

Letters

overcoming distance—the understanding of mobility has crossed the narrow confines of speed and distance and entered the wider realm of identity formation, freedom, and rights.

Uteng finds that this immigrant group lacks power in Norwegian society and is therefore less productive because they do not have ready access to transportation. Next, civil engineer Liv Øvstedal writes about “inclusive mobility” from the standpoint of accessibility and participation. Øvstedal argues that transportation planning needs to be broadened into *mobility* planning, by incorporation of environmental and social dimensions and considering the needs of bicyclists and pedestrians. He calls for *accessibility*—meaning ease of use by children and the elderly as well as the disabled. “There is a challenge,” he concludes, “in broadening the perspective of planners and designers to take into account people different from themselves.” (Amen to that.) A table of “universal design principles” for these objectives is provided as an appendix.

The final paper—Tore Sager’s second in the volume—(re)defines mobility as the *potential* transport of humans, and explores the relationship between mobility and freedom. In addition to the hypermobility discussed earlier, freedom must include the feasibility of the choice *not* to travel. “Enormous sums of money are spent on the improvement of mobility,” he writes. And “the budgets are backed by a political rhetoric giving prominence to efficiency gains and the value of free movement.” But “attempts to achieve freedom by more mobility should take into account some consequences of excessive travel that tend to have the opposite effect of what is intended.” The paper includes the paradoxical loss of freedom that must result when the necessary surveillance measures for managing mobility are put into place. Freedom as mobility, Sager concludes, contains the seeds to very different developments of society.

Although some of the participants were theologians and religious ethicists, and the spiritual dimension of human existence received frequent mention, this is by no means a “Christian” work. However, many if not most of the conclusions are consistent with the biblical concepts of *imago Dei* and *creation care*. My original hope of learning new practical steps that can be taken to persuade Westerners to support *and use* public transit—or at least to reduce their use of private automobiles—was not completely satisfied. But I came to see that the research program that resulted in this book was undertaken to attain new understanding of the multidimensional nature of mobility in Western society. It was not intended to result in a handbook. Nevertheless, a number of fresh insights (at least to me) are reported. I discovered some new tools to use in my discussions with city and county planners. The book will appeal to scientists and engineers who are involved in technology and society in general, and transportation and land use in particular; it will appeal especially to those who have a philosophical bent.

One final comment: the book was printed in a very small type, at least for these aged eyes. No doubt this resulted in cost savings but at the sacrifice of readability. Yet the paperback version still lists at \$39.95.

Reviewed by J. C. Swearingen, 3324 Parker Hill Road, Santa Rosa, CA 95404-1733. *

Letters

Can We Trust Our Minds to Tell Us about the “Multiverse”

I found Robert Mann’s article on “The Puzzle of Existence” (*PSCF* 61, no. 3 [2009]: 139–50) very helpful in describing the challenges posed by the rise of the multiverse paradigm and the problems that arise when it is used to explain the particularity of our universe. In addition to the problems that Robert raised, I believe that the use of infinitely many universes to explain the seemingly low probability of our universe relies on an overconfidence in our scientific prowess.

To illustrate, let me suggest that, in addition to the universes envisioned under the physics of “string theory,” there is another class of universes produced by different physics, that of “phlegm theory.” In phlegm theory, all of the apparent “fine tuning” coincidences that we observe are naturally explained as the likely outcome of phlegm physics. Moreover, in a phlegm universe, intelligent creatures such as ourselves are almost certain to evolve. Sadly, however, the matter produced in a phlegm universe has limitations in its capacity to support advanced thinking. In fact, phlegm-based brains are not sophisticated enough to grasp the subtle, yet powerful, mathematics of phlegm theory. The best that the benighted phlegm brains can muster is an understanding of string theory. Thus, in a phlegm universe, it is virtually inevitable that the most advanced beings that evolve will be left pondering as to why their universe seems to have such peculiar properties, when, in truth, their universe is completely comprehensible under phlegm physics, only they are too obtuse to grasp this.

Now, my story of a “phlegm universe” is obviously fanciful. Suppose I therefore assign some very low probability, say 10^{-40} , to the chances that something like this scenario might be true. Now contrast this to the probability that I am living in a very rare string theory universe, whose probability is even lower, say 10^{-100} or less. Should I not overwhelmingly prefer the explanation based on a “phlegm” universe or something of the like, since its odds of being the correct explanation, though tiny, are nevertheless much greater than the odds of being in an extraordinarily rare string universe? Put another way, unless I think that the odds that I have overlooked some better explanation for “fine tuning” are ridiculously small (less than, say, 10^{-100}), I am bound to take seriously other explanations (including ones I have not come up with yet!), even if they, too, are very unlikely. In addition to the “phlegm” universe, other explanations that ought to at least be considered include the following:

- When properly understood, string theory will predict that a universe like ours is probable.
- There is a very advanced being in another universe who created our universe with the properties that it has.
- We are really just computer algorithms running on an advanced computer programmed to make us think we are in a peculiar universe.

- Universes that are complex enough to produce intelligent beings are too complex to be understood by those beings.
- There is an omnipotent God, who made the universe the way it is to support our existence.

Only by assigning virtually zero probabilities (less than 10^{-100}) to all of these does one come to a conclusion that a multiverse explanation is the best one. This alone suggests that multiverse explanations be treated with considerable skepticism.

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Mann Responds to Larson

Ron Larson's fanciful example highlights the need to have a high degree of skepticism about extrapolating scientific knowledge well beyond its known limits. While I share his skepticism concerning the multiverse as an explanation for existence, it is important to listen to the arguments of its proponents, if only because of their prominence and number in the scientific community.


Perhaps some old-fashioned intellectual wrestling with this concept, from both scientific and theological perspectives, might lead us to a deeper understanding of the particularity of our existence!

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A Heavenly Science?

In the two reviews of Hugh Ross's *More than a Theory* (PSCF 61, no. 3 [2009]: 201-3), neither reviewer mentions a problem with the old earth creationism argued by Reasons to Believe (RtB). If we consider just the fossils of genus *Homo* and its antecedents over about $5\frac{1}{2}$ million years noted by Robert B. Mann ("The Puzzle of Existence," *ibid.*, p. 155), there were, among others, changes toward more efficient bipedality, increased manual dexterity, and a much larger brain. The obvious conclusion, if there are several sequentially created species involved, is that the Creator was experimenting, learning from the forms that went extinct. God's works then seem to parallel human experience, much like the shift from the vibrating ignition coil powered by dry cells of some early cars, through the breaker point, at first manually controlled and later by means of centrifugal and vacuum advance, to today's electronic controls. Human beings

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