

Richard Benish and the Professors: Introduction to Correspondence

Richard Benish • June 26, 2019

“The very real possibility of testing your ideas changes the complexion of the matter.”

JOHN SCHUSTER — EMAIL TO BENISH, DECEMBER 24, 2015

“Science advances by exploring unexplored regions and by performing critical tests of standard wisdom.”

BRADLEY SCHAEFER, ASTRONOMER

The latter quotation strikes me as one of the clearest statements of the *ideals of science*. When a physicist needs to be reminded of the importance of living up to these ideals, it is well-nigh impossible—I have learned from experience—to convince them of the fact, to effect a change of course. Owning up to a lack of humility is just not part of their training.

The documents collected here support the impression that physicists are just as capable as anyone else of trampling their own ideals by *pretending to know things they don't really know*. If there is a *sin* in science, this is it: Feigned “knowledge”—sometimes called *proof by ethos*. Newton said so. Einstein said so. So I say so; we *all* say so—or *else*. Some predictions, some beliefs don't need to be supported by evidence. Illustrious authorities and sacred “principles” will suffice.

Curiously, all the while this course of action (or inaction) is being taken, the *word* of authority is to simultaneously *pay lip service* to the importance of empirical evidence. It is well understood how important it is to *advertise* objectivity, which is indeed adhered to in practice in many, if not most, cases. But not always. I seem to have stumbled into a case in which lip service suffices and evidence does not matter.

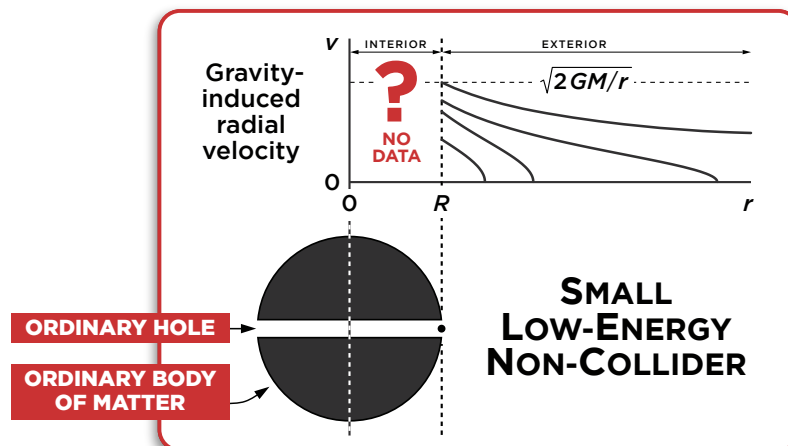
As stated elsewhere on this website and in my written works, my mission is to bring attention to the fact of the current *absence of physical data* that would be gained by performing a simple experiment proposed by Galileo in 1632. (See the figure on the next page.)

In addition to submitting works for publication, entering them in essay contests, and otherwise making them available for public consumption, over the last few decades, I've also engaged in an ongoing direct marketing campaign by writing to professors with requests for feedback. I've reached out to thousands of physicists, astronomers, philosophers, historians, and a few psychologists and sociologists. (See, for example, the correspondence with Yale Professor John Bargh.)

Mostly I get no response. But many of the responses I do get are revealing, if not encouraging, on multiple levels. I am very grateful for all of them. The 23 correspondences gathered here (so far) reveal a curiously wide range of positive and negative comments. For example: “Nice... A very charming article” approves Harvard Professor Gerald Holton. “Belongs in the trash can... babyish ignorance” grumbles Nobel Laureate Gerard 't Hooft. “I have thought about doing exactly what is in your paper” echoes apparatus-builder George Herold. “Please send a copy to my co-author” asks Astronomer Virginia Trimble. “[You are] a crackpot of the highest order” flames Harvard Professor Matthew Strassler. “Great card. I like your style a lot, and was very happy of receiving it” beams Italian physicist and author Carlo Rovelli.

Note that Strassler’s remarks appear, not in private email, but on his public weblog (*Of Particular Significance*) whose Comment Section I chimed into in April 2015.

Four of the correspondents (Davis, Mueller, Shoemaker, and Weiss) characterized Galileo’s experiment as one that would be “fun” to do. Others agree it “must” be done (Lombardi). They say it sounds “fascinating,” “interesting,” or that it would be “worthwhile” to do.



Recurring Figure: Performing this experiment—i.e., building and operating humanity’s very first Small Low-Energy Non-Collider—is the most clearcut way to replace the big red question mark with concrete physical data. Doing so would represent a *tour de force* of “exploring unexplored regions” and conducting a “critical test of standard wisdom.”

A pattern that I sometimes allude to or address in the Prefaces is the *consistency* with which the recipients move on their way—after the correspondence plays itself out—*denying themselves* this “fun” and withholding from the physics community their views on how “worthwhile” it would be to carry out this classic experiment that’s never been done.

Nobel Laureate Rainer Weiss goes so far as to state that the experiment (which he refers to as a “gravitational clock”) has “*passed its time.*” How can an experiment that has never been done have “passed its time”? It doesn’t make sense. Scientifically speaking, it just doesn’t make sense to leave the experiment undone. But they all do—even the kindest, most encouraging and seemingly conscientious respondents fail to *publically* air any sense of *need* to do the experiment.

Possible reasons for this failure are presented in some of the Prefaces. These preambles to the dialogs (like this Introduction) tend to be more blunt than the correspondence itself. In the actual dialogs, I have endeavored to maintain all due politeness and respect.

When contemplating an appropriate title for this Introduction, one possibility that I rejected because of its contentious connotation was “Richard Benish *vs.* the Professors.” I am clearly not *against* professors. But they often come across as being, if not against me, then as adopting a *defensive* position with respect to the status quo, with respect to *the decision to NOT do Galileo’s experiment.*

It never ceases to amaze me how difficult it evidently is for a physicist to simply admit: “Hey, yeah! We’ve missed a spot. We’ve completely overlooked the need to provide data to support the well known ‘hole to China’ problem. It’s about time we took care of that. Let’s do it right away!” Why isn’t this patently scientific response a no-brainer? By contrast, tacit or explicit support for the decision to *not* do the experiment, and even the mere apathy of inaction, strikes me as negligent and indefensible.

I have long understood that, in a debate with a physicist, I cannot possibly lose because *Nature* is the fairest judge, and it is *I* who consistently defer to Nature’s evidence to decide the matter. It is the *professors* who illogically claim to have all the evidence they need. It is *they* who claim that Nature has already said enough; their *theories* fill in the rest. Their *theories* suffice to replace the big red question mark.

For the moment they get away with neglecting physical evidence because they have more stature than I do. One may rightly ask: who, in the cosmic scheme of things, is being truer to the ideals of science? The amateur who would rest his case on the *result of an experiment* proposed by the Father of Modern Science, an experiment that beckons to be done? Or the professional dogmatist who appeals to *predictions*, based on *assumptions*, based on *inadequately tested principles* (i.e., “standard wisdom”)?

The situation may be likened to a *game* whose outcome is for now undecided because the professionals refuse to call the hand by showing the cards (Nature). Everybody wins when we at last look at the cards. Not playing out the hand to its natural conclusion is an exercise in denial of reality. Why, in this particular case, do physicists have so little interest in physical reality? Plenty of sociological evidence emerges in what follows. You decide.

List of Correspondents

1. Professor Gerald Holton —
Harvard University
(Physics, History and Philosophy of Science)
2. Dr. Julian Barbour —
Oxford University
(Visiting Physicist and Author)
3. Professor Rainer Weiss —
MIT, LIGO
(Physics, 2017 Nobel Laureate)
4. Professor Carlo Rovelli —
Centre de Physique Theorique de Luminy • Aix-Marseille University
(Physics, Author)
5. Professor Holger Müller —
University of California, Berkeley
(Physics)
6. Professor Daniel Kennefick —
University of Arkansas
(Physics, Author)
7. Professor Francis Everitt —
Stanford University
(Physics)
8. Professor David Shoemaker —
MIT, LIGO
(Physics)
9. Professor Virginia Trimble —
University of California, Irvine and University of Maryland
(Astronomy)
10. Professor Robert Geroch —
University of Chicago
(Physics)
11. Professor John Bargh —
Yale University
(Psychology)
12. Professor Scott Aaronson —
University of Texas at Austin
(Theoretical Computer Science)
13. Rev. Scott Gerard Prinster —
University of Wisconsin
(PhD Candidate, History of Science)
14. Professor Marc Davis —
University of California, Berkeley
(Astrophysics)
15. Professor Bryce DeWitt —
University of Texas at Austin
[Physics (Deceased)]
16. Professor Olimpia Lombardi —
University of Argentina
(Philosophy)
17. Professor John Morack —
University of Alaska
(Physics)
18. Professor Robert Jacobsen —
University of California, Berkeley
(Physics)

19. Professor James Schombert —
University of Oregon
(Physics)
20. Professor John Schuster —
University of Sydney
(History and Philosophy of Science)
21. Professor Matt Strassler —
Harvard University
(Physics)
22. Professor Gerard 't Hooft —
Institute for Theoretical Physics,
University of Utrecht
(Physics, Nobel Laureate)
23. Francesco Sorce, PhD —
Istituto Nazionale de Fisica Nucleare,
Sezione de Napoli
(Physics)
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NOTE WITH REGARD TO COPYRIGHT: With the exception of George Herold—whose comments are embedded in some of the listed correspondences—permissions to publish the letters or emails were not obtained.

Even though the publication is, so far, “only” on my website (and not a book, for example) it would still be, I understand, *best practice* to obtain written permissions.

My reasons for this omission range from laziness to the publicity value of initiating a dispute. For the most part, I’m inclined to think I am in the clear under the *Fair Use* clauses, which apply especially to writings that are copied for the purposes of “criticism, commentary, news reporting, teaching, scholarship, and research.”

This seems especially applicable as all my correspondents are affiliated with institutions that are either publicly funded and/or profess to have “research” as one of their primary purposes. The correspondents are presumably acting more or less as representatives of their institutions. Most broadly, this is the global community of physicists or academicians. One may therefore argue that the public has *the right* to see what these researchers say in response to questions about our understanding of gravity.

In conclusion, I surely don’t *expect* any objections to sharing these correspondences. If any such objections were to arise, I would welcome them as continuations of the public record.