Why Scientific Materialism is Mistaken (For Non-Specialists)

 As advertised in my title, I plan to make a case against philosophical materialism, and I’ll use this insight as a spring board to answer a number of problems that have arisen in science. I'll assume that a passing knowledge of science and philosophy at the outset, but this is not supposed to be a professional philosophy of science research paper. I’ve written one on this topic, but in this paper I’m just talking to intelligent readers. Since some readers may even suspect that my title is some outlandish marquee to suck in readers, let me make my case.

 For our purposes here materialism states that everything that truly exists is matter; everything is material, thus all phenomena we experience are a result of this material foundation and subsequent interactions.

 My problem is that science during the last century has discovered problems in the materialist foundation, especially at the level of the very small. These problems have always been there in their belief in materialism, but we are finally advanced enough to see them honestly for the first time in our history. These difficulties show up clearly at the very smallest level of reality where their material building blocks do not make sense as material stuff anymore.

Let’s simply list some of these facts:

1. At the smallest levels of reality their building blocks have the qualities of particles—like little balls. Good, that’s what they expected to find. These balls can form elements like lithium (too rarely evidently), and they orbit in the little solar systems we’ve probably seen in science text books.

2. At the smallest level of reality these little balls behave like waves.

 If you ask waves in what, you are treated in science conferences like you’re wearing a mud hat. It raises issues that they’re happier to avoid.

3. They behave like waves and particles at the same time.

4. The act of observing these dinky things forces them to be one or the other.

5. The choice as to which one is going to become real cannot be predicted beforehand. Science believes it is both a particle and wave at the same time until observed. Which one it is before observation is based on what they call probabilities. There is simply no way to know beforehand.

6. The choice is not due to some hidden variable.

7. The act of observation **can even reach back through time** to make the thing either a particle or wave—whichever will be observed later. You may notice here that even our language has trouble dealing with backward causation driven by observation.

8. Whatever is found by the first observer stays that way for everybody later.

9. One can know the location of one of these dinky things. One can know the momentum of it. You cannot know both. The closer you get to one of these goals, say location, the less you know about the other, and vice versa.

10. These building blocks can be at two distinct places at once (Halperin 2020).

 Scientists that work with the very small level of reality admit these facts. I’m not making this up. They work with them as best they can, and they often do not spend much effort working out what their discoveries mean for materialism. The materialist assumptions they have grown up with are not often questioned directly. I plan to play the villain and force the issue.

 The first big problem for the materialist is that observing their building blocks causes them to change what they are. If the building blocks were primary, as suggested in the definition of materialism, then observation should not cause their building blocks to change.

 Secondly, materialism depends upon the building blocks to be the foundation of observation; the facts show that observation is primary.

 Thirdly, materialists hold that subsequent interactions from these building blocks lead through cause and effect to everything that exists. They have since discovered that observation forces these building blocks to behave weirdly. Before observed how these little bits act is a matter of probabilities.

 Fourth, the notion of backward causation makes an absolute mess of materialist cause and effect.

 Fifth the rules that govern the smallest level of things and the theories of general relativity (think Einstein) are both demonstrated to be accurate. They work in practice. Unfortunately, scientists admit grudgingly that the theories are incompatible with each other. Actually, these theories get on with each other like my dog and large box full of squirrels. Individually they’re cool enough, but they don’t work and play well with each other.

 Finally, the supposed building blocks can be in distinct locations at the same time in a non trivial sense. It’s not like saying my butt is one two different sides of the same chair when I sit down. It’s more like a claim that space, as we understood it previously, is busted.

 There are two main ways that materialists hope to circumvent these problems. Scientists generally believe these two ways are the real contenders. One way I’ll call the Copenhagen Interpretation. This Copenhagen Interpretation introduces into the mix a thing called a wave function. They claim observation causes the wave function to collapse, which causes their building blocks to change. It is clear to anyone who seriously studies this that this wave function does not have actual existence, as they use the term. Therefore, it does not actually address the problem of *what actually is* and replaces this with a *how to know* answer. Let me expand upon my problem with this Copenhagen Interpenetration below with a well known example from one of its honest defenders:

Schrödinger’s Cat

 Schrödinger, one the leading creators of the Copenhagen Interpretation, suggested that it left us with clear logical shortcomings. In its original formulation, a cat, a flask of poison, and a radioactive source are placed in a sealed box. If an internal monitor like a Geiger counter detects radioactivity the flask is shattered, releasing the poison, which kills the cat. When a Geiger counter is going to click is random according to modern science. The Copenhagen interpretation states that until an observation occurs the system is in all possible states. Therefore, the cat is both alive and dead at the same time until somebody looks at it. This is really a possible outcome of the Copenhagen Interpretation--the most common explanation for what’s going on. I’ll take a hard pass on this one.

 The next main scientific approach to these problems holds that with each observation that is made a new universe arises. This is called the many-worlds-interpretation. In this approach many problems arise. We cannot even theoretically find these many worlds, although adherents claim that they’re out there anyway (Many-Worlds 2021). While this can make for decent science fiction, I do not find it compelling. It cannot be even theoretically falsified, which is typically thought to be necessary for a scientific theory (Kuhn 2018). They cannot explain how you or I are conscious of what seems like one universe rather than one of the multitudes of other ones (Halperin 2020). It is hardly parsimonious either; these universes multiply every time you turn around. Still, die-hard materialists claim it could be right. Let’s allow that it is within the realm of possibility. A lot of things are possible, but this approach seems to me a low order of probability.

 There are many less popular approaches, but they are not as well liked because they produce even more difficulties than the two here. They multiply like rascally rabbits, and they are less popular for sound reasons. Rather than playing whack a mole (or rabbit in this case), I’ll quit now with this brief treatment of the materialist contenders.

 Many scientists laboring at the dinkiest (quantum) level know these materialist disqualifications abound. They often claim that examining the quantum level logically is unwise, you simply ought to learn the facts, which were listed previously, and dump logic. For example, you don’t need to know how an engine works to drive to work, just get in the Buick and have at it. For those readers who could care less about what our world is actually made of this approach makes sense. For those who desire more hang around a bit.

 A fundamental problem with materialist science is their further inability to deal with consciousness. While they sometimes claim that they will eventually work this out, I do not agree. If you have one consciousness, perhaps a dog has 30% of one, a mouse less again, a mosquito has something like one ten thousandth of one (Ornstein 1991). Science cannot account for any level whatsoever. Even given the computational power represented by the inter-connectivity of the internet doesn’t seem to have produced a smidgen. I believe that consciousness is, in principle, beyond the reach of materialist science.

 Leon Kass said that one of the researchers of neuroscience at his University of Chicago claimed that he was near to a biochemical explanation of human love. While one could perhaps find some chemical that if correctly injected into the brain might produce a selected emotion. But as Dr. Kass cleverly stated, "No injection of no chemical can do justice to the experience of love," or any other aspects of the conscious experience that we know directly. There is more to consciousness than material in motion (Kass 2003).

 The next problem, the stuff of experience is connected to what Dr. Kass talked about above. While I will use pain as my example, there are all sorts of these experiences. “I woke up Sunday morning with no way to hold my head that didn't hurt. The beer I had for breakfast wasn't bad, so I had one more for dessert.”I use this couplet from “Sunday Morning Coming Down” from the marvelous tune-smith Kris Kristofferson as it provides a comical springboard from which he eventually deals with the theme of human lack of connection--a serious problem in the human condition. That it raises issues in materialism is a bonus (1976).

 Matter from the materialist perspective ought not to experience the pain of a hangover--an experience some of us have experienced to various degrees. Why should supposed material stuff, like carbon, hurt? Materialists may claim that some communication between different parts of the brain is equivalent to pain. I don't deny this, but my contention is that what we perceive as a physical brain is the way our minds and senses have developed to help us deal with the outer world through the evolutionary process. When materialism is employed and wedded to reduction it is, in principle, doomed. Why should a bunch of atoms feel pain?

 Even having an intention is also problematical to the materialist. "The beer I had for breakfast wasn't bad, so I had one more for dessert." This alludes to intention and its fulfillment. Science claims that intention and the stuff we experience are emergent qualities. Emergent qualities can emerge at the level of nonliving things. I’ll grant this. It grows from a combination of the qualities of the material it grows out of. Like sand dunes emerge due to the combined qualities of sand and wind. Wetness emerges from the qualities of water molecules when thrown together. Ice grows when the water is sufficiently frozen, as so forth. I see no evidence that consciousness, on the other hand, can emerge from dead molecules. I’ve not seen any qualities in the non living building blocks that are likely to lead to consciousness. My computer can often whoop me in chess, but I see no sign of it really fearing the agony of defeat like the skier in the old Wide World of Sports commercial.

 Materialist cosmology presents more problems. Where did the big bang come from? I admit that we can hear microwave radiation, but I contend that what we hear is not material; it is a quality. A point of infinite density and gravity like the one that caused this big bang are places where the laws of physics break down within the materialist perspective. Materialist scientists will have to admit this is uncool. Furthermore, their view cannot explain dark matter, which they need to make sense of measurements of our observations of the large-scale world. They cannot even discover the genesis of energy or mass. Materialism cannot reasonably explain how life occurred. While they claim to do so on one level, they generally avoid a harder and more fundamental question. Where did the heavier elements necessary for life come from?

 Materialists believe all heavier elements come from atomic fusion in stars. Yet the physical constraints necessary for star creation are so finely tuned, it is so unlikely it boggles credibility. There are seven constraints that must necessarily be balanced to pull off the creation of heavy elements. I'd rather bet on a penny being flipped on a flat solid surface and having it stop on its edge than wager on this occurring by happen-chance. Materialist philosophy holds that all these constraints are due to randomness (Fine-Tuning). Obviously, life was possible though. Still, it is so unlikely to have stars occurring by accident that I’d rather bet on nearly anything else. The materialist foundation would be a darn fool wager.

 Materialist scientists claim that to question their foundations is silly. They often claim that everybody knows the world is material! For instance, a materialist devotee might seize upon the use of an instrument like an electron microscope to mock my view of the outside world. Let's use this as an example. Obviously, I disagree with their contention. First, through your microscope all you will perceive are qualities magnified. Secondly, the photons you perceive through the electron microscope are absorbed in the retina and this is changed to an electrical impulse which eventually moves through your dark brain. Isn't what you are honestly experiencing closer to an electrical reality program than something material? Next, they might suggest that the evolutionary process would be unlikely to mislead us about the world. This is an odd point of view. Evolution wants us to survive and propagate. It would almost certainly give everybody a practical version of the foundations of knowledge. This is a knowledge that works decently for navigating the world. Evolution could care less about what exists at the foundational underpinnings.

 There are more arguments against materialism, but since many materialist scientists have already become angry and stopped reading, I'm going to quit with a suggestion. The materialist view has been shaken by the rough seas of science in the last century. Perhaps rather than trying to continually patch up leaks up their materialist ship, materialist sciences might be better served by choosing another craft while the going’s good.

 Using Mind to Make Sense of Science I’ve suggested that materialism as a basis for science is confused. I hold that what exists and comprises reality is mind. You have been taught the opposite since early youth, so it’s hard to give up on the materialist point of view regardless on the many difficulties that have shown themselves in the materialist viewpoint that have emerged in the last century.

 For example, let’s assume that as a reader that you’re currently sitting on a couch. You know this as near to a fact as anything you might otherwise imagine. You accept this without serious doubt because you experience the sofa through your senses. A moment’s reflection will suggest this is because personal experience through your senses along with the action of your mind is how you know stuff.

 Materialist science will say that the couch is clear to experience since you can see it, feel it, and the like. They claim that we experience the couch because it is right there to be experienced. There’s a material couch emitting phenomena that I can experience. The scientific materialists say reality consists of three things: material stuff, forces, and experiences. They have a world of material stuff that are the content of experience and mind to experience it. I have replaced this with mind alone. Since humanity cannot sense material stuff (actually qualities alone are all that can sensed) my view is better.

 Earlier, I examined some the logical shortcomings of materialist science, I write now to clarify and explain my view of what is actually going on.

 I assume we live in a world that supports science. Science gives us a fine foundation to make sense of demonstrable facts about how the world works. It is a world where laws of nature not only exist but can be demonstrated. I do not deny that it is a world where personal experience can be measured in the brain of the person who experiences. I argue that the brain and what we measure are produced by mind.

 The mind is primary, and everything that exists is part of the mind. I’ll call the original primal mind the mind-at-large. The mind-at-large divided itself. (It is an accepted fact that minds are capable of such divisions, such as split personalities.) You find yourself in an aspect of this division where you personally exist. This is the subjective state of existence. It’s the one that feels the couch under your backside. You are a part of the mind-at-large, yet you experience the world from your personal point of view because mind divided itself.

 The mind-at-large divides itself into a boundary between the subjective and the mind-at-large. For those interested in mathematical notions, this boundary allows one to infer what you need to know with a smaller set of variables. This is helpful in making a logical sense of a complex system that connects our internal states to the mind-at-large. This boundary serves as to prevent the subjective individual from direct knowledge of the mind-at-large. Without this border the subjective (the individual) and her experiences would merge again into the mind-at-large, and experience would vanish. The original mind-in-itself is aware of the personal experiences it has created through this process of division, but clear communication between the subjective and the working of the mind-at-large are filtered by this border (Kastrup 2020).

 As you notice, this is not saying that the building blocks of reality have simple minds. The creation of consciousness arises instead from the activity of the original mind (mind-at-large). The view that every building block has just a smidgen of consciousness is not supported by the laws of physics, although the impulse to make this assumption is understandable to me. In fact, more than a few researchers into the physics of the very small level are currently suggesting this solution.

 Why my position might have been unintentionally tied to the conscious building block notion may be shown in an analogy. One may naively assume that the body is compound; therefore, since we are made of cells, we must be compound too. Buicks are compound in this sense. They are assembled this way. We are not assembled like this. A human being is a unity that develops complex inner structure over time through growth and an inner plan. Buicks are assembled from proper parts. On the contrary, we grow and develop consciousness through internal principles. Some of this confusion becomes clearer when one tries to reverse these notions. It would be weird to say that a Buick grows or a consciousness is assembled.

 My approach to reality notes three levels of mind that are occasionally tied together. The first level depends upon personal experiences. A person experiences the world through her senses, and it is shaped by her respective location and point of view. All these personal worlds of experience are still somewhat connected by their source (mind-in-large), which is common to us all. The second level is that of thought. This is the world we create in our thoughts. It can take the form fantasy, dreams and ideas that arise from our interaction with the world we sense (Kastrup 2020).

 The third and, to my mind, final level is the level of pure potentiality and mathematical abstraction. It describes the laws of physics and probabilities. This world is objective, but I contend that its existence is virtual.

 The approach here explains why we all experience, within limits, the same world. We have this similarity of experience because we are bound by the same laws of physics. Since we all sense the world produced by the same mind-at-large this provides a standard of uniformity (Kastrup 2021).

 Next, I will deal with a few confusions that may arise in this from my position. How do you know that the world is not some figment of your imagination? There is no evidence that my subjective mind has the capability to dream up a world with the level of consistency and complexity we discover. My gosh, I walked into a door frame the other day. We judge other conscious beings are also conscious due to what our senses show us. Heck, even dogs demonstrate behaviors that can make *some* sense of through observations and comparisons to what we have experienced. The chance that my mind is dreaming up this world is an extremely low order of probability.

 What about the necessity of a human body after death? If it hangs around a while doesn’t this seem unnecessary? The human body (as part of mind-at-large) exists after physical death for a time not for the deceased, but due to the decease’s continuing connection with survivors. As you can see, even trivial arguments against this position cannot find much traction (Kastrup 2020).

 Another concern arises about this view as to why mind-at-large would not be content to remain in its original state rater than creating this process of division. I would not pretend to know, but I will conjecture that mind delights in the myriad of states that arise in conscious experiences.

 Where did mind-in-itself come from? Pure mind is not spatially bounded. I expect that mind-at-large as an unchanging reality would not be bound by time either (a precondition for experience). Without time and space our world of experience would not work. Space and time as we experience them are artifacts which arise through mind’s original divisions. Therefore, I suggest that when one inquires as the original cause of mind-at-large one is essentially asking what existed before time and space which is an incoherent question.

One More Suggestion on Fixing ScienceThis paper last part of the paper makes a case that is closer to conjecture than undeniable fact. If wish to stop reading now, nothing bad will happen. But the following suggestions when added to my starting point will both simplify science, its mathematical connections, and fix problems like the arrow of time which have plagued science and philosophy (Barbour 1999).

 I suspect that what we perceive as a three-dimensional universe might not have three dimensions. What we perceive is like a hologram of two dimensions. Our perceptions of the outer world are compelling illusions. My suggested system not only makes sense from the scientific perspective, but it is also superior in all sorts of ways.

First, a few troubling definitions are in order. What the heck is a hologram? It is a three-dimensional image reproduced by the interference that happens when radiation sources come together. These sources of radiation must be logical and consistent, or it does not work right. Next, we need to define the term entropy. Entropy is a scientific term for a system that tends to become less orderly as time passes. Like my office tends to disorder. It gets worse with time. It does not spontaneously improve with the introduction of little kids, although they may inadvertently knock dust onto the floor. Things tend with time to become less orderly. This suggests an arrow of time.

This direction of time (its arrow) is a fundamental problem of scientific philosophy. Let's explain the dilemma like this. Imagine yourself in the middle of space somewhere. You can go up or down, east or west, and north or south, or a variety of combinations of these directions. What does it matter? The standards to measure location are the same in all directions. In the twentieth century, science developed the idea of spacetime; think Einstein here. Who cares? I do, and science ought to. Well, time, which is connected to space, is different than space. Time has a direction or aforementioned arrow. For example, one can stir cream into coffee, but you cannot stir it back out. Using a spacetime standard like materialist scientists do today is therefore weird and mysterious. Their standard now is like saying one may head up or down, east or west, north or south and later (Sklar 1988). This is scientifically and logically embarrassing. The holographic approach will mitigate this problem. Time itself creates logical problems that have been know by philosophers who were around since before Socrates. For the heck of it I’ll share two here.

If time is made of instants, there is no space between instants, and instants have no duration how do things change? They have no opportunity (Halperin 2020). Secondly, the present instant, without duration, seems to exist between the past which is gone and the future which is not yet here. Where did the past go to? Where is the future coming from? This point of view makes time a line without width between two things that don’t exist (Halperin 2030).

I’m not playing games with words here. At the level of the materialist view of the world the arrow of time is such a mess many modern physicists hold that time must be a persistent illusion. There’s something right about this. Their way of making the illusion consistent involves block universes full of memories and histories that all need to be represented over and over again at each moment (Barbour 1999). My view is a lot more simple and reasonable without a lot of unnecessary stuff thrown in to hold it together. **Time is actually a persistent illusion created by the mind-at-large to allow for change at the level of the created world.**

Another embarrassment for materialist metaphysics is that it produces black holes, which can likely be tied to a loss of information (Hawking 1988). Scientists admit this should never occur. An advantage of the holographic model is that it can solve both spacetime and black hole problems. The mathematics that underlies science’s belief in spacetime is no longer a necessity. Instead, time and its connection to space grows out of a hologram in a system of two dimensions. Also, in the holographic approach the black hole can be seen to mimic changes in direction of time within the system. With this view information is never lost; this is a significant benefit to science. This approach overcomes the arrow of time dilemma.

Another advantage of the holographic approach is that it makes strong mathematical connections at the tiny level. Gravity is so slight that it’s hard to make sense of mathematically. My view works wonders for this problem of mathematics too (Belhag 2020).

I believe that I can explain gravity in terms of the holographic position. These holographic ideas may even be instrumental in developing a workable approach to connecting Einstein’s theories on general relativity to the smallest level of physics. Further, this arrow of time component which was solved earlier in this essay, when tied to the holographic model can also be helpfully employed in making sense of what is called deep learning and its applications in the modern age (Belhag 2020). (Deep learning is a machine learning technique that teaches computers to learn by example.) An instance of this would be driver-less cars that work better when they don't mistake stop signs and people with poles and trees and assorted decoys. While deep learning employs the method of science, it can be better understood through the holographic principle that it can be without.

Using the hologram notion and my assumption that mind is the foundation of reality together can also make sense of the fact that what we observe at the very small level causes science’s supposed building blocks to be secondary to knowing. This connection of theories can likewise be used to make sense of the growth of correlations that exist all over the place at the very small level of knowing (Belhag 2020).

The interconnections of my earlier ideas and a holographic representation of the outside world can likewise be employed with greater success to make sense of the origins of the universe, even without the mind-at-large contribution. It is much easier with it though (Belhag 202).

I mention in passing that this connection of theories of mind (as reality) and the hologram can also be used to mitigate against the problems raised by dark matter, as well as the origins of both energy and mass. They also make life and consciousness primary rather than the result of an unlikely accident that strains sensibilities. Even Stephan Hawking grudgingly came to accept the holographic model as a serious contender. Unfortunately, he remained wedded to the materialist world view (1988).

The mathematics that will be used to further justify some of my ideas here has yet to be completed. You cannot hope for me to help either, as I could not do this level of mathematics on the best day I've ever had. But it is promising in these areas of science mentioned previously, even in the understanding of the difficulties in the origins of our world which were briefly mentioned above. A holographic metaphor may be valuable in these quests.

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