

**In spite of terrible leaders we can still hope for a better world. Here's why.**

*Acceptance speech by Pervez Hoodbhoy, delivered upon receiving the honorary doctorate of law from University of British Columbia, Vancouver, 29 May 2019.*

I thank UBC for conferring upon me the honorary degree of Doctor of Law and congratulate all students who will receive their degrees today. In these few minutes, let me argue why you and I must actively hope for – and work toward – a better world. That's particularly important because there's much despondency around these days. Donald Trump, Narendra Modi, Imran Khan, Tayyep Erdogan and others make thinking people very fearful of the future even as they rouse the cheers of the simple-minded.

Sigmund Freud warned in 1915 that the “primitive, savage and evil impulses of mankind have not vanished in any individual”. It's really bad news that self-possessed, egotistical and often maniacal individuals can become leaders. If allowed to act freely and promote their ideology of selfishness, technology makes it possible for them to destroy entire countries and perhaps the planet as well.

The good news is that as a species we humans tend to resist what's wrong and are more altruistic than selfish. We can transcend and overpower the worst that's etched into our genes – those narcissistic, selfish super-molecules that Richard Dawkins argues have self-propagation as their *raison d'être*.

My friend John Avery, distinguished professor of chemistry, has written extensively on how cooperation within homo sapiens has, on average, trumped competition between them. Else today's complex, interdependent civilization would be impossible. That means you and I are almost bound to seek ways of changing the world for the better by acting upon our beliefs and ideals, and that we have no choice but to fight against what's wrong even if this incurs a cost. I therefore claim no credit whatsoever in having followed my instincts when challenges came my way.

Perhaps the first and most obvious challenge for me as a nuclear physicist was to fight for nuclear sanity. Even as I studied the inner workings of the atomic nucleus during my doctoral work at MIT in the mid 1970's, I hadn't the slightest doubt that the bomb was a monstrous abomination and an instrument of mass murder. To warn against it, and to work for Pakistan-India peace, remains of utmost importance to me. The fierce skirmishes earlier this year showed just how closely the two countries dance on the nuclear brink. That's why activism for eliminating nuclear weapons must continue on both sides of the border.

As a practicing physicist I remain in awe of the power of equations and abstract mathematics. These produced not just the modern age but also made this infinitely varied world comprehensible via laws welded together in intricate ways. To explain physical complexity in simple terms via television, video, and public talks has been my little contribution to the youth of my country.

For me science is a wonderful Trojan horse. You all know of the giant, wooden horse with a hollow belly that the ancient Greeks built and smuggled inside the city walls of Troy. Science too is marvelously deceptive with an attractive exterior that brings us the comforts of the modern age. But hidden within this Trojan's belly is a sharp knife that cuts through irrationality as though it were butter.

I have lived my life, and continue to work, in the Islamic Republic of Pakistan. My country was born because its founding fathers assumed that Muslims and Hindus could never live together. They also assumed that Muslims could always live peacefully with other Muslims. These were hideously false assumptions with catastrophic consequences. We saw this in the tragedy of 1971 when East Pakistan bloodily separated from West Pakistan and became Bangladesh. We saw it again in the decade 2005-2015 when, by official count, 60,000 Pakistani lives were lost in a war fought by those Muslims who believe in imposing their particular version of Islam upon all others. That war is not yet over.

I am sad to see that India now seeks to emulate Pakistan and wishes to become a Hindu religious state. Just a few decades ago enlightened Pakistanis had looked wistfully across the border seeing in India a state that valued religious diversity and secularism. That is now no longer the case. The struggle to make both countries free of religious, ethnic, and class prejudices is a monumental task that coming generations of Pakistanis and Indians must take upon themselves. For us in Pakistan to escape the praetorian shadow is an

additional challenge. I have been fortunate in having escaped the worst but many have not. Some have fled the country while thousands of others have been “disappeared” by the authorities.

For all of you who graduate today, the message is that wherever you choose to live and whichever demons you choose to confront – whether they are war mongers, cruelly oppressive political systems, those who heedlessly add to global warming and a dirty planet, or whatever – the battle will be long and hard. I shall conclude by quoting Professor Howard Zinn of Boston University whose teach-ins I would never miss in the early 1970’s during student protests against the Vietnam War.

To be hopeful in bad times is not just foolishly romantic. It is based on the fact that human history is a history not only of cruelty, but also of compassion, sacrifice, courage, kindness. What we choose to emphasize in this complex history will determine our lives. If we see only the worst, it destroys our capacity to do something. If we remember those times and places—and there are so many—where people have behaved magnificently, this gives us the energy to act, and at least the possibility of sending this spinning top of a world in a different direction.

You and I do have agency – free will – and are endowed with rationality by virtue of our evolutionary past. Science and scientific humanism offer us a path away from our childhood indoctrination into saluting a flag and flattening ourselves before the right god. I am confident that in the long run we shall create a universal earth-based civilization built upon reason and compassion. Until then may patience be on our side. And a steely will to fight on for as long as needed.