

(This was excerpted from a letter written in response to a request from Shanghai for information about John Dobson and the Sidewalk Astronomers to be published in a magazine in China.) Dobson's talk at Kobau was much like his talk at Council Bluffs. He began with some questions (see below) and continued with the suggestion that the first cause of our physics might be apparitional, that through the uncertainty principle we may be mistaking what is beyond space and time for what we see as if in space and time, and that inertia, electrical charge and gravity might be the changeless, the infinite and the undivided (beyond space and time) showing through in our physics much as the length and diameter of a rope show through in the snake for which the rope has been mistaken.

The subject was so unorthodox that Dobson expected the audience to walk off, and when he expressed surprise that they hadn't, some one in the audience replied, "There were no leaks in your logic".

November 1988

How much are we willing to take for granted?

Newton's laws of motion take inertia for granted. Quantum electrodynamics takes the electrical charge for granted. Gravitational theory takes gravity for granted. And the currently "orthodox" cosmology takes the Big Bang for granted. But how much are we willing to take for granted? Why should matter show inertia? What is it that it should resist every change in its state of motion? And why should the minuscule particles be electrical and fall together by gravity? On what grounds can we take all this for granted? And the currently popular Big Bang cosmology seems to take for granted that in the absence of the Universe, and in the absence of space and time, there would be nothing. But is it a warranted assumption? That is the question which I asked Allen Sandage at Pomona in the summer of 1987. I suggested that it seems warranted to assume that in the absence of time, there would be the absence of change, and that in the absence of space, there would be the absence of smallness and dividedness. But that leaves the possibility that underlying what we see there might be the changeless, the infinite, the undivided, which seems a long way from nothing. Sandage was unwilling to discuss the problem; so we let the matter drop. But several months later, when Stephen Hawking was in Berkeley, I had the opportunity to ask him whether he thought there was any observational evidence on one side or the other. He replied that he wasn't sure that it was a meaningful question. However I think it is a meaningful question, and that the evidences are there in our physics. I further think that the only reason we don't see these things as evidence is because they are the very things we have taken for granted. I see inertia as evidence that the changeless underlies what we see, and I see electricity and gravity as evidence that it is also infinite and undivided. Please note that I have made no supposition as to what it might be; only what it might not be if not in space and time.

John Dobson

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