Date: Mon, 24 May 2010 14:01:32 -0400 To: "Dr. Baruch Fischhoff - Chair, National Academy Committee on Improving Intelligence" <baruch@cmu.edu> From: Lloyd Etheredge <u>lloyd.etheredge@policyscience.net</u>

Subject: Richard Clarke's New Alarm: Cyber War/Cybersecurity; the North Korea chapter

Dear Dr. Fischhoff & Colleagues:

The National Academy of Sciences might want to take a serious look at evaluating Richard Clarke's (and Robert Knake's) recent forecast <u>Cyber War: The Next Threat to National</u> <u>Security and What to Do About It</u>. Richard Clarke was prescient last time: What about this time?

Cybersecurity/cyber war is an interesting field to evaluate risk algorithms. There has been so much money (potentially) to be made by penetrating the banking/credit card/financial systems that - combined with daily attacks on the DOD (and even www.whitehouse.gov) -there are huge N's for analysis. And probably forecasting/ learning/counter-learning cycles that give us insight into generic processes in other (e.g., physical terrorism, cross-border penetrations of drugs and illegal immigrants) cases where the data systems are harder to create? If we can guess the next mutations of the flu virus, can we guess about the next stage of cybersecurity attacks, at what targets?

A North Korea Chapter

Clarke and Knake make an interesting claim that North Korea's investments in cyber war (e.g., against the US) are part of a preparatory strategy to - in N. Korea's minds - prepare the battlefield for an eventual military invasion of South Korea. This is interesting because there probably is no other country in the world where their misperceptions of the world (not to mention our mistaken forecasts of their leader) could be so dangerous. It may be difficult, from afar, even to guess what sense of reality they and their military live inside of.

My instinct is to be extremely skeptical that such self-destructive moves might occur. But you might have argued, too, that Osama bin Laden would not have dared to attack the World Trade Center.

North Korea also does unexpectedly dangerous and aggressive things - like killing many members of the South Korean cabinet (in earlier years), shooting down airliners, and sinking battleships. They have nuclear weapons (while South Korea does not have nuclear weapons.) And they have an aging, insular, narcissistic leader with an odd psychology and dictatorial power, in an intense (by Western standards) political culture. And a history of unexpectedly invading South Korea (and suffering a public humiliation). . . . I know that you quickly can get an academic argument started, with someone who has read Schelling on the "rationality of irrationality" and who thinks that the North Korean leader is brilliantly rational at seeming to be crazy/dangerous to maximize his power and security. But if there is any evidence of true craziness, or significant misperception, in the databases and methods that you review, then there probably are a universe of second- and third-order implications that behavioral science might suggest.

best regards, Lloyd Etheredge

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