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## PRESENTISM, ETERNALISM, AND THE TRIVIALITY PROBLEM

**Abstract.** It is often claimed that the debate between presentism and eternalism is merely verbal, because when we use tensed, detensed or tenseless notions of existence, there is no difference in the accepted metaphysical statements between the adherents of both views. On the contrary, it is shown in this paper that when we express their positions making use, in accordance with intentions of the presentists and the eternalists, of the tensed notion of existence (in the case of the presentists) and the detensed or tenseless notion (in the case of the eternalists), the controversy remains deep and very important for us, because both ontological claims express a different attitude to the existence of the flow of time. It is shown that not only does the proposed approach to presentism and eternalism exactly express the intentions of the adherents of both views but it also offers a better understanding of them joining together seemingly different theses maintained by the presentists and the eternalists, and explaining at the same time the dynamism of the presentists' ontology. The paper takes for granted that we should assess metaphysical theories in a similar way as we assess scientific theories, that is on the basis of their explanatory value.

**Keywords:** presentism, eternalism, existence, flow of time, triviality problem

### 1. Introduction

The relation between existence and time seems to be one of the most difficult problems we face in metaphysics: the existence of the past, the present, and the future; the flow of time; the nature of persistence of physical objects over time; and the way of timeless abstract objects exist are still being discussed. In addition, these are far from being wholly understood. The first of these problems, which is the central topic of

this article, seems to be especially far from being solved in spite of the growing interest in it. Not only is it unresolved, it also looks as if we do not understand what we are arguing about. When we examine the main ontological theses of presentism and eternalism, saying that only the present thing exists – in the first case – or that the past, present, and future things exist in the same way (ontologically on a par) – in the second – it is easy to get suspicious that both these ontological theses are trivially true or trivially false, according to how we understand the verb “exist”: in the tensed or in the detensed (or tenseless) way.<sup>1</sup> However, the tensed and the detensed (or tenseless) notions of existence seem to perfectly fit the presentists’ and the eternalists’ views (respectively), and this is why I would like to explore the strategy of resolving the triviality problem not by resigning from these notions, but rather by reinterpreting both views in such a way that they become contradictory. But first, I shall begin with recalling what the problem consists in. This problem is often discussed as a threat to presentism only,<sup>2</sup> but it is, in fact, the threat to both competing views and I will discuss it as such.

## 2. What does “to exist” mean?

The controversy between presentism and eternalism will be real and not obscure and merely verbal only if we are able to formulate both views in such a way that i) Both views are truthfully presented. ii) They have a clear sense. iii) They are in contradiction. To examine whether it is possible to satisfy these conditions, let us start with a familiar way of expressing both views. The presentists’ ontological thesis usually is presented in the form:

(P) Only present things exist.<sup>3</sup>

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<sup>1</sup> See, for example, Merricks [1995, p. 523], Zimmerman [1998, pp. 208–210], Sider [1999, pp. 325–327], Lombard [1999, pp. 254–255; 2009]; Crisp [2004]; Ludlow [2004]; and Savitt [2004]. Because we are interested in the way of existence of the real world in this debate, I will ignore the problem of *timeless* (or *atemporal*) existence of abstract objects in my analysis. I will also pay no attention (except for one remark) to the Growing Block Universe Theory, according to which the past and the present are equally real [see Tooley 1997], since what is crucial to the triviality problem is best seen in the debate between presentism and eternalism.

<sup>2</sup> For example in Lombard [1999], Crisp [2004] and Ludlow [2004], the triviality objection is only discussed as a threat to presentism.

<sup>3</sup> See, for example, Merricks [1995, p. 523], Hinchliff [1996, p. 123], Zimmerman

The eternalists' thesis usually has one of the following two forms:

- (E) Past, present, and future things exist.<sup>4</sup>
- (E') All times exist or are on an ontological par.<sup>5</sup>

The problem begins, as it is well known, when we start to consider what the meaning of the verb "to exist" is (and other verbs like, for example, "to be", which are used in (E')). If we assume the usual *tensed* meaning from the natural language, then we have:

- (P<sub>0</sub>) Only present things exist (in the tensed way).
- (E<sub>0</sub>) Past, present, and future things exist (in the tensed way).
- (E'<sub>0</sub>) All times exist (in a tensed way) or are (in the tensed way) on an ontological par.

Now (P<sub>0</sub>) is trivially true and (E<sub>0</sub>/E'<sub>0</sub>) is obviously false for both the presentists and eternalists. Thus, there is no real controversy and condition (iii) is not satisfied. Let us suppose the *detensed* meaning:  $x$  exists (in the detensed way)  $\equiv x$  existed or  $x$  exists or  $x$  will exist<sup>6</sup> Then, we get:

- (P<sub>1</sub>) Only present things exist (in the detensed way).
- (E<sub>1</sub>) Past, present, and future things exist (in the detensed way).
- (E'<sub>1</sub>) All times exist (in the detensed way).

Now (P<sub>1</sub>) is evidently false, (E<sub>1</sub>/E'<sub>1</sub>) is trivially true for both the presentists and the eternalists and again condition (iii) is not satisfied. Nothing changes if we, following Quine,<sup>7</sup> take into account *tenseless* verbs in which they are stripped of all temporal information; we can truly say in this way, for example, that "The trial of Socrates takes place in 399 B.C." or that "Socrates exists." If we assume such tenseless meanings of verbs, (P<sub>1</sub>) is obviously false, (E<sub>1</sub>) and (E'<sub>1</sub>) are trivially true for both opponents, and condition (iii) is once again not satisfied.

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[1998, p. 209], Sider [1999, p. 325; 2006, p. 75], Crisp [2004], Markosian [2004, p.47, fn.1], and Lombard [2009, p. 3]. The possibility of defining presentism and eternalism with the aid of "being real" will be examined later.

<sup>4</sup> See, for example, Sider [1999, p. 326; 2006, p. 75] and Rea [2003, pp. 246–247].

<sup>5</sup> See, for example, Lombard [2009, p. 3] and Merricks [1995, p. 524].

<sup>6</sup> I call this meaning "detensed" (because it does not have past and future forms) following Savitt [2004, p. 2]. Crisp [2004, p. 16] calls this meaning "disjunctive".

<sup>7</sup> "We can conveniently hold to the grammatical present as a form but treat it as temporally neutral." [Quine 1960, p. 170].

Let us try another possibility of defining both views, that can sometimes be found in the literature:

- (P<sub>2</sub>) Only the present is real.
- (E<sub>2</sub>) Past, present, and future things are equally real.
- (E'<sub>2</sub>) All times are equally real.<sup>8</sup>

The problem we are now faced with is again the copulas “is” and “are” that are used in these sentences, and the ambiguity of “real.” As noted by Austin and recalled by Savitt, “the function of ‘real’ is not to contribute positively to the characterization of anything, but to exclude possible ways of being *not* real — and these ways are both numerous for particular kinds of things and liable to be quite different for things of different kind.”<sup>9</sup> Thus, if we, following Prior,<sup>10</sup> ascribe unreality to the past and the future, (P<sub>2</sub>) becomes trivially true and (E<sub>2</sub>/E'<sub>2</sub>) is obviously false for both the eternalists and presentists, irrespective of which, the tensed, the detensed, or the tenseless, meaning of “is” and “are” we assume. On the other hand, if we try, for example, to determine “being real” in opposition to “being imaginary” and assume the detensed or tenseless meaning of “is” and “are” (in accordance with the intentions of the eternalists), then (P<sub>2</sub>) becomes obviously false and (E<sub>2</sub>/E'<sub>2</sub>) trivially true for both opponents. It can be added that omitting the copulas “is” and “are” in (P<sub>2</sub>) and (E<sub>2</sub>/E'<sub>2</sub>) and saying simply about reality of the present or reality of all times (respectively) changes nothing because the ambiguity of “real” suffices to make both theses trivial. So, this way, we receive again the violation of condition (iii).

There remained two possibilities — which are sometimes combined — of making theses (P) and (E/E') nontrivial: the first makes use of the notion of “the most unrestricted quantifiers” (or “the most inclusive”) and the second has recourse to the notion of “existence *simpliciter*”. Using the first notion, we could express, for example, the ontological theses of presentism and eternalism in the following way:

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<sup>8</sup> See, for example, Hinchliff [1996, pp. 122–123], Sider [1999, p. 325], Davidson [2002, p. 77], Crisp [2003, p. 211], and Lombard [2009, p.3]. In the ontology of things, we could say, for example, “Only present things are real” and “Things at all times are equally real.”

<sup>9</sup> Austin [1962, p. 70]. See also Savitt [2004, pp. 8–9].

<sup>10</sup> “(...) the present simply *is* the real considered in relation to two peculiar species of unreality, namely the past and the future.” [Prior 1970, p. 245]

- (P<sub>3</sub>) The domain of our most unrestricted quantifiers only includes the present objects.
- (E<sub>3</sub>) The domain of our most unrestricted quantifiers includes the past, present, and future objects.
- (E'<sub>3</sub>) The domain of our most unrestricted quantifiers includes all temporal objects.<sup>11</sup>

The difficulty we have with such a formulation, as was pointed out by Savitt, is that “despite the widespread use of the notion of unrestricted quantifiers in this literature, there is good reason for doubting its intelligibility” [Savitt 2004, p. 8]. The problem is that while the notion of restricted quantifiers has a precise meaning, it is hard to see how such a precise meaning can be given to the notion of unrestricted quantifiers. To be sure, similarly to the problem of “being real” pointed out earlier, such a precise meaning can be given to the notion of quantification if we specify a contrast class of objects not belonging to the domain of quantification. However, if we do this by, for example, the condition of being future or past, or by being purely imaginary, the problem of triviality returns.

I tried to emphasize above — and this is exactly the point made by Savitt — that unintelligibility of the notion of unrestricted quantifiers should not be understood in the way that we cannot use them in precise manner. The point is rather that when we do this, we must specify the domain of quantification and this means exactly specification of the domain of the objects about which we assume that they *exist*,<sup>12</sup> which immediately revives the triviality problem. To put it another way, because we quantify objects from some domain about which we assume that they *exist*, this is the notion of existence that is primary for us.<sup>13</sup> So, for example, historians and archeologists include past objects in the

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<sup>12</sup> “(...) to what sense of ‘exist’ (Exist? EXIST?) is the existential quantifier meant to (roughly) correspond?” [Savitt 2004, p. 10]. Savitt indicates the tensed verbs by writing them in lower case, detensed verbs by capitalizing the first letter, and the atemporal verbs by writing them entirely in capital letters.

<sup>13</sup> Sider seems to be close to this idea when he claims: “There is a notion of existence that is central to inquiry about the world. A claim is genuinely quantified iff it is expressed by some sentence whose major connective is a syntactic quantifier that means this notion of existence. Example: ‘There are electrons.’” [2006, p. 79] I could add that if, for example, astronomers and biologists look for life on other planets, then they do not look for objects that they can quantify over, but rather for objects that *exist*.

domain of their discourse, but when they do this, they perfectly know that they say about objects that did exist but do not exist and this is precisely why they are interested in these objects. The obvious consequence of this is that *before* we quantify, we should decide which notion of existence, detensed (tenseless) or tensed, we apply in the theses (P) and (E/E'), and this way we come back to the beginning of our discussion: if we do not specify the notion of existence, condition (ii) is not satisfied, but if we choose one of these meanings of "existence", this choice will determine the logical values of (P) and (E/E') for the presentists and the eternalists — exactly in the same way as in the case of (P<sub>0</sub>), (P<sub>1</sub>), (E<sub>0</sub>/E'<sub>0</sub>), and (E<sub>1</sub>/E'<sub>1</sub>), and thus the triviality problem revives.

One of the possible ways of overcoming this difficulty is to apply a primitive notion of existence, *common* for both views. And indeed, such a strategy using the notion of existence *simpliciter* is exploited, for example, by Lewis [1986] and Sider [2006].<sup>14</sup> But because the strategy of making use of the notion of existence *simpliciter* is sometimes employed independently of the unrestricted quantifiers,<sup>15</sup> I will analyze it separately below.

Thus, it seems that by the notion of unrestricted quantifiers we can easily satisfy, at least sometimes, conditions (i) and (ii) if we determine the contrast class of objects not belonging to the domain of quantification or — what is equivalent — the notion of existence which is exploited; but then we cannot satisfy condition (iii). On the contrary, if we do not specify the contrast class for "our most inclusive domain of quantification" and our notion of existence, we cannot satisfy condition (ii) and, therefore should be suspicious about the possibility of fulfilling conditions (i) and (iii).

I tried to show above that the discussion of the notion of existence is inescapable for the solution of the triviality problem, and what kind of troubles results from the application of the tensed, detensed, and tenseless notions of existence. There remains, however, yet the above-mentioned possibility of making use of the notion of existence common

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<sup>14</sup> According to Lewis, the unactualized possibilities exist *simpliciter* as well. The second motivation for introducing the notion of existence *simpliciter* is that the adherents of unbridled ontologies, like Lewis or Sider, find our everyday notion of existence simply too modest for their purposes.

<sup>15</sup> For example, Hestevold and Carter [2002, p. 499] make use of "existence *simpliciter*" without the notion of the most inclusive quantifier in their explication of the presentists' view: "Necessary, if  $x$  exist *simpliciter*, then  $x$  presently exists."

for the adherents of both views, the notion of primitive, “genuine” existence — “existence *simpliciter*”. Such a strategy, at first sight, seems to be the most promising for the prospect for the fulfillment of condition (iii). Using this notion, we can express the ontological theses of presentism and eternalism in the following way:

- (P<sub>4</sub>) Only present things exist *simpliciter*.
- (E<sub>4</sub>) Past, present, and future things exist *simpliciter*.
- (E'<sub>4</sub>) All temporal objects exist *simpliciter*.

It could seem that now, at last, everything is in proper shape; condition (iii) seems to be satisfied, presentists have an existence *simpliciter* just of present things, whereas eternalists also of past and future things. But is everything really OK? What could presentists say about (E<sub>4</sub>/E'<sub>4</sub>) and eternalists about (P<sub>4</sub>)? I am afraid that the estimations would be equally difficult as in the case of Lewis’ claim that possible worlds exist *simpliciter*, because we are not given an explanation of what “to exist *simpliciter*” means and all the three theses are simply obscure.<sup>16</sup> Let us take as an example the sentence:

- (D) There exist *simpliciter* dinosaurs.

An eternalist will, of course, accept such a sentence but what about a presentist? Sider claims that the presentist will deny (D),<sup>17</sup> but whether she really will? First of all, she will maintain that the eternalist who accepts such a sentence is probably using the notion of existence *simpliciter differently* than her, because although this notion is obscure, one thing is sure for her: whenever the eternalist utters or could utter (D), its logical value does not change for the uttering person in time, and this means that the notion of the existence *simpliciter* in the eternalist’s usage is devoid of future and past forms, and is *detensed* (or *tenseless*). In consequence, she will claim that because she accepted (E<sub>1</sub>) and (E'<sub>1</sub>) with detensed (or tenseless) meanings of “existence”, she cannot deny (D) in a responsible way if she has to ascribe the same meaning to the notion of existence *simpliciter* as the eternalist does. If she wants to fulfill condition (i), she could only deny (D) with the tensed notion of

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<sup>16</sup> I would join here the appeal of Savitt [2004, p. 12] to those who say about existence *simpliciter* of unicorns or dinosaurs for an explanation of what they are talking about.

<sup>17</sup> “Well, ‘exist’ could mean *exists*. Eternalists think that dinosaurs exist — exist *simpliciter*. Presentists disagree.” [Sider 2006, p. 76]

existence *simpliciter*, but in this case she denies, in fact, a different statement (because of the different meaning of the notion of existence) than the eternalist. So, it seems that with the notion of existence *simpliciter* we cannot satisfy condition (iii) as well.

Is it at all possible to satisfy all three conditions? I would like to explore such a possibility. It seems to be difficult to satisfy condition (i) and (ii) with the notions of “the most unrestricted quantifier” and “exist *simpliciter*”, as I tried to show earlier, and this is why I am inclined to return to the notions of existence which are clear, familiar, and most preferable for adherents of *both* views; to the well known from natural language tensed notion of existence (in the case of the presentists) and to the detensed or tenseless notion of existence (in the case of the eternalists). Thus, we get  $(P_0)$  — with the tensed meaning of “exist” — as the thesis of the presentists and  $(E_1/E'_1)$  — with the detensed or tenseless meaning of “exist” — for the eternalists. Conditions (i) and (ii) are now satisfied, but condition (iii) does not seem to be fulfilled again. But does such a resolution really trivialize the debate on presentism-eternalism as merely verbal, as suggested, for example, by Lombard [2009], or does this make both views not contradictory, but complementary, which, in turn, is proposed by Savitt [2004]?<sup>18</sup> I maintain that not at all, and to show this, let us begin with the thesis  $(P_0)$  of the presentists. What does it really mean if somebody claims “only present things exist (in the tensed way)”? It means, first of all, that they accept *the tensed notion of existence*, which makes it possible to say that some entities exist although they did not exist, some other existed but no longer exist, and yet another will exist although they do not exist. However, such a claim is only possible if somebody accepts the objectivity (or mind-independence) of the flow of time, and this means that when a presentist states  $(P_0)$ , they, as a matter of fact, maintain the conjunction of  $(P_0)$  and the second thesis, speaking about existence of the (objective) flow of time:

(FT) The flow of time exists.<sup>19</sup>

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<sup>18</sup> Savitt [2004, pp. 13–18] puts forward something like a doctrine of two truths. According to this proposal, eternalism and presentism provide us with two different perspectives: external — having the resources needed to tackle the (external) question as to the structure of space-time itself — and internal — making it possible to explain our experience of time. I prefer to believe, however, that truth is only one.

<sup>19</sup> The presentist accepts (FT) with the tensed meaning of “exist”.

and it is, in fact, the conjunction of  $(P_0)$  and  $(FT)$ , and not  $(P_0)$  alone, that should be discussed as the ontological view of the presentists, and which should be accepted or rejected *as a whole*. Such a formulation of the presentists' position makes use only of tensed verbs, has a clear sense, remains in agreement with the intentions of the presentists, and therefore it cannot be accepted by the eternalists; thus, it satisfies all three posited conditions (i–iii).

To explain the status of  $(P_0)$  and some notions used in  $(P_0)$  and  $(FT)$ , I would like to remind here that the presentists make use of the tensed notion of existence to introduce (or explain) the notion of the present. Here I recall some examples:

Before directly discussing the notion of the present, I want to discuss the notion of the real. These two concepts are closely connected; indeed on my view they are one and the same concept, and the present simply *is* the real considered in relation to two peculiar species of unreality, namely the past and the future. [Prior 1970, p. 245]

[...] the presentness of an event *is* just the event. The presentness of my lecturing, for instance, is just my lecturing. [Prior 1970, p. 247]

To be present is simply to be, to exist, and to be present at a given time is just to exist at that time – no less and no more.

[Christensen 1993, p. 168]

On a presentist ontology, to exist temporally is to be present. Since presentness is identical with temporal existence (or occurrence) and existence is not a property, neither is presentness a property. Presentness is the act of temporal being. [Craig 1997, p. 37]

In a similar way, the presentists (and, in fact, we all) understand the *past* as something that *existed* and the *future* as something that *will exist*. This could indeed suggest that the ontological thesis  $(P_0)$  of the presentists is trivially true due to the meanings of the words used in it, and that there is no real controversy between the presentists and the eternalists. However, I tried to show that this objection is not justified. The point is that presentists' metaphysical theses  $(P_0)$  and  $(FT)$  nicely fit to what Quine and others wrote about holistic confirmation of our theories<sup>20</sup>: the meaning of  $(P_0)$  and of the terms “present” and “exist” used in it depends strongly on acceptance (or rejection) of  $(FT)$ . The acceptance of  $(FT)$  means the acceptance of the fact that the tensed structure of our language (and especially of the notions of existence and the present)

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<sup>20</sup> See e.g. Duhem [1906]; Quine [1961].

reflects the real structure of the world, while its rejection means that we should treat the tensed notions of existence and the present as notions corresponding to our subjective knowledge only. In the case of the presentists, this means that the assumed notion of existence used in  $(P_0)$  — the tensed notion of existence — is a consequence of the acceptance of (FT), and it makes no sense to assess  $(P_0)$  without (FT). To repeat the main point once again: this is the conjunction of  $(P_0)$  and (FT) which should be accepted or rejected *as a whole*.

As regards the notion of the flow of time referred to in (FT), I would like to remind shortly that although there are still raised objections to presentism concerning an allegedly unexplained nature of the flow of time, we have the remarkable Broad's idea of the flow of time as *absolute becoming*, that describes the passage of time as *coming into being* or simply as a *successive happening of events*<sup>21</sup>:

To “become present” is, in fact, just to “become”, in an absolute sense; i.e., to “come to pass” in the Biblical phraseology, or, most simply, to “happen”. Sentences like “This water became hot” or “This noise became louder” record facts of *qualitative change*. Sentences like “This event became present” record facts of *absolute becoming*.

Broad [1938, pp. 280–281]

Such an approach to the flow of time does not invoke the idea of moving now and does not demand the second dimension of time to explain the dynamical character of it. And what is important here, there is no reason to deny the primitiveness of Broad's absolute becoming: Broad understands it as *happening* or *coming into existence* of events and it seems that there is no more primitive concept for us than the notion of *existence* or *coming into existence*.

If we apply the notion of becoming of events as their coming into existence and Prior's (*inter alia*) idea of the present as totality of what tensedly exists, we can alternatively transform the presentists' position into the form:

$(FT' + P_0)$  Events that we call present become or come into existence.

Alternatively, we can, following Sellars, who claimed that “*only things can become in the sense of come into being*” [1962, p. 556], ascribe be-

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<sup>21</sup> Broad's notion of absolute becoming was revived and supported by Savitt in his papers, e.g. [1996, 2001].

coming to things and express the metaphysical position of the presentists in the following way:

$(FT'' + P_0)$  Things that we call present become or dynamically exist.

In both cases  $(FT' + P_0)$  and  $(FT'' + P_0)$ , verbs are used in the tensed way. I added in the last sentence that things *dynamically exist* to emphasize the significant difference between becoming of events and becoming of things: the former *come to pass*, the latter *do not cease to be* but persist by enduring, that is by being wholly present at each time at which they exist.<sup>22</sup> The *dynamical* (and tensed) existence is here used in opposition to the *static* (and detensed or tenseless) existence exploited by eternalists. The relation between  $(FT' + P_0)$  and  $(FT'' + P_0)$  is quite simple: we can treat events as consisting in acquiring, losing or changing properties by things. Both these formulations of the presentism ( $(FT' + P_0)$  and  $(FT'' + P_0)$ ) make this doctrine and the idea of the flow of time more precise than the conjunction  $(FT) \& (P_0)$  and — like this conjunction — cannot be accepted by the eternalists.

What is also essential for the proposed approach to presentism is that all three formulations of the presentists' ontological position ( $(FT) \& (P_0)$ ,  $(FT' + P_0)$ ,  $(FT'' + P_0)$ ) emphasize the dynamic character of this view, which is lacking in the case of  $(P_i)$ , for all  $i$ ; in the traditional formulation of the presentists' ontological thesis "Only the present exists", the present has a static character. Thanks to the dynamic character of the proposed interpretation of presentism, its adherents can easily defend it against attack such as that of Lewis' [1986]:

Consider the philosophers who say that the future is unreal. If ever anyone is right that there is no future, then that very moment is his last, and what's more is the end of everything. Yet when these philosophers teach that there is no more time to come, they show no trace of terror or despair!

Lewis [1986, p. 207]

Due to the dynamic character of becoming and existence, what exists, that is the present, is continually changing, and future will come, so there is no reason to despair for the presentists.

Another very important merit of the presented approach to the metaphysical theory of presentism is that due to it, both theses  $(FT)$  and  $(P_0)$ , which presentism consists of, are no longer only loosely related: they

<sup>22</sup> The idea of the flow of time as dynamical existence of all things (and other objects which our world consists of, as, for example, space) is developed in Gołosz [2011].

form, as a matter of fact, one *homogeneous* metaphysical doctrine. This is the acceptance of the flow of time, understood as dynamical existence of things or coming into existence of events, which constitutes the core of the ontological position of the presentist.

To sum up the above reflections concerning the metaphysics of presentism, what I claim is that it is not the single  $(P_i)$  with  $i = 0, 1, 2, 3, 4$ , but rather the conjunction of  $(P_0)$  and  $(FT)$ , or  $(FT' + P_0)$ , or  $(FT'' + P_0)$  *considered as a whole* that expresses the ontological view of the presentists, and always when they say something like  $(P)$  they, in fact, mean the conjunction of  $(P_0)$  and  $(FT)$ , or  $(FT' + P_0)$ , or  $(FT'' + P_0)$ . These formulations make use only of tensed verbs, have a clear sense, remain in agreement with the intentions of presentists, and therefore they cannot be accepted by the eternalists; thus, they satisfy all three conditions (i–iii).

And what with the eternalists? Well, they, of course, do not agree to existence of the flow of time and the objectivity of the distinction between the past, the present, and the future for a number of reasons, both physical and philosophical. Namely, according to the eternalists, there are some serious problems presentism faces:

1. There is no flow of time in physics.
2. There are some difficulties with metaphysical explanations of what the flow of time is.<sup>23</sup>
3. The tensed notion of existence is questionable because:
  - a) according to the special theory of relativity, the relation of simultaneity (and, consequently, the present) is relative;<sup>24</sup> and
  - b) it is not clear which propositions about the nonpresent objects are referred to.<sup>25</sup>

As a result, the eternalists do not accept the tensed notion of existence, which we use in the natural language.<sup>26</sup> Instead, they introduce

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<sup>23</sup> There is, for example, persistently repeated objection “How fast does time flow?” [e.g. Price 1996, p.13].

<sup>24</sup> See e.g. Davies [2002], who denies the possibility of reconciliation the idea of objective flow of time with the theory of relativity, and Dorato [2004] and Gołsz [2011], who take an opposite route.

<sup>25</sup> See e.g. Markosian [2004] and Gołsz [2011] for an analysis of the problem and some trials of a defence of the presentism.

<sup>26</sup> They can only accept pragmatism usefulness of the tensed language for us agents that act on our beliefs about what is happening *now* [see, for example, Mellor 1981, pp. 73–88; 1998, pp. 3–4, 58–62, 64–66].

the detensed or the tenseless notion of existence, and use sentences like  $(E_1)$  and  $(E'_1)$  to introduce (or explain) this special notion of existence — these sentences are basic assumptions and a kind of metaphysical axioms of eternalism. Furthermore, it seems that the eternalists should prefer  $(E'_1)$  to  $(E_1)$  because this first sentence does not introduce the notions “past”, “present”, and “future”, which are metaphysically suspicious for them. We should remember, however, that  $(E_1)$  (or  $(E'_1)$ ) does not express the whole view of the eternalists, because in this way they only introduce their notion of existence that is assumed to justify metaphysically their conviction about the *subjectivity* (or *mind-dependence* — to use Grünbaum’s words) of the flow of time and — what is the consequence — about subjectivity of the distinction between the past, the present, and the future. Thus, the theses  $(E_1)$  and  $(E'_1)$  should be completed by the second thesis speaking that the objective flow of time does not exist:

(SFT) There is no objective flow of time.<sup>27</sup>

In consequence, this is the conjunction of (SFT) and  $(E_1/E'_1)$ , with the detensed or tenseless verbs in them, which expresses the ontological position of the eternalist,<sup>28</sup> and it should be accepted (or rejected) together *as a whole*, exactly as in the case of presentism. And because (SFT) is rejected by the presentists, the ontological theses of the eternalists are not trivially true. Thus the conjunction of (SFT) and  $(E_1/E'_1)$  remains in agreement with the intentions of the eternalists, has a clear sense and cannot be accepted by the presentists, so it satisfies all three posited conditions (i–iii). It should be also added that, as in the case of presentism, due to the introduced strict bond between (SFT) and

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<sup>27</sup> Some examples of such eternalists’ theses: “Therefore it appears that that flow of time is subjective, not objective.” [Davies 2002, p. 47]; “In the form of tensed belief, it is the psychological reality behind the myth of tense, the myth of the flow of time.” [Mellor 1981, p. 116]; “From now on I shall simply take for granted the main tenets of the block universe view. In particular, I’ll assume that the present has no special objective status, instead being perspectival in the way that the notion of here is. And I’ll take it for granted that there is no objective flow of time.” [Price 1996, p. 15]; “One can easily get the idea that the notions of past, present and future apply objectively to the universe. In contrast, I shall argue that the concepts of past, present and the future have significance relative only to human thought and utterance and do not apply to the universe as such” [Smart 1963, p. 132].

<sup>28</sup> Such a formulation of eternalism resembles the doctrine of *Static Time* of Hestevold and Carter [1994, p. 270].

( $E_1/E'_1$ ), the proposed approach to eternalism makes this metaphysical theory a *homogeneous* metaphysical doctrine.

This way, the debate between the presentists and the eternalists becomes a controversy between the positions regarding two *inseparable* problems, which must be tackled together: whether the flow of time exists and which notion of existence — tensed or rather detensed (tenseless) — is metaphysically justified. Such a controversy can be estimated on the basis of how the competing metaphysical theories can explain our everyday experience with its fundamental phenomenon of flow of time, whether they can be harmonized with science, and which notion of existence is acceptable metaphysically because it is able, *inter alia*, to help us to understand the problem of persistence of things over time and to resolve the problem of change. They can stand these tests for better or for worse — that remains to be seen — but the problem of whether time really passes and what really exists, which they try to resolve, is by no means trivial. On the contrary, the controversy between presentism and eternalism, seen as such, is very deep and serious, and equally important for us as the debate on whether the world really exists or rather it is merely a subjective illusion.

I am not going to analyze the Growing Block Universe Theory in this study, and what I would only like to do is notice that, from the point of view presented in this analysis, this is a position that is especially difficult to vindicate. The reasons for this are quite simple: it assumes objectivity of the flow of time and the specific notion of existence in which the past exists in the same way as the present, and this way it inherits difficulties of both presentism and eternalism. Therefore adherents of this view should explain to us — exactly as the presentists should do — what the flow of time really consists in; how we can harmonize it with science; and — as the eternalists — are obliged to explain why they assume that the past exists and what it really means.

### 3. Final remarks

It was not my aim to solve the controversy between presentism and eternalism, but rather to show what it is really about. I tried to show that it concerns the fundamental metaphysical problem of whether the flow of time exists, and what we should assume as existing. Both discussed positions are founded on different notions of existence — tensed, in the first case, and detensed or tenseless, in the second — and we can estimate

them by examining whether they can be harmonized with science and which notion of existence is acceptable metaphysically.

I tried to show that the controversy seen as such is a real controversy; if we understand both ontological position in the proposed way, both views will be truthfully presented, will have a clear sense, and will be in contradiction. I also emphasized that such a formulation of both views has two other merits: firstly, both views become homogenous metaphysical doctrines which cannot be split into two separated theses, and secondly, it explains why the present, as it is seen by the presentists, is continually and dynamically changing. This way the proposed solution of the triviality problem gives us something more than a solution of a single metaphysical problem — it also gives us a deeper insight in the ontological controversy between the presentists and eternalists explaining to us why the adherents of both view join together two allegedly different theses and why the presentists can treat the present as dynamically changing. And if we believe in the old methodological principle saying that the better a theory is, the more problems it explains, we should accept such a solution.

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