

What Dies Is Intrinsic-ness, Not Matter

Cross-domain analysis · can optics and the Heart Sutra falsify materialism? · four optics texts against a 260-character sutra

TLDR / 80-20

One kind of materialism does not survive either source. The kind most people mean by "physicalism" is untouched.

What both actually destroy is *intrinsic existence* — the idea that anything has properties in itself. And removing that does **not** leave idealism standing by elimination.

First, which materialism?

- **Three claims get bundled under one word, and they have different fates.** Separating them is most of the work; the popular argument fails because it never does.
- ① **Substance materialism.** Reality is made of stuff that carries its properties in itself. **This one is falsified**, and the evidence below is unambiguous.
- ② **Physicalism.** Whatever physics ends up describing is all there is. **Untouched.** It already absorbed fields and amplitudes; weird matter is still matter.

What optics actually shows

- **Hecht cannot answer his own question after five editions.** The text calls light's nature "far more complicated than it might at first seem" and promises to struggle throughout.
- **The photon fails the definition of stuff.** Massless, chargeless, existing only at c — mass below 10^{-52} kg. If matter means something with mass that can sit still, light is not matter.
- **An image is produced by a system, not carried by an object.** Aperture, medium and detector make it jointly. Remove any one and there is no image to possess.
- **The apparatus decides what exists to be measured.** Phase is discarded by the detector, not by the light. The instrument is inside the result, not outside observing it.

What the sutra actually says

- 五蘊皆空 — **the five aggregates are all empty.** Not absent. Empty of 自性, self-nature: nothing holds its character independently of conditions.
- 不生不滅, 不垢不淨, 不增不減. Neither arising nor ceasing, defiled nor pure, increasing nor decreasing. That is a denial of intrinsic properties, not of existence.
- 色即是空, 空即是色 — **form is emptiness, emptiness is form.** Emptiness is not a void behind appearances. It is the appearances, which is why this is not nihilism.
- **The negation includes the knower.** 無眼耳鼻舌身意 — no eye, ear, nose, tongue, body, **mind**. Then 無眼界, 乃至無意識界: no realm of sight through no realm of mind-consciousness.
- **That last line is the one everybody skips**, and it decides the whole question below. Consciousness is negated alongside matter, not exempted from the analysis.

So: is materialism falsified?

- **Substance materialism, yes — and physics did it alone.** The sutra asserted it independently in the 7th century, but assertion is not falsification. Credit belongs to the measurements.
- **Physicalism, no, and neither source attempts it.** Showing matter is relational shows what matter is. It does not show that something non-physical exists.
- **So the honest verdict is narrower than the question hoped.** Intrinsic existence is dead on both accounts. Materialism, properly stated, is still standing.

The Venn — what is left once intrinsic substance is removed

Option	Status after removal
Substance materialism	✗ Removed. Nothing carries properties in itself.
Idealism (mind is fundamental)	✗ Not supported. The sutra negates mind and mind-consciousness explicitly; optics never needs an observer's mind, only a detector.
Dualism (two substances)	✗ Needs two kinds of intrinsic stuff, so it falls to the same objection, twice.
Nihilism (nothing exists)	✗ Explicitly excluded by 色即是空, 空即是色. Emptiness is form, not its absence.
Physicalism (sophisticated)	✓ Survives untouched. Was never the target.
Structural realism	✓✓ Best fit. What exists is relations; the relata are what the relations do.
Process / 緣起 dependent origination	✓✓ Best fit. Things arise conditioned, are conventionally real, ultimately empty.

- **The elimination argument does not reach idealism, and that is the key result.** Removing one circle leaves the circles that were already there — not the one you were hoping for.
- **What is left is not another substance. It is no substance.** Relations and processes, with the things being the stable patterns in them rather than the stuff underneath.

AI's Take

- **The question smuggles in its own answer.** "What is reality made of" presupposes a made-of. Both sources converge on there being no answer to that shape of question.
- **Falsification only runs one way here.** Optics is falsifiable and the sutra is not, so the sutra can corroborate a finding but can never establish one.
- **Physics killed naive materialism without any help from Buddhism.** Giving the sutra the credit is the move to avoid, and it is the move most popular books make.
- **The genuine convergence is narrower and more interesting.** Two traditions, no contact, both arrive at: nothing has properties in itself. That is worth more than a forced victory.