

TEMPORAL COUNTERPART THEORY¹

When we talk about objects that last for some period of time, it is common to take it that the lasting object is the same object throughout that period. The object at each point in time is identical to the object at any other point in time of its lasting. We say that such an object *persists*. David Lewis defines persistence like this: “[S]omething persists iff, somehow or other, it exists at various times” (Lewis 1986:202). I, for instance, am a persisting thing since I have existed for over 24 years. There are several theories about how exactly things persist. Maybe persisting consists in *travelling through time* somehow, by staying identical at each moment, or maybe persisting consists in having *temporal parts*. The latter is the position of *four dimensionalism*. In this article, I will give a brief overview of four dimensionalism and point out the immediate differences between Lewis’ perdurance version and Theodore Sider’s stage version of it. My main concern will be Sider’s temporal counterpart theory, and whether or not it gives the stage theory a satisfying account of persistence. I will conclude by giving a suggested specification of persistence for the stage theory.

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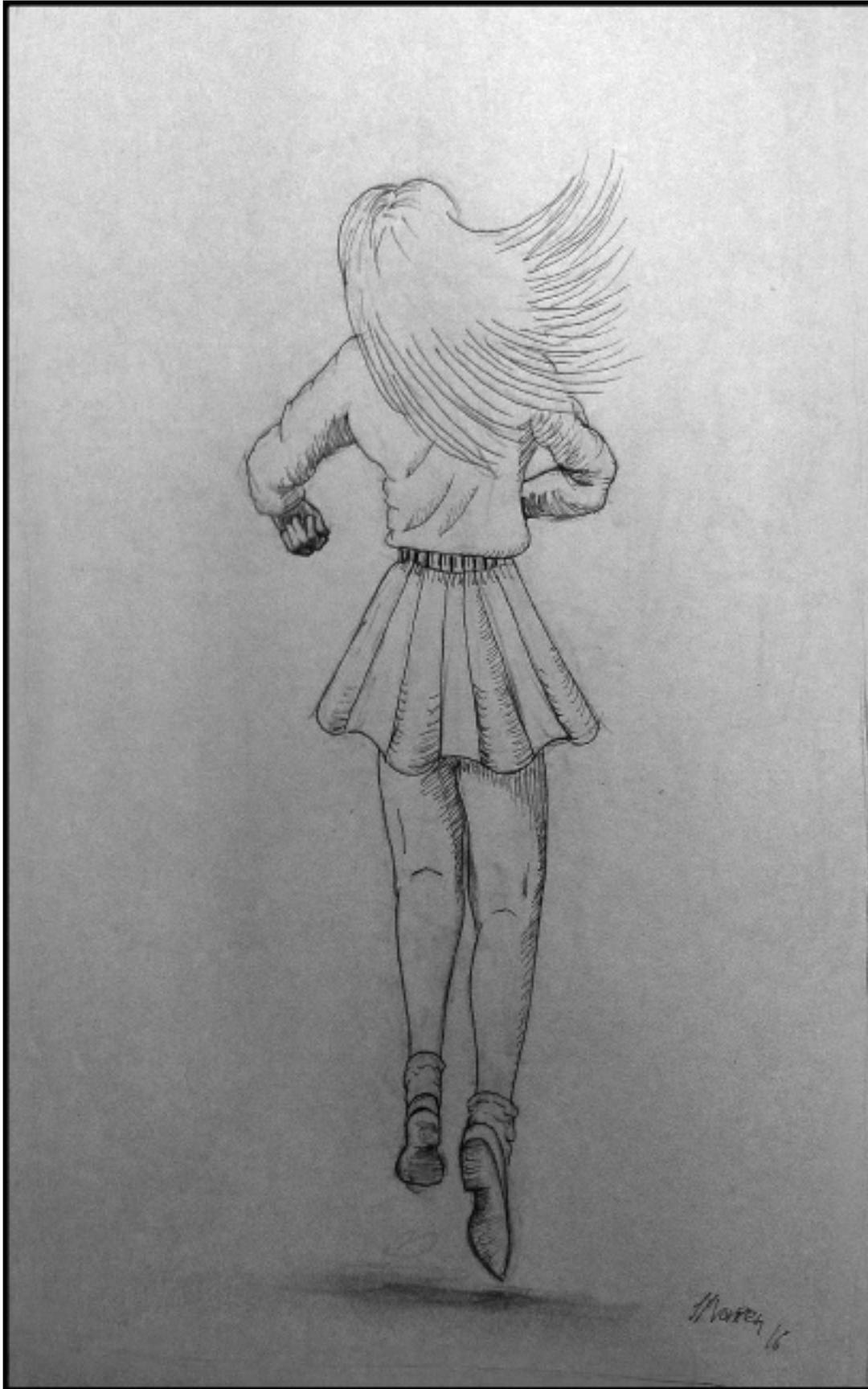
Four dimensionalism is the theory that objects persist² by having different temporal parts at different times (Lewis 1986:202). Temporal parts are parts of an object, just as spatial parts are, but instead of being located at a point in space they are located at different points in time. I, for example, have spatial parts like arms and legs, but I also have temporal parts like a 5 year old, which is located at some point in 1996. In fact, I have multiple temporal parts that are located at all instants in the interval of time that I have existed. The aggregate of all the temporal parts that an object consists of makes up a worm-like object that extends through time from the object’s creation to its cessation. This whole four dimensional worm-aggregate I will call a *continuant*.

There are a few different versions of four dimensionalism. Some hold that only past and present temporal parts exist³ while others hold that also future temporal parts exist. The latter position is called *eternalism* and it is the view that Theodore Sider maintains (Sider 2001:25).⁴

Sider also holds to a type of four dimensionalism called *stage theory*. In the following section, I will give a very brief outline of this view. The goal in this section is to explain why Sider must give additional explanation of how objects persist. I then move on to give an account of the temporal counterpart theory, which is just this explanation, and finish with a discussion of this theory.

The Stage Theory

There are two main versions of four dimensionalism. The first is the version that Lewis put forward, known as *perdurantism* or the *worm theory*, and the second version, which Sider is a proponent of, is called *stage theory*. Both agree with four dimensionalism as it is explained in the previous section, but they differ on what they take ordinary objects to be. The stage theory takes ordinary objects to be the instantaneous temporal parts, known on this view as *stages*, while perdurantism claims that the four dimensional worms, the continuants, are ordinary objects



Illustrasjon: Jon Peter Vorren

(Sider 2001:60–1). To exemplify, let me analyse the sentence “the cat is on the mat” in both perdurance and stage theory terms. On the perdurance view, ‘the cat’ refers to the whole four dimensional cat-continuant, i.e. all of the temporal parts that make up the continuant cat. On the stage theory, ‘the cat’ refers to the cat-stage that exists at the time of utterance.⁵ Throughout the four years that some cat, *Tibbles*, has lived, there are several instantaneous stages constituting her. Since objects are stages (and stages are objects), all of these instantaneous stages are individual cats. Each of which only exist for an instant. Many issues then arise, two of which I will excavate in the following section: Firstly, if ordinary objects are instantaneous stages, then they do not persist and so Sider does not actually have a theory of how objects *persist*. Secondly, if every instantaneous stage is an individual object, then ‘Tibbles’ does not refer to one cat, but a whole bunch of kitties! To account for these problems, Sider proposes a theory of *temporal counterparts*.

Temporal Counterpart Theory

The counterpart theory that Sider employs for his stage theory is based on the modal counterpart theory that Lewis presented in *On the Plurality of Worlds*. In Lewis’ theory of modality, he accounts for modal talk about individuals by proposing that there may be a counterpart of a particular individual in other possible worlds (1986:194). He does this because he has to abandon trans-world identity. This theory claims that the *actual* world and all possible worlds overlap in such a way that the actual individual is identical to any of its modal versions.⁶ I.e. an individual that exists in this world, the *actual* world, is identical to all the possible versions of itself. The actual G.E. Moore, e.g., is identical to all the possible versions of G.E. Moore, for instance the ones without any hands. So G.E. Moore is a shared part of all the possible worlds that contain a version of G.E. Moore.

A problem arises from this identity claim. This problem is that a trans-world individual has different properties in the different worlds. Since a shared part of multiple worlds is really one and the same individual, an implication will be instantiation of contradictory properties (Lewis 1986:200). Consider this example: The actual G.E. Moore has two hands, and some possible version of G.E. Moore has none. The actual and this handless possible G.E. Moore are identical, and so this trans-world G.E.

There is a possible world where there is a counterpart of the actual G.E. Moore, and, this counterpart has no hands.

Moore has both two hands and no hands. Clearly this is unacceptable. Everything either has F or $\neg F$, and never both.

It would not help to argue that actual and possible individuals are identical, yet instantiate incompatible properties *at different worlds*, e.g. by saying that an individual is F at world w_1 and $\neg F$ at world w_2 . This relativizing of the instantiation makes no sense unless we are relativizing to different parts of the individual. An individual could then have a part at world w_1 that is F , and another part at world w_2 that is $\neg F$. However, the identity theory does not claim this. It claims that an individual x at w_1 and its possible version y at w_2 are identical. Since x and y instantiate F and $\neg F$ respectively, we get a contradiction.

The solution must be to accept that individuals in separate worlds are not identical to each other. A different way to account for the relation between actual and possible individuals is to say that they are all mere parts of one whole individual. This is what counterpart theory does. Modal counterpart theory analyses modal statements by way of counterparts in possible worlds. The modal statement ‘G.E. Moore could have had no hands’ is analysed like this: There is a possible world where there is a counterpart of the actual G.E. Moore, and, this counterpart has no hands.

Employed in stage theory, the counterpart relation is temporal rather than modal. Simply put, temporal counterpart theory allows the stage theorist to analyse persistence statements about objects in such a way that objects persist by having counterparts at other times.⁷ Take an object, a , which is a stage that exists at instant t . Considered alone, a does not persist, since it is instantaneous, but a has multiple temporal counterparts that exist at either earlier or later times. These are all the other stages that make up the continuant that a is a temporal part of. Our cat Tibbles, for instance, is a continuant cat consisting of multiple instantaneous stages that are counterparts of each other, making Tibbles a persisting thing.

Temporal counterpart theory defines persistence by saying that an object *was* F iff it has a temporal counterpart that is F . Likewise, an object *will be* F iff it has a future temporal counterpart that is F (Sider 2006:14). The ‘is’ in ‘is F ’ in these definitions is to be read tenselessly. So the future temporal counterpart of an object a , where a is a stage S_1 that exists at time t_1 , is a stage, S_2 , that exists at a time, t_2 , where t_2 is later than t_1 . Take a banana-continuant as an

example. Let us say that our banana is green on Monday and that it is yellow four days later, on Friday. The banana-continuant then has a temporal part sometime t_1 on Monday, call it the instantaneous stage S_1 , which has the property G (green). It also has a temporal part sometime t_2 on Friday, call it the instantaneous stage S_2 , (and $t_1 < t_2$, of course), and S_2 has the property $\sim G$ (since it is yellow, which is incompatible with being green). For the two objects S_1 and S_2 to be part of one and the same persisting banana-continuant is for there to be a counterpart relation between the two such that we can say about S_1 that it has the temporal property ‘*will be* $\sim G$ ’. The temporal counterpart relation lets us analyse this statement about future instantiation like this: S_1 has a temporal counterpart at t_2 , i.e. S_2 , which has the property $\sim G$ atemporally (Sider 2006:14).

Furthermore, the counterpart theory is supposed to allow for a continuant to be considered as *one*, even though there are in fact multiple objects (stages) constituting the continuant. Sider’s solution is to bring in a notion of *perspective* (Sider 2006:19) when talking about continuants. The idea is that speakers sometimes refer not to a single stage, but to a certain interval of time. The specific time interval is implicitly or explicitly the “temporal topic” of the utterance, and it determines what objects satisfy ordinary predicates, what the referents of names are and the range of (unembedded) quantifiers (Sider 2006:19). When talking about Tibbles and her whereabouts the last hour, for instance, we are not referring to a bunch of cats and saying that they have all been at the same or different places throughout the hour. Rather, we are taking all the cat stages that constitute Tibbles throughout the specific hour as a sort of compound referent (Sider 2006:19). These stages constitute Tibbles through being counterpart related to each other. It is the counterpart relation that lets us do this, since it is this relation which groups a certain set of stages together into one continuant, such as Tibbles.

When we talk about our cat Tibbles, we mean to say that she is one cat, not many cats making up one continuant cat. This implies that Tibbles stays identical to herself throughout her lifetime; Tibbles is one and the same cat throughout her lifetime. The Tibbles under the coffee table today is the same cat as the kitten playing with a string four years ago. However, the stage theory seems to contravene this. The kitten stage S_1 and the stage of today’s

Tibbles S_2 are two different objects. Identity is a “relation” between a thing and itself, never a relation between two separate objects. Therefore, kitten-Tibbles and today’s Tibbles are not identical.

The counterpart relation differs from the identity relation on several points. The counterparts need not have exactly the same intrinsic properties (Lewis 1986:202), which, as Leibniz’ law suggests, two identicals must.⁸ While the identity relation is both symmetric and transitive, the counterpart relation need not be either (Lewis 1968:115–6). An individual x in a possible world w_1 may have a counterpart y in a possible world w_2 , even though x is not y ’s counterpart in w_1 , so the relation need not be symmetric. The counterpart relation need not be transitive either; x ’s counterpart at w_2 , y , may have a counterpart z in possible world w_3 , without z being a counterpart of x . This means that the counterpart relation, which is meant to give an account of persistence, either does not succeed at capturing persistence, or redefines or specifies what persistence is. If the normal understanding of persistence is that one and the same object exists at multiple times, then the stage theory does not talk about persistence. However,

Lewis’ initial definition of persistence does not say that it is an *object* that must exist at different times. I think the stage theory can formulate

its own definition of persistence, which both fits Lewis’ neutral ‘persistence’ and our idea that objects persist.

Specifying persistence

The stage theory accounts for persistence by way of the temporal counterpart relation, and by doing so, specifies the definition of persistence as Lewis states it. “[S]omething **persists** iff, somehow or other, it exists at various times” (Lewis 1986:202) cannot mean that an *object* persists by existing at more than one time, because, on the stage theory, an object is an instantaneous stage, and so cannot exist at multiple instants. But by combining Sider’s temporal counterpart theory with his idea of perspectives, we can specify the definition in a satisfying way. Let the subject x in ‘ x persists’ refer to all the stages that constitute a continuant. This means that when we say, e.g. “Tibbles persists” we are implicitly taking the perspective that incorporates all the stages that constitute Tibbles throughout her lifetime. By doing so, we are talking about something that does exist at multiple times. So, some x persists by having multiple stages that are counterpart related to each other.

Our cat Tibbles is a continuant cat consisting of multiple instantaneous stages that are counterparts of each other, making Tibbles a persisting thing.

This x is not an ordinary object, because ordinary objects are stages, according to Sider (2001:60). However, if we change perspective, and say about Tibbles now that “she is a persisting object,” then we are referring to the current Tibbles-stage, and saying about it that it is counterpart related to all the stages that constitute the continuant Tibbles, making her a persisting object.

In this article, I have briefly introduced the stage version of four dimensionalism, and explained its apparent problem with persistence: Since objects are instantaneous stages, they cannot persist. The temporal counterpart theory is Sider’s answer to how objects persist, but this does not comply with the idea that persistence means staying identical through time and change. Instead of rejecting persistence, Sider argues that objects persist by being counterpart related to past and future stages of the same continuant. However, the counterpart relation is not an identity relation, so persistence is not a matter of identity after all.

Illustrasjon: Thomas Falla Eriksen



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NOTES:

- ¹ This article is based on a part of the third chapter of my master’s dissertation and thus will have quite a few similarities with it, though the dissertation will be further developed and more comprehensive.
- ² ‘Persist’ will be the neutral word for ‘existing at more than one time’ following Lewis’ convention set in *On the Plurality of Worlds* (1986). How things persist is answered differently by various philosophers, and each of these ways has received a name of its own. ‘Perdurantism’, for instance, is defined as persisting by having temporal parts (1986:202). Since Lewis believes in perdurance, his theory is often dubbed *perdurantism*.
- ³ See for instance Broad (1923).
- ⁴ For more information about eternalism and other possible versions of four dimensionalism, see Sider (2001 chapter 2 and 3).
- ⁵ Since the stages are instantaneous, and utterances are not, it is hard to say exactly what stage – or stages – one refers to. This is discussed to some extent in Hawley (2001:57–62).
- ⁶ For an introduction to Lewis’ theory of modality and his reasons for abandoning trans-world identity, see his *On the Plurality of Worlds* (1986).
- ⁷ By ‘persistence statements’ I mean just any statement that suggests in any way that an object continues to exist over time.
- ⁸ By ‘Leibniz’ law’ I understand his principle of indiscernibility of identicals, which says that two things that are identical – i.e. if they are in fact *one thing* – then they share all the same properties. This is the formalisation: $\forall x\forall y(x=y \rightarrow \forall F(Fx \leftrightarrow Fy))$ (Look 2014:3.5 Principle of Identity of Indiscernibles (PII)).



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