Todays Risk eNews

**July 6: Kloman's Summer Reading List**

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The warm and slothful days are upon us, and what better way to respond than to take several hours to expand our minds with new ideas and challenging perceptions. At the top of this year’s list of summer reading is an engineer’s approach to tackling the problems of uncertainty. It isn’t conventional beach reading but it is worth the effort. It came to me through Mike Murphy, who heads the eclectic Informal Risk Management Association in Toronto, a global group of kindred risk management spirits.

The book is Billy Vaughn Koen’s *Discussion of the Method* (Oxford University Press, Oxford 2003), a profound agglomeration of philosophy, mathematics, Eastern mysticism and very practical engineering. As he explains, "engineering is a risk-taking activity." Mike wrote his own review for Amazon.com and here is his conclusion:

“This book came recommended to me by a colleague who is a professional engineer. It wasn't the cheapest offering from Amazon, and when I took it out of the shipping box, frankly, I was a little disappointed - seeing a slim, paperbound volume, I thought it might be a thin and expensive read on a penny-per-page basis.

Well, was I ever wrong! As I started turning the pages during a first skim read, it struck me that Koen has brought together a huge amount of experience on engineering with a deep understanding of philosophy (to his credit, both Western and Eastern) plus a range of subjects from classical literature and world religion to the vicissitudes of world languages, and forged them into a brilliant synthesis of remarkable clarity and originality.

His central thesis is ‘All is heuristic’ (All is rule of thumb). He has surrounded this argument with a phalanx of other heuristics (59 in total) that range from the practical (‘at some point in the project, freeze the design’) to the metaphysical (‘sincerity of belief and the inability to disbelieve are poor justifications for claiming that a belief is true’) to the paradoxical (‘if a concept produces paradoxes,
unexplained complexities or unexpected departures from expected results, better consider it a heuristic).

In writing this book, Koen has both mastered and melded a number of seemingly immiscible disciplines - philosophy, linguistics, theology - with his own professional field of engineering (he is professor of Mechanical Engineering at University of Texas at Austin and a fellow of the American Nuclear Society). It is reminiscent of the way that Thomas Aquinas reconciled Christianity with Philosophy.

This is no mean feat, and Koen's book, unpretentiously entitled 'a discussion', is an intellectual tour of the first order. Of course, his many references mean so much more if you are familiar with them. If you aren't, be sure to try them - your life will be immeasurably enriched. In any event, Koen illuminates a path to greater understanding. His prose is very engaging and the book is well suited for general audiences. It is a book that begs to be read and re-read.

One can only wonder if Koen's book had been available prior to its 2003 publication date, would we have experienced such (fortunately infrequent) disasters as Challenger and Columbia, as the Ford Explorer, Chevy Corvair, Ford Pinto, Bhopal, etc. A little more humility with the inherent uncertainties of engineering life might have made a positive difference. This book strives hard - and I believe succeeds - at doing just that. Bravo, Professor Koen, for shedding new light on old problems. It comes as no surprise that Koen has won high awards for teaching excellence (W. Leighton Collins and Centennial Medallion) - both from the American Society of Engineering Education.

To the above I add my own acclaim. This is not light reading but the rewards for persistence will be significant for those who are truly interested in new ideas for dealing with uncertainty. Koen's argument is that we "solve problems by successive approximations," not through fixed rules. Early in this book he suggests several "risk-controlling heuristics" that include "make small changes in your state-of-the-art," "always give yourself a chance to retreat," and "use feedback to stabilize the design project." The latter comment applies to general projects as well as engineering.

He summarizes his ideas with the statement that "a specialist's knowledge is necessary to understand the method of each (discipline), but a generalist's knowledge of them all is necessary to achieve a synthesis." It's a bit like Isaiah Berlin's use of the Russian adage about the fox and the hedgehog. This is what leads him to a conclusion that "all is heuristic." "All we require is that errors are possible, that all concepts are potentially fallible . . . ." This is a book to be read and reread.

My second summer suggestion is Peter Schwartz's Inevitable Surprises: Thinking Ahead in a Time of Turbulence (Gotham Books, New York 2003). His first book, The Art of the Long View, has been a staple on my "ten best risk management book list" since 1991, so it was natural to pick up this new volume. He reviews major world issues including global warming, an aging population, increasing population where we don't need it, spreading pandemics, revolutions and even the threat of an asteroid hitting the earth.

The title is a deliberate oxymoron, a challenge to "contingent thinking," exactly what risk managers should be doing at the strategic level. Schwartz's thesis is that we will face more surprises, but that we will be able to deal with and anticipate many of them. A long-time advocate of scenario analysis as a risk assessment tool, Schwartz argues that denial and defensiveness in the face of surprise will condemn us to oblivion.

The alternatives are rational assessment and resilience. He also argues that the "most powerful weapon" that can be employed by any government or organization is trust. Always a contrarian, Schwartz addresses the current problem of terrorism with the advice: "the best answer to terrorism is to ignore it!" This argument is well worth the entire price of this book!
Yet his summary recommendations are optimistic:

- Build and maintain your sensory and intelligence systems.
- Cultivate a sense of timing.
- Identify in advance the kinds of “early-warning indicators” that would signal that a change is rapidly upon you.
- Put in place mechanisms to engender creative destruction.
- Try and avoid denial.
- Think like a commodity company.
- Be aware of the competence of your judgment . . . and move deliberately and humbly into new situations that stretch your judgment.
- Place a very, very high premium on learning.
- Place a very high premium on environmental and ecological sustainability.
- Place a very high premium on financial infrastructure and support.

These two books will keep you awake and thinking this summer. Now I add three more technical documents to consider:

3. *20 Questions Directors Should Ask About Risk*, Hugh Lindsay, Canadian Institute of Chartered Accountants, Toronto, 2004. A 12-page booklet designed for the standard attention span of corporate directors. It describes enterprise risk management succinctly and follows with twenty challenging questions, each with several “recommended practices.” Read it and send copies to your Board members! Website: [www.cica.ca](http://www.cica.ca)

Once you’ve finished these five pieces of reading material, you may cavort on the beach, hike in the mountains, sail the seas, or otherwise indulge in recreation!

Source: RiskCenter.com