Scientific Research Publishing

Open Journal of Philosophy, 2024, 14, 598-601
https://www.scirp.org/journal/ojpp
ISSN Online: 2163-9442
ISSN Print: 2163-9434

The Paradox of Motion

Pierre Sabatier

Independent Researcher, Paris, France
Email: piersabatier@gmail.com

How to cite this paper: Sabatier, P. (2024). The Paradox of Motion. *Open Journal of Philosophy, 14,* 598-601.
https://doi.org/10.4236/ojpp.2024.143039

Received: March 27, 2024
Accepted: July 28, 2024
Published: July 31, 2024

Abstract

Physical reality is always in a unique state, and its presence has no duration. Motion, as passing from one state of reality to another, requires at least two states. If physical reality is always in a unique state, there is no movement in it. For motion to exist, there must then be another dimension of reality—where unicity is replaced by plurality, i.e., by its negation—by an observer-created non-physical reality, an abstract representation of reality, where past states remain present and motion is possible. Motion then requires retaining the past, and retaining the past is possible only in the observer's representation of reality—in what Kant called phenomenal reality.

Keywords

Physical Reality, Motion, Unicity, Plurality, Non-Physical Reality, Phenomenal Reality, Kant

1. Introduction

Motion is so present everywhere in our lives that we find it perfectly natural and don't ask ourselves questions about it. As Heraclitus said, "panta rhei"—everything passes (Graham, 1997). What can be simpler than passing from one point to another or from one state to another? What can be more obvious?

But what is obvious frequently conceals implicit assumptions which may be interesting to question.

Since the times of ancient Greece, the question of motion has fascinated philosophers. In the 5th century BC, Parmenides denied the very existence of motion, calling it a sensory illusion (Palmer, 2009). It is in order to logically prove his master's idea that his disciple Zeno of Elea invented his famous paradoxes (Hugget, 2024). But their arguments were too counterintuitive to be accepted and the posterior authors continued to take motion as a fact—among them such famous names as Aristotle (Pellegrin, 2014), Galileo (Minois, 2000), Descartes

(Arbib, 2019), Newton (Smith, 2007) and many others. Since then motion has been studied from every possible point of view, it has been analysed, described and measured in all its different forms—relative and absolute, circular, rectilinear uniform, accelerated, etc., so that one could say that nothing new can be said about it. Yet it seems that all the concerned authors just took motion for granted and restricted themselves to its *modalities*, not its *conditions of possibility*. This is precisely the point that interests us here—because it is paradoxical.

It is generally agreed that motion is the passing of an object from one point to another or of a system from one state to another.

Let us consider object O. At instant t, O is in point A and only in point A. This position of OA implies a definite relationship between O and the surrounding reality, and beyond it, with reality as a whole. As O cannot be in several places at the same time, this means that at instant t, reality is in the configuration defined by OA and only it—reality—is in a unique state, identical with itself and only with itself. Let us call it its present.

The most infinitesimal change wherever in the immensity of the Universe is then enough for its present to cease being identical with itself. If we don't want to involve the whole Universe, let us consider my own modest person: at instant t, my body is in a certain present state. It is then enough for a single electron to slightly move around the nucleus of one of the innumerable atoms of which my body consists for this state to cease to be identical with itself. This move marks the end of its present state. It happened in the interval between its beginning and its end. Hence the present state of my person or of the Universe can remain identical with itself only if this interval is zero, if its beginning and its end coincide. In other words, the present state of reality can have only a zero duration—it is a punctual state.

Some centuries ago Saint Augustine reached the same conclusion in another way: if the present had a duration, he said, it would be divisible into parts—some past, others future, none present. Therefore the present can have no duration (Pusey, 2002).

Now let us consider the possibility of motion.

At instant t, O is in point A. At instant t', it is in point B. We conclude that O has moved. The state of reality OA does not exist anymore. It has been replaced by state OB. Reality is again in a unique state, identical with itself, but this state is different.

How do we know it is different?

For this, we must compare the two states. But this is impossible since the first state is gone, it has disappeared to be replaced by the second. If O can be in only one point at a time and if reality can be in only one state at a time, we are left again with only one present, which can be compared with no other since no other exists.

Thus motion can exist only if 1) state OA disappears, to be replaced by OB, and 2) if state OA does not disappear, to be compared with OB. State OA must at the same time be gone and remain present: this is what I call the paradox of

motion.

If reality is always in a unique and punctual state—be it OA or OB—there is no other state and nothing indicates that there was a previous one and that reality passed from it to the following. In other words, if reality is always in a unique and punctual state, there can be no motion. Parmenides and Zeno were right: reality is always identical to itself, and motion is impossible.

We think it is possible. But this requires OA to remain present after it disappears. If this is not possible in physical, ontological reality, it must be possible outside it.

Until now we considered only physical reality. If motion indeed exists, it suggests that there is another dimension to reality than mere physicality—a dimension where two successive states of reality can be present together, where unicity is replaced with plurality, i.e., a dimension that is the negation of physical reality: where OA is stripped of its physicality, *abstracted* from its physicality, where it becomes a non-physical reality—*an abstract duplicate of itself*.

This abstract dimension does not exist in physical reality, since it is its negation. To appear, it requires an act of transformation of physical reality into its opposite. This act, in turn, requires an acting agent—we call it the observer.

The observer is not necessarily human: every living being distinguishes itself from inert reality in that it can perceive reality, i.e., it can create a representation of it. The living being is part of physical reality. After millions of years of interacting with itself and self-organizing itself, physical reality has succeeded in creating a being able to perceive that which surrounds it, i.e., which can *interiorize* the outer world by transforming it into an abstract representation, into an *information*. This information is then stored in the observer's inner space (its memory) and used by it to make the world understandable and usable (Gibson, 1966; Crane & French, 2021; O'Brien, 2004).

The key point is that, instead of instantly disappearing, this information remains temporarily present in the living being's inner space, after that which it represents has disappeared from the physical world—it is *memorized*. In physical reality, only the present exists, in non-physical reality, there is also *the past*. Thus, the abstract representation of reality created by the living being has a *temporal depth* that ontological reality lacks. It is this temporal depth that allows the observer to safeguard state OA after it disappears and to know that object O moved from A to B.

2. Conclusion

Thus movement requires retaining the past, and this is possible only in the observer's representation of reality. Yet the movement is not an illusion. Its elements exist in objective reality—but they are dissociated, and they need a living agent to synthesize them. Movement is part of what Kant called phenomenal reality (Meiklejohn & Kant, 2003)—reality as it is for an observer who can memorize its past states, maintain them present when they are no more, for a temporal

being.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

Arbib, D. (2019). Descartes. In D. Arbib (Éd.), *Les Méditations métaphysiques, objections et réponses de Descartes Un Commentaire, Histoire de la Philosophie*. https://www.vrin.fr/livre/9782711628636/les-meditations-metaphysiques-objections-et-reponses-de-descartes

Crane, T., & Craig, F. (2021). The Problem of Perception. In *The Stanford Encyclopedia of Philosophy*. https://philpapers.org/rec/CRATPO-34

Gibson, J. J. (1966). *The Senses Considered as Perceptual Systems.* Houghton Mifflin.

Graham, D. W. (1997). Heraclitus' Criticism of Ioniaan Philosophy. In C. C. W. Taylor (Ed.), *Oxford Studies in Ancient Philosophy*. Oxford University Press. https://doi.org/10.1093/oso/9780198237600.003.0001

Hugget, N. (2024). Zeno's Paradoxes. In *The Stanford Encyclopedia of Philosophy* (Spring 2024 Edition). https://plato.stanford.edu/archives/spr2024/entries/paradox-zeno/

Meiklejohn, J. M. D., & Kant, I. (2003). *Critique of Pure Reason—Transcendental Aesthetics*. https://www.gutenberg.org/

Minois, G. (2000). *Galilée*. PUF.

O'Brien, D. (2004). The Epistemology of Perception. In *Internet Encyclopedia of Philosophy*.

Palmer, J. (2009). *Parmenides.* Oxford University Press.

Pellegrin, P. (2014). *Aristote, Physique*. Flammarion.

Pusey, E. B. (2002). *The Confessions of Saint Augustine, Bishop of Hippo.* Whitaker House. https://www.gutenberg.org/

Smith, G. (2007). *Isaac Newton.* The Stanford Encyclopedia of Philosophy, Fall 2008 Edition. https://plato.stanford.edu/archives/fall2008/entries/newton/