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Fundamentalism and a full stomach

Kudos to Pervez Hoodbhoy for a great introspective article on the lack of scientific progress in the Islamic world (PHYSICS TODAY, August 2007, page 49). I largely agree with his general hypothesis that the disease in the Islamic world is from us and within us, but missing from his analysis is a macrolevel, sociohistorical, scientific analysis of the lack of scientific progress in the Islamic world. Societal pursuit of science and the arts is a manifestation of "full-stomach syndrome": Only after basic survival needs are met and excess capital is accumulated can a person, a community, a society afford to indulge in such nonessential luxuries as scientific exploration. Often the excess accumulation of capital that allows indulgence in science and the arts is obtained at the expense of a terrestrial neighbor. It thus becomes a societal manifestation of the second law of thermodynamics—order and progress in one region can only be had by inducing bare subsistence and despair in another. Such has been the case in every episode of human civilization, and the advancement of scientific progress in the West is no exception to this rule.

For the non-Western world to contribute scientifically, it must first break free of Western military, economic, and political domination and achieve true independence to begin to accumulate capital and transform its society. In East Asia, the process began 40 years ago, with China being the latest example; it is beginning to bloom, too, in Central and South America and was stirring in the Islamic world until, as Hoodbhoy says, the West acted to reverse the forces of secularism and change. That reversal puts the Islamic world's transformation 50 years behind the curve, and there is limited hope in the foreseeable future for progressive forces like Hoodbhoy himself.

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The excellent and thought-provoking article by Pervez Hoodbhoy is disturbing for its description of the influence of rigid fundamentalist religion not only on Islamic science but on science in any society, even in the US. It is the very nature of science to intellectually question its own icons and, at times, other authorities in its host culture. Moreover, science places valid, observable facts above current explanations. Ignoring the facts of science because of the general public's state of mind (or belief) cannot portend anything but the depreciation of observable facts in the public debate.

I have long maintained that a political candidate's religion was an improper subject for debate. Hoodbhoy's observations make this less clear; certainly, a candidate's propensity to accept or reject new ideas is important to his or her performance in the office sought. Certainly, a candidate's fundamental view of knowledge will affect the allocation of funds needed to further intellectual endeavors. How can a science-based society continue to succeed if the very basis of its past successes is even subliminally rejected by the political leadership?

The current trends of ignoring the protocols of science, having nonscience pose as science, distorting the nature of science via semantic ploys, and using political organizations as science