



## Present's actualizing and future's becoming possible

*(La actualización del presente y el devenir posible del futuro)*

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**ABSTRACT:** The paper spells out the thesis that the crucial, substantial move of presentism should be to temporalize modality. The present is not simply actual, and the future not simply possible, but the present is becoming actual, and the present's becoming actual is future's becoming possible (and past's becoming necessary). I will argue that by so temporalizing modality, as modes of becoming rather than of being, the presentists can make room for the future (and the past), can answer the triviality-objection raised against them, and can provide a specific account of presentist change.

**KEYWORDS:** presentism, actuality, (real) possibility, futurity, change

**RESUMEN:** El artículo desarrolla la tesis de que el presentismo debería temporalizar la modalidad. El presente no es simplemente actual, y el futuro no es simplemente posible, sino que el presente se convierte en actual, y este paso del presente a ser actual conlleva que el futuro se convierta en posible (y el pasado en necesario). Argumento que al temporalizar así la modalidad, como modos de llegar a ser más que de ser, los presentistas pueden dar cabida al futuro (y al pasado), pueden responder a la objeción de trivialidad, y pueden proporcionar una explicación específica del cambio presentista.

**PALABRAS CLAVE:** presentismo, actualidad, posibilidad (real), futuro, cambio

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## 1. Introduction

According to *presentism*, only the present and only present residents of time (things; objects; events) exist *simpliciter*, i.e. are in the domain of unrestricted quantification. The past and the future (and past or future residents) are nothing.<sup>1</sup> This sounds, firstly, as if the present were nothing but a frozen point of time: if past and future simply do not exist, how can there be temporal passage then? It sounds, secondly, as if the present were the very beginning of time and simultaneously the very ending of time, that the whole universe would pop in and out of existence right now: in some specific sense, the reasonable presentist must hence make room for past and future. The main purpose of this paper is to solve the “frozen problem”,<sup>2</sup> precisely by giving room for past and future within presentism.

The primary assumption is that the presentist present cannot be in *relative* motion, i.e. the temporal passage, for the presentist, cannot consist in a property of presentness moving along the eternalist block of being, as it would be according to the *Moving Spotlight Theory* of time (see Cameron, 2015; Deasy, 2015). By contrast, the presentist present must really be in *absolute* motion,<sup>3</sup> the temporal passage should not presuppose anything existing. The core idea of the paper is that the required room for past and future must be a particularly *modal* one – the present’s future-directed activity has modal content, as opposed to a spatial sense.

There are many other approaches on the market to provide an idea of dynamicity for time and temporal becoming,<sup>4</sup> but this one rejects any spatial analogue. The spatial analogue (of relative motion against something) not only is present in the *Moving Spotlight Theory*, but apparently also in *Branching (Space-)Time Theory*, the most relevant theory about future possibilities: the corresponding illustrations of the tree-model are spatial images that should be avoided. As it turns out, there is an ambiguity in the literature concerning the relationship between time and modality, which has to be clarified in the present paper. Presentism requires to *temporalize modality* in a way, where what is really actual is *now-actual*, what is really possible is *future-possible*, and what is really necessary is *past-necessary* – not meant as qualifications of modality, but as analyses.

Rejecting any spatial analogue of dynamicity, i.e. providing a sense of really absolute motion for the present, requires the original move that the present is not conceived of as simply existing, but rather as *becoming actual*. Every other approach, I believe, assumes that the present (and present residents) exists, whereas in this paper it will be argued that the present has to come. Present’s existence, so understood, is an actuality — existence in modal context— in form of presentness. Then, by the present’s becoming actual, the past is becoming necessary and the future is becoming possible. Thus, temporalized modalities are modes of becoming rather than of being.

<sup>1</sup> See Correia and Rosenkranz (2018, sec. 5.2) for a similar characterization of presentism.

<sup>2</sup> Concerning the “frozen problem” see, e.g., Correia and Rosenkranz (2018, pp. 73-75) as a response to the problem raised by Cameron (2015, p. 2).

<sup>3</sup> “Absolute” motion in the physicist sense, namely motion (e.g., rotation) against space, still is motion against something. Instead, a sense of “absolute” motion is required that avoids anything existing against which the motion must be performed.

<sup>4</sup> See, among others, the recent account by Torrenzo (2018).

The paper is structured as follows: In the first section, *temporalizing modality* will be spelled out against the background of “real modality” as it is understood in Branching (Space-)Time Theory. Here, the crucial move of taking “future-possible” (as well as “now-actual” and “past-necessary”) as analyzing modality will be clarified.<sup>5</sup> The second section establishes the core idea of the present's becoming actual, i.e. the creation of actuality in form of presentness, by providing the respective way of rejecting the triviality-objection against presentism. This shows how the present account treats presentism as a non-trivial, substantial claim. The third section addresses the (presentist) problem of temporal change. Concrete, spatial content will be considered, namely the change of a persisting object, e.g., of something becoming red. This finally demonstrates that the present's activity is future-directed due to making the future possible, i.e. by the creation of real possibility in form of futurity.

## 2. *Temporal vs. Modal Notions: Temporalizing Modality*

Usually, one distinguishes between *epistemic* and *alethic* modalities. Both types are considered to be alternatives *to* actuality: an epistemic possibility, e.g., tells us what is possible, given a certain epistemic state of a person who may not know what actuality is like; an alethic (e.g., metaphysical) possibility tells us what is counterfactually possible, in the light of a given actuality. Alethic modalities are timeless in the sense that the temporality of actuality (be it past, present, or future) does not matter, because one is concerned with alternatives to this actual state. For the purpose to closely connect (objective) modal notions with temporal notions, by contrast, one needs to make modality “time-dependent” as, most influentially, the proponents of *Branching (Space-)Time Theory* (Belnap *et al.*) are happy to point out.<sup>6</sup>

Such “real possibilities” are alternatives *for* actuality, i.e. they are not alternatives that could have occurred instead of the given actuality, but alternatives that this very actuality faces. In this way, it may change over time what is really possible, e.g., the alternative to attend a particular football match in Spain vanished after the agent decided to stay at home in Germany. Unfortunately, this talk of ‘making modality time-dependent’ is ambiguous and does not automatically mean to temporalize modality. I believe that, contrariwise, in Branching (Space-)Time Theory temporality has been modalized: the fundamental concepts of necessity, actuality, and possibility have been time-indexed. My suggestion is, however, that the presentists should rather consider “past”, “present”, and “future” as the (more) fundamental concepts.<sup>7</sup>

<sup>5</sup> Meant as analyses (and not as qualifications) of *real modality* – the paper intends to provide the right way of making modality time-dependent; this is not to say that time-independent, counterfactual reasoning for epistemic or metaphysical purposes would be inadequate.

<sup>6</sup> See, in particular, Rumberg (2016) who calls the time-dependent modalities, e.g., “real possibility”. See also Rumberg (2020, sec. 4) for a comparison with the rival view in the Kripke-Lewis style. This rival treats possibility and (eternalist) time on a par, as equally fundamental and as independent from each other: “possible worlds” are possible *simpliciter*, and “relative possibility” (possible according to the accessibility relation) becomes time-indexed possibility.

<sup>7</sup> See, again, Rumberg (2016, p. 19): “Real possibilities are future possibilities.” Granted. However, the question is whether “future” is a (synthetic) *qualification* of “possibility” or rather *analyzing* it. It should be the latter, not the former.

Before going on, let me shortly point out the crucial difference between *time-indexing* (something) and *tensing* (something). Take the property ‘redness’ as the first example: By time-indexing this property one gets a plurality of numerically distinct properties, namely ‘redness@t<sub>1</sub>’, ‘redness@t<sub>2</sub>’, ‘redness@t<sub>3</sub>’, and so on. As I would read the procedure, there is ‘redness’ *simpliciter* on the (more) fundamental level, not time, and time somehow is treated as property-based. This is what happens, regarding the debate on persistence, in the variant of endurantism called “indexicalism”.<sup>8</sup> In contrast, by tensing redness one gets *one single* property in different modes: ‘pastly redness’, ‘presently redness’, and ‘futurely redness’ are not numerically different properties, but one and the same property. There are ‘past’, ‘present’, and ‘future’ on the (more) fundamental level, as the modes or the forms in which the very same content can occur.

As the second example, take ‘existence’: By time-indexing it one gets a plurality of numerically distinct existences, namely ‘existence@t<sub>1</sub>’, ‘existence@t<sub>2</sub>’, and so on. There is (timeless) ‘existence’ *simpliciter* on the (more) fundamental level, and time is treated as existence-based. This is one way to understand eternalism. In contrast, by tensing existence one has, again, ‘past’, ‘present’, and ‘future’ on the (more) fundamental level, as the modes or the forms in which existence can appear. Here, the *Growing Block Theory* of time might say that dinosaurs pastly exist; and here is room for the presentists to make the claim that (the term) “existence” entails (the term) “presentness”, i.e. that existence only occurs (with analytic necessity) in form of presentness.

Now, what happens by time-indexing modalities is that, e.g., the sentence:

(F1) The future is possible.

is taken to be *analytically* true. For, what the proponents of Branching (Space-)Time apparently have in mind by ‘making modality time-dependent’ is the following: if one intends to time-index (real) possibility, one has to take (with analytic necessity) a “future” time, i.e. a time later than the given moment of time.<sup>9</sup> Accordingly, “future” is a derivative concept: it can be analyzed, and “possible” is one of its components/marks. This is modalizing temporality, and the risk is that the intended dynamical aspect of the ontology gets lost. For, now, one of future’s components is a static possibility. The fundamental possibility cannot be inherently dynamical, because if this were the case, the idea of ‘making modality time-dependent’ would not be justified. The reason for it was explicitly that other types of objective modality (logical; metaphysical; physical) are characterized as timeless, i.e. (I guess) as non-dynamical. To this objection one may respond that, if “possible” is analytically entailed in “future”, the future is not simply identical with the possible, and so there is at least some “X” as a further component/mark of “future”: future = X + possible. In this

<sup>8</sup> In “Tensing the copula”, Lewis (2002) discusses the other variant of endurantism, called “adverbialism”. However, note that the title of the paper is misleading, but should have been: “Time-indexing the copula”. For, in (eternalist) adverbialism one gets a plurality of numerically distinct copulas, is@t, and time is treated as copula-based. “Tensing the copula”, by contrast, would mean to get one single copula in different modes, i.e. tenses.

<sup>9</sup> The future has a branching structure, i.e. it can be analyzed, modally. Every (complete) branch is a real possibility and at each point of it, the branch is indexed by a future time. Thus, future times must be applied (with analytic necessity) to possibilities.

case, however, the proponents of tempo-modal logic must tell us what this *X* is, and how it provides the dynamical aspect of futurity.<sup>10</sup>

*Temporalizing modality*, by contrast, implies the other way around that the sentence:

(F2) The possible is future.

is analytically true (alternatives *to* actuality aside). For, what one should have in mind by 'making modality time-dependent' is: (real) possibility only can occur (with analytic necessity) in form of futurity.<sup>11</sup> Consequently, "possible" is a derivative concept: it can be analyzed, and "future" is one of its components/marks. On the other hand, the foregoing sentence (F1) is not analytically true but a synthetic judgement. For, "future" is (in this regard) a fundamental concept that hence cannot be analyzed with modal terms. This leaves room for the idea that on the (more) fundamental level one has something inherently dynamical: 'past', 'present', and 'future'.

Regarding (real) possibility, dynamical futurity is on the fundamental level, and as its modal content possibility must be provided in the way that, on the one hand, (F1) turns out to be a synthetic judgement and, on the other hand, (F2) as analytic. Thus, I suggest that something needs to *happen*, namely has to be synthesized, to create such a possibility: future's becoming possible is the creation of real possibility, i.e. the possibility in form of futurity. Analogous for the past: it is not the case that the past is automatically necessary — "the past is necessary" is not analytically true, but "the necessary is past" is so analytically—, but something needs to happen for making it necessary. Past's becoming necessary creates real necessity, the necessity in form of pastness. In such a way, modality really is temporalized.

There are exactly three temporalized modalities (necessity; actuality; possibility), because there are exactly three modes of time (past; present; future) analyzing them, respectively. This implies that the entailments that everything actual also is possible, and everything necessary also is actual, do *not* hold.<sup>12</sup> One should think about temporalized modalities in such a way, because doing so one gets room for past and future, for the presentists, without spatializing them. To recall: temporalizing modality is not intended to be an analysis of all objective modalities —counterfactual reasoning with timeless modalities is still adequate— but as an analysis of the presentist present not being frozen and including (somehow) past and future.

In the following section, it will be argued for —as it should be for the presentists— that past and future depend on the present. 'Present' is on the most fundamental level, not only fundamental for real modality, as also are the other modes of time, but fundamental also for the other modes of time: it is present's becoming actual, the creation of actuality in form of presentness, in virtue of which the past is becoming really necessary and the future really possible.

<sup>10</sup> Probably, they would say that "X" represents the local standpoint, which is present and so dynamical: actual@now. However, then, the question turns back of whether '@now' is a synthetic qualification of actuality or analyzing it. See the next section for more on this.

<sup>11</sup> Accordingly, real necessity only can appear in the mode/form of pastness and actuality only in form of presentness.

<sup>12</sup> Temporalized modalities are not quantifiers.

### 3. *The Triviality-Objection: Present's Becoming Actual*

One of the most challenging objections against presentism is the so-called triviality-objection according to which presentists cannot substantially express their point against their opponents. Of course, it is said, dinosaurs do not exist now: who will argue with that? However, naturally again, dinosaurs EXIST —namely in the disjunctive sense that they existed, exist right now, or will exist—, since they are not in the same boat with Santa Claus (see, e.g., Savitt, 2006). This triviality-objection comes in different ways, and there are many different responses on the market;<sup>13</sup> I will not address this debate in detail.

Instead, I will discuss this objection within the given context of temporalizing modality. Thus, for the present purpose, “to exist” and “to be actual” are taken to be interchangeable: “actuality” just means “existence”, in this modal context. As it turns out, prioritizing time over existence (which is in line with others, see below) means present’s actualizing, i.e. the creation of actuality in form of (with analytic necessity) presentness. This is the way in which the present account establishes presentism as a non-trivial, substantial claim. More in detail:

Apparently, all parties in this debate share the assumption that it is uncontroversial that the present time and present objects/events exist. Most recently:

Let us use ‘to be present’ as being short for ‘is located at the present time’. (Correia and Rosenkranz, 2020, p. 2002)

If “(to be) present” is shorthand for “(being) located at the present time”, to be present *entails* to exist. Then, the controversial issue in the debate is whether the past and/or the future (non-present things) exist.<sup>14</sup> Analogous to the foregoing, one assumes that the sentence:

(P1) The present exists (= is actual).

is *analytically* true. The term “presentness” contains “actuality”, present times/objects/events only can be (with analytic necessity) actual. Instead, presentists should conceive the present not as simply being actual, but as *becoming actual*.

Correia and Rosenkranz, however, go further by claiming that

permanentists [= eternalists] deny that presently being something *entails* being located at the present time. But then, so should everyone else. (Correia and Rosenkranz, 2020, p. 2004)

Everyone should hence accept that the sentence:

(P2) The actual is present.

<sup>13</sup> See, most recently, Correia and Rosenkranz (2020); and most interesting for our purposes Pezet (2017).

<sup>14</sup> *Pars pro toto*: “the important question to be answered in order to ascertain the existence of a genuine, ontic disagreement between presentists and eternalists is the following: how could the future or the past *fail* to be real?” (Dorato, 2006, p. 95). Instead, the important question to be answered should be the following: how could *the present* fail to be real?

is *not* analytically true. The controversy, they argue, should not be understood as a debate about *whether* (P2) is a synthetic judgement. Rather, both parties should simply assume that it *is* a synthetic judgement. This overlooks the alternative option of considering (P2) as in fact analytically true. The presentists may (and should) argue for this: by becoming actual, the present creates actuality in form of presentness. *This* is a controversial claim, of course, but it is a substantial one, which eternalists (and other non-presentists) reject.

Contrariwise, Correia and Rosenkranz characterize the substantial claim of the presentists in the following way:

To say that always everything is located at what then is the present time —as presentists do— is to make a substantive ontological claim, and not to articulate a conceptual entailment. (Correia and Rosenkranz, 2020, p. 2004)

Accordingly, it is substantial to articulate a *synthetic* judgement, not “a conceptual entailment”. For, allegedly, no one could reasonably argue against an analytic truth.<sup>15</sup> However, every non-presentist can reasonably argue against the meta-claim *that* the judgement at issue is analytical. The controversy can well be about whether “actual” or rather “present” is the (more or most) fundamental concept.

With ‘actual’ on the (more) fundamental level, “present” can be analyzed, and “actual” is one of its components/marks. However, as before, the temporal notion then has been analyzed with a static concept:<sup>16</sup> being actual is not inherently dynamical, which (probably) goes against the spirit of presentism from the beginning. For, it is like time-indexing ‘existence’, i.e. the eternalists’ way of reasoning. Usually, eternalists take “existence” as the (more) fundamental concept; they then qualify existence by temporal notions such as “now”, “@t”, or “always”. On this basis, they usually ask whether dinosaurs exist now, @t<sub>past</sub>, or always – and no disagreement occurs, so that the presentists cannot make their point. Even if one rejects with Correia and Rosenkranz this way of reasoning by assuming a *tensed* notion of existence for all parties, one is not better off as long as one treats the ‘now’ as indexing or qualifying ‘existence’ whereas it should be analyzing it.

Presentists should take “present” as the (most) fundamental concept.<sup>17</sup> Then, the sentence:

(P2) The actual is present.

has to be considered as analytically true. Correspondingly, “actual” is a derivative concept: it can be analyzed, and “present” is one of its components/marks. On the other hand, the foregoing sentence (P1) is not analytically true but a synthetic judgement. For “present” is the most fundamental concept that cannot be analyzed. In order to do justice to both requirements —(P1) to be synthetic; (P2) to be analytic—, something needs to happen, has

<sup>15</sup> This (allegedly) synthetic judgement is precisely sentence (P2), since “always everything is located at what then is the present time” is equivalent to “the actual is present”.

<sup>16</sup> As it stands, present = X + actual, but now no one knows what this X is, and so the dynamics of the present is disguised.

<sup>17</sup> See for a similar strategy against the triviality-objection, namely for prioritizing time over existence, Pezet (2017).

to be synthesized, to create such an actuality. This can only be done by the dynamical present itself. The creation of actuality in form of presentness *is* the present's becoming actual.

That actuality appears (with analytic necessity) in form of presentness, is the non-trivial, substantial claim of presentism. This does not exclude that present stuff like water may necessarily be H<sub>2</sub>O or that a present event may necessarily be caused by some other event. Given Kripke's view about a posteriori necessities, water is H<sub>2</sub>O with metaphysical necessity; and given Alexander Bird's view about laws of nature, an event occurs with metaphysical necessity. However, these are further assumptions (addressing a different kind of modality), but without further ingredients actuality is the modal content of presentness.

As always, *becoming* [...] is directed towards [...] to be created, so that the present's becoming actual is directed towards actuality in form of presentness. The next step is to show that this direction is the *future-direction*. This means that present's becoming actual is (with metaphysical necessity) accompanied by future's becoming really possible (and past's becoming really necessary). It goes by solving the problem of presentist change, i.e. by adding concrete, spatial content such as redness vs. non-redness to the mix. The actuality of, e.g., *becoming red* requires an additional distinction, namely that of past and future. 'Becoming red' as being the spatial content of the modal content 'actuality' in form of presentness requires 'redness' as being the spatial content of the modal content 'real possibility' in form of futurity, and 'non-redness' as being the spatial content of the modal content 'real necessity' in form of pastness. This will be explained in the final section.<sup>18</sup>

#### 4. *The Problem of Change: Future-Directedness*

To begin with, a clarification concerning the form/content-distinction is in order. This distinction appears on different levels, and what is a form for something may likewise be a content for something else; some content can have different forms, some other content can have its form with (analytic) necessity. Real possibility, e.g., is the modal content of futurity, and it is so with analytic necessity (according to this project of temporalizing modality). Redness, e.g., by contrast may be the spatial content of real possibility, and so be future, 'but' it also may be the spatial content of actuality or real necessity, and so be present or past. Thus, according to this approach to presentism, modal contents have their respective temporal forms with analytic necessity, whereas spatial contents have their modal forms with logical contingency. Now, a specific, concrete content in form of (present) actuality will be considered: the content of *change*, in its ordinary temporal sense, e.g.: becoming red.

The present (and present residents) does not automatically exist. It has to come; it must be actualized.<sup>19</sup> This is the activity that avoids the frozen present, for the presentists.

<sup>18</sup> Thus, this final section also explains why it cannot be the other way around: that real possibilities are past, and real necessities are future.

<sup>19</sup> With Kant in mind, the reader may think of a transcendently ideal presentness (i.e. pure intuition) that must become empirically real. It is (together with others) the sufficient condition for the possibility of the experience of objects and (together with others) the necessary (but not sufficient) condition for the objects of experience, i.e. for real time and real change (see Kant, 1781, A 111; 1781/87, A 158/B 197).

On the more concrete level, the spatial content can be steady, e.g., an object *being* red. Usually, this case is considered as unproblematic, and we will leave it aside, but with the current approach in mind, it should be mentioned that in such a case the activity of the present is somehow disguised by the stable spatial content. In particular, the future-directedness of its activity cannot be demonstrated, for it is apparently superfluous in this case. The activity of the present manifests itself to be future-directed in the case of temporal change. Such a change requires difference of (spatial) properties (and sameness of the object), in the case at hand: the incompatible properties of redness and non-redness are in play, in some way or other. As it turns out, the presentist solution to this problem of change is (should be) that the incompatible properties are in play *in two different temporalized modal ways*: as past-necessary and future-possible.<sup>20</sup> The actuality in form of presentness *requires* the necessity in form of pastness and the possibility in form of futurity. More in detail:

According to presentism, the problem of change cannot consist in reconciling the slogan 'different properties at different times' with the sameness of the object. Perdurantism, indexicalism, and adverbialism are solutions to *that* problem. However, these are variants of *eternalist* 'change'.<sup>21</sup> Presentist change cannot satisfy this slogan, simply because different times do not exist. (*Only* the present is becoming actual.) The slogan presupposes a *time order* (of properties), but the presentist 'now' is not an order. Thus, presentist change must be something other than a sequence: difference in properties *without* a plurality of times is required.<sup>22</sup>

In summary, the problem of change is to avoid having incompatible properties at the same time (in the same way); for this would be contradictory. Eternalists and presentists, however, should have different ways of doing justice to this common requirement. From the eternalist perspective change can be expressed by a sequence of having-property statements:

- (C1) This has non-redness at t.  
(C1)' This has redness at t'.

Presentist change, by contrast, must be expressible by something other than *having*-property statements. The idea is that it needs genuine *tensed* sentences, in order to express the gaining of a property, such as:<sup>23</sup>

- (C2) This is now *becoming* red.

<sup>20</sup> With “-“ in the analyzing (not: qualifying) sense.

<sup>21</sup> For, these only are variants of time-indexing something: the parts of the 4D-object, the properties of the 3D-object, or the copula.

<sup>22</sup> The following can also be read as a rejection of Backmann's (second) objection against the compatibility of presentism with power metaphysics; see Backmann (2019). Further, it responds in some way to a reply by Prauss (2017, pp. 208-214).

<sup>23</sup> Note that “is becoming” *substitutes* the usual copula “is”, so that one gets new sentences with a different sense of predication. In “a is red” —F(a)— “is” is the copula of predication, whereas in “a is becoming red” —F[a]— “is becoming” is the new copula of predication, which as a whole substitutes the former. Then, it is not the case that, e.g., F[a] (“a is becoming red”) implies ¬F(a) (“a is not red”) but that a is losing non-redness. More on this temporal predicative logic will be developed elsewhere.

Equivalent to:

(C2) This is now *gaining* redness.

Gaining redness is in conflict both with having redness and with having non-redness. Thus, both the sentence “this is now red” and the sentence “this is now non-red” are false, because the object now (ex)changes the color-property. The (presentist) changing object is beyond having (the relevant) properties, i.e. beyond *being* something (in this regard). A further, *genuine* tensed sentence is required as the third alternative: *becoming* something.

Becoming red is directed towards the future: *presently* gaining redness indicates *futurely* having redness. The becoming actual of gaining redness requires (or even: *is*) the becoming possible of will having redness, i.e. the real (future) possibility of having redness. Why so? Why does ‘gaining redness’ not *imply* futurely having redness, making having redness futurely necessary? Because it cannot be excluded, at this point, that something interferes afterwards, preventing the result of being red in the future. It could even be the case that the activity of the present itself comes to an end, in the sense that presentness no longer will be actualized. On the other hand, nothing excludes the *nomological* necessity of futurely having redness, in this case, but *that* necessity is likewise becoming really possible in the case of temporal change. Nomological necessity, if there is any, must be considered, under this approach, as content of real possibility (or actuality); nomological necessity appears, if at all, in form of real modality.<sup>24</sup>

Moreover, but implicitly so, becoming red is based on *losing* non-redness, and presently losing non-redness implies *pastly* having non-redness. The becoming actual of losing non-redness requires (or even: *is*) the becoming necessary of having had non-redness, i.e. the real (past) necessity of having non-redness. Contrary to the foregoing, losing non-redness *implies* past non-redness, making in fact having non-redness pastly necessary. For, with analytic necessity an object can (currently) only lose a property that it had (past tense). So, the (present) actuality of losing non-redness grounds the real (past) necessity of having non-redness.

The contradiction of having incompatible properties at the same time can hence be avoided also by the presentists, but only by structuring time into past, present, and future. Note, by the way, that this provides the (retro-)explanation of *why* there are exactly three modes of time: in order to avoid the contradiction of being red and non-red at the same time, presentist actuality must contain the two incompatible (spatial) contents in two different temporalized modal ways.<sup>25</sup>

Although becoming red also contains (losing) non-redness, it is directed only towards (futurely having) redness. There is an asymmetry in favor of gaining redness: the sentence

<sup>24</sup> Thus, nomological necessity also is time-dependent, which makes it different from the other alethic modalities. In fact, I believe that nomological modality must be treated differently; but this impression is premature at this point.

<sup>25</sup> Recently, Hochstetter and Hess (2020) have convincingly argued that almost all definitions of “persistence” that can be found in the literature are incompatible with presentism, even those provided by self-declared presentists. However, their own “neutral” definition requires of the presentists to rely on (the truth of) past tense and/or future tense sentences, such as: “O existed”. The advantage of the view presented here is that both incompatible contents are in play *now*, that the sentence “O is becoming red” can *presently* be made true and *presently* be known as true (or, false). Nonetheless, it implies the (presentist) persistence of O.

“this is becoming F” expresses a predication of x gaining F-ness; it is implicitly based on x losing non-F-ness, but this is not what the sentence expresses. Therefore, the direction of becoming [...] turns out to be the *future-direction* of becoming. Applied to the temporal change of concrete residents in time, the more abstract in the first sections has been concretized: the becoming actual of gaining a (spatial) property is accompanied by the becoming (really) possible of will having this property and the becoming (really) necessary of having had the opposing property. In this way, the presentists must temporalize necessity, actuality, and possibility; and in this way, the present is not frozen but active.

This activity is essentially directed: based on the past and towards the future. According to presentism, therefore, time (i.e. the ‘now’) is fundamentally time direction (and not time order).<sup>26</sup> Note finally that the sentence “the (objective) ‘now’ is future-directed” is *analytically* true, whereas the sentence “(real) time is directed” is a *synthetic* judgement that could be false. The substantial claim of presentism is then that actuality appears in form of presentness, so that real time *is* the objective ‘now’, so directed.

## 5. Conclusion

There is a future for presentism. For, the present is not frozen but active. Its activity is its becoming actual, which implies the past’s becoming necessary and the future’s becoming possible. Thus, by temporalizing modality time is essentially directed, the present’s future-directedness. In this way, the triviality-objection against presentism can be rejected and the presentist problem of change can be solved.

For the Kantians, the story can be told in the following way. The present as *pure intuition* and present residents as the “undetermined” objects of empirical intuition—in short: time as being transcendently ideal—have to be actualized, must become empirically real, i.e. appearance (phenomenon as the “determined” object of cognition). *Becoming actual* essentially has a forward direction, from (subjective) intuition to (objective) appearance: the present’s becoming actual is intuition’s becoming appearance. Considering concrete content, e.g., considering the problem of (objective) change, this forward direction turns out to be the future-direction. Present’s becoming actual is accompanied by future’s becoming possible (and past’s becoming necessary), which requires the capacity of *imagination*. It is actualized presentness that *appears*, but not without (necessitates) pastness and (rendered possible) futureness being *imagined*.

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<sup>26</sup> See Friebe (2016) for a different way of arguing that eternalism differs from presentism by the fundamentality relation: the former takes time order as more fundamental than time direction, whereas the latter takes it the other way around.

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