

# What is Moving Right Now?

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This paper suggests an answer to a rarely approached question on the model known as the Moving Spotlight Theory (MST). Its advantage lies in that it adds to the debate a clear view of the kind of nature that might correspond to the 'moving spotlight' responsible for the passage of time. More specifically, our theory indicates clearly what kind of thing about which the model's spotlight can tell us. The paper's main goal is not the defense of the moving spotlight as a theory itself, but an approach for understanding the metaphor at the core of this theory. To achieve our purpose, we bring to the main thesis and promote the union of two components: a) the present is the awareness of our mental states and b) the flow of our awareness or our mental states should correspond to the passage of time and to the spotlight itself. We hope to indicate what is required to correspond to the "spotlight" in an illuminating way and address anticipated difficulties.

ETERNALISM

MENTAL AWARENESS

PERMANENTISM

MOVING SPOTLIGHT,

CONSCIOUSNESS

## I. A Moving Spotlight

Before facing the challenges that we impose on this article, it is first necessary to explain the theory with which we struggle: the “Moving Spotlight Theory” (henceforth MST). MST emerged following a metaphor coined by C. D. Broad (1923):

We are naturally tempted to regard the history of the world as existing eternally in a certain order of events. Along this, and in a fixed direction, we imagine the characteristic of presentness as moving, somewhat like the spot of light from a policeman’s bull’s-eye traversing the fronts of the houses in a street. What is illuminated is the present, what has been illuminated is the past, and what has not yet been illuminated is the future (59).

According with the metaphor, a spotlight illuminating the present moves in uninterrupted fashion, travelling across space-time. Its theoretical advantage lies in that it can make the passage of time compatible with an eternalist ontology, which is typically tenseless. In this section, we present that model by discussing relevant aspects of its definition. **1** One way of presenting the model is by discussing it in relation to the theses it accommodates. Such theses correspond to the desire for a tenseless ontology, but also make it compatible with the McTaggartian A- theory of time. Those theses are, respectively, eternalism (or permanentism), and the thesis that time passes, usually referred to as the A-series. Permanentism **2** is, according to Deasy, the thesis that: «it is always the case that everything exists eternally» (Deasy 2015, 2074). **3** Eternalism is the thesis in which there exist non-present objects, facts, times, relations and events. According to eternalists, the difference between future or past things and present things is not that the former does not exist. This thesis contrasts with presentism, which makes the opposite claims. In Sider’s classic formulation, «a presentist thinks that everything is present; more generally, that, necessarily, it is always true that everything is (then) present» (1999, 326). According to the same author, «eternalism states that “there are such things as merely past and future entities”» (1999, 326). **4** Permanentism and eternalism are most commonly associated with B-theories of time. Their proponents usually deny that anything is an absolute and non-relative present, while presentism **5** and transientism **6** are doctrines typically associated with A-theories. The so-called “A-series theory” of time has different definitions in the literature. Deasy (2015), for example, defines it as a theory in which an instance of time is an absolute and non-relative present. **7**

In the McTaggartian approach, A-series refers to a description of time as events ordered according to the property of being future, present or past. This characterisation contrasts with B-series theories of time, in which points in time are ordered relatively as “being anterior, posterior, or simultaneously” to or with each

**1** The use of ‘model’ to refer to theories like MST is not uncommon; however, we should clarify how we use that word here. We use ‘model’ to indicate theories that provide a picture of the world, or an image that clarifies an aspect of what we are inquiring in our investigation.

**2** Williamson (2013, 4) coined the term ‘permanentism’ to describe this thesis.

**3** Formally:  
 $A \forall x A \exists y y = x$  (cf. Deasy 2015).

**4** There are many different formulations of this thesis in the literature. Trenton Merricks, for instance, uses a different strategy, in terms of the existence of ‘times’ (2006:103). To a *slightly opinionated introduction* of different formulations, see Fischer (2016).

**5** In a more rigorous manner, presentism is true if and only if the more unrestricted domain of our quantifiers consists only of present objects and events.

**6** Transientism is the thesis according to which there are things that start to exist and things that cease to exist (cf. Deasy 2015). Formally:  $S(\exists x P \neg \exists y y = x) \ \& \ S(\exists x F \neg \exists y y = x)$ .

**7** Its looks like a non-standard definition, indeed.

other. Before moving on to characterise the MST model, we would like to discuss the theses of permanentism and eternalism, since these are relevant parts of different definitions in the extant literature. While Deasy (2015), for instance, proposes MST as a model that binds the A-series to permanentism, other authors, like Sider (2001) and Cameron Ross (2015), focus the theory on eternalism only. **8** What is the relationship between permanentism and eternalism? We ought to consider their relationship as follows: all permanentists are eternalists, but only some eternalists are permanentists. **9** Can there be non-eternalist permanentism and non-permanentist eternalism? We may experience great difficulty in professing a presentist permanentism, at least in a way that makes it sound appealing. We think it does not fit well with our intuition of a temporal life that includes, for instance, different parts, i.e., days, ages, objects that change, etc. **10** Non-permanentist eternalism seems, however, more appealing for the simple reason that there is nothing inconsistent in the idea of an eternalist world that was, nonetheless, created by God. The opposite would be to impose a limit on creation: as long as there is a creative act at the origin of the world, the latter could not be, for instance, an eternalist one. However, that is a theological cost that no one should impose on any doctrine, at least not without a better reason than merely that of associating doctrines that are differently defined. Because of this, it is difficult to make permanentism and God's creation compatible; non-permanentist eternalism has a lower theological price, and we do have a reason to think that eternalism shall not be considered as a theory committed with permanentism. Naturally, any model that is permanentist and compatible with the A-series can be characterised as corresponding to MST, independent of whether it is eternalist or not.

Here, then, is how one could characterise MST, considering the additional clause that permanentism and eternalism may both be part of the definition: MST is true if, and only if, permanentism or eternalism is true, and some instant of time is a non-relative, absolute present. **11** This definition **12** bears the novelty of introducing a disjunction between permanentism and eternalism, which can only mean that both theses are individually sufficient for any MST model. The sense of this addition lies in considering the thesis that some variants of eternalism are not permanentist and can even themselves be part of an MST model. The disjunction “eternalism or permanentism” might not offer an advantage over Deasy's formulation. However, it captures aspects of the model that we think we should have in mind: a) the definition in terms of “eternalism” is not

**8** Williamson (2002, 2013) has proposed a version of MST, or a model closely related to Broad's theory. The main question of this paper might not apply to models like Williamson's MST. That is the case because the model inspired by Williamson's theory of modality accepts that all fundamental facts are temporal, which leads to the view that temporal operators are fundamental as well. So, it might not call for an explanation of 'temporal facts'. Adepts of classical MST could resist explaining 'presentness', as we try to do in this paper. Here, we intend to present a version of MST that resembles the model coined by Skow (2015), which was inspired by Fine's fragmentalism.

**9** Correa and Rosenkranz also seem to consider eternalism under the permanentism (2018:16), and Deasy (2019) suggests that presentism is a transientist ontology. Our thesis extends the same consideration to theories that oppose presentism and transientism, i.e., permanentism and eternalism. The reason would be straightforward, indeed: if everything that exists is eternal, so the past (or what we call 'past') has always exist eternally, because we have the experience of it many times, and the future (or what we call a 'future'), since we have the experience of things changing many times, which has always existed as well.

**10** Despite our claims, Julian Barbour (1999) has been identified as a possible defender of static presentism, or if you like, a defender of what we might call 'Parmenidic presentism'. Perhaps this could be counted as a version of presentist permanentism.

**11** This is a version of Deasy's (2015) definition, which includes eternalism. Indeed, we think eternalism plus A-series would be sufficient for MST, and eternalism and permanentism could be separate.

**12** For a more content-focused characterization, take for instance a description by Fischer: «according to the moving spotlight theory, the present is like a spotlight (hence the name) which “sheds its light” on the present point in time. It moves (yes!) alongside the timeline, thus always rendering a different time present» (2016, 7).

less common, b) eternalism is sufficient for MST as a primitive thesis, and c) it seems untrue that all eternalist model is a permanentist one. With this picture in mind, after considering all we have, we can now ask properly: what is the spotlight that “shed its light” if anything? What could its nature be? How can we explain it as a metaphor? The typical motivation for a proponent of MST is to make compatible opposite theses: 1) time passes, having an objective absolute present and 2) the correct ontology is not presentist, i.e., it is that which includes in the most unrestricted domain of our quantifiers present as well as past and future entities. Considering all this, the reasons to be an eternalist are also reasons to prefer MST over other A-series pictures of the world: for example, arguments taking the relativity of simultaneity seriously (Rietdijk 1966; Putnam 1967; Penrose 1989; Petkov 2006); arguments in terms of “truthmakers” and the “grounding” version of this challenge (Rea 2006); considerations in favour of Minkowskian space-time; and the difficulties of causal relations between presents and non-present facts. The reasons for accepting MST, besides the classical block universe, are related to two strong intuitions: time passes, and there is something special about the present. Anyone who wishes to deny presentism while asserting the passage of time will find in that model an obvious source of interest. Given the high number of eternalists who are embarrassed by the difficulties involved in the idea that time passes and has a direction, we should wonder why that model is not more appealing. <sup>13</sup> In this paper, we hope to help to make sense of the metaphor that this theory embraces. We think that at least some adepts of MST will find it appealing to have something to indicate as a ground for understanding Broad’s original metaphor.

<sup>13</sup> Deasy (2015) considers the unpopularity of that model a result of the unappealing way in which it has been defined, as, for instance, in Sider (2001).

## II. A Metaphor to Be Understood and Exemplified

Why do we need to make sense of the metaphor in the first place? There are several characterisations of MST without any explanatory account of it: why not just accept the official formulations? In *Relativity and the Moving Spotlight*, for instance, Skow (2009) is quite explicit about metaphors in the context of MST: they may be helpful for illustrative purposes only. The whole point of metaphors is that they are easily understood. If being understood includes being identifiable, the metaphor of the spotlight does not seem sufficiently explanatory. As it happens, this might be the reason why Broad sought to reject it (or at least part of the reason). We suppose Broad did not imagine what could truly be elucidated by the passage of the spotlight if we do not know what the spotlight is. <sup>14</sup> It seems clear that the spotlight, to the extent in which it illuminates events in the world, must itself be an event in this world (Broad 1923, 60). If we say what is normally said, i.e., that the metaphor is too basic to explain, then we are enwrapped in the following circularity: the spotlight indicates a mutable present which, in turn, is the spotlight. The metaphor remains hollow, imprecise and non-explanatory. Answering the question posed by the paper amounts to offering a thesis on what the mutable present is, a thesis still absent from the literature. One important point to mention is that to conceive an explanatory account of “what is moving right now” does not depend on offering good reasons to accept MST as a model. Of course, if MST is false and the

<sup>14</sup> In this paper, we assume that philosophers may be more sympathetic to the idea of taking the metaphor seriously and consider that it deserves a more explanatory account. We think that even classical spotlighters would enjoy the main question of this paper: does the moving spotlight correspond to something that we can explain or describe?

world is otherwise a block universe, our point would be empty, but it would not be invalid so much as it will shed light on the classical metaphor, which is our purpose here. Moreover, we assume that MST is an interesting account about time and that many defenses of this are sufficient to assume this model as a starting point. We assume as well that the question about what could refer to the classical metaphor in Broad's model is interesting in and of itself and that many philosophers might have the same interest in exploring possible answers to this quandary. <sup>15</sup> We are convinced that any attempted answer must indicate a real change. There is a clear sense in which things change, even in a standard block universe; <sup>16</sup> a qualitative change in time, i.e., in  $t1$ ,  $x$  has the property  $p$ , but in  $t2$ ,  $x$  does not have the same property. However, that sense raises questions about its legitimacy. Geach (1972) expressed it well when he wrote the following:

<sup>15</sup>To defenses of MST, see for instance Deasy (2015) and Ross Cameron (2015).

<sup>16</sup>The block universe refers to eternalist models compatible with B-series, in which events are organized according to relationships of simultaneity, succession and anteriority. In this model, time does not pass.

On this view, the variation of a poker's temperature with time would simply mean that there were different temperatures at different positions along the poker's time axis. But this [...] would no more be a change in temperature than a variation in temperature along a poker's length would be [...] We thus have a view that really abolishes change, by reducing change to a mere variation of attributes between different parts of a whole. (304-305)

Let us then undertake this methodological point: we want the spotlight to correspond to a change that is more than just a qualitative change in the sense of Geach's critique. That will be the beginning of our quest: How to find something changing that may correspond to the spotlight, in the world? Our mental states change. Could our mental states be responsible for the changes we indicate? Against that thesis, the proponent of a traditional block universe could claim that the changes in our mental states do not satisfy the above criterion, for all our mental states are somehow related with the non-present temporal parts of our non-present brains. The resulting change in our mental states would thus be that which we avert, by methodological principle, i.e., to present only different properties in different temporal parts. It seems to us that this hypothetical objector would be correct. The answer we are looking for, meanwhile, becomes closer. It is not our mental states that answer to the spotlight but our awareness of our mental states. What the proponent of the block universe says about our mental states is true: in a block universe, or any other eternalist model, our mental states must correspond to the states of affairs on which they depend, i.e., some future event must be connected with some corresponding mental state, of which the latter would, at least partly, be its cause. <sup>17</sup> However, the same does not apply in any way when it comes to our awareness of our mental states. We are aware of our present mental states, and the states of which we are aware, at least in the relevant sense to our purpose, are always present ones. Such a thesis resemble the one proposed by Braddon-Mitchell in 2004.

<sup>17</sup> For instance, the act of breaking or smashing a window may be related to certain mental states of anger or frustration.

In the model known as the growing block model, it relates the present, to our conscious and dynamic mental states. Here, the same thesis can be defended against the arguments the author himself has made in his rejection of it. For now, we should simply clarify what is meant in that thesis. Let us bring to light a principle of which to make use, which we might call 'I now principle'. The "I now principle"

can be stated thus: *df.* we are always aware of our present mental states, and only of those. How can we defend the truth of that principle? We can answer this by elimination. The rival hypothesis would hold that we are aware of our future (or past) mental states. However, it is frankly absurd and would not be defended by any eternalist (or non-eternalist). **18** It is true that, in the future, when we will be aware of a corresponding mental state, we shall be living in the present and only in it. It is still true that, in the future, we will be aware of our mental states that, today, are in the future. **19**

**18** Eternalists and non-eternalists would diverge on the existence of non-present mental states. An eternalist should say «yes», a presentist should not allow for any of them.

**19** In fact, we believe that being able to accommodate conscious mental states far more intelligibly is an advantage of MST relative to the block universe. Our answer is simply to relate the property of being present with the property of being aware of something.

Thus, the present corresponds to the instant *t* in which we are aware of our mental states. We are aware of writing, and of the mental states that correspond to that action. We now feel a very slight pain in our throat; we are aware of it. The mental state of which we are aware is the pain, however mild, and it is present. Tomorrow we may feel great joy in walking through the streets of Paris, the city where we are. Now, certainly, if the eternalist picture of the world is the most accurate, the mental states relative to non-present events must correspond to the past or the future, themselves existing. Our thesis is committed to the existence of tenseless non-conscious mental states. On the tenseless existence of something, whether or not it is true, there is nothing to discuss, because it is an acknowledged part of any version of MST. However, the thesis that we can have non-conscious mental states draws little support, and we must say something about it. Can there truly be non-conscious mental states? This question is important because we should have a difference between present and non-present times. We shall consider, according to our model, just the present mental states as we are aware of them, and that is the difference upon which we wish to remark. Nevertheless, to be sure, many non-present mental states should be available to us, according to our model.

Searle, for instance, extends the scope of the mental to the non-conscious, including non-felt mental states, derived in the brain. His idea was to characterize mental states as states where consciousness might or might not reside. Mental states are the only candidates for consciousness (Searle 1997, 232). However, some mental states, such as unconscious states, will be purely neurophysiological phenomena, over which we have no control or emotion. These will be non-felt mental states. Supposedly, the future and past temporal parts of our brains have associated chemistry; they are functional brains, that had or did not have the device of consciousness. However, the only conscious mental states will be those about which we are in some way aware, now. We believe it is quite reasonable to restrict awareness of those mental states to the present. Our thesis attributes to those mental states the existence of the present, as well as temporality itself. **20**

**20** Naturally, the thesis that we can have non-conscious mental states is not accepted by all, and it depends on how we define the mental, especially mental states. If we define mental states as subjective and private events, as does Ceel (1980), for example, we may reach a different conclusion.

The idea that our consciousness moves or flows while the universe is eternalistic is not new, and we question why we should associate it with the spotlight. The answer is straightforward: because it helps to make sense of the metaphor in MST. Indeed, the thesis that the “conscience flows” has everything we need: namely, it indicates a passage of time, in the correct direction, and a change in a more robust sense. It is also phenomenologically adequate, i.e., it helps us to make sense of the idea that we live temporal lives,

even in an eternalist world. So, for those interested in interpreting the MST metaphor as non-primitive, i.e., as something to explain, this is a promising idea.

All that conspires with a reasonable principle, the “I now principle”, and nurtures the thesis we wish to defend. The spotlight is an aspect of our mental life, related to our present mental states, which are present because we are aware of them. Ultimately, where time is concerned, MST meets idealism. <sup>21</sup> Naturally, that raises problems. And that is what we are going to tackle next.

<sup>21</sup> Idealism on time, of which Kant (1781/87) is perhaps the most prominent defender, specifies time and temporal properties (to be past, present or future) as mind-dependent properties, i.e., dependent on a cognitive agent. The eternalist models, in general, are compatible with that thesis, while classic MST, even though it is eternalist, is not, *prima facie*. The present and the passage of time, in a classic MST, have no relation of dependence of our conscious minds. This paper aims to reestablish idealism within the MST model, even if we thereby end up with a non-classic model.

### III. Problems with Our Solution

We aim to propose an answer, which accounts for the passage of time, to the question “what is the spotlight?” Surely, the association of the present with our conscious mental states, the only ones of which we are aware, does not gather consensus. Worse than that, it is polemic and objectionable for reasons we anticipate. Some of these are partly directed at similar models, such as MST-Time, a Skow’s model (2015) inspired by Kit Fine’s fragmentalism (2005). As a version of Skow’s model, it has many different present parts inside of a fragmentary world. Others, in turn, are directed at this paper’s original insight: the present and the experience of the present are the same. The objections that target our version or that apply to it will carry out their offensive on two fronts: they will either object to the idea of relating the present and consciousness, as we do; or they will object to the idea that our model can be classified as a version of Broad’s MST theory. Finally, we shall try to compare our thesis with hypothetical rival theses that offer potential answers to the same question: a) that the spotlight corresponds to a supertime identified with God’s conscious mental states and b) that the spotlight is related to the second law of thermodynamics, i.e., the present, and, consequently, the spotlight would somehow be related to the entropy of systems.

#### III.1. *Why Not Just Accept the Metaphor Without Further Explanation?*

We shall consider the simple idea that the spotlight is an ontological basic, as a divergent opinion that fits much more with classical adepts of MST. If the spotlight is somehow basic, it needs no further explanation at all. The passage of time would be a property more likely to have mass or size, i.e., a basic fact about the world. We think the very point of having a metaphor is to elucidate something. Of course, one could think about it as a basic fact, and it would remain an interesting proposal. However, if we share with Broad some of the negative considerations of his theory, perhaps we can elucidate it a bit more. In defense of our theory, we manage to avoid the circularity that we stated above: the spotlight indicates a mutable present which, in turn, is the spotlight. In our proposal, it might still be a basic ontological fact: what is basic now is the awareness of our mental states, without the above circularity.

#### III.2. *How Strange Would it Be as a MST Model?*

The next objection simply punctuates the impossibility of making our answer adequate as a version of MST. The MST has been defined as the union of theses like

eternalism with the McTaggartian A-series. The A-series, meanwhile, have been defined as theses that postulate one, and only one, absolute present. Without the uniqueness of the present, we do not envision a similar model. We defend the fact that our model is a version of MST for two reasons in particular: a) despite not contemplating a unique present it postulates an objective and absolute present time – in an important sense to the MST; b) a distinctive trait of all MST, the passage of time, is contemplated and exemplified in our model. Perhaps we should clarify in what sense there is and in what sense there is not an absolute present in our theory. It is because the theory lacks the uniqueness of the present, i.e., we could not have the same present always and also do not have an independent present, i.e., in this model, the ‘presentness’ is always relative to our awareness of our mental states. But of course, the present is absolute in another sense, since we can identify the present with something and agree about it, i.e., there is, in our model, just one present time for real, the one that correspond to our awareness on our mental states. We believe that this is the sense that matters to someone that wishes to adopt a version of MST, and we think that being aware of our mental states put us in a position to know what ‘the present’ is. This consideration follows from the identification of ‘being in the absolute present’ with ‘being aware of our mental states’.

Though it is quite possible to have different objective presents on different planes of simultaneity, especially for relativistic reasons, in practice, our subjective mental states include the perception of simultaneous events, with differences that the theory of relativity does not acknowledge as significant. The difference between two events, A and B, which are both simultaneous in our coordinate system and not simultaneous in the reader’s, is close to zero. This difference exists because the speed with which we move relative to others is irrelevant when considering the relativity of simultaneity, the contraction of space and dilation of time. The relativistic effects would become part of our life only if we could move at very high speeds, close to the speed of light. That contributes to our characterisation of the present as objective, despite not being absolute as we explained it, i.e., an ontological, unique, and independent phenomena. The passage of time occurs when one becomes conscious of the mental states related to chemical processes in the brain in a causally determined structure. That trace of the objective present belongs to a philosophical wager we take: an unique present is not required, but only makes room for the intuition that time passes. Furthermore, it is no longer agreed upon among authors that no MST model can contemplate more than one present, and, thus, more than one spotlight. For some developments on these models, we could draw on Skow (2015), in addition to Torrenço and Spolaore (2019). The latter authors consider a model they dub the double moving spotlight, which they defend persuasively against objections of inconsistency. It also seems that the correctness of those hypotheses reveals that we are correct in what we considering as requisites to conceive an MST model type.

One could also wonder whether or not the passage of time, as a mind-dependent phenomenon, would be an objective aspect of the world. We believe that the negative answer is false. The equivocation consists of identifying subjective aspects with illusions, i.e., that whatever is subjective must be non-objective, like a cognitive illusion. However, since our mental states, from which our consciousness somehow emerges, are aspects of our mental life, we can challenge the tacit identification between what is subjective and what is not objective. Everything that is part of the world is, whether or not it is a mental phenomenon, an objective aspect to which we can easily ascribe to the passage of time if we think of it as in the model we describe.

### III.3. *The Presentness is Mind Depend?*

There is a possible objection to the idea that the present can be mental. In our model, the present is mental, but not only: the passage of time is a mind-dependent phenomenon too. However, if there are no minds, there are no temporal properties whatsoever. This objection merely presumes that it is unacceptable that temporality should be associated with a mental phenomenon. However, we should rather ask why this is unacceptable. We could simply reply: yes, time is ideal, as philosophers like Kant (1781/87) claim. If this is true, then so is the property of being present. With no minds to experience things presently, it does not make sense to attribute *presenthood* to any event or object. Of course, human minds are not the only thing required for there to be a present. Any minds capable of some awareness of their mental states, either human or non-human, alien or divine, count towards that purpose. Without any minds, there is no temporality. Time is ideal, as some authors (some of them eternalists) have already presumed (cf. Kant 1781/87; Gödel 1949, [22](#) Yourgrau 1991, etc.). Why would it be surprising that a model such as MST, which is eternalist, could be ideal when eternalists seem sympathetic to the idealism of time?

We should consider another hypothesis: perhaps the present is ideal – and it is a dependable aspect that depends on our minds and conscience – but the passage of time is an independent feature of the world. We argue that this seems possible, but that the result would be very different: the spotlight does not guarantee the passage of time anymore, because it is not a mind-depend phenomenon, at least in our model. However, we think that some points of tension might arise here: for example, the change of the present is purely mental, but the changes in time are not? That sounds less satisfactory. Additionally, we find it difficult to explain, within an eternalist ontology, the kind of change that could act as a passage of the time. Nevertheless, this is precisely the point of obtaining a clear notion on the spotlight metaphor: the ability to indicate something to explain of what consists the present and the passage of the time itself.

[22](#) According to Gödel (1949), McTaggart (1908) should be on this list as well.

### III.4. *It Is a MST, Really? Two Objections by Wilson (2018)*

The version we present is related to that recently presented by Skow, called MST-Time (2015). MST-Time, in turn, has a manifest inspiration: Kit Fine's fragmentalism (2005). According to the author, that version of the model gives us not a unique present, but many objective presents: «(4) Each time is present relative to itself, and only to itself» (Skow 2015, 58). According to fragmentalism, the world is essentially divided, or, to put it another way, fragmented. The reality is constituted by different «fragments» not forming a complete and consistent «whole» (Fine 2005, 281). The maximal collections of tensed facts are fragments, and each fragment is internally coherent, but the whole of reality (all fragmented facts) is not: the legitimate perspectives on some phenomena correspond to their ultimate reality. The world is, after all, perspectival in that sense, without a division between the perspectival and the real. Our perspective on the property of being present indicates what the present is, and not a perspectival present. That is, in the end, the appropriation of Fine's thesis by Skow, which we also incorporate in answering our question. All we do is attribute to the spotlight the same character, indicating it as something undeniably fragmented: the aware or self-aware nature of our mental states. However, how plausible is Skow's version? We shall see whether or not some of the difficulties of MST-Time

apply to our effort to conceptualise MST as an idealist model.

The classic objection consists of denying a possible exemplification of Broad's model, which is present in Skow's thesis. That objection presents reasons to refuse attribution to Skow's model of the presence of elements, which differentiates it from a classic stationary block universe. Since the model initiated by Broad marks differences for any block universe, Skow's model would be wrongly categorised, i.e., it is, at best, a variant of the block universe, but not a new version of MST.

The answer to that objection is simple: despite our presentation of a version inspired by Fine and Skow, compatible with the theses of both, the difficulties of Skow's model are not repeated in our case. We can effectively provide a reason to differentiate our model from a classic block universe: our awareness of our mental states is not stationary, acting as a true moving spotlight. More specifically, our conscious mental states occur only in the present, but it is dynamic, and it moves over all physically caused mental states. It is not clear that, in classic eternalism, we must separate, somehow, present mental states from non-present ones. It is not clear that we can accommodate the dynamic of our consciousness to the classic model. Some authors have noted precisely that: no matter how much the world is declared tenseless, at least our mind must have a teased characteristic (cf. Geach 1972, 306 and McGilvray 1979, 275-99). The difference between a classic block universe and our model is, thus, quite simple. In the first place, in a block universe, time does not pass, and our experience of time passing is not appropriately explained. In the second place, in our model, time passes, the property of being present is subjective, but our experience that time passes corresponds to something identifiable and explainable. The second objection of the kind, applicable to Skow's model, but not to ours, says that there is no reason why the so-called 'arrow of time' must have the orientation it supposedly has. That objection is more encompassing. According to the objector, Skow provided no reason to locate the movement of the present as successive towards the future. It follows from this that Skow's model is unable to tell whether the world is time symmetrical or asymmetrical, whether we live in a world where time is circular, or whether the passage of time occurs in any other possible direction. Wilson calls this the «objection from mode of motion» (Wilson, 2018). According to the author, «MST-Time does not give us any clear sense in which the spotlight moves steadily forwards rather than moving backwards or moving in some other way» (2018, §4). Naturally, with MST being an asymmetrically conceived model, in which time runs from the past to the present and from the present to the future, that objection presents Skow with a delicate problem: it questions its adequate place and categorisation as a plausible version for MST. However, that problem does not apply to our version. Motivated by clarifying Broad's metaphor, we ended up answering Wilson's challenges and created a version of Skow's model that is immune to that criticism. The reason that our model preserves what is required is simple: our consciousness effectively preserves it and possesses the desired dynamic character or orientation. If we are correct, there is no static awareness of a mental state. To support this thesis, we shall observe how we are aware of a mental state and how our consciousness works. Our consciousness seems to flow in a time-oriented manner, and we are aware of different mental states one by one, in a dynamic movement. Using the terms with which we have been posing the question, our awareness of our mental states is dynamic, asymmetrical and has a direction that mirrors the direction we suppose time to have.

### III.5. *Where Is the Present and How to Know It?*

There is another objection, applicable not only to Skow's model but to the spotlight in general. It argues that the MST must be able to guarantee the indication of the present when there is no criterion for such. If we are not presentists and so accept the inclusion of non-present events and objects among our ontological commitments, we can never guarantee that we truly live in the present. Naturally, we live in the relative present. Relative to instant  $t$  in which we have our mental states,  $t$  is present. However, we know nothing of the absolute present. A relevant difference between the absolute and relative present must be produced, and the fact that we experience instant  $t$  as present does not confer upon us the discriminating power we seek.

A similar question was applied to the growing block model, the one that Broad renounced in 1923. Braddon-Mitchell (2004) tells us that there is no way, in that model, of distinguishing the absolute present from any other past time (a relative present). The author is correct, but that problem does not apply to our case. It is true because the present is the property that our consciousness attributes to the facts and events we experience. We know that we are living in the present because the present is, by definition, the time when we have conscious experiences of our mental states. According to our thesis, having conscious mental states is a legitimate condition for there to be a present. The result resembles Forrest's (2004) model for the Growing Block Theorists, sometimes called «the dead past view», according to which the past is dead aside from the fact that it exists. It is dead because no one lives in the past, since no one has a phenomenological life there. Of course, since our model is not a version of a Growing Block, we should have a very similar point about the future: the future is dead in the same sense, at least for now.

Note that if what constitutes the passage of time is the dynamic flow of our conscience, aware of our experiences only into the present, it is what constitutes the present as well. So, time would be an aspect of our mental life, and the flow of time could be explained with a phenomenological approach. We can use the awareness of our mental states, which is a dynamic process, to explain the use of the metaphor for a transient and constant spotlight that has a direction. Indeed, the spotlight does not just have a direction, but the direction is what we need to describe the MST! We have in this model a non-standard A-series theory but one that preserves what we need: the dynamic aspect of the flow of time, the special feature of the present, when we compare it with past or future, an eternalist ontology, an objective present, and, in some sense, an absolute one (in the sense that the present is identifiable, and we could even agree about where it is). This discussion brings us to a further objection put forward by Braddon-Mitchell.

### III.6. *There are Zombies Everywhere?*

The author, Braddon-Mitchell, will have realised that the answer to our previous question rested on the temporal status of consciousness. He tells us, in an attempt to overcome the difficulties he raised:

Suppose that the hyperplane that is the objective present is the only one that contains consciousness. Some hold that consciousness is some by-product of the causal frisson that takes place on the borders of being and non-being. If this were the case it would restore our confidence that the current moment was the present, because it would become a priori in the manner of Descartes's cogito. In so far as we know we are conscious, we would know that

the current location in space-time was in the present, since as soon as that location in space-time was past, its occupants will be Zombies and thus we would have no awareness. (Braddon-Mitchell 2004, 202)

He considered so the costs of the thesis we enunciate to be too high. A version of his objection can be explained in the following terms. Assuming special relativity, we must equally relativise the answer to the question ‘what things, besides us, are in the present?’ Even assuming that we are in the objective present, we are still, according to special relativity, the occupier of several hyperplanes of simultaneity, each exhibiting different perspectives on the world. The things that now depend on perspectives are exhibited in different planes of simultaneity. This being so, even if we are in the present, we cannot guarantee that we have before us present objects. As if that was not strange enough, we cannot be sure that the people with whom we converse are not zombies, living in other times. That, if not absurd and unacceptable, has quite a high acceptance cost, thus making the theory unappealing. That is a sensible problem. None of us would accept the strange conclusion that seems to follow from that reasoning (as if our theories were not strange enough already). Neither can we avoid the questions concerning special relativity, since adapting to that theory, without artifice, is a reason that generally favours non-presentists. How could we deal with that? Our suggestion: we must guarantee that there is a certain coincidence between countless subjective presents, and so on, for all conscious people with whom we may interact. In other words, we must guarantee that our presents are sufficiently coincident, i.e., all must have conscious mental states only now at this moment at which we are writing. However, is that compatible with the relativity of simultaneity? By taking relativity as a horizon, we should note that persons are, in the relevant context of that theory, objects that have distended temporal parts, what is not promissory for us. How can we escape? In terms of simultaneity, Einstein’s thesis can only be accommodated with what was said above because people moving at a minimally necessary speed for the obtaining of observable relativistic effects is not something actual, or even expectable. Of course, if we are in motion relative to an observer or stationary relative to a train platform, for instance, there will be a minimal difference between what can be indicated in the present of both. However, it will be a near-zero difference, incapable of being measured by any normal, non-atomic watch.

Moreover, in the absence of anything further, surely the time interval encompassing our mental states, of which we are aware, and the reader’s, of which you are aware, do not differ significantly. We explain that for practical purposes, it is as if we were all in the same systems of coordinates, although we are all performing relative movements, ones toward the others. This reason is why, essentially, the relativistic effects had remained hidden until the beginning of the last century, when they were uncovered by Lorenz’s transformations and then explained officially by Einstein, as part of what occurs in the world. If there are, somewhere in the universe, minds travelling relatively close to what we consider to be the speed of light, the whole picture is changed, and then we shall have that undesired scenario, which puzzled us in a question inspired by Braddon-Mitchell. Nevertheless, we do not have, as far as we know, conflicts between present times, past and future, simply because relative simultaneity does not apply, in our common experience, to people and their conscious mental states.

What perhaps could be claimed is that instants of time and their intervals, in both systems of coordinates, will not be the same. However, they will be similar enough to both be called ‘the present’. It was Bertrand Russell (1915) who explained,

with his characteristic subtlety, that the present must have an extension that is, in fact, impossible to delimitate. Its extension is relative to the interval between the events we can perceive presently. For instance, if we snap our fingers, with 0.3 seconds of difference between the sound produced by the fingers of our right hand and the sound produced by the fingers of our left hand, we will surely have non-simultaneous events. However, both will be perceived by the conscious mind as present events. For that reason, unless the relativistic effects are quite evident, under characteristic circumstances familiar to the theory (a speed relatively close to the speed of light), there will be no conscious minds that coexist with zombies.

Our scope was, until now, only a way to run a scenario in which we share our lives with zombies. However, why do our future or past mental states not configure a zombie's life when there is no awareness involved? The answer is just that no zombies could have a mental life, as we do. To describe this by using the scenario of zombies is a strange way to understand it. Each temporal part of us has the experience of conscience, and the fact that it happens in a time-ordered flow does not transform us into zombies. To show the difference, we claim the following: no zombie had or will have an awareness of his mental state for each mental-event in his "life". However, that is our life, according to the theory we are describing. The other problem – how we know that an object is present – is solved in our proposal with the fragmentalism that is inherent to it, in union with our theory about what the present is. If fragmentalism is correct, then all objects are present in each of the simultaneity planes in which we happen to find ourselves, i.e., they are present only inside the fragment. That means that what is present depends only on what we are experiencing. It is true because our awareness of our mental states defines what is present or not. It will never be the case, as was described above, that we do not know what to say of an event whether or not it is present, for there are no non-present events of which we are aware. What makes an object present is that it is part of our present, or, better said, it is the coincidence with a conscious mental state what makes an object present. The fact that there is no significant and noticeable disagreement concerning the intervals of time we are exposed to indicates that the vast majority of objects we consider present now also belong to the reader's relative present. Again, this is what we mean when we say that our theory has an objective, though non-unique, present.

### III.7. *But What About It Being Deterministic?*

Does the theory contain determinism? I believe that would be a valid criticism, but it is not a criticism exclusively directed at our model. According to many authors, any eternalist model faces challenges to accommodating free-will, whether they are determinist or fatalist (Rietdijk 1966; Putnam 1967; Penrose 1989; Shanks 1994; Maxwell 1993, Lockwood 2005). However, we believe our model faces an aggravating factor: in classic eternalism, we can say that our future choices are conscious, i.e., that they are conscious in the future. The composition of the theory would, therefore, have inherent in it the idea that we are entirely responsible for our past, present and future choices, all of which exist, according to a tenseless ontology. In our model, that possibility is discarded. Worse than that, even the choices of which we are now aware, in the present, must somehow be previous to our consciousness of them since they causally result from temporal parts of our brain that generate real mental states, which exist in the tenseless fashion. We become aware of them, in the very precise sense of the word, only when we experience them consciously. The problem seems unsolvable. How to proceed? We emphasise that determinism will only be a problem

for a non-determinist philosopher. That is, it would first be necessary to prove that determinism is unacceptable and only then reject the model for that reason. Relative to free-will, the compatibilist strategies are in order, if true. Since it is not our purpose here to defend any of them, it remains an indication that they might be a solution to conciliate our model with free-will.

### III.8. *Is the Spotlight Something Else?*

We must compare our answer to two other possible answers. Could the spotlight correspond, somehow, to the entropy expressed in the second law of thermodynamics? Could we attribute to God's conscious mental states some priority, such that the absolute present, like a *supertime*, with which it could be identified? Concerning the first question, the answer is quite simple: the passage of time cannot be attributed to the second law of thermodynamics in any eternalist model. The reason for this is that thermodynamic states, which present a *ratio* in a clear sense, from order to disorder, are like any other state of affairs, in a block universe. There are temporal parts of systems with patterns of disorder in one direction, all of which are, however, existent. Thus, we cannot see how to discriminate the passage of time, which indicates an absolute or relative present, if we accommodate in that model the result of the second law of thermodynamics.

Concerning the idea that the present must be identified with the mental states of God, we have two things to say. The first is that, if such is the case, then our thesis maintains its explanatory power. The answer to the question 'what corresponds to the moving spotlight?' is 'the conscious mental states of God, which change'. The second thing we should say is that that which can only be said by someone who holds that God is a temporal being subject to change, at least in its mental states, i.e., beliefs, desires and joys. We suspect, however, that such a thesis will not be consensual among eternalist theorists who believe in God, but even if God could have changeable mental states, like ours, nothing prevents us from thinking of God's mental states as conscious now, in the same instant  $t$  in which we have consciousness. We believe that would be a natural response.

## IV. Advantages

The advantages of the model are relative to its capacity to avoid the traditional problems with MST: namely, McTaggart's problem and the epistemic problem (Deasy 2015). Some authors have indeed provided good answers to those questions, but we easily avoid it, i.e., the same problems do not appear in our version of MST. If this is true, we do have this advantage. Since McTaggart's problem suggests a contradiction involving the notion of change in things, namely the notion of change in the properties of being present, past and future, our version is immune to it. A conscious mental state will never be an instance of the McTaggartian contradiction because it will never be present and past, past and future, future and present in the same instant. The epistemic argument, based on the impossibility of locating the present, also fails. All our conscious mental states are present, despite each person having their present. Naturally, as we have seen, the many subjective presents coincide, if not completely then at least sufficiently, which makes divergences in the size or duration of those same presents negligible. Many problems are thus avoided, such as Wilson's (2018) objections against adopting Skow's fragmentalism. Another advantage our model has is its explanatory power. Namely, our model answers a relatively ignored question: to what

does the moving spotlight effectively correspond? That is an important question, based on the need to give substance to a metaphor. Broad, who fathered the model, did not think of that metaphor as sufficiently explanatory. We hope to make clearer the borderline that separates the present from the non-present and to point out the possible changes in how it is drawn. With that, we hope to make MST more attractive, not only for eternalists, but for philosophers of time in general.

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