

Can One Separate Me From My Life?

A Runggaldier-sympathetic perspective on four- vs. three-dimensionalism

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1. *The positions*

The debate between three- and four-dimensionalism is still alive in analytic ontology. It does not concern some special worries of some special metaphysicians, but a question of general importance, touching on the limits of scientific knowledge and the possibility of integrating it into one coherent world-view with our everyday ontology and the prerequisites necessary to explain agency.

Four-dimensionalism comes in several variants. The two most important ones are the following:¹

(Temporal Parts) Physical objects are four-dimensional parts of four-dimensional spacetime which have the form of spacetime ‘worms’ stretched-out along the time axis. The most outstanding consequence of this thesis is that things are temporally extended and, thus, have temporal parts. Other consequences include that, at a given time *t*, objects are not wholly but only partially present. Their mode of persistence through time is perdurance, i.e., objects are identical to the series of stages of their existence. According to this understanding, four-dimensionalism is the denial of three-dimensionalism or the ‘no temporal parts doctrine’.

(Reality of Non-Present Objects) There is no ontological difference between past and present objects. They both exist in the same sense. With respect to the status of future objects, one can distinguish *eternalism*, which claims that past, present, and future objects exist on a par, from the

growing block theory which claims the existence of past and present objects only. According to eternalism, spacetime has no distinguished hyperplane orthogonal to the time axis which could be called ‘*the present*’, and hence there are no tensed facts in the strong sense of a McTaggart A-series of time. The opposite thesis to both variants, eternalism and growing block theory, is *presentism*, i.e., the claim that only presently existing objects really exist.

In this paper, I will focus chiefly on the first variant of four-dimensionalism as opposed to three-dimensionalism. Four-dimensionalists hold that ordinary things have temporal parts, while three-dimensionalists deny that. In their eyes, things (not only a temporal part of them) are wholly present at each moment of time at which they exist. Things are extended in three spatial dimensions, but not in time. So, three-dimensionalism and four-dimensionalism disagree about the identity of temporally persisting objects. Following David Lewis, we can say that an object persists iff it exists at various times. Four-dimensionalism holds that a physical object persists through time by having different temporal parts at different times, ‘though no one part of it is wholly present at more than one time’ (Lewis 1986, 202). This mode of persistence through time is called ‘perdurance’. According to three-dimensionalism, in contrast, physical objects ‘endure’, that is, they are ‘wholly present at more than one time’.

Edmund Runggaldier holds the attractive thesis that four- and three-dimensionalism are in a way compatible (Runggaldier 2010, 28). According to him, four-dimensionalist models of reality can be successful in the sciences without forcing us to accept them as adequate pictures of reality in itself (Runggaldier 2007a, 2007b). I propose to extend this into the thesis that, in an integrative metaphysical perspective in the spirit of Muck (Löffler 2010), one cannot even separate the two theories. My argument for their intricate interrelation is grounded on the assumption that one cannot separate me from my life – although we are surely not identical.

2. *The battle*

In this section, I want to discuss some (not all) of the prominent arguments on three- vs. four-dimensionalism.

To begin with, three-dimensionalists find the idea of temporal parts of natural objects in our *Lebenswelt* strange. They resort to our natural ways of speaking according to which we say that physical objects exist at some

¹ Both meanings of 4-dimensionalism should be kept separately; see (Rea 2003, 246–247), who understands 4-dimensionalism primarily as a thesis about the ontological status of non-present objects (as opposed to presentism) and proposes to use ‘perdurantism’ for the denial of three-dimensionalism. For the sake of this paper, I will stick to the widespread way of talking in calling perdurantism also (a variant of) ‘4-dimensionalism’.

times t_1 and t_2 , but not that temporal parts of them exist at those times. If I have changed between t_1 and t_2 , then there must be differences between me at t_1 and me at t_2 , although “I” must somehow refer to the same person about which one says that it had changed from t_1 to t_2 . Hence there is a substantial question for identity conditions. The whole point of personal identity is to theoretically combine a change in properties or relations with the presupposition that it is nevertheless one and the same subject (me) who has undergone that change and remained identical to itself during it. To illustrate this, imagine me at the age of 2 and my son having now grown to this age. He resembles me as a 2-year old much more than I as grown up today could ever resemble myself as a 2-year old boy. But nevertheless, the point of personal identity is that I (today) am me (some 30 years ago), and not my son (today).

Another point in favour of three-dimensionalism concerns the explanation of our actions and the articulation of the beliefs relevant to actions (Runggaldier 2007a, 2007b). This includes the phenomenon of indexicality. What a person refers to by using expressions like ‘here’, ‘now’, or ‘I’ depends on when and where she utters a statement containing such indexical expressions. Four-dimensionalism cannot, it is said, take this point into account. One may call it ‘subject-centeredness’ or ‘prevalence of a first-person-perspective over a third-person-perspective’. A four-dimensionalist’s semantics has to replace all occurrences of, say, ‘I’ and ‘today’ in an utterance by Edmund Runggaldier on 24 August 2011 by non-indexical expressions like ‘Edmund Runggaldier’ and ‘on 24 August 2011’. This admittedly eliminates some philosophical puzzles about indexicals. But it also obstructs the way to access important aspects of the first-person-perspective in the explanation of actions – like our reasons guiding them, the viewpoint ‘from somewhere’, the way it feels to act, the presupposition of being the same person who will enjoy (or suffer) the consequences of that action etc.

The ascription of moral and legal responsibility points in the same direction. If I did something wrong yesterday, it is me who can be blamed for it today. Obviously, referring to the fact that it was some other part of me who lapsed, but not the same part one is actually talking to, is never a good excuse. However, this is not what a four-dimensionalist is committed to. He can reconstruct the relevant responsibility ascription via a little detour, starting from today’s part of me (=whom one is talking to) to the four-dimensional *whole* it is part of (=me), to yesterday’s part of this whole

(=who lapsed). So, the critique shrinks to charging four-dimensionalism such a detour in reconstructing a morally and legally basic mechanism.

In contrast, some philosophers have argued that the natural sciences strongly suggest a four-dimensional ontology. One of the greatest advocates of four-dimensionalism was Willard Van Orman Quine (see for example Quine 1960, §36; 1981, ch. 2). The doctrine of ontological naturalism instructs us to consider science as the authoritative source for learning what there is and what the basic structures of reality are. In a naturalistic mindset, therefore, the success of the scientific four-dimensional picture of the natural world is pressing towards a general metaphysical claim that things are indeed four-dimensional.

Sometimes an argument from Leibniz’ principle of *indiscernibilitas identicorum* to four-dimensionalism is brought forward. According to Leibniz’ principle, if a and b are identical, they must share each and every property. In a non-temporal version, this principle seems to contradict the combination of change and identity through time. It does not allow that a has P and $non-P$ (at different times). As opposed to enduring objects, perduring objects do not suffer the same problem, for what is usually predicated of *one* object is now predicated of *two* stages or phases of an object. This argument, however, is not cogent, since instead of integrating time into the objects one could also read Leibniz’ principle in a temporal way, for example: If a and b are identical, then for every time t , a and b must share each and every property they have at t . This temporal version well allows for a having P and $non-P$ at different times.²

Metaphysical four-dimensionalism, on the other hand, brings with it some problems when it comes to reconstructing our everyday ontology or the advanced ontology required for a philosophical analysis of agency. Some of the problems have been discussed above. As far as I can see, here lies the reason why so many philosophers strongly resist four-dimensionalism although they are interested in a scientific picture of the world and an integrative understanding of our lives including scientific

² It may be interesting to note that Bernard Bolzano builds this point right into his definition of time. According to him, time is a determination which we have to add to the idea of a substance in order to find among each predicate P and its contradictory $non-P$ one which can truthfully be ascribed to the substance while the other is denied of it (see *Paradoxes of the Infinite*, § 39).

elements. To be more precise: many of them resist the amalgamation of four-dimensionalism and ontological naturalism, not four-dimensionalism *per se*. If it were correct that four-dimensionalism was indispensable for natural sciences, the counter-position would necessarily be hostile to the scientific endeavour.

Runggaldier, like many other proponents of three-dimensionalism, is by no means an ‘enemy of science’. Instead he sympathizes with an analysis of scientific reasoning by Muck, who holds that the success of scientific reasoning is founded on its distance to subjectivity and its restriction of perspective and method (Runggaldier 2007a, 2010). Scientific claims therefore can be true and successful, but insofar as they are won by sort of parenthesizing parts of reality, they cannot claim unrestricted universal validity. If one makes use of effective models one must not forget that they are, in fact, models that reproduce only part of reality.

Hence, four-dimensionalism is all right for the regional ontology of the sciences, while this does not force us to accept its counterpart in fundamental or general ontology. Even if four-dimensionalism is an indispensable ingredient of the scientific quest of knowledge, we need not embrace it as a thesis about how things really are. This is due to the fact that the scientific quest makes up only part of our general quest for understanding ourselves and the world. Parenthesizing some parts of reality surely is a good starting point for the generation of scientific knowledge, but it is a bad starting point for an argument against the existence of the parenthesized parts.

So, Runggaldier favours a three-dimensionalist theory which better allows for the explication of indexical speech acts, human agency, and the linguistic inconvenience of talking about temporal parts of me. Let me thicken his argument slightly: When by ‘I’ I refer to me, then in statements about what I did yesterday, do today, and will be doing tomorrow, I do not refer to other parts of me, but to myself in different circumstances. Temporal circumstances, however, resemble much more the places at which I can be than the places of my spatial parts. Paradoxically, just this resemblance between time and space seems to me to be one of the best arguments in favour of three-dimensionalism.

3. *The pacification (attempt)*

In our everyday language we indexically refer to ourselves and explain the actions of persons in ways that seem to fit much better into a three- than a four-dimensionalist ontology. We say that you celebrating your 65th birthday are the same person as you when you were born – otherwise there would be no birthday to be celebrated (or uncountably many birthdays, which is likewise unsatisfactory). Hence, in our everyday metaphysics people are conceived of as enduring things rather than as spacetime worms. Yet, there is something corresponding quite well to the spacetime worms of four-dimensionalism, namely our lives (or our personal history). Whilst the three-dimensionalist has it that I am a three-dimensional object enduring through time, he will probably agree that my life is not such a three-dimensional object enduring through time. My life, instead, is extended in time. It is more of a process than of an object. And it has temporal parts: my birth, my childhood, my studentship etc. Furthermore, it is quite plausible to conceive of my life as having also a spatial extension at a given time, namely my (living) body: there is no living of me outside of my body and no part of my body not belonging to the respective moment of my life.³

If this is true, then the difference between ontological three-dimensionalism and four-dimensionalism seems to reduce to the question of what the personal pronoun ‘I’ refers to: me or my life? The three-dimensionalist holds that ‘I’ refers to me, that I do not have temporal parts, while my life has such parts. The four-dimensionalist, in contrast, maintains that ‘I’ refers to that which the three-dimensionalist calls ‘my life’,

³ This thesis needs further discussion and, maybe, modification. Does my life extend to the tumor which has just been excised from my stomach? One is inclined to say no, in perfect harmony with saying that the tumor is not part of my body anymore. Though, does my life extend to the finger which I had lost in an motor saw accident and which was successfully sewed-on again? And what about the finger during the time of its detachment? If one wants to hold that my life extends also to biologically living parts which are temporally detached from the rest of my body, the thesis would require us to call detached (ex-)parts of my body parts of it. But this may lead into aporia in case a former part remains detached. So, by *modus tollens*, the thesis would require us to say that although a detached part of my body is biologically living and the detachment is only for a limited period of time, my life is not extending to that part. If this consequence turns out too uncomfortable, one had to modify the thesis that my body is the spatial extension of my life.

and that what the three-dimensionalist calls ‘me’ is just a temporal part of what the four-dimensionalist calls ‘me’, namely, a slice through the worm orthogonal to the time axis.

Storrs McCall and Jonathan Lowe (2006) have proposed that even the notion of a temporal part can be reconstructed in three-dimensionalist terms. As physics tells us, continuously existing physical objects are made up of changing sets of particles (atoms or subatomic particles – whatever one likes here). For any continuously existing physical object *O* we can, therefore, consider $\langle O, t \rangle$ as the ontological sum of the particles which constitute *O* at time *t*. $\langle O, t \rangle$ so defined is readily available for a three-dimensionalist for it consists of the particles which endure through time. $\langle O, t \rangle$ however corresponds precisely to that which the four-dimensionalist calls a ‘temporal part’. Hence, there is a translation of statements (in a standard version) of three-dimensionalism into statements (in a standard version) of four-dimensionalism. McCall and Lowe conclude that the three- vs. four-dimensionalist controversy is a ‘storm in a teacup’ (McCall&Lowe 2006, 577).

What, then, is the actual difference between (the standard accounts of) three- and four-dimensionalism? It seems to lie in the difference between me and my life. But can they be separated? Am I something different from my life? Is my life something I could be removed from? Of course, non-removability is not sufficient for identity. Anyway, I would suggest that just as Aquinas once said ‘*anima mea non est ego*’ (*Super I Cor.* c.15 l.2), we can also say ‘*vita mea non est ego*’. Bluntly identifying me with my life would indeed be a category mistake (Lowe 2009, 51).

Do I have to blame the four-dimensionalist for a blunt category mistake then, as Lowe suggests? In my opinion, a reaction in Muckian style is much more attractive. As we have seen above, Muck holds that science has to parenthesize part of reality and that this is what makes science so successful in describing nature, finding laws, and explaining natural phenomena (Runggaldier 2007a, 89–90). For a four-dimensional spacetime perspective, I am not available in ways other than (synchronically) a spatial object with certain material constitution and (diachronically) an object with certain duration of life during which my synchronic constitution undergoes change. The physicalist perspective results in an abstraction, a limited picture of reality, like a photograph which falls short of reality not only in omitting two dimensions, but also sound, smell, touchability, temperature, air pressure, color fastness etc. Hence, the four-dimensionalist is per-

haps just speaking a little loosely when saying that I *am* the spatio-temporal worm of my life. He should better say that I am not available to the physical spacetime model of reality in other ways. Here we touch the large-scale discussion about reductionism and the critique on the ‘nothing-else-buttery’ (Julian Huxley, as reported by Lorenz 1983, 196f.).

Even if I am not identical to my life, we cannot be separated either. We ontologically depend on each other in a very strong sense. This was also Aquinas’ position. According to him, ‘being alive’ is a substantial or essential predicate for living things (*STh* p.I q.18 a.2). It is by no means accidental. If a living thing is no longer alive, it is no longer identical to itself, it would not exist anymore. ‘*Vivere nihil aliud est quam esse in tali natura*’ – in this nature (the nature of living things, of that what has the inbuilt capacity to move itself) to live is nothing else than to be. Hence, according to Aquinas, the life of the living is its being. My life and my being are identical. In contrast to God, I am not my life or my being, but the fact of my existence is the same fact as that of me living.

Put in a nutshell: In the four-dimensionalist spacetime perspective, I show up only in form of my life. My life is only part of what makes me up. Hence, the four-dimensionalist account of ‘me’ need not necessarily be condemned as a category mistake. Instead it can be taken as the result of a restricted perspective. I take this to show that four-dimensionalism in the sciences and three-dimensionalism in ontology are in fact more than compatible. They are strongly connected to each other.

4. Concluding remarks

Let me conclude with some methodological observations. Obviously, I was not able to hide my sympathy to many of the standpoints of Edmund Runggaldier with respect to three- vs. four-dimensionalism. We shall, however, give room for a very general critical question here: How do we know about all that? How do we know that, even though the four-dimensional model in the sciences is so successful, things truly are different? What those questions ask may be called ‘sources of metaphysical knowledge’. Which sources do we have?

In the works of Edmund Runggaldier, one can find some hints at sources of metaphysical knowledge (explicit or implicit): everyday ontology as built up during practical life in the *Lebenswelt*; explanatory power of agency in describing and understanding intentions (first-person perspective);

power to integrate different regional subtheories; rational deliberation; and, last but not least, scientific success. One may think about amending this list by adding basic truths like Moorean truths (part of *Lebenswelt*) and transcendental conditions of experience (Kant). And perhaps one could spend a thought about other possible sources like intuition, introspection, and revelation.

All these sources considered (except, perhaps, the last block of three), do we then have enough evidence to judge how things really are? Runggaldier's critique on the inference from scientific success to the truth of four-dimensionalist ontology teaches us a different lesson: Maybe not only science, but also metaphysics aims at *models* of reality. For they can come more or less close to reality, metaphysics should be freed from the overload of pretensions of certainty. I find the idea convincing that there is a methodological convergence between philosophy of science and metaphysics, not only with respect to integrative explanations (Löffler 2010), but also with respect to a model-based distance from excessive claims of truth and certainty. Science and metaphysics produce theories which are better or worse, depending on criteria such as coherence, extension, compatibility (to everyday metaphysics and the sciences) etc. And, if a last word of speculation is granted to me, *critical realism* may be a very promising meta-metaphysical doctrine. It would mean on the one hand that metaphysics is about reality so that theories can objectively be better or worse than others while this quality does not depend only on the purely internal properties of the theories. On the other hand, it would mean that metaphysics is aimed at models which are continuously in need of improvement, be it by critique or, rarely, by revision.

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