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# Knowledge Arguments for Time

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## Abstract

Jackson (1982) introduced the Knowledge Argument to elucidate the phenomenal, interior aspects of experience. In 1908 McTaggart defined two series that characterize one dimension of time, the A-series and the B-series. The A-series is usually thought to be phenomenal Farr (2019), SEP (2018). Thus there is the possibility of giving a Knowledge Argument for time. One (informal) statement of the classical Knowledge Argument might be “Mary knows all the facts about color qualia but lives in a black-and- white room. Upon being released into a colorful world, it would seem she learns something new.” The analogous Knowledge Argument for Time (KAT) would be “Nathan knows all the facts about time but lives in a B-series room. Upon being released into a world with both an A-series and a B-series it would seem he learns something new.” I give variations of the KAT based on various distinctions. I don’t give any particular proposed solutions to the Knowledge Arguments for Time. Rather, the point is to state the Arguments (or indicate how they may be stated). It may be hoped that these will help clarify some issues in the philosophy of time and lead to a cross-fertilization between the philosophy of time and the philosophy of mind.

## 1. Introduction

The name “The Knowledge Argument” is standard usage. In this paper the word “Argument” should be understood more in the sense of a thought-experiment. I will stick with the name “Knowledge Argument for Time,” abbreviate it KAT and sometimes express the Argument as an open question.

McTaggart (1908) introduced two series that characterize one dimension of time. There is the B-series and the A-series:

*“Positions in time, as time appears to us prima facie, are distinguished in two ways. Each position is Earlier than some, and Later than some, of the other positions [the B-series]. And each position is either Past, Present, or Future [the A-series]. The distinctions of the former class are permanent [for time-like separated events], while those of the latter are not. If M is ever earlier than N, it is always earlier. But an event, which is now present, was future and will be past.”*

McTaggart’s A-series is usually thought of as having two components: 1. a ‘future/present/past’ spectrum, and 2. some dynamic notion of ‘becoming’. The B-series is usually thought of as an ordering from earlier-times to later-times.

A *B-theory* is a model of time in which the B-series is taken to be fundamental (i.e. the A-series is reducible to the B-series in some way). An *A-theory* is a model of time in which both the A-series and the B-series are taken to be fundamental (i.e. they are not inter-reducible and both are required).

The idea of this paper is this. If, informally, the classical Knowledge Argument is “Mary knows all the facts about color but lives in a black-and-white room. But on being released from the room into a colorful world it would seem Mary learns something new,” then there is a corresponding KAT “Nathan knows all the facts about time, but lives in a B-theory room. But on being released from the room into a A-theory world it would seem Nathan learns something new.”

This paper suggests variations on this Argument employing various distinctions.

## 2. 3 KATs

One may begin with a more precise statement of the classic Knowledge Argument. The SEP (2021a) states the stronger of two versions as

### (2.1)

(2.1a) Mary knows all the *physical facts* concerning human color vision before her release (from a black and white room into a colorful world).

(2.1b) But there are *some facts* about human color vision that Mary does not know before her release.

Therefore

(2.1c) There are *non-physical facts* concerning human color vision.

This suggests the KAT:

### (2.2)

(2.2a) Nathan knows all the *temporal facts* concerning human time before her release. (from a B-theory room into an A-theory world or room).

(2.2b) But there are *some facts* about A-theory worlds that nathan does not know before his release. (Namely, what it is

like to live in an A-theory world. Indeed, *what it is like* to live in an A-theory world. SEP 2021b)

Therefore

(2.2c) There are *non-B-theory facts* concerning time.

Here (2.2) is meant to be exactly analogous to (2.1), whatever the best formulations of the Arguments turn out to be.

I will give two more KATs. A Reverse KAT:

**(2.3)**

(2.3a) Nancy is in an A-theory room.

(2.3b) But there are *some facts* about A-theories that Nancy forgets upon her release into a B-theory room. (Namely, what it is like to live in an A-theory room. And indeed, to reiterate, *what it is like* to live in an A-theory world.)

Therefore

(2.3c) There are *non-B-theory facts* concerning A-theory worlds.

And an Ambiguous KAT:

**(2.4)**

(2.4a) Nancy is gently dropped into either an A-theory room or else a B-theory room.

(2.4b) Nancy can veridically determine which room she was dropped into.

Therefore

(2.4c) There are *non-B-theory facts* concerning A-theory rooms.

The point for the present purposes is not to take sides on possible responses, but to just state the Arguments. Thus (2.2) through (2.4) give three TKAs. These three TKAs should be distinguished from each other, at least initially.

One subtlety to be mentioned is that, with respect to Argument (2.2) (for example), it is not entirely clear how or when

Nathan *gets to the door* to be released into the outside world. If his state(s) is(are) given by a B-series time-like<sup>[1]</sup> world-line inside the room, then ‘when’ did he get to the door (if he even does), from the perspective of an A-theory (presentist?) outside? He gets to the door at the same time as when he started. This question persists in various forms for the TKAs below.

### 3. 9 KATs

Torrenco (2013) makes the useful distinction between the *ontology*, the *metaphysics*, and the *semantics* of time. With respect to the KATs these might be stated:

**(3.1)** Nathan knows all the facts about the ontology of time but lives in a block-world room. On being released from the room into a world that has a presentist ontology it would seem he learns something new (the Ontological Knowledge Argument for Time).

**(3.2)** Nathan knows all the facts about the metaphysics of time but lives in a B-theory room. On being released from the room into a world that has an A-theory metaphysics it would seem he learns something new (the Metaphysical Knowledge Argument for Time).

**(3.3)** Nathan knows all the facts about tensed rooms but lives in a tenseless room. Upon being released into a tensed room it would seem he learns something new (the Semantic Knowledge Argument for Time).

Choosing a TKA based on one of the three Arguments (2.2) – (2.4) and one of the three Arguments (3.1) -(3.3) gives a total of 9 TKAs. Here are 2 examples (all examples in this paper are chosen at random):

Combining (2.3) and (3.2) we have

**(3.4)** Nathan lives in an A-theory room and knows everything there is to know about the metaphysics of time. Upon entering a B-theory world it would seem he forgets something about the metaphysics of time.

Combining (2.4) and (3.3) we have

**(3.5)** Nathan is gently dropped into either an A-theory room or B-theory room and can tell which one. In whichever one he lands in, he is released from a tenseless sub-room into a tensed sub-room. Does he learn anything new?

### 4. 27 KATs

There are 3 more distinctions that might be made. Since this paper does not wish to propose theses about the arguments but only *state* the Arguments these distinctions must be made initially.

It could be argued that these 3 Arguments are (or could be) different:

**(4.1)** Would *Nathan* learn something new?

**(4.2)** Would *I* learn something new?

**(4.3)** Would *I experience* new phenomena?

To *assume* that these 3 arguments are in fact the same argument is to assume a *restricted* set of possible answers to the TKAs. If one *assumes* that the above versions of the argument are reducible to each other then one have effectively made assumptions that ignore what the arguments were designed to address in the first place.

Constructing an Argument from the three Arguments of section (2) and the three Arguments of section (3) and the three Arguments of section (4) gives 27 Arguments.

Here are two examples.

For the previous example (3.4) and (4.2) one has the Argument:

**(4.4)** I live in an A-theory room and know everything there is to know about the metaphysics of time. Upon entering a B-theory world or room it would seem I forget something about the metaphysics of time. In doing so, did I learn something new about the metaphysics of time?

The Argument of (2.4), (3.2), and (4.3) is

**(4.5)** I am gently dropped into an A-theory room or a B-theory room and can tell which one. I know all of the facts about time. Whichever room I am in, I then go from a B-theory sub-room into an A-theory sub-room. Will I experience anything different?

## 5. More KATs

It is sometimes argued that 1. the A-series (phenomenal) spectrum future/present/past, has a different nature than 2. the A-series phenomenon of 'becoming'. The different proposals for these give 4 different possibilities, namely

**(5.1)** the A-series spectrum and 'becoming' are reducible to the B-series.

(5.2) the A-series spectrum is reducible to the B-series but 'becoming' is not reducible to the B-series

(5.3) the A-series spectrum is not reducible to the B-series but 'becoming' is reducible to the B-series

(5.4) the A-series spectrum is not reducible to the B-series and 'becoming' is not reducible to the Bseries

Here are 2 examples:

Combining (2.4), (3.1), (4.2), and (5.3) one has:

(5.5) I am dropped into either an A-theory room or else a B-theory room. In either room, I know all the facts about time. Upon then going from a block-world sub-room to a presentist sub-room, would I learn something new: that the A-series spectrum is not reducible to the B-series, but 'becoming' is reducible to the B-series?

Combining (2.2), (3.3), (4.3) and (5.1) one has:

(5.6) I am in an A-theory room, using a tenseless language. If I then enter a B-theory room but use tensed language, would I experience that the A-series and 'becoming' are both reducible to the Bseries?

Here are four informal examples of the potential cross-fertilization of the fields.

(6.1) Consider a *zombie*, as given in the philosophy of mind. A zombie is a being just like a human except it does not have any subjective experience or qualia. Now, we have A-series characteristics (for the sake of this argument). But a *temporal zombie*, then, is a being just like a human except it does not have (or is not within) any irreducibly A-theory characteristics, meaning it is not in an A-series spectrum nor in a 'becoming'. It may be argued that a zombie is behaviorally indistinguishable from a human. So it might be argued that a temporal zombie is behaviorally indistinguishable from a human through time.

(6.2) We could adapt the Ambiguous KAT to the philosophy of mind. Ophelia is gently dropped into a room that is black and white, or else a room that has colors in it. The question is then whether Ophelia can tell which room she was dropped into, based on her (color) qualia.

(6.3) Classical Spectrum Inversion: It could be that my 'red' is your 'green' (for example). And it could be that our entire subjective color-spectrums are different, given the same external stimuli, which is called Spectrum Inversion, SEP 2020b.

(6.3.1) Temporal Spectrum Inversion 1: It could be that my 'forward' direction of time is your 'backward' direction of time.

(6.3.2) Temporal Spectrum Inversion 2: It could be that my 'future' is your 'past'.

**(6.4) Semantic Knowledge Argument for Time:** Sophia knows all the facts about the language of time. She then goes from a tenseless-language room into a tensed-language room. Does she learn anything new? (Or perhaps: can she express anything new?)

Classical Semantic Knowledge Argument: the beautiful Irena knows all the facts about the language of qualia. She then goes from a room whose language has terms that are ultimately reducible to 3rdperson referents, into a room whose language has terms that have irreducibly 1st-person referents. Does she learn anything new? (Or perhaps: can she express anything new?)

Other distinctions can be introduced, for example one could recognize that an Argument that states section (2) criteria and then section (3) criteria is not necessarily the same as an Argument that states section (3) criteria and then section (2) criteria. And different statements of the classical Knowledge Argument (2.1) could be given to begin with, giving the concomitant different statements of the KATs.

## 7. Conclusion

We gave 648 Knowledge Arguments for time and indicated where there might be fertilizations with the philosophy of mind.

## 8. References

- Farr, M. (2019) Explaining Temporal Qualia. *Phil-Sci Archive*, <http://philsci-archive.pitt.edu/16411/>
- Jackson, F., (1982), "Epiphenomenal Qualia", *Philosophical Quarterly*, 32: 127–136.
- McTaggart, J. M. E. (1908) "The Unreality of Time", *Mind* 17:457–73
- Oaklander, LN (2012) "on the R-theory, time is relational, that is, all ontological facts about time are understood as grounded in relations and that includes durations such as lasts as long as, or lasts longer than." "A-, B-and R-theories of time : A debate", *PhilPapers*, <https://philpapers.org/rec/OAKABA-3>
- **SEP** (2018) Dainton, Barry, "Temporal Consciousness," (a search gives 92 instances of the word "phenomenal" on this website about time) *The Stanford Encyclopedia of Philosophy* (Winter 2018 Edition), Edward N. Zalta (ed.), URL = [<https://plato.stanford.edu/archives/win2018/entries/consciousness-temporal/>](https://plato.stanford.edu/archives/win2018/entries/consciousness-temporal/).
- **SEP** (2020a) "Suppose that there is a C-series. One theory of the C-series is that it is an *adequacy series*. The things ordered by the C-series are *representations* of how reality actually is, and the relation that generates the C-series is *less adequate than y*." Section 3. McDaniel, Kris, "John M. E. McTaggart", *The Stanford Encyclopedia of Philosophy* (Summer 2020 Edition), Edward N. Zalta (ed.), URL =

<https://plato.stanford.edu/archives/sum2020/entries/mctaggart/>.

- **SEP** (2020b) Byrne, Alex, "Inverted Qualia", *The Stanford Encyclopedia of Philosophy* (Fall 2020 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/fall2020/entries/qualiainverted/>.
- **SEP** (2021a) Nida-Rümelin, Martine and Donnchadh O Conaill, "Qualia: The Knowledge Argument", *The Stanford Encyclopedia of Philosophy* (Summer 2021 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/sum2021/entries/qualia-knowledge/>.
- **SEP** (2021b) Tye, Michael, "Qualia", *The Stanford Encyclopedia of Philosophy* (Fall 2021 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/fall2021/entries/qualia/>.
- Torrenco, Giuliano. (2013) "TENSELESS TIME VS. TENSED TRUTHMAKERS". *Fostering the Ontological Turn: Gustav Bergmann (1906-1987)*, edited by Rosaria Egidi and Guido Bonino, Berlin, Boston: De Gruyter, 2013, pp. 253-260. <https://doi.org/10.1515/9783110325980.253>
- Queequeg, (2022), "The "D series" is a series of increments in misperception of the C series. The increments of the D series are increases or decreases in the clarity and accuracy of our perceptions.", John McTaggart's *The Nature of Existence*, <https://www.angelfire.com/md2/timewarp/mctaggart.html>

## Footnotes

[1] In General Relativity the time-like world-lines preserve the orderings of events, but the space-like time-lines do not. A world-line is basically the relativistic analogue of a typical timeline (with some complications).