

# Heavy Pondering on Light



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ILLUSTRATION  
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I’m getting along in years now and, with more time on my hands, I’m starting to think more about The End than The Beginning.

When I used to go to Sunday school with a dime tied in the corner of my handkerchief for the offering, I recall being told that, assuming we got there, heaven would be a place where all our questions would be answered, where perfect understanding would at last be ours, and presumably there would be no pop quizzes to spoil the lessons. That pleases me no end, because I have some questions that need answering.

These people who regularly report to the *National Enquirer* about their out-of-body experiences all seem to agree on one point — they are all drawn, as if by a celestial magnet, toward a beautiful white light. So one of the first things I do when I get there is ask some questions about light and its properties. This has been bother-

ing me for a long time, ever since the fifth grade when I first learned that light travels at a speed of 186,282 miles a second.

The concept of light traveling is unclear to me. I think light just is. Or it *isn't*. That’s what switches are for. Click! Light on. Click! Light off. I remember myself clearly at 10 years of age as a sort of prepubescent detective Columbo bracing my teacher.

“Ma’am, could I ask you just one question here? I’m a little confused, I’m sorry, that’s the way I am, I get mixed up easily. I won’t take a minute of your time, I know you’re busy. I apologize for bothering you, but maybe you could just help me out here. Just for a minute, I won’t keep you.”

Then I would try to find out how we *know* that it takes light 32 light years to travel from a certain star to the Earth. Who threw *that* switch? Is this written down someplace? What makes light go?

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Why doesn't it just stay where it is? Does it go in a straight line just to our planet like a flashlight beam, or does it go to all the other planets as well and at the same time? My teacher aged visibly during the fifth grade, developed a tic and seemed genuinely relieved when we got off astronomy and into the American Revolution.

But now, some 70 years later, I still wonder about the mysteries of light. The smallest unit of light is called a "photon." I thought that was a Japanese bed. Did you know that? I don't mean to bother you, but there's just one more thing. Like, if I point a flashlight with a couple of C cells into the dark, the beam will penetrate, say, a hundred feet or so, and then what? Does the light go, "Well, that's it! I'm pooped, I can't go any farther, I'm not gonna make it!" and just stops in midair or describes a gentle trajectory towards the ground? At 186,282 miles a second, it doesn't have much time to decide on a course of action.

It must be the same with these distant stars. Suppose some folks on Alpha Centauri want to dazzle us with a little light show, some colored strobes and dancing fountains; anybody in charge there would veto this idea as impractical because it would take 157 gazillion years for the display to reach us and by that time most of us would have tired of waiting and gone home. "These Earth people have no patience," the Alpha Centaurians would complain. "They won't even wait for Christmas; start decorating in October, for crying out loud!"

And since the Earth turns on its axis (another leap of faith), suppose the light *did* finally reach us and we were on the opposite side? By the time we found a parking space and located a good viewing angle — WHOOM! — at 11,176,920 miles an hour, the show would be over and we would have missed the whole thing. Then would the light have just gone on forever? My flashlight won't,

even with fresh alkaline cells.

From a practical viewpoint, our light would take as long to get to them as theirs to us, so what they are looking at even as we speak is probably primordial ooze and not even worth sending down a saucer to check out.

With dentistry edging into lasers at slightly less than the speed of light, could I bother to ask one little question here? There's something I don't understand. I'm sorry, it's not your fault, it's mine. I know you told me all this before, but could we just go over it once more? Just take a minute. I remember the acronym stands for "light amplification by stimulated emission of radiation," or LABSEOR, which

was shortened to LASER because "by and of" are prepositions and thus forbidden to appear in the middle of acronyms by the Joint Emergency Reserve Kibitzer Service (JERKS).

Laser's big feature is that it's coherent light. What might render you incoherent is the price. My question: What do I get for my \$40,000 dental laser besides some very fancy light that can cut, coagulate, and vaporize?

Could I achieve the same degree of one-upmanship on the cutting edge of my ever-shortening life with a \$40,000 BMW? I'm just asking. I know it will only go about 120 mph, but at least it's the kind of traveling I understand. ■■■■