

Narrative Progress Report for John Templeton Foundation  
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The Modern Project in the Light of Human Evolution

In my last report I discussed the problem of when modernity begins. A new book by Ian Morris, *Why the West Rules—for Now*, gives a quantitative point of departure that I think will be most helpful. I will not absolutize such a beginning point, as the precursors to modernity, distant and immediate, are very important. What quantitatively appears as a stark turning point, at the cultural level seems to have required extensive preparation. Let me start with the quantitative approach. Morris, taking a very long view, has developed a social development index, too complex to describe here, but that begins 14,000 years ago when humans were just emerging from the last ice age, and energy per capita, an essential ingredient in his scale, was at 1, the amount of energy supplied by the muscles of a single human being. While there is a long term tendency for the scale to rise, the rises are followed by falls. Morris speaks of a “hard ceiling” produced by “the paradox of development,” the very success of pre-modern societies leads to overpopulation, famine, plague and war. Twice before 1800 the index of development reached 43: during the Roman Empire in the first century CE and during the Southern Song Dynasty around 1000 CE. In the late 18<sup>th</sup> century both the West and China had reached 43 again, but seemed headed for another hard ceiling, when something new under the sun happened. Up until 1773 the only sources of energy were human and animal muscles with some help from wind and water. What happened in 1773 was the invention of the steam engine, used first to pump out the water that accumulated in coal mines, but then setting off the industrial revolution, itself probably only possible due to the scientific revolution which began in the West in the 17<sup>th</sup> century. In any case development not only blew through the hard ceiling of 43 by the end of the 18<sup>th</sup> century, by 2000 it was reaching 1,000, an advance totally unheard of in pre-modern times. And in the last 50 years the information revolution increased at a rate that makes the industrial revolution look slow, with consequences we can hardly imagine.

What this quantitative picture of modernity compared to all previous societies has done for me is to dramatize the uniqueness of the modern condition. Humans have the same bodies as we did two hundred years ago, though that is beginning to change due to a variety of implants and insertions, but the notion that intelligent computers will take over the planet appears nothing more than science fiction. We have the same basic needs and dispositions that humans have had for hundreds of thousands of years. Language is plus or minus 100,000 years old, writing a few millennia old, printing 550 years old, and electronic media are so recent that we have to think in terms of decades, though the rate of change is so rapid that even decades seem slow.

The basic question of my project is how do we as a species adapt to a rate of change that no biological species has ever faced before? Can we learn from our own deep past, as I have tried to do in *Religion in Human Evolution* that will be published this fall? Are the great role models of our cultural heritage—the Buddha, Socrates, Jesus—still relevant to our condition? Are the ethical traditions developed over centuries in the great religions and civilizations capable of meeting the ethical challenges of our rapidly escalating cultural condition? And, perhaps most ominous of all, if we have blown through every hard ceiling that for 14,000 years kept social development at a moderate level, can we go on increasing the social development index forever, or is the mother of all hard ceilings looming not far above us? And if we are facing such a hard ceiling in the not so distant future, can we manage a soft landing or do we face catastrophe?