

This note gives 9 Temporal Knowledge Arguments and, also, makes a few observations about presentism.

1.

The Knowledge Argument can be stated:

(1) Mary knows everything there is to know about color but lives in a black-and-white room. On being released from the room into a colorful world it would seem Mary learns something new (the Knowledge Argument).

See footnote 1.¹

In [1] a Temporal Knowledge Argument was given. In view of Torrenco [2] we may formulate three Temporal Knowledge Arguments. They can be stated:

(2) Nicolas knows everything there is to know about the metaphysics of time but lives in a B-theory room. On being released from the room into an A-theory world it would seem Nicolas learns something new (the Metaphysical Temporal Knowledge Argument).

(3) Olivia knows everything there is to know about the semantics of time but lives in a tenseless room. On being released from the room into a tensed world it would seem Olivia learns something new (the Semantic Temporal Knowledge Argument).

(4) Paul knows everything there is to know about the ontology of time but lives in a block-world room. On being released from the room into a presentist world it would seem Paul learns something new (the Ontological Temporal Knowledge Argument).

There are a few things to say.

(A) There are zillions of proposals about how to handle the (original) Knowledge Argument—all of them interesting. This note will unfortunately not explore them nor how they relate to the Temporal Knowledge Arguments. It must suffice to say that it is expected that there are *many* ways in which the Knowledge Argument can inform the Temporal Knowledge Arguments and *vice versa*.

For example, *temporal zombies* are conceivable. We may entertain a *temporal direction inversion* argument. Etc. Going the other way, we might apply the Semantic Temporal Knowledge Argument to

¹ In a cognate paper I communicated that, effectively, “Would *Mary* learn something new?” is irreducibly *not* the same question as “Would *I* learn something new?” and this latter is not reducible to a knowledge argument that includes actual qualia (and qualia + equations = qualations) that the reader experiences him- or her- self (as opposed to *ideas about* or *references to* (names for) the qualia). To assume otherwise is to assume a restricted set of possible answers to the knowledge argument. If you assume that these versions of the argument are reducible to each other then you have effectively made assumptions that ignore what the argument was designed to address in the first place.

Can't we just *imagine* ourselves in the place of Mary? No. It would be like the classic mistake of cutting off a frog's legs and, upon making a noise, observe that the frog does not jump, and so conclude that frogs hear with their legs.

the original Knowledge Argument, (1), in the sense that it can be argued that such-and-such qualia need *new* terms in the language of the irreducible 1st-person.

(B) One subtlety I would like to mention is that, with respect to argument (4), (for example), it is not entirely clear how or when Paul *gets to the door* to be released into the outside world. If his state(s) are given by a block-world time-like world-line inside the room, then ‘when’ did he get to the door (if he even does), from the perspective of the presentist outside?²

(5) At some point the Reverse-Knowledge Arguments should be considered. In the case of color, the idea would be that Mary was outside, in the colorful world, and then goes *into* the black-and-white room. She has memories, but are these sufficient for her to (still(?)) experience color?

(6) I suppose that for completeness the Ambiguous-Knowledge Arguments should be considered, where, in the case of color, Mary is placed either inside the room or outside the room, but she is not told which. The question is then whether she can veridically decide (based on color) which was the case.

The three Temporal Knowledge Arguments (2), (3), and (4) can be modeled on the original Knowledge Argument, (1), the Reverse Knowledge Argument, (5), and the Ambiguous Knowledge Argument, (6). That gives 9 Temporal Knowledge Arguments. And this is, of course, before the many connections with the Knowledge Arguments are drawn out. For one example, the three kinds of questions in Footnote 1 arguably give us no less than 27 Temporal Knowledge Arguments(!)

2.

The only time that you can *demonstrate* an experimental outcome to me is in the present (as opposed to the future or past). Of course, you can talk about and think about the future and the past all you want. But all *that* demonstrates to me is that you can talk and, I would infer, think, in the present.

Therefore every scientist, by Occam’s Razor, should be a presentist.

Some will protest: Special Relativity was deduced from empirical observations, and it says simultaneity is relative, so there is no (privileged) present moment or ‘now’. This conclusion is based on several errors.

First, note that when Alice, who we will assume is standing in the middle of, and at rest relative to, a train station platform, receives information about when lightning struck the ends of the platform (which we will suppose were simultaneous in her reference frame), she does so *in her present*. This is empirically given data. So any subsequent theorizing by her cannot veridically show otherwise—*that* theorizing would also take place in her present.

² At first this might (but might not) seem to be a case for the moving-spotlight theory. But readers of some of my other papers know I’m not a fan of the moving-spotlight theory. The problem is that, if the spotlight is at world-line location 1, and then at world-line location 2, then *neither* location is ontologically privileged (which the present is). (And spotlights on super/hyper times have the same problem.) The upshot is that the moving-spotlight theory simply does not model presentism.

In a cognate paper I’ve proposed an ‘un-moving spotlight’ theory, where the world-line moves past a single(!) privileged (and non-relational) present, and does so via an operator that irreducibly *operates* (irreducibly a *verb*). This suffers from neither multiple presents nor super/hyper times. But it is early days.

Second, note that ‘simultaneous’ need not be the same thing as ‘a universal present’. An interpretation of quantum mechanics has been put forward in which Alice’s frame of reference (which now includes an A-series) does indeed extend throughout space at what is for her a present moment. But it does not include the information about ‘when’ Bob’s present (his A-series) is (where of course Bob is standing in a train car the same length of the platform that is moving along the platform relative to Alice’s frame of reference, considered when Alice and Bob line up). And *vice versa*.

Third, note that the first conclusion above assumes there are multiple quantum systems (Alice and Bob) within the *same* 4-dimensional spacetime (in which there is one B-series coordinate t and three spatial coordinates x^a). That is not the case in the interpretation mentioned above (in which each quantum system forms interrelated fragments of reality that contain their own spacetime which includes a fifth coordinate τ for the A-series in that fragment and in which the fragment does not have information about another fragment’s A-series) and—the history of theoretical physics would argue—is surely not the case in a consistent theory of quantum gravity that has three spatial dimensions.

Fourth, note that if presentism is correct, then any models and applications of models must obtain only in the present and within the ‘temporal flow’ or ‘becoming’ that is usually thought of as being part of presentism. So if presentism is correct then it cannot—in actuality—have veridical models that claim reality for future or past times.

Fifth, it may not be obvious but it is nevertheless self-evident (I would claim) that 1-st person phenomenal data take precedence over the terms in *theories about* that data.

Sixth, at the risk of gross over-simplification, one might say that the times of quantum mechanics are (fragmental) A-series and the times of relativity are B-series, with the obvious caveat that these series are related in various ways.

The operator mentioned above corresponds to projections (in the respective Hilbert spaces) that collapse the state-vectors of two systems when and only when they ‘become’ to be the same A-series and thereby become the same fragment.

3.

Many many more things to say, but I’ll leave it there for now.

References

1. There are about a dozen papers under my name that pertain to the theories and models of this note on PhilPapers.
2. Torrenco, G. *Tenseless Time vs. Tensed Truthmakers*, Footnote 1, From the book [Fostering the Ontological Turn](https://doi.org/10.1515/9783110325980.253) <https://doi.org/10.1515/9783110325980.253> [https://www.degruyter.com › document › doi › pdf](https://www.degruyter.com/document/doi/10.1515/9783110325980.253/pdf)

This might very well be the 3rd most important footnote in theoretical science. The 1st one would be Max Born’s footnote that the probability of measurement of such-and-such a vector contributing to a

quantum state is given by the *modulus squared* of its coefficient, as opposed to the coefficient itself. The 2nd would be Kurt Godel's footnote in his Undecidability paper that the unprovable proposition in question is, in fact, *true* (because it asserts its own unprovability).