michelle Paolini Paoletti, "A Sketch of an (actually serious) Meinongian Presentism," Metaphysica 17, no. 1 (April 2016): 1-18, offers a theory similar to Hinchliff's and mine, though apparently different in denying theses labeled "actualism": "there are no things that do not exist" (5) and "actualist presentism": "there exist no things that are not present (= that do not exist now)" (5). The theory differs also in distinguishing "there exists" and "there is" (1, 5), although Paolini Paoletti says that he does not distinguish existence and being (5, 6). However, the numerous differences in terminology make it hard to determine how deep the differences run. His article offers a different perspective on the sort of theory offered here and, long ago, by Hinchliff.

discourse. Pleasingly, (b) allows for what is otherwise elusive: a nontrivial formulation of eternalism.³

1. Two temporal ontologies – initial fomulations

Here are initial, temporally ungeneralized formulations of two temporal ontologies:

Eternalism:	For every <i>x</i> , <i>x</i> exists.
Liberated Presentism:	For every x, x exists if and only if x exists now

Again, the domains of discourse consist of all things that did, do now, or will exist, regardless of whether they exist (have being). "Things" include objects, event tokens, and times, the latter assumed to exist at least at themselves. The "now" is indexical, and "*x* exists now" means that *x* is temporally *located* at the time that is now. The meaning of the unmodified occurrences of "exists" is addressed in section 2.

Even for liberated presentism, the domain contains everything that will exist, as well as everything that did or does. This might make it difficult for liberated presentists to deny, as a means of avoiding fatalism, the "fixity" of the future, perhaps forfeiting an advantage that presentism may be thought to have over eternalism. But as Kristie Miller argues, that denial is already difficult, since presentists are likely to hold that the *past* is fixed, even though it too is nonexistent, and it's doubtful that presentist devices for grounding truths about the past could nonarbitrarily be restricted so as not to provide for truths about the future.⁴ In any case, there are other, arguably better ways to avoid fatalism. In section 4, we'll see that liberated presentists are as positioned as well as eternalists to ground truths about past and future things.

For familiar reasons, my formulations of the ontologies can be satisfactory only if the unmodified "exists" in them means neither "exists now" nor "exists at some time." If it meant "exists now," then what I've labeled "eternalism" would be denied by most eternalists and what I've labeled "liberated presentism" would be merely a trivial truth. If the unmodified "exists" meant "exists at some time," then my "eternalism" would be affirmed, and my "liberated presentism" denied, even by liberated presentists.

³I'll have space only for my own formulation and defense of presentism, but there are several distinctive and interesting formulations on offer. To cite only a few very recent ones: Jonathan Tallant, "Defining Existence Presentism," *Erkenntnis* 79, no. 3 (April 2014): 479–501. Fabrice Correia and Sven Rosenkranz, "Presentism without Presentness," *Thought: A journal of Philosophy* 4, no 1 (March 2015): 19-27. Daniel Deasy, "What is Presentism?" *Nous* 51, no. 2 (June 2017): 378-97. The merits of mine: (1) the sense of the "exists" it contains is shown to be an ordinary one (and so, presumably, intelligible); (2) it makes presentism compatible with the B-theory; (3) it doesn't rely on a distinction between existence and being; and, importantly, (4) the idea underlying it—that presentists can defensibly open domains of quantification to merely non*present* nonexistents—is the key to an unstrained *defense* of presentism.

⁴ Kristie Miller, "Presentism, Eternalism, and the Growing Block," in *A Companion to the Philosophy of Time*, ed. Heather Dyke and Adrian Bardon (Chichester: Wiley-Blackwell, 2013), 345--65. See sec. 4.1.

A sense of "exists" is *time-silent*, we'll say, just in case any token of "exists" bearing that sense is timesilent, meaning that it says nothing about the time of the existence it asserts, including nothing about the temporal relation between the existence and the tokening, and nothing even about whether the existence is *in* time. Senses and tokens of "exists" that aren't time-silent will be called "*time-referring*." The putative senses expressed by "exists now," "exists at some time," and "did, does now, or will exist" are timereferring, as would be any senses expressible by "exists at all times" and "exists outside of time." *Note:* I take a time-silent token of "exists" to differ from a time-referring token, not in the nature or manner of the existence it asserts, but only in saying nothing about the time of that existence. It doesn't mean "exists time-silently" or "has a time-silent form of existence," whatever those expressions could mean.

My formulations of the ontologies require a time-silent sense of "exists." Since I will argue that there *is* one, and since I assume there to be only one, I'll speak of *the* time-silent sense. It's what I take some to mean by the "tenseless" sense, but others use that term for what is expressed by "exists at some time or other," which specifies that the existence is in time. We'll soon clarify the close relation between the time-silent exists" (that is, "exists," in its time-silent sense) and the familiar "exists simpliciter."

Even though a time-silent token of "exists" does not say that the existing temporally overlaps the tokening, that might be implied conversationally. For the ontological discussion to follow, any such implication is hereby canceled.

Conceivably, "exists" has *only* a time-silent sense, in which "now" is no part of its meaning but rather a frequent modifier or Gricean implicature. In any case, there is a convincing reason to believe that 'exists' does have a time-silent sense, as we will see after a quick terminological preliminary.

We have defined "time-silent" and "time-referring" both for senses of "exist" and for tokens of "exist." We also define "time-silent" (but not "time-referring") for the (sole) occurrence of "exist" in an expression-type, *E*. The "exist" in *E*—that is, "exist," as it occurs in *E*—is time-silent just in case *the token of "exist" in a token of E would not ordinarily bear any time-referring sense*. To say succinctly that "exist" is time-silent in each member of a group of expression-types, we'll say that the "exist"s in them are time-silent. Now for the promised reason to believe that "exist" has a time-silent sense: In some ordinary expression-types, the "exist"s are clearly time-silent. Examples:

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- 1. Favorable conditions will exist at midnight.
- 2. By the start of the year an El Niño had begun to exist.
- 3. A strange state of affairs did exist then.
- 4. Challenges will remain so long as those problems exist.
- 5. That happens only when unusual conditions exist.
- 6. Numbers exist, and they are located in neither space nor time.

Tokens of "exist" in tokens of 1–5 ordinarily would not bear the sense of "exist now," "exist at some times," or any other verb phrase that has been thought to express a time-referring sense of "exist." To see this, substitute those phrases, one at a time, for each of the "exist"s in 1-5, and note the aberrancy of the results. Of course, items 1–5, and such phrases within them as "will exist" and "at midnight," contain temporal language. It's the *word* "exist," as it occurs *in* 1–5, that is time-silent.

It's not just that the substitutions produce sentences that sound odd. The resulting sentences would differ in meaning. In the strange sentence that results from adding "now" to the "exist" in 1, the "now" refers not to midnight but to the time of 1's tokening.⁵ So a tokening *now* of 1, thus augmented, could be taken only to say that at midnight it will be true that conditions had been favorable now. Presumably, the same would be true if "now," instead of being *added* to the "exist" in 1, were part of its meaning. Ordinarily, however, the truth of 1 depends not on the favorability of conditions now but on their favorability at midnight. If the "exist" in 1 had instead the meaning of "exist at some time," and 1 amounted to "it will be true at midnight that favorable next week, which it ordinarily *wouldn't* be. If, as seems evident, the token of "exist" in a token of 1 ordinarily would not bear any time-referring sense, then by our definition, the "exist" in 1 is time-silent.

In items 1–5, the "exist" itself is silent on the temporal location of the existing. The locating is done by temporal adverbials, auxiliary verbs, and other parts of the sentences.

Might items 1–5 be *paraphrased* using "exist" in a time-referring sense? It's not apparent how. But even if they could, there would be no more reason to think that "exist" must or could have in those five items whatever sense(s) it had in the paraphrases, than there would be to think the reverse. It's not as though the items are elliptical. They are standard English without omitted words (except ones needed for context-independent identification of their referents).

⁵ I concur here with Berit Brogaard, *Transient Truths: An Essay in the Metaphysics of Propositions* (New York: Oxford University Press, 2012), 88; Hans Kamp, "Formal Properties of 'Now'," *Theoria 37*, no. 3 (December 1971): 227–73 (see 228–29); David Kaplan, "Demonstratives," in *Themes from Kaplan*, ed. Joseph Almog, John Perry, and Howard Wettstein (New York: Oxford University Press, 1989), 481–563 (see sec. 6); and Arthur Prior, "Now," *Nous 2*, no. 2 (May 1968): 101–19 (see 104–05). Brogaard writes, "as Kaplan (1989, 510) points out, indexicals always take 'primary scope' with respect to other operators . . . For example, 'it will be the case that I am writing now' does not imply that I am writing in the future'."

As for item 6, presumably there is a sense of "exist" in which 6 is not straightforwardly selfcontradictory. Its "exist" could have the time-referring sense of "exist outside of time," if there *is* such a sense. But that seems unlikely. More plausibly, it has the time-silent sense needed for items 1–5.

The items aren't anomalous. Indeed, there are no expressions in which a temporally modified "exist" is *not* more plausibly construed as time-silent. (Consider the "exist"s *in* "always exist," "seldom exist," "exist at some time," "exist intermittently," "exist whenever," "exist now," "exist outside of time.")

The existence of a time-silent sense would provide a simple, unstrained explanation, evidently the only such explanation, for the compatibility of "exist" with the plethora of temporal phrases used to modify it. That's what tells us that "exist" has a time-silent sense. We'll call this "the Compatibility Argument."^{6, 7} To signal that I'm using "exist" in its time-silent sense, I'll often use a subscript. "Exist_{ts}" will abbreviate the long expression "exist, in the time-silent sense of 'exist'."

We will also use the familiar "exists simpliciter," which we'll abbreviate "exists-s." As I understand "exists simpliciter," the "exists" in it is time-silent, and the "simpliciter" has three functions: to *signal* that the "exists" is time-silent, to cancel any conversational implication of nowness, and to announce that no explicit modifier is to come. By contrast, the subscript in "exists_{ts}" has only the first function. (Recall, though, that any implication of nowness was earlier canceled by *me*.) "Exists_{ts}," like "exists" and unlike "exists-s," accepts an explicit modifier, as in "exists_{ts} now" and "exists_{ts} at *t*." (The same applies to "is_{ts}." See n. 7.) Although "exists-s" and "exists_{ts}" differ in the signals they convey, there is no difference in the nature of the existence they attribute. And as noted earlier, "time-silent" and "time-referring" do not characterize existence itself. I take there to be no difference in the nature of the exists at *t*." What distinguishes (a) is that it's a time-silent *attribution* of existence; it's not the attribution of a special kind or mode of existence.

We have a strong argument for the existence of a time-silent sense of "exists." But is there reason

⁶ Its conclusion conflicts with the thesis that English verbs are "inherently tensed." Ludlow discusses the thesis in detail, calling it "Very Serious Tenseism – VO", but does not advocate it. In fact, Ludlow, who is a presentist, thinks the most promising formulation of presentism to be one employing an untensed "exist." Peter Ludlow, "Presentism, Triviality, and the Varieties of Tensism," in *Oxford Studies in Metaphysics* 1, ed. Dean Zimmerman (Oxford: Oxford University Press, 2004), 21–36 (see esp. 32–36). Stoneham does advocate the thesis, but doesn't consider anything like the Compatibility Argument. Tom Stoneham, "Time and Truth: The Presentism-Eternalism Debate," *Philosophy* 84, no. 2 (April 2009): 201–18.

⁷ There is a similar argument for a time-silent "is" ("are") of predication, which is the "is" of predication simpliciter. It is required for the "is" in such expressions as "laughs only when he is nervous." It's employed often in eternalist writings, especially when the subject is a time-slice. Given a time-silent "is" of predication, "is_{ts}," we can define a time-silent "is" of identity: *a* is_{ts} *b* just in case *a* is_{ts} identical-with-*b* (where the latter "is_{ts}" predicates a monadic property). These time-silent senses of "is" account for the assertability of "if change and time did not exist, it would still be true that 4 is even and that 4 is 4."

to resist the time-silent "exist"? Or to deny the intelligibility of "exist simpliciter," which contains it? An argument against the notion of existence simpliciter is given twice by Meyer and seconded by Tallant.⁸ Meyer writes:

But suppose we are given an account of existence simpliciter (whatever it may be), and suppose that a exists in this sense. Then a either exists in the actual world or it exists in some other possible world. And if a exists in the actual world then it either exists temporally, at *some* time, or 'outside' time altogether. No matter what account of existence simpliciter we pick, the following conditional is necessary because its consequent exhausts all the ways in which a could exist: a exists simpliciter \rightarrow (a exists temporally V a exists outside time V a exists in some other possible world). Existence simpliciter can only differ from temporal existence by including [= by being possessed by] some objects outside time, some merely possible ones, or both.⁹

Meyer had remarked, correctly, in my view, that the presentist thesis "nothing exists that is not present" is an obvious falsehood if its "exists" means "exists temporally," which he defines thus: "an object *exists temporally* just in case it exists at some time or other."¹⁰ Soon he will say, correctly, that it would be unhelpful to take the "exists" in the thesis to mean "exists-s," if the latter can differ from "exists temporally" only by applying to things to which "exists temporally" does not, such as things outside time or in another world. In the passage quoted, he infers from his conditional (or at least asserts) that "exists-s" *can* differ only in this way from "exists temporally."

The proper response is to dispute the final sentence of the quoted passage. Perhaps "exists-s" applies to things to which "exists temporally" does not. (Numbers, perhaps.) Be that as it may, presentists should say that "exists-s" differs from "exists temporally" in *not* applying to some things to which the latter *does* apply. Presentists should say that both terms apply to present things, but only "exists temporally" applies to past and future things. Eternalists, of course, will say otherwise. The precise bone of contention between them is whether nonpresent temporal things exist-s. Meyer may well be right that his conditional is a necessary truth. But that wouldn't show that "exists-s" could differ from "exists temporally" only by applying to things to which the latter does not. To show that, he'd need to establish the converse of his conditional, or at least show that if *a* exists temporally then *a* exists-s.

⁸ Ulrich Meyer, "The Presentist's Dilemma," *Philosophical Studies* 122, no 3 (February 2005): 213–25 and Ulrich Meyer, *The Nature of Time* (Oxford: Oxford University Press, 2013), sec. 9.1. Jonathan Tallant, "Defining Existence Presentism," 479–80.

⁹ Ulrich Meyer, *The Nature of Time*, 89–90.

¹⁰ Ibid., 88.

Meyer might respond that if *a* exists temporally, then something is *a* and exists temporally, and so something is *a*, from which believers in existence simpliciter presumably should infer that *a* exists simpliciter. I reject the *initial* inference. Aristotle once existed, and I agree that he exists temporally. But on the liberated presentism soon to be defended, what can be inferred is just that something (something that doesn't exist-s) *was* Aristotle and does exist temporally (that is, does exist at *some* time). I will argue that presentists should let the domain of "something" (and "everything") include nonpresent things, should take the "is" of identity to be existence-entailing, and should let nonpresent things have properties that *aren't* existence-entailing, one of which is that expressed by "exists temporally."

Of course, Meyer is not the only one skeptical of the intelligibility of "exists simpliciter" and of what I call the time-silent "exists." Lombard writes, "I just do not understand what the tenseless sense of 'is' or 'exists' is supposed to mean, as it applies to contingently existing things, unless it means what the disjunctively omnitemporal sense of those expressions means (that is, 'is, was, or will be')."¹¹ Savitt (2006, 121) says, "we are owed some explanation of the meaning of 'exist simpliciter' by those who think it is distinct from the present tense 'exist' and the detensed 'Exist' [= 'did, do now, or will exist']."¹²

I've already clarified the "simpliciter" in "exist simpliciter," and I've argued that the "exist" in it, the time-silent "exist," is the "exist" in certain ordinary expressions, and thus is one we can be presumed to understand. True, those expressions contain language that temporally locates the existing. Would it make sense to say just that *F*'s exist_{ts}? If *F*'s are things that exist necessarily, perhaps it will be allowed that it would. But what could it mean to say just that dinosaurs exist_{ts}, or that Napoleon exists_{ts}?

Well, it would be unsurprising if the notion of existence is primitive. And since the time-silent sense of "exist" has no temporal component, it would be unsurprising if we are unable to say in simpler, clearer terms what "*x* exists_{ts}" *means*. An inability to do so would not show its unintelligibility, any more than would an inability to explain in simpler, clearer terms what "*x* is right" means. Still, just as there are differing views on what conditions must be satisfied for *x* to be right, there are differing views on what conditions must be satisfied for *x* to be right, there are differing views on what for dinosaurs to exist_{ts} it's sufficient as well as necessary for them to exist at some time or other. Presentists

¹¹ Lawrence Lombard, "Time for a Change: A Polemic Against the Eternalism–Presentism Debate," in *Time and Identity*, ed. James Campbell, Michael O'Rourke, and Harry Silverstein (Cambridge: The MIT Press, 2010), 49–77, at 69.

¹² Steven Savitt, "Presentism and Eternalism in Perspective," in *Philosophy and Foundations of Physics* 1, ed. Dennis Dieks (Amsterdam: Elsevier, 2006), 111--127, at 121.

have counterarguments, and say that it's necessary as well as sufficient for dinosaurs to exist now. The two camps can agree that dinosaurs exist sometime, agree that they don't exist now, and disagree over whether they exist simpliciter, that is, exist in the time-silent sense for whose existence I have argued. The controversy reflects the deep division among philosophers over the extent to which time is space-like and is unlikely to end soon. But if intractable controversy sufficed to show the unintelligibility of a question, philosophers would be all but out of business.

So, we have the potent Compatibility Argument for a time-silent "exist." Occasionally, to be explicit that an "exist" is time-silent, I will use the subscript or hyphenation already introduced. Note, though, that *all* of my uses of "exist" will be in the time-silent sense. (There might be no other!) The cognates of "exist" include "existing," "existent," and "existence." My uses of them can be paraphrased using "exist(s)_{ts}." Assuming now that it's intelligible to say of things that they exist_{ts} / exist-s, whether for the reasons I've adduced or for others, we will finalize our formulations.

III

To abbreviate our formulations we employ order-sorted domains, with "x" ranging over things, which include objects, event tokens, and times (moments), and "t" ranging just over times (which are assumed to exist at least at themselves). For each world the domain of "(x)" consists of all things that exist in that world at some time or other. As noted earlier, and with the justification still to be provided, I take the domain-membership of a nonpresent thing to leave open the question of its existence. The necessity operators are restricted to temporal worlds; and for the sake of simplicity the formulations don't provide for anything that exists *outside* of time in those worlds.

Eternalism: $\Box(t)(x)$ (at $t: x \text{ exists}_{ts})$ Liberated Presentism: $\Box(t)(x)$ ((at $t: x \text{ exists}_{ts}) \leftrightarrow x \text{ exists at } t)$

We distinguish its being true at *t* that $x = xists_{ts}$ from *x*'s existing *at t*. So we employ the temporal operator "(at *t*:)," where the blank is for a declarative sentence. It's read "it is true at *t* that."¹³ We use "*x* exists at *t*" to assert that *x* is temporally *located* at *t*, which assures that it's true at *t* that *x* exists_{ts}, while

¹³ If "(at *t*: S)" is explicated, usually it's by equating it with "always (*t* is present \rightarrow S)." To avoid the apparent smuggling of the explicandum into the explicans by "always," we might prefer to say that a tokening of <(at *t*: S)> (where the angle brackets are quasi-quotes and "S" ranges over declarative sentences) asserts what would be asserted by a tokening of <if it were *t*, it would be true that S>.

"(at t: x exists_{ts})" says that it's true at t that x exists_{ts}, but is silent on whether x exists at t.¹⁴

On the liberated presentism defended in section 4, nonpresent things belong to the domain of discourse, can be referred to, can be constituents of propositions, and can have properties and relations. So as I will show, succinctly, liberated presentists can provide for the propositions expressed by A-sentences the same sort of tenseless truth-conditions that eternalist B-theorists do. (And as we will see in section 4, the same sort of truth-*makers*.) For the proposition asserted by a tokening at *t* of "tigers exist now" / "tigers existed in the past" (where "now" / "in the past" are indexical), the tenseless truth-condition is that some tigers exist at t/some tigers exist earlier than t. (We'll soon distinguish "some exist earlier" and "there are some that exist earlier.")

Tokenings of "tigers exist_{ts}" always assert the same proposition. Eternalists say that the proposition is always true. Liberated presentists say that its truth-value (TV) is variable: the proposition is true now, but will be false if tigers (an endangered species) go extinct. Still, liberated presentists can provide tenseless (and TV-invariable) truth-conditions. For the proposition asserted by a tokening at *t* of "tigers exist_{ts}," we can give as the condition of its truth at *t* that some tigers exist at *t*, and as the condition of its (time-variable) truth simpliciter that some tigers exist (not: at *t*, but) now, the time of this utterance.¹⁵ (Eternalists give as the condition of its truth at t, and also as the condition of its truth simpliciter, that some tigers exist at *some* time.) We can give comparable truth-conditions for the TV-variable proposition that is expressed by "a is_{ts} *F*" when "*F*" denotes a time-variable property. (For "is_{ts}"/ "are_{ts}," see n. 7.)

Although liberated presentists recognize a nonrelational, time-variable property of presentness, we identify it with the nonrelational, time-variable property of existence. And for the TV-variable proposition asserted by a tokening at *t* of "tigers are_{ts} present" (= "tigers are_{ts} existent"), there are the same tenseless truth-conditions given already for "tigers exist_{ts}."

Thus liberated presentism qualifies as a B-theory, assuming that to qualify it suffices to allow for the reducibility of A-judgments to B-judgments.¹⁶ Zimmerman argues that eternalist B-theorists are as

¹⁴ If $\Box(t)(x)$ x exists at t, then eternalism and presentism, as I formulate them, are *both* true—as is appropriate.

¹⁵ Sullivan disputes arguments that this feature of a TV-variable proposition would render it unfit to serve as the content of beliefs and assertions. Meghan Sullivan, "Change We Can Believe In (and Assert)," *Nous* 48, no. 3 (September 2014): 474--95.

¹⁶ There is no apparent conflict between the B-theory and the "absolute becoming" (coming to exist) recognized by liberated presentists. That tables come to be_{ts} is no more problematic on the B-theory (apart from issues concerning vague objects) than that particles come to be arranged tablewise. B-theorists can take the latter to be, roughly, a sufficient condition of the former. "Substantial change" is just another of the types of change that the B-theory can accommodate. Furthermore, liberated presentists, who hold that nonpresent things have properties and can be referred to, are free to join eternalist B-theorists in attributing an indexical pastness to the year 2000 A.D. and an indexical futurity to the year 2100 A.D.

free as eternalist A-theorists to "take tense seriously," to follow the lead of eternalist B-theorists Lewis and Mellor in affirming the ineliminability of "temporally perspectival propositions," meaning objects of the propositional attitudes that are TV-variable.¹⁷ The TV-invariable truth-conditions Zimmerman offers for them are akin to those we've seen to be available to liberated presentists.¹⁸

To embrace the B-theory need not be to countenance no notion of temporal passage. B-theorists Savitt and Mozerksy offer a B-theoretical account of passage that seems to capture much or all of what is intelligible in that notion. It has the merit of obviating the need to say at what rate time passes. Savitt identifies passage simply with "the ordered occurrence of (simultaneity sets of) events."¹⁹ So does Mozersky, who writes:

The passage of time is the *B-theoretic ordering of events* by the (semantically basic) 'is earlier than' relation; that's it. . . . I know of no B-theorist who denies that people *age* and die. . . . we can experience one event while remembering another . . . it is in this way that we experience the passage of time because passage is nothing over and above the sequence of occurrences.²⁰

In the final section, I defend the liberated presentism on which the sort of reductions I've sketched are available. This form of presentism might be less difficult (though still challenging) to reconcile with special relativity.²¹

¹⁷ Dean Zimmerman, "The A-Theory of Time, The B-Theory of Time, and 'Taking Tense Seriously" (hereafter "The A-Theory"), *Dialectica* 59, no. 4 (December 2005): 401–57 (see sections, 1–3). David Lewis, "Attitudes *De Dicto* and *De Se*," *The Philosophical Review* 88, no. 4 (October 1979): 513–43. David Mellor, *Real Time II* (London: Routledge, 1998), chs. 6 and 8.

¹⁸ Dean Zimmerman, "The A-Theory," 422–26.

¹⁹ Steven Savitt, "On Absolute Passage and the Myth of Becoming," in *Time, Reality & Experience*, Royal Institute of Philosophy Supplement: 50, ed. Craig Callendar (Cambridge: Cambridge University Press, 2002), 153–67, at 160.

²⁰ Joshua Mozersky, *Time, Language, and Ontology* (Oxford: Oxford University Press, 2015), sec. 8.1.

²¹ If presentness is relative to a frame of reference, so for presentists is existence. That might be less disagreeable to those of us who accept already that what exists is relative—to a conceptual scheme—than to those who believe in an objective inventory of existents. In any case, there will still be the frame-invariance of what is existent-at-some-time (which is why eternalists can claim the frame-invariance of what is existent simpliciter). That wouldn't help presentists much if we had to accept the doctrines, such as that only existents can be referred to. (We would hate to have to say that having sped up, we can no longer refer to what, in our frame of reference, no longer exists.) But as we will see, we *don't* have to accept the doctrines. Liberated presentists who would be content only with a frame-invariant roster of existents might look to Craig Bourne, *A Future For Presentism* (Oxford: Oxford University Press, 2006), ch. 6 and Dean Zimmerman, "Presentism and the Space-Time Manifold," in *The Oxford Handbook of Philosophy of Time*, ed. C. Callender (Oxford: Oxford University Press, 2011), 163–244, sections 4 & 5. What is not clear to me is whether liberated presentists are better positioned than other presentists to deal with the problem concerning motion raised in Theodore Sider, *Four Dimensionalism* (New York: Oxford University Press, 2001), sec. 2.2 and addressed in Dean Zimmerman, "Presentism and the Space-Time Manifold," sec. 3.3.

As noted at the start, there are seven interrelated doctrines that make trouble for presentism. Here are clearer statements of them (together with quickly read informal statements), with further clarification to come for some of them. The variables have the same domains as in the three formulations above.

- 1. $\Box(t)(x)$ (there exists at *t* a set containing $x \rightarrow (at t: x exists_{ts}))$ Only existents can belong to sets.
- 2. $\Box(t)(x)$ (x is quantified over at $t \rightarrow (\text{at } t: x \text{ exists}_{ts}))$ Only existents can be quantified over.
- 3. $\Box(t)(x)$ (x is directly or indirectly referred to at $t \rightarrow (\text{at } t: x \text{ exists}_{ts}))$ Only existents can be referred to.
- 4. $\Box(t)(x)$ (there exists at *t* a proposition of which *x* is a constituent \rightarrow (at *t*: *x* exists_{ts})) Only existents can be constituents of propositions.
- 5. $\Box(t)(x)$ (x bears monadic properties at $t \rightarrow (\text{at } t: x \text{ exists}_{ts}))$ Only existents can bear properties.
- 6. $\Box(t)(x)$ (x is a relatum at $t \rightarrow$ (at t: x exists_{ts})) Only existents can be relata.
- 7. $\Box(t)(x)$ (x serves as a truthmaker at $t \rightarrow (\text{at } t: x \text{ exists}_{ts}))$ Only existents can serve as truthmakers.

It is easy to see the threats these doctrines pose to presentism. Suppose presentism to be true. Then if 3 is true, we can't refer to Socrates. If 2 is true, we can't generalize about the Presocratics. If 6 is true, we don't stand to Socrates in the relation of postdating.

Note that if, in the seven doctrines, "(at *t*: *x* exists_{ts})" were replaced by "*x* exists at *t*," the doctrines would make the same trouble for most eternalists. If it were replaced by "exists at some time," the doctrines wouldn't threaten presentism. The time-silent "exist" is needed for formulating the doctrines as well as the ontologies.

Presentists (apart from those distinguishing existence and being, whose view will be set aside) generally have responded to these threats without rejecting any of the doctrines. We'll call such presentists "**orthodox presentists**." To mitigate the damaging implications of the doctrines, when combined with presentism, orthodox presentists have employed various devices, more ingenious than lovely, such as tense operators; present surrogates for past things; ungrounded "Lucretian" properties; ersatz times; chains of temporal overlappers; quasi-truth; and concessions of the outright falsity of ordinary beliefs, accompanied by arguments that the beliefs lack the epistemic status of Moorean beliefs.

A nice example of presentist maneuvers is given by Crisp.²² He shows how presentists might, consistently with doctrine 6, use a combination of tense operators and temporal overlappers (surrogates, too, are needed) to handle a statement ostensibly asserting a relation between temporally separated things. Crisp argues that even this heroic approach sometimes fails.

Presentists need not be this acrobatic. We can simply reject the seven troublesome doctrines. That is, we can be **liberated presentists**. Like orthodox presentists, liberated presentists rely on no distinction between "there is" and "there exists." In the pages ahead, we use both to mean "there exists_{ts}."

Important Prefatory Note #1: I offer no arguments against eternalism and none against the doctrines. (The doctrines are all true if eternalism is.) Rather, my arguments are meant to show that the doctrines can comfortably be denied by presentists. My aim is not to convert contented eternalists into presentists, but to convert orthodox presentists into liberated presentists. I argue not that presentists *must* repudiate the burdensome doctrines, but that we have no good reason not to.

Important Prefatory Note #2: The doctrines are hardly ever challenged, except by possibilists. And for some of the doctrines, especially the important doctrine 2, the arguments of their defenders are directed almost exclusively to the possibilist opposition and are inapplicable to the (all but nonexistent) opposition from the standpoint of liberated presentism. I will respond to arguments that I can anticipate, as well as to relevant arguments that I have found, notably those concerning doctrines 5 and 6.

Prefatory Note #3: When discussing a doctrine, I often offer a reason for thinking that it's not counterintuitive to reject it. Those remarks never constitute one of my primary reasons for saying that presentists need not accept the doctrine, and are never an argument against it. Their main purpose is to counter suggestions that rejecting the doctrines *is* counterintuitive.²³

Doctrine 1 needs to be challenged if we're to challenge doctrine 2, at least if we want to view domains as existing sets. Doctrine 1 is not infrequently mentioned, but I've not seen an argument for it. It could draw support from doctrine 5 (only existents can have properties, such as being a member of a set) and doctrine 6 (only existents can stand in relations, such as being a member of). But we'll see that those doctrines can be denied by presentists.

For all of the doctrines there is an argument available that involves existential generalization. For

²² Thomas Crisp, "Presentism and 'Cross–Time' Relations," *American Philosophical Quarterly* 42, no. 1 (January 2005): 5–17, at 8.

²³ As in Ned Markosian, "A Defense of Presentism," in *Oxford Studies in Metaphysics*, Vol. 1, ed. Dean Zimmerman (Oxford: Oxford University Press, 2004), 47–82. See sec. 3.1.

doctrine 1 it can be stated thus: "Suppose that there is a set containing Socrates. Then there is someone—that is, there *exists* someone—Socrates, for one, who is a member of the set. So, Socrates exists." Liberated presentists can reply: If the long-dead Socrates is a member of the set, it doesn't follow that *there is* someone who is a member. What follows is that *someone*, someone who (at least) was, *is* a member. (It would be question-begging, of course, to insist that only someone who is can now belong to a set.) This style of reply will be defended as we discuss doctrines 2 and 3.

Doctrine 2 has several potential sources of support, including doctrines 1, 3, 5, and 6—and so, indirectly, the arguments for them, notably those for 5 and 6. Otherwise the arguments for doctrine 2 have force mainly as applied to mere possibilia. We'll save for last what seems to be doctrine 2's primary source of support. Like all of the doctrines, 2 is true if eternalism is. But it can reasonably be modified by presentists so as not to apply to merely non*present* nonexistents. Let's see why.

To "quantify over" nonexistents, I take it, would be to assert quantifications, universal or existential, whose domain contained some nonexistents (and perhaps some existents as well). A plausible reason for thinking that nonexistents can't be quantified over is that there aren't any to be quantified over. As we will see, though, presentists can answer this and other arguments and defensibly reject doctrine 2.

Note first that to deny doctrine 2 need not be to affirm that we can quantify over ficta or mere possibilia, never mind impossibilia (such as the Meinongian object that weighs 12 kilos but has no other properties). Of the things liberated presentists propose to quantify over, the only ones we take to be nonexistent are past and future existents. With Quine, we can doubt that the properties and identity conditions of Pegasus and "the possible fat man in that doorway" are such as to qualify them as things.²⁴ But a domain of merely non*present* nonexistents is not a "slum of . . . disorderly elements" (ibid.). Bucephalus and Seabiscuit had the same full complement of determinate properties that a present horse has, and as definite an identity, regardless of whether it's true now that they exist. In proposing to quantify over past horses and other nonpresent things, liberated presentists do not differ from eternalists. Our domain of quantification includes no exotica. If we are guilty of Meinongianism, it is Meinongianism of "grade 1"—to evoke a Quinean label.

Suppose that presentists are right that past things don't exist. What might stop us from quantifying over them anyway? It's true, of course, that if there *are* no such things, then there aren't any to

²⁴ Willard Van Orman Quine, "On What There Is," in Quine's *From a Logical Point of View* (Cambridge: Harvard University Press, 1980), 1--19. First appeared in *The Review of Metaphysics* 2, no. 5 (September 1948), 21–38.

quantify over. But there *were* some to (now) quantify over. And we're proposing to quantify, not just over things that are, but over things that are not, things that did exist but don't.

But isn't "things that don't exist" self-contradictory? I believe not, not even on the assumption that being a thing and being an existent are one and the same. From that assumption it follows only that whatever *is* a thing, such as Big Ben, *is* existent, and whatever was or will be a thing, such as the Bastille, was or will be. And from this it follows only that things that don't exist but did *aren't* things, and did exist when they were. But isn't the "things" in "things that don't exist" applicable only to what *are* things? No, at least not simply as a matter of the semantics of English. Some teachers fondly remembered *are* not teachers. It's false, I allow, that *there are* some things don't exist. But as we will see in more detail later, liberated presentists can say both that some things don't exist and that some things aren't things. We can say that past things are in the denotation of "thing," even though it's not true that they *are* things.

It's important to keep in mind that Doctrine 2 is not a corollary of the understanding of domains in the formal semantics of classical first-order logic. Domains are there taken to be sets and required to have at least one member. But whether domains are limited to "existents" is not a question explicitly addressed.

Nor is it settled implicitly by the logical truth, in a typical first-order language L, of such formulas as " $(x)(\exists y) \ y = x$." Admittedly, it might seem to be. What makes the formula mentioned logically true is that it's true on every model for L, and hence for every (nonempty) domain. This might seem to mean that for every domain, and for every member *x* of it, there exists a member *y* that is *x*. That would mean that every member of every domain exists.

Let's focus on an instantiation of the formula mentioned. We'll reach the same point more quickly working with the shorter formula " $(\exists y) \ y = a$," where "*a*" is an individual constant of L.

In standard presentations of first-order logic,²⁵ what makes " $(\exists y) \ y = a$ " logically true in L is that it's true on every model for L. And, put succinctly, what makes (the closed formula) " $(\exists y) \ y = a$ " true on a model, M, is that "y = a" is true on M relative to at least one V, where a V is a variable-assignment function for M, that is, an assignment of members of M's domain, D, to the individual variables of L. Every V that assigns to "y" the member of D that is assigned to "a" by M's interpretation function, *I*, is a V such that "y = a" is true on M relative to that V. (And there are sure to be such V's.)

The crucial point is that what's required to make " $(\exists y) \ y = a$ " true, on a model M, is not that some

²⁵ For concise, readable coverage of material pertinent to this paragraph and the next two, see Ulrich Meyer, *The Nature of Time* (Oxford: Oxford University Press, 2013), sec. 8.1.

member of M's domain "exist," and satisfy a certain condition, but that some variable-assignment function, V, assign to "y" the member of M's domain that *I* assigns to "a." What matters is not whether the member that *V* assigns to "y" exists, but whether the *same* member is assigned by *I* to "a." (There will be an important additional comment on formal semantics during our discussion of doctrines 5 & 6.)

Likewise, and less technically, what's required to make " $(\exists x) Fx$ " true, on an interpretation, is that some member of the domain, whatever its existential status, belong to the subset of the domain assigned by that interpretation to the predicate letter "*F*."²⁶

So, liberated presentists don't need to introduce "neutral" guantifiers. So far as formal semantics is concerned, "∃" (as well as "∀") is itself neutral rather than "existentially loaded." For those who take everything to exist, as do orthodox presentists as well as eternalists, there is no need for additional, existentially-loaded quantifiers; they would have the same range. Nor are they a necessity for liberated presentists. For us the domain is divided into things that exist / are / are things and things that don't exist / aren't / aren't things. (The things that aren't things were or will be things. For more on this, see n. 51.) We can make do with a quantifier ranging over the whole domain plus a predicate constant meaning "exists" / "is" / "is a thing." As did Hinchliff, I distinguish ordinary-language quantifiers that expressly assert existence (= being), such as "there exist ...," "there are ...," and "there are some things that are" from those that don't, such as "some things are" and "at least thing one is"²⁷ These latter, as persuasively argued by McGinn, are justifiably understood as functioning only to indicate the quantity of things to which a property or relation is to be ascribed.²⁸ What may often make them seem existenceasserting, I'll add, is that when the predicate is existence-entailing (as are "is pleased" and "is nearing Milan"), the statements of which the quantifiers are part are existence-entailing.²⁹ (By contrast, "there exist F's'' and "there are F's'' assert existence even when the predicate is not existence-entailing.) When we are content to assume that every member of our domain exists / is, we can select any of the ordinary-

²⁶ Stoneham rightly remarks, "The standard semantics for ' $(\exists x)$ *Fx*' states that it is true iff the set **S**, which is the extension of *F*, is not empty. And that condition is met iff the extension of *F* includes at least one member of the domain. The ontological commitment of ' $\exists x$ ' is not existence but domain membership . . ." Tom Stoneham, "Time and Truth: The Presentism– Eternalism Debate," *Philosophy* 84, no. 2 (April 2009): 201--8, at 210.

²⁷ Mark Hinchliff, A Defense of Presentism, 103–05.

²⁸ Colin McGinn, *Logical Properties* (Oxford: Oxford University Press, 2000), ch. 2, esp. 32–37.

²⁹ When discussing doctrines 5 & 6, I indicate which predicates/properties I believe should and should not be classed by presentists as existence-entailing.

language quantifiers as a reading of " \exists ." When not thus content, we need to be discriminating. A good choice for reading "($\exists x$) ~ x exists_{ts}" is "some things don't exist." Formula and statement are true, a liberated presentist will say, if a nonpresent thing is a member of the domain of quantification.

For presentists wanting to include nonpresent things in the domain of quantification, the obstacles are found not in formal logic but in the conflict with doctrines 3–7, since quantifications over such a domain, and singular statements about its nonpresent members, purportedly refer to, assert propositions about, and ascribe properties and relations to, things we believe not to exist. As we will see, though, presentists can defensibly reject those doctrines.

Are there other obstacles? Well, Lewis, Sider, and Markosian, among others, seem to hold, at least roughly, that "exists" can be explicated as (or ascribes the same property as) "is in the range of unrestricted quantifiers."³⁰ Trivially, absolutely *everything* is in the range of unrestricted quantifiers. So, on this conception of existence, there can be no denying that everything exists. Indeed, Lewis says that there is only a "trivially universal predicate of existence" and that it is not "a substantive thesis that everything exists."³¹ A trivial consequence is doctrine 2: only *existing* things can be quantified over (since, on this conception, "*non*existing things" is a contradiction in terms).

The proposed understanding of "exists" is congenial to eternalists, but presentists should reject it unless there is a compelling reason not to. (At least in the works cited, Sider and Markosian just take the understanding for granted, while Lewis says only that he doesn't see how else "exists" might be understood.³²)

If we presentists can't include nonpresent things in domains of quantification, that is, in domains of *discourse*, we have only a variety of strained, complicated suggestions, none commanding wide support, for reconciling presentism with the fact that we ordinarily take ourselves to discourse about nonpresent things. As we've already noted, nonpresent things do not share the sketchiness of ficta and mere possibilia. Napoleon had the same complete ensemble of determinate properties, and identity conditions no more problematic, than those of a present man. So, presentists can join eternalists in including nonpresent things in domains of discourse, *unless* the nonexistence of nonpresent things would

³⁰ David Lewis, "Noneism or Allism?" *Mind* 99, no. 393 (January 1990): 23–31. See esp. 29–31. Theodore Sider, *Four-Dimensionalism*, xxii–xxiii. Ned Markosian, "A Defense of Presentism," 48, n. 3.

³¹ David Lewis, "Noneism or Allism?" 31.

³² Ibid., 30.

suffice all by itself to exclude them. It *would* do so, if (a) there is no intelligible alternative to the proposed understanding of "exists," on which doctrine 2 is a trivial truth, or (b) doctrines 3–7 are true, which would preclude *discourse* about nonexistents. I know of nothing else that would press presentists to accept doctrine 2. In this subsection, we'll dispute (a).

So, how might we understand "exists" other than as "is in the range of unrestricted quantifiers"? Well, where "*a*" is a proper name, all temporal ontologists (if they're actualists) can equate "*a* exists" with both "*a* is" and "there is an *x* such that *x* is *a*." Later I argue that even a liberated presentist should take the "is" of identity to be existence-entailing. Liberated presentists can then join other temporal ontologists in equating "*a* exists" with "*a* is something" and "not everything is not *a*."³³ However, these four equations are explications only in making clear that we're not distinguishing existence and being. And I can offer no further, ontology-neutral explication. Happily, we don't need one. Earlier we found ample reason to believe that there is an ontologically suitable, time-silent sense of "exists." Since we found it to be an ordinary sense, we can be presumed to understand "exist" when used in that sense (as it is in "exist simpliciter"), regardless of whether it can be explicated. It would be unsurprising if the fundamental notions of ontology—existence, being—admit of no clarification beyond their (not uncontroversial) identification. If we equate the time-silent "exists" with the time-silent "is" ("of existence"), but otherwise treat "exists_{is}" as primitive, we enable all temporal ontologies to arrive unhandicapped at the starting gate.

Doctrine 2 is a corollary of eternalism. But if the arguments ahead succeed in showing that the nonexistence of a thing would not all by itself prevent *discourse* about it, then there is no apparent reason why presentists should not modify doctrine 2 so as not to apply to the respectable nonpresent things that eternalists are happy to include in their domains of discourse.

Doctrine 3 should be accepted, if at all, only on the basis of a good philosophical argument. It is not plausibly viewed as implicit in ordinary thinking. (Nonphilosophers have no doubt that they refer often to past people and events, but they probably don't take it to be obvious that those things exist.) Yet I find few explicit arguments for the doctrine. It does draw support, though, from other doctrines.

Hinchliff argues that on neither causal nor descriptivist theories of reference is there an obstacle to referring to things that don't exist but did.³⁴ We can add that it's not apparent how the existence of

³³ Peter van Inwagen proposes the latter as a means of skirting issues concerning existential quantifiers. Peter van Inwagen, "McGinn on Existence," *The Philosophical Quarterly* 58, no. 230 (January 2008): 36–58, at 51.

³⁴ Mark Hinchliff, "The Puzzle of Change," 124–25.

wholly past things could facilitate reference to them. Their retention of the status of "existents" wouldn't augment their impact on the spatiotemporal world. Of course, it would enable them to meet the condition of referability alleged by doctrine 3, but doctrine 3 is what's at issue. So, what reason is there for presentists to accept the doctrine?

One argument available for it invokes doctrine 5 (only existents can have properties, such as being a direct or indirect referent). Another invokes doctrine 6. Mozerksy states it succinctly: "If *x* refers to *y*, then *x* and *y* stand in relation to each other. But two entities can stand in relation to each other if, and only if, they both exist. This is simply a logical truth."³⁵ We will soon see that presentists can deny doctrines 5 and 6. (And I'll address Mozersky's claim of logical truth.)

There is also an argument involving existential generalization. The same sort of argument is available for all of the doctrines, though I usually don't state and respond to it. And this is the only place I defend the response. "Suppose Maria is referring (directly or indirectly) to Socrates. Then there is *someone*—that is, there *exists* someone—namely Socrates, to whom she is referring. So, Socrates exists." The response available to presentists: "It doesn't follow that there *is* someone to whom Maria refers. Given that Socrates lived long ago, all that follows is that there *was* someone to whom she refers. She is referring to someone who was, not to someone who is." (I'll footnote the similar response available to Mozersky's variant of the argument.³⁶)

It might be replied that "there **was** someone, namely Socrates, to whom Maria refers," when translated into the canonical language of quantification, becomes "there is an *x* such that *x* is located before now and (x = Socrates and Maria refers to *x*)," and that this asserts the existence of Socrates.

In response, I deny that the translation preserves the meaning of the original, on the grounds that the original, as strongly suggested by its "was," does *not* assert the existence of Socrates. The original can instead be translated "*for some x*, *x* is located before now and (x = Socrates and Maria refers to x)." And this, if we deny doctrine 2, on which the "*x*" can range only over existents, is compatible with the denial that Socrates exists. So far we have no good reason for a presentist *not* to deny doctrine 2.

³⁵ Joshua Mozersky, "Presentism," in *The Oxford Handbook of Philosophy of Time*, ed. C. Callender (Oxford: Oxford University Press, 2011): 122–44, at 130.

³⁶ In responding to Hinchliff's denial of doctrine 3, Mozersky writes, "[the denial] seems to rest on a confusion. If we are to claim that there is something that is referred to in an utterance, thought, or proposition, then this is simply contradicted by the claim that what is referred to doesn't exist." Ibid. Granted, but what is not thus contradicted is the claim that there was something that is referred to.

Doctrine 3 itself could support it, as we noted earlier. But if we can reject, as we can, the highernumbered doctrines from which 2 and 3 could draw support, we can deny both of them.

Doctrine 4 is often assumed by those who accept two popular theories: that some propositions, singular propositions, refer directly to particular things and that singular propositions have those things as "constituents." The theories are not incontrovertible, but let's suppose that they're true. If doctrine 4 is true as well, then presentists must deny that there are singular propositions about nonpresent things.

In the literature on structured propositions, there are few unambiguous affirmations of doctrine 4, if there are any at all, that is, few or none that explicitly distinguish doctrine 4 from the weaker thesis that can be accepted by liberated presentists: that only what exists at *some* time (or outside of time) can be a constituent of a proposition. Even in temporal ontology, doctrine 4 is generally an assumption rather than a conclusion. The one argument I've found is for a thesis closely akin to doctrine 4, assuming that the "exist" in it is time-silent. Hofweber writes:

the proposition [P] expressed by an utterance containing a directly referential term will be an object-dependent proposition [S]ince [3] the object referred to is all that is contributed [by a referring term to a proposition], if [2] there is no object that is referred to, because [1] what one attempts to refer to does not exist, then [4] there is no complete proposition.³⁷

The sentence numbering is mine. [1] is a supposition. [2] is inferred from [1]. [3] is a premise. [4] is inferred from [2] and [3]. The argument supports this conditional statement: if [1], then [4]. And that statement is a close kin of doctrine 4. Now, note that [4] follows from [2] and [3] only if [2] entails [X]: *no object is referred to*. Presentists who deny doctrines 2 and 3 will deny that it does; we will say that [X] is stronger than [2], that [X] but not [2] rules out [P]'s referring to an object that did exist but doesn't. Hofweber doesn't endorse a particular theory of propositions, but says that a Russellian theory "nicely illustrates . . . the dependence of a proposition on individual objects."³⁸

On the Russellian theory to which Hofweber refers, famously advocated in Soames, a singular proposition attributing a monadic property to a thing is identified with the ordered pair of the thing and the property.³⁹ On this theory, for Socrates to be a constituent of such a proposition would be for him to be an

³⁷ Thomas Hofweber, "Supervenience and Object-Dependent Properties," *The Journal of Philosophy* 102, no. 1 (January 2005): 5–32, at 7–8.

³⁸ Ibid., 8.

³⁹ Scott Soames, "Direct Reference, Propositional Attitudes, and Semantic Content," *Philosophical Topics* 15, no. 1 (Spring 1987): 47–87. See 72–73.

entry of a certain ordered pair. Presumably, Socrates can now be an entry of ordered pairs if he can now be a member of sets (especially since ordered pairs are reducible to sets), and thus far we have no good reason for presentists to accept doctrine 1, to limit set-membership to existents.

Soames has recently offered a new theory, one that aims both to explain how the constituents of propositions hang together and to say what propositions actually are, not just to provide "structures that . . . *represent* the real propositions."⁴⁰ He now holds that the proposition that *o* is white is the event-type of predicating whiteness of *o* (where "predicating" has a broad, primitive sense in which even understanding the claim that *o* is white counts as predicating whiteness of *o*).⁴¹

Suppose that Socrates can be directly referred to, and is famous, even if the presentist is right that he doesn't exist. That is, suppose that doctrines 3 and 5 are false. Then, presumably, famousness is now predicable of Socrates, of whom I hereby predicate famousness. For Soames, this assures the existence of the type of which my predicating is a token.⁴² Thus it assures the existence of the proposition that Socrates is famous, of which Socrates is a constituent,⁴³ regardless of whether Socrates exists. On Soames's theory, then, a nonexistent Socrates could be a propositional constituent if doctrines 3 and 5 are false. The same is true for the remarkably similar "hylomorphic" theory of Johnston and for the dissimilar, but similarly motivated theory of King.⁴⁴ So, these prominent theories provide no reason for presentists who deny doctrine 3 to accept doctrine 4, if they can also deny doctrine 5, which remains to be shown.

I'll not argue that the falsity of doctrine 4 could also be reconciled with the theory that propositions are identifiable with the mereological sums of their constituents, because to do so would require more space than is warranted by the theory's diminished popularity. (For its problems, see Keller.⁴⁵)

⁴⁰ Scott Soames, *What is Meaning*? (Princeton; Princeton University Press, 2010), 105–06.

⁴¹ Ibid., chs. 5 and 6.

⁴² Ibid., 103–04.

⁴³ Ibid., 65.

⁴⁴ Mark Johnston, "Hylomorphism," *The Journal of Philosophy* 103, no. 12 (December 2006): 652–98, sec. 12, esp. 683– 85. Jeffrey King, "Questions of Unity," *Proceedings of the Aristotelian Society* 109, no. 3 (October 2009): 257–77, esp. 258, 265.

⁴⁵ Lorraine Keller, "The Metaphysics of Propositional Constituency," *Canadian Journal of Philosophy* 43, nos. 5–6 (November 2013): 655–78. See 660–65.

Doctrines 5 and **6** will be considered together, since the arguments for them are essentially the same. Presentism combined with these two doctrines is often referred to as "serious presentism."

I believe that Aristotle doesn't exist. Nevertheless, I find it highly plausible that he has these properties: being dead, being famous, having been a philosopher, and having tutored Alexander. And I find it highly plausible that we stand to him in the relation of postdating. Why shouldn't a presentist simply deny doctrines 5 and 6, and decline to be a "serious" presentist?

Mozersky says, without elaboration, that doctrine 6 "is simply a logical truth."⁴⁶ (He'd say the same, I believe, about doctrine 5.) His reason, presumably, is that " $(Rab \rightarrow (\exists x)(\exists y)(x = a \& y = b))$ " is a logical truth. But as we saw, the logical truth of the formula's consequent (and thus of the formula) requires only that *a* and *b* belong to the domain of quantification. Denying doctrine 2 would let us deny that the domain is limited to existents, and thus far we have no good reason for a presentist *not* to deny doctrine 2. Doctrine 6 itself could provide such a reason. (For any members *x* and *y* of a domain, the relation of being-or-not-being-identical-with holds between *x* and *y*. So, by doctrine 6, *x* and *y* exist.) But why shouldn't presentists deny doctrine 6 as well as doctrine 2?

Bergmann aims to show that serious presentism is entailed by presentism plus (A_M), the thesis (which I grant) that only existents can have being.⁴⁷ His proof depends on this undefended assumption: If a property is exemplified by nothing that is, it is exemplified by nothing at all. (See his P4 on 127.) This assumption can easily be denied by presentists who deny doctrines 2 and 3 and let "nothing" and "something" range over things existing at any time, including Plato and Aristotle. Such presentists can say that the property of having been a teacher of Aristotle is exemplified by nothing that is, but is nevertheless exemplified by something, something that *was*, such as Plato.⁴⁸

Opposing "frivolous presentism" (presentism conjoined with the denial of doctrine 5 or doctrine 6), orthodox presentist Crisp writes, "The suggestion here is that Caroline bears a relation R [that of being the daughter of] to JFK and Jackie, but there is nothing to which she bears R. Bizarre."⁴⁹ Liberated presentists can reply that although there is nothing to which Caroline bears R, (a) there was something to

⁴⁶ Joshua Mozersky, "Presentism," 130.

⁴⁷ Michael Bergmann, "(Serious) Actualism and (Serious) Presentism," *Nous* 33, no. 1 (March 1999): 118–32, sec. 4.

⁴⁸ Davidson gives an argument similar to Bergmann's. There is a similar objection to his premise (2). Matthew Davidson, "Presentism and the Non-Present," *Philosophical Studies* 113, no. 1 (March 2003): 77–92, at 87.

⁴⁹ Thomas Crisp, "Presentism and 'Cross-Time' Relations," 7.

which she bears *R*; (b) she bears *R* to *some*thing, though not to something that is, and (c) $(\exists x)$ Caroline bears *R* to *x*. ("($\exists x$)" should here be read "for some *x*," not "there is an *x* such that.")

Denying doctrines 5 and 6 raises for liberated presentists the question of which properties are existence-entailing and which are not, that is which properties can be possessed at a time only by things of which it's true at that time that they exist_{ts}. I won't offer a simple, general answer. But into the category of *not* existence-entailing I put (almost all) properties expressed by past-tensed predicates, such as "was an Athenian"; time-indexed properties expressed by tenseless predicates such as "is alive in 1810"; and properties expressed by some present-tensed predicates, such as "is famous," "is dead," "is often referred to," and "belongs to the set of Roman emperors." Into the existence-entailing category I put primary and secondary qualities, as well as behavioral, sortal, and categorial properties,⁵⁰ and also the property of being a thing.⁵¹ Boston's Liberty Tree (1646–1775) has no shape, mass, or color, though it did at each time at which it existed. It is_{ts} (see n. 7) neither an elm, a tree, an organism, a material object, nor a thing, though it was.⁵²

I take "is something" (= "is numerically identical with some thing") to be equivalent to "is a thing," and both to be equivalent to "exists." Socrates isn't, isn't a thing, and isn't something. Even so, " $(\exists x) x =$ Socrates" is a logical truth. The quantifier should be read "for some *x*," and I explain next how to read "=."

Is Socrates Socrates? If he is, then Socrates is something, which I've just denied. Presentists can plausibly deny that the deceased Mother Theresa *is* Agnes Bojaxhiu. (That's who she was.) And we can plausibly deny that Socrates is Socrates, whether "is" has the sense of "is now" or a time-silent sense,

⁵⁰ The ancient horse Bucephalus has (simpliciter) neither a mass, a size, nor a shape, if only because there is no (specific) mass, size, or shape that it might nonarbitrarily be said to have. (A thing can't have a shape, whether at a time or simpliciter, without there being some shape that it has, just as it can't be an *F* without there being some *F* that it is.) Presumably, then, for the endurantist, Bucephalus is_{ts} (see n. 7) neither a horse nor a material object. A perdurantist can say that the 4-dimensional Bucephalus is_{ts} a horse and a material object, even if mass, size, and shape are attributable, simpliciter, only to his time-slices. I assume, though, that the liberated presentist, like most or all presentists, is an endurantist.

⁵¹ For presentists Bucephalus is_{ts} neither a horse nor a material object. (See n. 50.) If Bucephalus is_{ts} a thing, it is_{ts} a thing of no recognized sort or category. Happily, presentists have no need to say that Bucephalus is a thing. Still, we can *refer* to it as such (just as we can refer to it as a horse—"Alexander's biggest horse"— despite holding that Bucephalus is not a horse). For liberated presentists, the denotation of "thing" is the domain D of things, which is the set of past, present, and future things. But the (time-variable) extension of the predicate "is a thing" (variable even when "is" has its time-silent sense) isn't D, but the set of present things, that is, the set of things of which it's true at the time of predicating that they exist_{ts}. As noted earlier, we can say that some things aren't things. That is, at least one member of D is not a thing. Symbolically: $(\exists x) \sim x$ exists_{ts}.

⁵² The difference between liberated presentism and eternalism, ontologies with the same domain, lies in the additional properties that eternalists predicate (simpliciter) of nonpresent things. These include existence, thinghood, and, usually, sortal and categorial properties. Eternalists, other than Williamsonian permanentists (who hold that everything is *located* at every time, and deny the essentiality to concreta of concreteness) would say that the Liberty Tree is_{ts} an elm, a tree, an organism, or at least a material object. (I set aside endurantist eternalism, a rarely advocated position. One of its drawbacks is evident from notes 50 and 51.

and say instead that Socrates *was* Socrates.⁵³ In formal semantics, though, "Socrates = Socrates" is true, logically so, since (treating "Socrates" as an individual constant) any interpretation will assign the same value to "Socrates" as to "Socrates." So, presentists should say that "=" is weaker than the "is" of identity, just as most philosophers say that " \rightarrow " is weaker than "if . . . then." When we don't assume that all members of a temporal domain exist, we should understand "=," as it appears in formulas, and "is," as it appears in such semantical expressions as "*I*('*a*') is *V*('*y*')," to mean "is now, was, or will be."

Doctrines 5 and 6 are closely related to the temporal analogue of Williamson's "being constraint."⁵⁴ For the constraint Williamson offers this rationale:

If x has P, ... exactly one thing is x and has P, so at least one thing is x. But if at least one thing is x, then x is something [= x exists]. Similar considerations apply to polyadic relations.⁵⁵

This argument will be rejected by presentists who deny doctrine 2, let "*x*" range over things existing at any time, and take identity to be existence-entailing. If *x* is wholly past but nevertheless has P (the property of being famous, for example), then we will deny that "exactly one thing is *x* and has P" and say instead that exactly one thing *was x* and has P. (We will say that not even *x* is *x*.) And thus we will deny that "*x* is something," although we will acknowledge the logical truth of the open formula " $(\exists y) x = y$." Liberated presentism involves denying not just doctrines 5 and 6, but doctrine 2 as well, a possibility that Williamson, like Mozersky, Bergmann, Davidson, and Crisp, doesn't consider. Presentists can be "serious" by accepting all of the seven doctrines—or *none* of them.

Finally, I'll note that doctrines 5 and 6 could draw support from doctrine 7, which entails that only an existent Aristotle could help make it true that he bears the property of being famous and true that we stand to him in the relation of postdating. Bigelow writes:

What reasons could people have for the high degree of confidence in the principle that all relations must be existence entailing? Here is a train of thought that may lie behind the principle. There is a deep assumption behind much of our thought, that every truth (or at least, every simple truth about how one thing is related to another) requires a truthmaker . . . there must exist some thing or things in the world in virtue of which . . . [it] is true . . . As I prefer to

⁵³ That identity is existence-entailing is a view that Williamson commends to temporaryists. Timothy Williamson, *Modal Logic as Metaphysics* (Oxford: Oxford University Press, 2013), 27. The necessity and permanence of identity should be understood thus: $\Box(x)(y)$ (if $(\exists t)$ (at *t*: *x* is *y*), then (*t*)(if (at *t*: *x* or *y* exists), then (at *t*: *x* is *y*))).

⁵⁴ Ibid., sec. 4.1.

⁵⁵ Ibid., 148–49.

put it in general: truth supervenes on being—there could not be a difference in what is true unless there were a difference in what exists.⁵⁶

So, on to **doctrine 7**, and to the claim that "truth supervenes on being" (*TSB*), which says that even if some truths (such as negative truths) lack bespoke truthmakers, contingent truths about the world supervene on the totality of things that $exist_{ts}$ and their properties and relations. For eternalists, who hold that *everything* $exists_{ts}$, whether it's present, past, or future, *TSB* is plausible. But is there reason for a presentist to accept it? Most presentists *have* accepted it (with one or another technical refinement), despite the threat it poses to their theory. It's hard to see how beliefs about dinosaurs could be made true by present existents and their properties and relations. Recently, there has been a surge of presentist opposition to *TSB*. In my estimation, the opposition has been insightful, but insufficiently radical to lead to clear, appealing positive accounts.⁵⁷

Like Merricks, I know of no developed argument for *TSB* and stronger truthmaking theses⁵⁸ (except the one discussed below). To be more precise, I know of none for the limiting of truthmakers and the supervenience base to things that *exist_{ts}*, rather than to things that exist at some time or other, at least none that doesn't presuppose doctrine 2. To argue that presentists need not accept *TSB*, I'll argue that they need not accept doctrine 7. If the nonexistence of past and future things would not preclude their being truthmakers, it presumably would not preclude their being part of a supervenience base. And there would be no reason for presentists to handicap themselves by limiting the supervenience base for truths to

⁵⁶ John Bigelow, "Presentism and Properties," in *Philosophical Perspectives* 10, ed. James Tomberlin (Atascadero: Ridgeview, 1996), 35–52, at 38.

⁵⁷Torrengo offers one line of objection to the views of these philosophers. Giuliano Torrengo, "Ostrich Presentism," Philosophical Studies 170, no. 2 (September 2014): 255-76. Mine is simply that their views remain wholly or largely orthodox, in that they accept the constraints of at least the first six doctrines (certainly they offer no justification for rejecting them), and their solutions to the grounding problem have the problems of orthodox presentism, even if their solutions are otherwise satisfactory. Tallant and Ingram, for example, propose to ground propositions about the past in the corresponding facts about the past. They write (using angle brackets to mean "the proposition that"), "<Caesar crossed the Rubicon is true> because Caesar crossed the Rubicon." Jonathan Tallant and David Ingram, "Nefarious Presentism," The Philosophical Quarterly 65, no. 260 (June 2015): 355-71, at 356. They seemingly refer to Caesar, and seemingly presuppose that there is a proposition about him, but are silent on how that is to be reconciled with doctrines 3 & 4. So are Sanson and Caplan, for whom the questions are less pressing only because their one example concerns a past property of a present person. David Sanson, Ben Caplan, "The Way Things Were," Philosophy and Phenomenological Research 81, no. 1 (July 2010): 24-39. Baia, commendably, addresses the problems for his solution posed by doctrines 2 & 6 (though not those posed by 3 & 4), arguing that his solution is compatible with them. Alex Baia, "Presentism and the Grounding of Truth," Philosophical Studies 159, no. 3 (July 2012): 341-56 (see 351-52). I find his arguments on this score strained and unconvincing (in contrast to his arguments elsewhere), but I won't take the space to discuss them. Baia acknowledges (350, n. 23) that he has no means of reconciling truths about cross-temporal relations, such as that Caesar predated Nero, with doctrine 6. The liberated presentist, of course, rejects doctrine 6, and all of the other doctrines.

⁵⁸ Trenton Merricks, *Truth and Ontology*. (Oxford: Oxford University Press, 2007), 2.

present things and their properties and relations.

By a "truthmaker" or "ground" (the terms will be used interchangeably), I'll mean nothing more specific than that which makes a truth true. There is much disagreement over the categories of item suited to the role of truthmaker. Most of the candidates (including concrete objects, event tokens, concrete states, tropes, and spatiotemporal regions or their contents) are items that aren't always present. I want to argue that even for presentists, nonpresentness is not a disqualification, since there is nothing to stop merely nonpresent nonexistents from serving as truthmakers, nothing that presses us to accept doctrine 7.⁵⁹ For the case that will illustrate my reasoning, I'll select as the truthmaker (without claiming that it's the best selection) something that lies wholly in the past. If presentism is true, the selected truthmaker is nonexistent.⁶⁰

Long ago, dinosaurs roamed the earth. An eternalist might want to ground this truth in the longago roamings of the earth by dinosaurs. Why mightn't a presentist do the same? Because, it will be replied, for a presentist those dinosaurs and their roamings don't exist. But this is an odd reply. There is no prima facie reason they'd need to. There is no ordinary intuition that presses us to say that it's true that dinosaurs roamed the earth, not simply because of past roamings of the earth by dinosaurs, but also because it's true even now that those dinosaurs and their roamings exist.

Perhaps, though, there is philosophical pressure. Suppressing reference to the earth, below we list the proposition presumed to be true and the suggested truthmaker.

Proposition P:Dinosaurs roamed.Truthmaker for P:Past dinosaur roamings

Why can't presentists say that the dinosaur roamings of the past don't exist but nevertheless ground the truth of *P*? Mozersky, responding to recent opponents of *TSB*, mainly Baia, offers two arguments, both analogical, against the idea that truths about nonexistent past things can be grounded by

 $^{^{59}}$ Doctrine 7 could be supported by reference to doctrines 5 & 6: If something has the property of being a truthmaker, and stands in the truthmaking relation to a truth, then by 5 & 6 it must exist. But doctrine 7, and the thesis TSB whose plausibility depends on that of 7, were cited by Bigelow as the support for 6. And we found no *other* reason for presentists to accept 5 & 6. Doctrines 1–4 can't provide it, since we found no reason not to deny 1–4 except that they are corollaries of 5 & 6.

 $^{^{60}}$ Presentists should accept that facts as well as propositions can exist when the things they are about are not present. And facts might be the most plausible truthmakers for at least some truths (including ones concerning cross-time relations). If they are, I'd need to argue that presentists can deny that only existents can be constituents or subjects of facts. My arguments would be akin to those concerning doctrine 4. A truth: Epictetus belonged to the philosophical school to which Chrysippus had belonged 250 years earlier. A possible truthmaker, available to liberated presentists: the fact of Epictetus's belonging, at a time *t* earlier than now, to the philosophical school to which Chrysippus belongs at a time 250 years earlier than *t*.

nonexistent past things.⁶¹ I'll discuss the one I consider stronger. It amounts to this:

To claim that there are truths about nonexistent past things grounded wholly by nonexistent past things and not at all by existing things is like claiming, absurdly, that there are truths about nonexistent fictional things grounded wholly by nonexistent fictional things and not at all by real stories.

We can agree with Mozersky that the fictional analogue is absurd. Suppose it were said that orcs roam Middle Earth (Tolkien), and said that this truth is grounded by nonexistent but fictional orc roamings and not at all by real stories. We'd respond: Independently of real stories, orc roamings fail to qualify as fictional. This leaves the nonexistent orc roamings with no *additional* status (additional to that of nonexistents) that might more plausibly enable them to serve as truthmakers. By contrast, nonexistent dinosaur roamings have, independently of existing things, a status in addition to that of nonexistents, that of past dinosaur roamings, which plausibly (as we've seen) and arguably (as we will see) qualifies them for present service as truthmakers.

Mozersky would reply by denying that presentists are entitled to the assumption that there *were* dinosaur roamings (to now have the status of "past dinosaur roamings"). He writes, "dinosaurs existed 100 million years ago. But can the presentist simply help herself to that fact if she insists that all truthmakers for propositions about dinosaurs are unreal [nonexistent]? I don't see how."⁶² And, "The problem, of course, is . . . [that] *x was once real* is ungrounded in the presentist's ontology."⁶³

This reply simply assumes what I dispute: that nonexistents can't be truthmakers, can't be grounds. On present evidence, convincing evidence, the proposition that dinosaurs once roamed is true. Its truth is grounded, I contend, by past dinosaur roamings, even though it is no longer true that dinosaurs and their roamings exist_{ts}. Mozersky might object that the roamings can be neither referents nor bearers of pastness, if they don't exist, but we have found no reason for presentists to accept doctrines 3 and 5.

We're supposing that for both eternalists and liberated presentists, truths like *dinosaurs roamed* are grounded by (token) events. Suppose it to be true that humans will roam Mars. That truth is to be grounded by future roamings. Not being truths, the roamings don't have or need truthmakers. What they might have are explanations. For both eternalists and liberated presentists, the domain of quantification

⁶¹ Joshua Mozersky, *Time, Language, and Ontology*, sec. 3.4.

⁶² Ibid., 49.

⁶³ Ibid., 52.

includes events existing at any time, past, present, or future. And if domains are sets, as they are standardly taken to be, their membership (unlike that of the "collectivities" of Rescher and Grim⁶⁴) is determinate, even if nomically undetermined by present conditions. So even if the world is indeterministic, eternalists and liberated presentists are likely to say that it's true now of some specific future, albeit a brute truth, that it *exists* (eternalists) / *will exist* (liberated presentists). But even if the truth is brute, in the sense of not following from laws plus the state of the world, both can still claim it to be grounded by, made true by, that future.⁶⁵ We're allowing that it can be true now that humans will roam Mars, or that dinosaurs roamed the earth, only if something now *makes* it true. But to be a truthmaker, must that something (the roamings) exist?

For those who accept doctrine 7, past dinosaur roamings indeed must exist (though they need not exist now) to be truthmakers for *P*, *dinosaurs roamed*. But why might their existence be required? After all, *P* says only that dinosaurs roamed, not that they *roam*. Is existence required to give the roamings some "oomph"? Well, the existence of the past roamings would not amplify their spatiotemporal impact. And their existence would be grounded *by*, not the ground *of*, their existence in the past. The existence of the roamings would enable them to satisfy the requirement alleged by doctrine 7, but doctrine 7 is precisely what's at issue. The question is *how* the existence of the past roamings would be that the existence of the roamings is what would enable them to have properties, such as being a truthmaker, and to stand in relations, such as being the truthmaker for. But for those of us ready to reject doctrines 1-6, if we can reject 7 (see n. 59 again), there is no apparent answer to the question. There is no apparent reason not to say what sounds eminently plausible: that true claims about what was are made true by what was.

For liberated presentists, unlike orthodox presentists, the past is as accessible and available as it is to eternalists. It can straightforwardly be remembered, thought about, referred to, and discussed. Dinosaurs and their roamings are in the domain of our quantifiers. To be available as truthmakers, we can say, they need not exist.

Rejecting doctrine 7 leaves us with no good reason to accept any of the doctrines. The doctrines

⁶⁴ Nicholas Rescher and Patrick Grim, *Beyond Sets: A Venture in Collection-Theoretic Revisionism* (Frankfurt: Ontos-Verlag, 2011).

⁶⁵ Mozersky writes, "... on the eternalist view, even a random event, *e*, in the future suffices for the truth of *it will be the case that e*. What grounds the truth of the proposition about the future is the future event ..." Joshua Mozersky, *Time, Language, and Ontology*, 68, n. 6. I'm pleased to be able to express agreement, for the second time, with something in Mozersky's fine book.

are all true if eternalism is, but presentists can comfortably reject the lot.

Although eternalists and liberated presentists both include nonpresent things in domains of discourse, they differ in the properties they predicate of them (n. 52). As regards existence, eternalists and liberated presentists agree that nonpresent things exist at some time or other, and most eternalists agree with liberated presentists that they don't exist now. The disagreement is whether they exist simpliciter, whether they exist in what we found to be an *ordinary* sense of "exist," the time-silent sense.

Rejecting the seven doctrines disposes of most of presentism's problems; it does so without distinguishing existence and being, and without the strain, artificiality, and implausibility we find in other defenses of presentism. It also enables presentists to reduce A-discourse to B-discourse, which would render doubts about the intelligibility of A-theories inapplicable to presentism, and might reduce, even if it would not eliminate, the difficulty of reconciling presentism with special relativity.

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