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Believers, Contemplatives, and the Future of Human Civilization
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Auxiliary Notes
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- Science's conquest of nature
  - In August of 1619, a retreating Habsburg army camped in Ulm, a small city in the south of Germany. Among this group of several thousand troops was René Descartes (1596-1650), a soldier of fortune. There was nothing special about him up to this point, but on the night of August 12th, he went to sleep and had three subsequent dreams in which an angel appeared to him and said: "Conquest of nature is to be achieved through number and measure."
  - Sir Francis Bacon (1561- 1626), regarded by many as the father of modern philosophy, explains in his *Novum Organum* how man can come to know and conquer nature. Man's empire lay at his feet. It is a nature that needs man to tame it, conquer it, and subdue it. The subjugation of nature occurs through industry and man's pursuit of knowledge. Subjecting the natural world to torment is what is necessary for us to know it and the benefit from it. Industry, technology, and wealth are utilized to conquer nature, to study nature, and to torment nature (deforestation and animal experimentation, etc.). Through this conquest and torment of nature our wealth and comfort is found. As such man creates a more artificial environment and becomes, himself, an instrument of artificiality.[1]
  - William James: "The essence of scientific materialism is that matter ends in tragedy."[2]
- The Disunity of Modern Science and Philosophy[3]
  - According to a poll published in the *Scientific American* in 1914, 40% of scientists stated that they believed in God. A poll with the same set of questions was again conducted in 1997, also reported in the *Scientific American*, and it indicated that 40% of scientists still believe in God. So no one view—either materialist or non-materialist—can be said to represent the scientific community as a whole.
  - "In his recent book entitled *Quantum*, science writer Manjit Kumar cites a poll about the interpretation of quantum mechanics, taken among physicists at a conference in 1999. Of the ninety respondents, only four said they accepted the standard interpretation taught in every undergraduate physics course in the world, thirty favored the 'many-worlds interpretation' formulated by the Princeton theoretician Hugh Everett III (1930–82), while fifty replied, 'none of the above or undecided.' The real implications of quantum physics seem to be hidden in a cloud of uncertainty."

[1] https://hesiodscorner.wordpress.com/2018/07/11/francis-bacons-conquest-of-nature/
[2] William James, *Pragmatism* (Cambridge: Harvard University Press, 1975), 263.
[3] Peter Galison and David J. Stump, editors, *The Disunity of Science: Boundaries, Contexts, and Power* (Stanford: Stanford University Press, 1996).

- In his Messenger lecture at Cornell University on October 4, 2010 on "The Future of Fundamental Physics," theoretical physicist Nima Arkani-Hamed stated: ". . . many, many separate arguments, all very strong individually, suggest that the very notion of space-time is not a fundamental one. Space-time is doomed. There is no such thing as space-time, fundamentally in the actual, underlying description of the laws of physics. That's very startling, because what physics is supposed to be about is describing things as they happen in space and time. So if there is no space-time, it's not clear what physics is about. That's why this is a hard problem. That's a serious comment . . ."[4]
- Robbert Dijkgraaf, director of the Institute for Advanced Study: "What we are learning these days is that we might have to give up that what Einstein holds sacred, namely, space and time." If we give up space and time, then what do we have left? He then cites the theory of "the holographic universe," saying, "What's happening in space in some sense is all described in terms of a screen out here. The ultimate description of reality resides on this screen. And this is like a movie projector that creates an illusion of the three-dimensional reality that I'm now experiencing."[5]
- According to a survey done by the philosopher David Chalmers, 11% of contemporary philosophers are non-materialists, so they represent a significant minority. But more important is his finding that there was nothing of importance the "philosophical community" at large agrees upon. So when it comes to the mind-body problem, there is no consensus.

- The efficacy of psychopharmaceutical drugs
  - The revolution in pharmacology has given doctors more drugs to use, allowing millions of people to reduce their symptoms. Yet the overall impact of this drug revolution on public health has been mixed, and decades of research on the drugs' mechanism—on serotonin, for example, the target of antidepressant drugs like Prozac—has taught scientists nothing about the causes of mental illness.
  - The benefits of antidepressants are now known to be "nonexistent to negligible" in patients with mild, moderate, and even severe depression, and high doses of antidepressants are hardly more effective than low ones.[6]
- The Future of Dialogue and Collaboration between Buddhism and Science
  - The conference "Western scientists and Tibetan Buddhist scholars debate on Perception and Reality" held in Dharamsala, India on Oct. 29-30, 2023, featured UC Berkeley neuroscientist Prof. David E. Presti[7] among the 300 Western, Indian and Tibetan speakers, including Geshes, monks, nuns, students, educators, and young people.[8]
  - Khandro Tseringma Rinpoche provided a provocative critique of previous conferences on Buddhism and science with H.H. the Dalai Lama that she had attended in Dharamsala, India, and a visionary proposal for the future of dialogues

[4] http://www.cornell.edu/video/nima-arkani-hamed-quantum-mechanics-and-space
[5] "Einstein's Quantum Riddle," NOVA, Jan. 9, 2019.
[6] "Antidepressant Drug Effects and Depression Severity: A Patient-Level Meta-analysis" *JAMA.* 2010;303(1):47-53.
[7] Author of *Mind Beyond Brain: Buddhism, Science, and the Paranormal* (New York: Columbia University Press, 2021).
[8] https://thetibetpost.com/news/19-international/7689-western-scientists-and-tibetan-buddhist-scholars-debate-on-perception-and-reality?highlight=WyJidWRkaGlzbSIsInNjaWVuY2UiXQ==

and collaboration between Buddhists and scientists in her lecture on March 25, 2024, entitled “A Conversation on Material and Buddhist Science.”[9]

- Serbian-American inventor, electrical engineer, mechanical engineer, and futurist Nikola Tesla (1856-1943): “The day science begins to study non-physical phenomena, it will make more progress in one decade than in all the previous centuries of its existence.”

[9] https://www.youtube.com/watch?v=z-CeLjac5Xs