

Presentism and the Flow of Time

Jerzy Gołosz¹

Received: 2 June 2016 / Accepted: 13 August 2016 / Published online: 19 August 2016
© The Author(s) 2016. This article is published with open access at Springerlink.com

Abstract The paper examines the relations between presentism and the thesis concerning the existence of the flow of time. It tries to show that the presentist has to admit the existence of the passage of time and that the standard formulation of presentism as a singular thesis saying that only the present exists is insufficient because it does not allow the inference of the existence of the passage of time. Instead of this, the paper proposes a formulation of presentism with the aid of the notion of becoming; not only does a formulation state the existence of the flow of time in such a way as to avoid the question of the rate of the passage of time, it also allows the inference of the existence of only present things and events. The paper demonstrates that the proposed conception of presentism also has other virtues, such as homogeneity, non-triviality, and ability to express dynamicity of presentists' image of the world which testify for it.

Keywords Becoming · Eternalism · Flow of time · Presentism · Triviality objection

1 Introduction

The issue of how we should grasp the relations between presentism and the existence of the flow of time is a vague and unclear one. Some philosophers assume a single, standard ontological thesis saying about the existence of only the present while others claim that an acceptable formulation of presentism should entail the temporal passage in the form of temporal becoming,¹ and there still others who

¹ See Hestevold and Carter (2002: 493).

✉ Jerzy Gołosz
jgolosz@iphils.uj.edu.pl

¹ Department of Philosophy, Jagiellonian University, ul. Grodzka 52, 31-044 Kraków, Poland

claim that the thesis about the existence of the flow of time is a fundamental claim of presentism.² There are even philosophers who claim that “Time does not pass given presentism.”³ So it is an important metaphysical problem which cries out for clarification.

The majority of presentists introduce their view simply in the form:

P₁ Only the present exists⁴;

or that

P₂ Only the present is real.⁵

Such forms of presentism were criticized as leading to the triviality problem. The problem consists in saying when we examine the ontological theses of presentism that only the present objects exist, it turns out that both these ontological theses are trivially true or trivially false, depending on the way in which we understand the verb “exists”: in a tensed or tenseless way.⁶ That is why many presentists—to avoid the triviality problem—transform their main ontological thesis into a more sophisticated form:

P₃ The domain of our most unrestricted quantifiers only includes the present objects⁷;

or

P₄ Only present things exist *simpliciter*⁸;

or

P₅ Necessary, if x exist *simpliciter*, then x presently exists.⁹

Presentists maintain—contrary to the claims of the adherents of the opposite views—that the past and the future do not exist, or that they are not real, or are not in the domain of our most unrestricted quantifiers, or that do not exist *simpliciter*.¹⁰ They unanimously agree that the past *was* and that the future *will be*.

² See Gólosz (2013: 54–56, 2015: 813–819).

³ Tallant (2010: 140).

⁴ See, for example, Merricks (1995: 523).

⁵ See, for example, Hinchliff (1996: 122–123).

⁶ See, for example, Savitt (2004). He precisely shows that the application of the predicate “being real” leads to the triviality problem because when we try to specify the predicate “being real” in opposition to “being imaginary”, and when we ascribe unreality to the past and the future, the triviality problem revives.

⁷ Sider (1999: 327), for example, claims that the presentist ontological position can be expressed in such a way.

⁸ Sider (2006: 76), for example, claims, that presentist can formulate their thesis with the aid of Lewisian (1986: 3) notion of exist *simpliciter*.

⁹ Hestevold and Carter (2002: 499).

¹⁰ There are some opposite views to presentism: according to eternalism, the past, the present, and the future exist; according to growing block universe, only the present and the past exist; according to shrinking block universe, only the present and the future exist. The last two views admit existence of the

As it was recalled above, they sometime also assume, explicitly or implicitly, that the flow of time exists. Thus the important ontological issue arises: is the claim about the existence of the passage of time necessary for presentism? Perhaps it is unnecessary, or can it even be denied, as is claimed by Tallant (2010)? And maybe we should assume that it is a sufficient condition for presentism? It is the aim of this paper to examine these difficult questions: the problem of the necessity of the existence of the passage of time for presentism is examined in the second section, while the third section deals with the issue of whether the thesis about the existence of the flow of time in the form of becoming is sufficient for defining presentism. The paper ends with some conclusions.

2 Is the Existence of the Flow of Time Necessary for Presentism?

What I claim is that we should answer the question posed in the title positively. It was first noticed by St. Augustine that we should choose such an answer although, of course, he did not state the problem in such a form. In the well-known 11th book of the *Confessions* he wrote:

Boldly for all this dare I affirm myself to know thus much; that if nothing were passing, there would be no past time: and if nothing were coming, there should be no time to come: and if nothing were, there should now be no present time. Those two times therefore, past and to come, in what sort are they, seeing the past is now no longer, and that to come is not yet? As for the present, should it always be present and never pass into times past, verily it should not be time but eternity. If then time present, to be time, only comes into existence because it passeth into time past; how can we say that also to be, whose cause of being is, that it shall not be: that we cannot, forsooth, affirm that time is, but only because it is tending not to be? (St. Augustine 1912: 239).

St. Augustine claims here, as presentists do, that there is only present, and the past is no longer, and the future is not yet.¹¹ And he wrote in this passage also that if nothing passed away, the time called the past were not; and if nothing were coming, the time to come were not either; and if nothing were, then the time called the present could not be either. This means nothing other than that if the flow of time did not exist, the present would not exist either, and in such a case we could not claim that the past was and the future will be. And because the adherents of presentism maintain that the past was, that the future will be, the present exists, and

Footnote 10 continued

flow of time and the next two views do it as well; according to the shrinking tree, the world is represented by a tree and the trunk represents the past, the first branch point is the present, and the branches constitute the set of all physically possible futures, and the flow of time is responsible for the progressive branch attrition (McCall 1995: 155). And according to moving spotlight, there are past, present, and future events, and the present is represented by some kind of “moving spotlight” (see e.g. Merricks 2006; Dainton 2010). I am concentrating on presentism in this paper.

¹¹ In what follows, I am interpreting this passage literally, that is, I assume that St. Augustine treated time and the flow of time as objective phenomena. Russell (1945: 354), for example, interpreted St. Augustine’s theory of time as subjective.

that there was a time when our present events were in the future, they must admit the existence of the flow of time. The only possible alternative to avoid this conclusion is to understand the past as those events and things which are *earlier than*, the future as those events and things which are *later than*, and the present as those events and things which are *simultaneously with* a given moment of time. This maneuver, however, would lead to the static block universe of the eternalist in which everything exists tenselessly in their proper spacetime location and where there is no place for passing away and no place for the coming to be of events. Such a situation seems to be inconsistent with what St. Augustine wrote about time and is also not acceptable for presentists. So, it follows from this that the presentists have to admit the existence of the flow of time; that is, they must accept the condition which I will call *St. Augustine's condition*:

St. Augustine's Condition Presentism has to admit the existence of the flow of time.

And now the essential issue arises of whether any of the presentists' theses P_1 – P_5 alone really satisfies St. Augustine's Condition. So the question is whether the existence of the flow of time can be inferred from the theses P_1 – P_5 alone with no other assumption. Some philosophers claim that it is really possible. For example, Hestevold and Carter (2002) declare in their paper that “[a]n acceptable formulation of Presentism should make clear that Presentism implies Transient Time” (identified with the temporal becoming or the temporal passage),¹² while at the same time they claim that the main ontological thesis of presentism ought to be stated in the last form mentioned above:

Necessary, if x exist *simpliciter*, then x presently exists (2002: 493).

They claim that the presentism formulated in such a form implies a thesis termed by them *Transient Time*:

Transient Time: it is possible that objects and events undergo (in some sense) temporal becoming; in an irreducibly non-tenseless sense, it is possible that there did exist or did occur objects or events that do not presently (or will not), respectively, exist or occur; and it is possible that there will exist or will occur objects or events that, respectively, do not presently exist (or have not yet existed) or do not presently occur (or have not yet occurred).¹³

Transient Time is contrasted by the authors with *Static Time*:

Static Time: Nothing can undergo temporal becoming; with respect to any (tenselessly) existing object or event, there cannot be an irreducibly non-tenseless sense in which it presently exists or occurs, did exist or occur, or will exist or occur.¹⁴

Does Hestevold and Carter's presentism really imply transient time? The authors claim that it does and introduce an argument which will be examined below. The

¹² Hestevold and Carter (2002: 493).

¹³ Hestevold and Carter (2002: 493). The notion of possibility applied in this definition is vague; is it *possible*, for example, that Hestevold and Carter do not undergo temporal becoming?

¹⁴ Hestevold and Carter (2002: 493).

mistake made in this reasoning is informative because it also shows why no other form of presentist thesis of the form P_1 – P_4 can infer temporal becoming or the temporal passage alone. Hestevold and Carter’s argument has the following form:

1. Presentism is correct and transient time is incorrect. [assumption for reductio ad absurdum].
2. If presentism is correct, then Mozart exists only in the sense that there did exist something that was Mozart.
3. If transient time is incorrect, then there is a sense in which
4. Mozart exists other than the sense that there did exist something that was Mozart.
5. If transient time is correct, then static time is not correct.
6. Therefore, Mozart exists only in the sense that there did exist something that was Mozart. [from 1, 2]
7. Therefore, there is a sense in which Mozart exists other than the sense that there did exist something that was Mozart. [from 1, 3]
8. Therefore, Mozart exists only in the sense that there did exist something that was Mozart and there is a sense in which Mozart exists other than the sense that there did exist something that was Mozart. [from 5, 6]
9. Therefore, it is false that both presentism is correct and transient time is incorrect. [from 1, 7]
10. Therefore, either presentism is incorrect or Transient Time is correct. [from 8]
11. Therefore, if Presentism is correct, then transient time is correct. [from 9]
12. Therefore, if presentism is correct, then static time is not correct. [from 4, 10]¹⁵

It is easy to show that this reasoning is invalid because the second step is not justified. To see this let us imagine a simple model of the possible world W^\dagger exactly similar to our *present* world W at some fixed moment t_0 , but such that in W^\dagger there existed nothing in the past of t_0 , and there will exist nothing in the future of t_0 . It would be a static world with a momentary present at t_0 but without a flowing time, with no events and no things which existed in the past of t_0 , and similarly without events and things which will exist in the future of t_0 . It would be a “frozen” presentism, which, of course, is not in agreement with our experience, this is, however, not at issue. The point is that in the world W^\dagger Hestevold and Carter’s presentism is true and that it does not allow the inference from the presentist assumption of the (past) existence of any past event and any past object like, for example, Mozart. It means that the second step in the argument is not justified and the whole argument is invalid.

What is important, all other versions of presentism P_1 – P_4 are true in the world W^\dagger , which means that it is impossible to infer from such ontological theses alone the existence of the flow of time. Of course, I do not support such a version of presentism: although such a view is logically consistent, it is not in accordance with our experience of the world and as such is of no interest for presentists. What I claim

¹⁵ Hestevold and Carter (2002: 500–501).

rather, after St. Augustine, is that presentists have to accept the existence of the flow of time and the theses P_1 – P_4 alone do not suffice to define presentism.

There is one more argument in favor of the acceptance of the existence of the flow of time by the presentists. Namely, the presentists who do not assume the existence of the flow of time are vulnerable to attacks similar to that launched by Lewis (1986: 207), who claimed that every view denying existence of the future is implausible and irrational:

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!¹⁶

The presentists who assume the existence of the flow of time have no reason to despair: due to the existence of the flow of time, although the future does not exist at present, there is more time to come and—for better or for worse—there *will exist* in the future for sure.¹⁷

If it is impossible to infer the passage of time from the theses of the form P_1 – P_5 , then perhaps presentists should define their position as a simple conjunction of one of these theses and a second concerning the existence of the passage of time? Certainly, it would be a better definition of presentism because St. Augustine's condition would then be trivially satisfied. Nevertheless, such a solution has at least two flaws. Firstly, presentism defined with the aid of the two theses makes use of ontological notions of a different character: whatever notion we will apply to introduce the flow of time, it has to have a dynamic character, while the notion of the existence in the first thesis has a static character and such a solution would lead to an inhomogeneous view.¹⁸ Secondly—and which I will try to show is more important—is that the thesis concerning the existence of the flow of time in the form of becoming, when properly understood, suffices to conceptualize presentism in a satisfactory way. This problem will be discussed in the next section.

3 Is the Existence of Becoming a Sufficient Condition for Presentism?

The usage of the notion of becoming to express the passage of time seems to be the most promising approach because it allows us to avoid the intractable question of the rate of time's passage and Broad (1938) introduced his primitive notion of *absolute becoming* just to avoid the question about the rate of time's passage. He noticed that the passage of time cannot be referred to itself because then the ratio of the same two quantities expressing the rate of time's passage is meaningless. Neither can the passage of time be referred to a second time dimension, because in such a case the problem of the flow of time revives leading to *regressus ad infinitum*. He wrote in his famous quotations:

¹⁶ Lewis (1986: 207).

¹⁷ See also Gołosz (2013: 55).

¹⁸ This is just the reason why attempts to define the flow of time with the help of a kind of a “movement” of the present are impossible.

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: 280–281)

I do not suppose that so simple and fundamental a notion as that of absolute becoming can be analyzed, and I am quite certain that it cannot be analyzed in terms of a non-temporal copula and some kind of temporal predicate (Broad 1938: 281).

So, according to Broad, the flow of time consists in the (absolute) becoming of events. He ascribed absolute becoming to instantaneous events: he wrote that they *come to pass*, that is, that they come into existence to cease to be, where “existence” is understood in a tensed sense. If they “come to pass” or come into existence to cease to be, this means that they did not exist and will not exist although they come into existence at present. This is a clearly dynamic sense of becoming which is in agreement with our understanding of the passage of time. What is also important is that because it is said here that the events, which are now present, did not exist and will not exist, this conception of becoming fits perfectly well presentism, according to which there are no future and past objects. It is important since there are other ontological views which accept existence of the flow of time such as, for example, growing block universe, shrinking block universe, shrinking tree, or moving spotlight, which admit existence of the past or/and future objects and the notion of becoming assumed here excludes them.

The above interpretation of becoming as a dynamic process of coming into being to cease to be proposes the literal understanding of “coming to pass”, which seems to be in agreement with Broad’s intentions. A quite different interpretation was suggested by Savitt (2002), who proposed interpreting it in a minimalist way to receive the “Radical Middle” (2002: 161) between Broad and the well-known critic of the passage of time D. C Williams (1951):

Absolute becoming, as explained by Broad, is just the happening of events. Since events are located at various times or moments, they happen at various times or moments. Some events have happened, some are happening now, and others, we hope, will happen eventually. Some events occur simultaneously, some earlier than others, some later. Absolute becoming is the ordered occurrence of (simultaneity sets of) events. (Savitt 2002: 159–160)

Is this attempt at squaring the circle credible? Unfortunately, it seems implausible. Savitt—although he is known as a presentist—identifies the future with the events which happen later than others, the past with events which happen earlier than others, and the present with events which happen simultaneously with others in a typically eternalist way and thus this results in the static eternalist world where there is no place for coming to pass. He ignored the key expression “come to pass” in his interpretation which was used by Broad to introduce dynamics to his becoming, and interpreted “happen” in the static, tenseless way as “happen at time”—later, earlier, or simultaneously with other events—and as a result strips becoming of all of its dynamics. Such a notion of becoming is not in agreement with Broad’s intention and is useless for presentists.

Now, after assuming the dynamic interpretation of becoming, what remains is to introduce the notions of present, the past, and the future. So, to finish the construction of the proper definition of presentism, we only need to recall what presentists understand as the present. And there is a long tradition in presentism of identifying the present with what exists. To justify this claim, I recall some passages from Prior and his followers:

[T]o say that my lecture is present is just to say that *I am lecturing*—flat, no prefixes. The pastness of the event, that is its having taken place, is not the same thing as the event itself; nor is its futurity; but the presentness of an event *is* just the event. The presentness of an event *is* just the event. The presentness of my lecturing, for instance, is just my lecturing (Prior 1970: 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: 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: 37).

So, it follows from this that the presentist can identify the present with the totality of events that exists, and in a similar way the past with the totality of events that existed but ceased to be, and the future with the totality of events that will exist but do not yet exist. Now, if we recall Broad's thesis about the passage of time as becoming of events, that is as their coming into existence to cease to be, we can easily see that Broad's becoming leads precisely to the presentists' ontological consequences, just those which form the presentist's thesis P₁–P₅: events that we call present come into existence to cease to be. It means that no other ontological thesis is needed with the exception of the definition of the present, the past, and the future assumed above. In this way we gain an essential advantage over the standard formulation because the proposed one is only expressed with the aid of one thesis—which satisfies the St. Augustine Condition. It can be true or false, nonetheless it is certainly not trivial; Broad does not say that the *present* becomes or comes into existence. He says that events become or come into existence to cease to be. And Prior adds that we *understand* or *define* the present as that which exists. What is perhaps crucial is that neither Broad's thesis nor Prior's definition are trivial.

So presentism can be expressed, as I have tried to show, in the form of one thesis which I will call *becoming*:

Becoming Events which our world consists of become or come into existence to cease to be.¹⁹

This thesis is to be completed by the three definitions:

The present \equiv The totality of events which become or come into existence.

The past \equiv The totality of events which became or came into existence.

¹⁹ A similar definition of presentism was proposed in Gołosz (2013: 54).

The future \equiv The totality of events which will become or will come into existence.

This analysis was performed in the language of events, but there is no difficulty to carry out it in the language of things (or things and events). To this end, it would be enough to recall Sellars' notion of becoming which was ascribed to things: "*only things can become in the sense of come into being,*" (1962: 556) and to swap in the above analysis terms "events" for the terms "things" (or for the terms "things and events").

I would like now emphasize some virtues of such a formulation of presentism:

1. It satisfies St. Augustine's Condition, while no other form of presentism formulated as single thesis of the form P_1 – P_5 does so.
2. It allows the expression of a *dynamic* character of reality, which presentism in the form of a single thesis of the form P_1 – P_5 is not able to do.
3. It avoids the question of the rate of the passage of time because—as emphasized by Broad's—the notion of becoming is primitive and unrelated to anything else, and especially not to time.
4. This formulation of presentism also avoids the triviality objection because the main thesis about the becoming of events (or things) is not trivial.
5. This formulation of presentism is consistent and—which should also be emphasized—homogenous: it is not composed of concepts of different types.

All these virtues seem to suggest that the proposed conceptualization of presentism should be assumed as the correct one and a better one than the standard formulation.

4 Conclusions

The paper has tried to show that presentism has to admit the existence of the flow of time to be in accordance with our intuitions concerning the present, the past, and the future. It also tried to demonstrate that the thesis concerning the existence of the flow of time in the form of becoming, when properly understood, suffices to conceptualize presentism in a satisfactory way. That is, it can be treated as the most fundamental thesis of presentism, from which we are able to infer the ontological thesis about the existence of only these events (and things) which we call the present. Such a formulation of presentism has some important advantages over the standard formulations, as I tried to show: it is homogenous, avoids the question about the rate of time passage, it is undeniable non-trivial, and emphasizes the dynamic character of the presentist's image of the world. Because it gives us important benefits, it is worth considering it to be the successor to the traditional formulations.

Open Access This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original

author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

References

- Augustine S (1912) *The confessions of St. Augustine*, translated by William Watts, vol 2. William Heinemann, London
- Broad CD (1938) *Examination of McTaggart's philosophy*. Cambridge University Press, Cambridge
- Christensen FM (1993) *Space-like time*. University of Toronto Press, Toronto
- Craig WL (1997) Is presentness a property. *Am Philos Q* 34:27–40
- Dainton B (2010) *Time and space*. Acumen, Durham
- Gołosz J (2013) Presentism, eternalism, and the triviality problem. *Log Log Philos* 22:45–61
- Gołosz J (2015) How to avoid the problem of the question of the rate of time's passage. *Revista Portuguesa de Filosofia* 71(4):807–820
- Hestevold HS, Carter WR (2002) On presentism, endurance, and change. *Can J Philos* 32:491–510
- Hinchliff M (1996) The puzzle of change. *Philos Perspect Metaphys* 10:119–136
- Lewis D (1986) *On the plurality of the worlds*. Basil Blackwell, Oxford
- McCall S (1995) Time flow, non-locality, and measurement in quantum mechanics. In: Savitt S (ed) *Time's arrow today*. Cambridge University Press, Cambridge
- Merricks T (1995) On the incompatibility of enduring and perduring entities. *Mind* 104:523–531
- Merricks T (2006) Good-bye growing block. In: Zimmerman D (ed) *Oxford studies in metaphysics*, vol 2. Oxford University Press, Oxford
- Prior A (1970) The notion of the present. *Stud Gen* 23:245–248
- Russell B (1945) *A history of western philosophy*. Simon and Schuster, New York
- Savitt S (2002) On absolute becoming and the myth of passage. In: Callender C (ed) *Time, reality, and experience*. Cambridge University Press, Cambridge
- Savitt S (2004) Presentism and eternalism in perspective. In: Dieks D (ed) *The ontology of spacetime*, vol. 1, 2006. Elsevier, Amsterdam. <http://philsci-archive.pitt.edu/archive/00001788/>
- Sellars W (1962) Time and the world order. In: Feigl H, Maxwell M (eds) *Scientific explanation, space, and time*. Minnesota Studies in the Philosophy of Science, University of Minnesota Press, Minneapolis
- Sider T (1999) Presentism an ontological commitment. *J Philos* 96:325–347
- Sider T (2006) Quantifiers and temporal ontology. *Mind* 115:75–97
- Tallant J (2010) A sketch of a presentist theory of passage. *Erkenntnis* 73:133–140
- Williams DC (1951) The myth of passage. *J Philos* 48:457–472