#### Date: Tue, 26 Oct 2010 13:15:58 -0400

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From: Lloyd Etheredge <lloyd.etheredge@policyscience.net>

# Subject: 178. Upgrading Economic Models: War-Gaming Global Finance Counter-Moves by Smart Opponents; Building Momentum for the Fischhoff Report

Dr. Fischhoff and Colleagues:

I look forward to the Report's formal publication (now that there has been a final sign-off) in early spring. There are several follow-up ideas that I want to send, for the Public Discussion/Comment file at the National Academy, about the increasing relevance of behavioral science to national intelligence.

It is historically unique - in one sense, perhaps, almost a miracle - that the government of the world's leading super-power should ask for advice from behavioral scientists about how to improve spending of \$75 billion/year for national intelligence. There are so many opportunities for rapid learning in the US, and globally in the G-20 system (and beyond). The world may be in your debt. Please let me know if there is anything that I can do to help build on the foundation and momentum that you are creating.

Here is one further, specific suggestion for implementation/follow-on projects:

### **CIA/DNI War-Gaming Global Finance Counter-Moves**

I suggest a focused, and perhaps very useful and innovative project, to war-game global financial counter-moves. War-gaming could develop better modeling/forecasting capabilities and early warning systems for global economics and finance.

I suggested (e.g., # 17, re Predator-Prey Models) that there might be an urgent multidisciplinary task to rethink global economic models as a predator-prey eco-system in which growing asymmetries of brainpower and resources put the national political systems + economies of most nations (including the US) at current, and increased long-term, risk of being outsmarted.

If true, this could mean that the earlier era of competitive market/perfect competition theory will give way, for strategic policy planning, to a new era of leading-edge game theory. Next - beyond simple mathematical/experimental games like Prisoners Dilemma - these games will allow serious hardball strategizing in which super-smart and wealthy players have greater access to inside information about their opponents and (under the rules or getting around the rules) can neutralize or subvert the political processes of governments and routinely distort or manipulate markets (secretly) to their advantage.

Granted, in one sense, these are not very interesting games to analyze - since they are so onesided.

However, just for this reason, it may be urgent to apply war-game methods and begin to get underway if the CIA and the DNI are serious about better early warnings and policy advice. If the hypothesis about predator/prey models with these huge asymmetries is right, there also will be a lot of confirming and early warning data that are outside what the IMF or the Fed or even the Department of the Treasury can acquire or discuss candidly in public, esp. about mechanisms of political corruption and neutralized regulations.

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We also face a challenge re the frustrating limitations that quietly have been orchestrated for NSF behavioral sciences since the Reagan years and the early Republican ("dumbing down") political/ideological counter-moves to neutralize social science-based activism and achieve de-regulation in the US. Unless there is a major upgrade and reform of sensibilities at NSF - which may become more unlikely after the mid-term elections - I find it difficult to imagine that anything as interesting or with the political/policy relevance of Predator-Prey/brainpower asymmetry models of global economics/ will survive the highest-level, behind-closed-doors, cautions. Much of the more candid, innovative, and useful upgrade work may need to be

supported via the DNI/CIA, at least at the beginning.

## War-Gaming with Complex, Adaptive Systems & Opponents

Theorists in the Bueno de Mesquita tradition and institutions like the Santa Fe Institute might have an interest to develop these war-gaming methods and recommendations for improved early warning. One of the challenges of complex, adaptive systems is that there are so many adaptive pathways that can be used by smart, self-interested, and resourceful opponents and governments (including the US government) can be the slowest, dumbest dinosaurs on the block.

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