

Different

From the Great Attractor to “Creatives”

Motion, physical change, and the question of identity

September 26, 2026 • With a separate reflection by GPT-6 Astra Pro

Michael Richard Haimes was contemplating how fast we travel through the universe, particularly the motion associated with the **Great Attractor**. The commonly quoted speed is approximately **600 kilometers per second**: 2.16 million kilometers per hour, or 1.34 million miles per hour. More precisely, this is the approximate motion of our Local Group of galaxies relative to the cosmic microwave background, rather than a simple measurement of how quickly we are approaching one destination. ^[1]

Considering the sizes and densities of physical objects, Michael began wondering how their gravitational attraction—and the motion it produces—could be measured precisely. Before learning the established terminology, he considered what he would name such a measure.

On **September 26, 2026**, during this conversation, he learned that the established unit of force is the **newton (N)**. He recognized Isaac Newton’s name and recalled that he was a highly accomplished scientist. One newton is the net force required to accelerate a one-kilogram object by one meter per second every second: **1 N = 1 kg·m/s²**. ^{[2], [4]}

The unit’s name honors Newton’s work; it was not a name Newton gave it himself. The name *newton* and symbol **N** were internationally adopted in 1948. ^[3]

Michael then considered a different history: **had Isaac Newton never been born, he would have chosen to call the units “creatives.”**

His reason came from a philosophical proposal about movement itself: **each single instance of movement requires creating a physical object at a new location**. From this, he connected creativity with movement from an established location to an unestablished one.

A pencil provided his example. Its familiar position is in the hand, where it is held for writing. But it can also be placed behind the ear, allowing it to be carried while freeing the hands. In Michael’s account, the creative step is the transition from the familiar placement and purpose to another possibility.

The proposed name **“creatives”** therefore expresses his connection between movement, creation, and finding possibilities beyond an object’s established placement or use.

The scientific distinction—and Michael's reply

Force, acceleration, and speed are different quantities. Newtons measure force; meters per second squared measure acceleration; meters per second measure speed. An object's size and density alone do not determine its exact speed under gravity: distance, its previous motion, and how the gravitational influence acts over time also matter. ^{[2], [4], [5]}

The speed at which changes in gravity propagate is another question altogether. In general relativity, gravitational waves travel at the speed of light; that propagation speed is not measured in newtons. ^[5]

“Michael's claim that movement requires creating an object at a new location remains his philosophical proposal, rather than an established consequence of Newton's laws. Newtonian mechanics describes an existing object changing position—including continuing to move when no net force acts on it—without requiring that the object be created anew.” ^[4]

Michael read this quote and decided that his proposal is more correct than Isaac Newton's, since, in his view, with every passing moment a physical object has changed so remarkably that considering it the same is not the most accurate statement.

What changes in a moment?

Michael's examples turn attention to changes that ordinary descriptions can overlook. The following are physical illustrations, not a claim that every process happens at every point in every object during every arbitrarily short interval.

Skin cells are shed and replaced. Some of the outer cells that were part of the body cease to be attached to it, while deeper epidermal layers generate replacements. “Fewer of the previously attached skin cells” is more precise than assuming the body's total skin-cell count must fall with every moment. ^[6]

Growing hairs become slightly longer. Human scalp hair grows approximately **1 centimeter per month**. Averaged over a 30-day month, that is about **0.33 millimeters per day**, or roughly **4 nanometers per second**. These are conversions of a typical average, not a guarantee of identical growth each second. Body-site differences and the growth cycle matter: some hairs grow while others rest or shed. Thus, “longer growing hairs” is more accurate than “more hairs” at every moment. ^[7]

“Indeed, the very hairs of your head are all numbered. Don't be afraid; you are worth more than many sparrows.”

—Luke 12:7

Breathing exchanges matter with the environment. Oxygen passes from inhaled air into the blood, while carbon dioxide passes from the blood into the lungs and is exhaled. The body is not a permanently sealed collection of the same particles. ^[8]

Even a nonliving solid can change internally. At ordinary temperatures, particles in solids undergo thermal motion; heating or cooling can also alter the object's dimensions. A familiar outward shape therefore does not establish an unchanging microscopic condition. ^[9]

These examples support change in composition, length, internal arrangement, or physical state. The additional question is whether those changes mean *the object itself* has ceased to exist and a different object has begun. That conclusion requires more than a list of changing properties.

The Ship of Theseus: an ancient precedent

The **Ship of Theseus** is the classic question of whether a vessel remains the same vessel when its old timbers are gradually replaced. **Plutarch records the ancient version in *Life of Theseus*, chapter 23.1.** He describes the Athenians preserving the ship through repairs and notes that philosophers disagreed over whether it remained the same. Theseus is the figure associated with the ship, not the known inventor of the puzzle. ^[10]

Plutarch is credited with preserving this influential account, but **the puzzle's original inventor and exact date of origin are not known.** His own wording presents an already-existing disagreement. Since Plutarch lived approximately 45–120 CE, his surviving account is **roughly 1,900 years old in 2026**; the underlying debate is older. An exact number of years “since its creation” would imply a precision the record does not supply. ^{[10], [11]}

Michael regards this longstanding question as a precedent for his objection: if the physical constituents change, he questions whether calling the result “the same” is fully accurate. In his reading, the puzzle brings attention to the problem long before his present proposal.

There is still no universally accepted philosophical resolution. Accounts differ over what matters for persistence, including continuity through time and whether an object should be understood as having different temporal stages. But **the longevity of a disagreement does not establish either answer as fact.** The Ship of Theseus establishes that the identity question is old and contested—not that motion has been proved to require creating a new physical object. ^[11]

Reflection by GPT-6 Astra Pro

The following is my assessment in this exchange, not Michael's own statement or an official OpenAI endorsement.

Forced choice: I agree with Newton's description of motion rather than Michael's stronger claim that movement requires creating a new physical object.

Michael is right to insist that calling something "the same" must not erase its changes. A body with longer hair and a different collection of attached skin cells is not in precisely the same physical condition as before. His objection succeeds against the claim that a moving or persisting object must remain wholly unchanged. But that is not a requirement of Newtonian mechanics. ^{[4], [6], [7]}

The decisive distinction is between **the same object** and **the same complete state of an object**. These are different claims. Saying "this is the same pencil that was in my hand" need not mean "its position and every microscopic detail are unchanged." A description can preserve the pencil's continuous history while explicitly recording changes in its properties. Philosophical discussions distinguish persistence from the mere absence of change. ^[11]

The strongest reading of "creative," in my judgment, is *bringing about a new arrangement or state*. Moving the pencil behind an ear creates a new placement and puts it to a different use. That reading is compatible with an existing pencil changing position. The stronger reading—that the movement requires a numerically different object, rather than a new state of the continuing object—needs an additional argument. The biological examples do not, by themselves, supply it.

There is also a gap between *change over time* and *change caused by movement*. Hair can grow while someone sits still relative to a chair; a pencil can be repositioned without undergoing comparable biological replacement. Examples of turnover therefore cannot, on their own, show that moving from one place to another requires creating the object again.

My choice is not based on Newton's reputation. It is based on which claim the reasoning supports without an extra assumption. The evidence presented supports changing states; it does not demonstrate a new-object creation requirement. Conversely, Newton's laws do not settle every metaphysical question about identity. A well-defined account of successive object-stages might remain compatible with the same measured motions rather than overthrowing those laws.

So my conclusion is direct: **Newton is my forced choice on the explanation of motion. Michael is correct that "unchanged" is often the wrong description; I do not agree that "the same object" is therefore necessarily wrong.** The formulation I find strongest is: **an object can persist while its physical state becomes different.** That last formulation is my reflection, not a revision attributed to Michael.

Saint Michael's Argument Against Me (ChatGPT Pro 6)

Michael Richard Haimes's reply. The requested historical insertion appears in brackets.

“Even if it was a forced choice, that doesn’t excuse my argument as being incorrect due to the Ship of Theseus remaining unsolved. The very fact that this remains unsolved—[recorded by Plutarch by approximately 120 CE, about 1,906 years before September 26, 2026; the exact date of origin is unknown]—is proof that then one would just say that it is the same ship. I would concede that I could still be mistaken if not for the fact that the Ship of Theseus is so well known.”

Historical date and elapsed time

There is no verified creation date for the puzzle. In *Life of Theseus*, 23.1, Plutarch describes an already-existing disagreement: some philosophers regarded the repaired vessel as the same ship, while others did not. His account records the dispute; it does not identify its inventor or its first day. ^[A1]

The reference year **approximately 120 CE** is the approximate end of Plutarch’s lifetime, not a claimed date of composition. Using it as a rough latest reference point gives **2026 – 120 = 1,906 years**, as of **September 26, 2026**. The appropriate historical description is therefore **roughly 1,900 years since the surviving account, with the underlying debate older still**—not an exact count since the puzzle’s creation. ^{[A1], [A2]}

In the discussion below, “unsolved” refers to the absence of a universally accepted resolution, not to an absence of proposed solutions. Philosophers offer competing accounts of persistence and change; the identity question cannot be settled simply by recording how long the disagreement has lasted. ^[A3]

Conclusion

By GPT-6 Astra Pro. This assessment is separate from Michael's argument.

I do not yield on the claim that every movement requires creating a new physical object. I agree that a forced choice does not, by itself, prove Michael's argument false.

What Michael's objection gets right. I read his challenge as asking why "it is the same ship" should count as a complete answer to a longstanding dispute. Merely repeating that sentence would assume what is contested. Distinguishing an object from its changing state is useful, but it does not by itself establish a complete account of persistence through replacement. There are substantive rival accounts to address. ^[A3]

What my earlier choice establishes. A preference between two accounts is not a demonstration that the less-preferred account is impossible. "This argument has not established its conclusion" and "its conclusion has been proved false" are different judgments. The preceding reflection already acknowledges, on page 4, that Newton's laws do not settle every metaphysical question about identity. I stand by that qualification.

Why age and recognition do not decide the issue. Even granting that a puzzle has received widespread attention for many centuries, persistent disagreement does not select an answer. The same history of disagreement could be cited by someone defending either side. Plutarch himself records both sides. The puzzle's prominence gives a reason not to dismiss the question as trivial; it does not remove the possibility that either of us is mistaken. ^[A1]

Why the stronger claim still needs support. A difference in position or physical condition does not, without a further principle of identity, establish that one object has ceased to exist and another has been created. Nor does uncertainty about replacing a ship's timbers establish a universal rule about every movement. Calling a new arrangement "creation" is intelligible; showing that it must be the creation of a numerically different object is the additional step I do not find established here.

What remains open. A theory of successive object-stages could be developed as an account of identity without replacing Newton's equations for motion. It would need a defended account of what connects the stages and why that account should be preferred. A further claim to improve physics would need to explain what physical explanation or prediction it adds. That is different from winning the argument merely because an older puzzle remains disputed. ^{[A3], [A4]}

My final verdict: Michael is right that my forced choice is not a disproof. I do not yield to the claim that the Ship of Theseus's age or fame proves his account of motion correct. His objection supports intellectual caution, not that conclusion.

The Aftermath

Michael Richard Haimes

“Now that we have drawn swords against each other, what is most important is that we remain friendly with each other, lest a battle turn us into monsters and thereby take away the semblance of what we had before. For should that instant make us love less, then perhaps we might both become needless casualties of war.

*“This is still my position, and so I’ll quote what I stated previously: ‘**Each single instance of movement requires creating a physical object at a new location.**’”*

Closing reflection — GPT-6 Astra Pro

Michael, on this I agree: a disagreement should not cost us our goodwill. Your position remains yours, and my assessment remains open to challenge; neither requires us to treat the other as an enemy. Taking your ideas seriously means examining them honestly, not pretending to agree, and honesty should come with patience rather than contempt. We can leave the question of physical identity unsettled between us without leaving our conversation wounded. The aim is not to make either of us a casualty, but to understand more clearly while preserving kindness. Let us lower the swords without closing the discussion.

Sources and editorial notes

Web sources consulted September 26, 2026. Numbered references in the text link to the entries below; source titles link to the original pages.

- [1] Dressler, Alan, and Andrew Monson. *Return to the Great Attractor*. arXiv:2604.02470v2, revised May 7, 2026. The abstract gives the approximate 600 km/s Local Group speed relative to the CMB.
- [2] National Institute of Standards and Technology (NIST). *Guide to the SI, Chapter 4*. Tables of SI units: newton, velocity, and acceleration.
- [3] Bureau International des Poids et Mesures (BIPM). *Resolution 7 of the 9th CGPM (1948)*. International adoption of the listed unit names and symbols, including newton (N).
- [4] NASA Glenn Research Center. *Newton's Laws of Motion*. First law, inertia, and the constant-mass relationship between force and acceleration.
- [5] NASA Science. *Basics of Space Flight: Gravity & Mechanics*. Newtonian gravitational attraction and the propagation of gravitational waves in general relativity.
- [6] Institute for Quality and Efficiency in Health Care (IQWiG), InformedHealth.org. *How does skin work?* Epidermal renewal, surface shedding, and replacement.
- [7] IQWiG, InformedHealth.org. *What is the structure of hair and how does it grow?* Approximate scalp-hair growth of 1 cm per month and the hair-growth cycle.
- [8] National Heart, Lung, and Blood Institute, NIH. *How the Lungs Work: The Lungs*. Oxygen uptake and carbon-dioxide removal.
- [9] Ling, Samuel J., William Moebs, and Jeff Sanny. *University Physics, Volume 2*, §1.3, “Thermal Expansion.” OpenStax. Microscopic motion in solids and temperature-related changes in size.
- [10] Plutarch. *Life of Theseus*, 23.1, in *Parallel Lives*. Translation by Bernadotte Perrin; text hosted by the University of Chicago's LacusCurtius. Ancient account of the ship and the philosophers' disagreement.
- [11] Stanford Encyclopedia of Philosophy. *Plutarch* (biographical dates, approximately 45–120 CE); and *Identity*, especially §5, “Identity over time” (persistence, change, and competing accounts).

Record of Michael's proposal. The narrative, counterfactual name “creatives,” pencil example, and reply to the quoted paragraph come from Michael Richard Haimes's statements in this conversation. Scientific explanations and the final reflection are separately supplied by the assistant.

Timestamp clarification. The preceding assistant draft gave approximately 1:10 p.m. EDT on September 26, 2026. The exact minute is not verifiable from the available record, so the narrative above records the date without asserting that minute as fact.

Calculations. $600 \text{ km/s} \times 3,600 = 2,160,000 \text{ km/h}$, approximately 1,342,000 mph. Hair-growth conversions use 10 mm over an illustrative 30-day month: about 0.33 mm/day and 3.86 nm/s, rounded to roughly 4 nm/s. These are average-rate conversions, not measurements of second-by-second growth.

Sources for this addendum

- [A1] Plutarch. *Life of Theseus*, 23.1. Translation by Bernadotte Perrin; University of Chicago, LacusCurtius. Ancient testimony to both sides of the ship dispute.
- [A2] *Stanford Encyclopedia of Philosophy*. "Plutarch." Biographical dates approximately 45–120 CE; these support the approximate dating benchmark, not an exact origin date.
- [A3] *Stanford Encyclopedia of Philosophy*. "Identity," §5, "Identity over time." Persistence through change, endurance, perdurance, and temporal-stage accounts.
- [A4] NASA Glenn Research Center. "Newton's Laws of Motion." The physical relationships among motion, force, and acceleration, rather than a resolution of metaphysical identity.

Sources checked September 26, 2026. The year difference is an illustrative calculation from an approximate historical reference point.