

# Is Motion One Of The Three Eternal Properties of Atoms? I.E. Are The Three Properties Shape, Size, and MOTION?

Post by “Patrikios” of April 16, 2026 at 10:04 AM

## [Quote from Martin](#)

I agree with the answer from Grok. There is one caveat which I mentioned in one of our Zoom calls. That mass (or energy) produces a gravitational field and curves spacetime is only one of three possibilities and assumes that mass and space exist independently (dualism) but affect each other. The other possibilities are that mass creates space (monism) and that space creates mass (monism). Each of the three possibilities is compatible with observations and the currently best models to explain the observations. Choosing one over the other three possibilities is rather belief akin to religion than knowledge at this time. In practice, publications typically imply dualism like in the quote from Grok.

Thanks [Martin](#) and [Cassius](#) for your explanations.

Here is how Claude AI helps explain.

## Quote

Would the object move on its own in “the void”?

If placed perfectly isolated from all other matter, with zero initial velocity, the object would remain stationary. Gravity is a relational phenomenon — it describes the interaction between masses. A lone object has no “other mass” to attract or be attracted by, so no net gravitational force acts on it. Its own gravitational field exists as a potential, but potential without another mass to interact with produces no movement. So yes, gravity is an inherent potential for interaction that only manifests as force through the presence of another mass.

Is this what “inertial mass” means?

Not quite — this is an important distinction. There are actually two related but conceptually separate properties at play here:

- Gravitational mass is what you’re describing — the property that causes objects to attract one another and be attracted. It’s the “charge” of gravity, analogous to electric

charge.

- Inertial mass is resistance to acceleration from any force — it's the "stubbornness" of matter against changes in motion, regardless of what's causing that change.

The remarkable and somewhat mysterious fact is that these two quantities are always exactly equal (the equivalence principle), which Einstein built general relativity upon. But they're conceptually distinct. Your isolated object would have inertial mass even in a universe with no other matter, whereas its gravitational interaction would be zero.

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So as I understand, the constant movement of the smallest indivisible particle (Epicurean atoms) creates the potential for movement by the compound object, but does not mean that all material objects just move without interaction with some relative force from another object. When compound objects do move, it is because of these invisible, **natural** forces arising between objects, not some divine unnatural force.