Managing Uncertainty in Intelligence Analysis
∼ An Info-Gap Perspective ∼

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Abstract

Reducing uncertainty is a central goal of intelligence analysis. 'Reducing uncertainty' can mean (1) Reduce ignorance or ambiguity or potential for surprise in describing situations or intentions, or (2) Reduce adverse impacts of ignorance, ambiguity or surprise on decision outcomes.

We make two claims. First, the second meaning needs greater attention in intelligence analysis. Uncertainty itself isn't pernicious, but adverse impact of surprise is. Some policy options are less vulnerable to uncertainty than others. These less vulnerable (i.e. more robust) options can tolerate more uncertainty. Analysts should identify policy options that are robust to uncertainty.

Second, the method of info-gap robust-satisficing supports decision making under uncertainty in many disciplines. Implications for intelligence analysis are explored in this talk. We illustrate this methodology by discussing two examples: (1) Profiling with limited resources, and (2) Assessment of Iraqi WMD capability in 2002.

About the speaker: Yakov Ben-Haim initiated and developed info-gap decision theory for modeling and managing severe uncertainty. Info-gap theory is applied in engineering, biological conservation, economics, project management, climate change management, military affairs, medicine, and other areas (see info-gap.com). He has been a visiting scholar in many countries around the world and has lectured at universities, technological and medical research institutions and central banks. He has published more than 90 articles and 5 books. He is a professor of mechanical engineering and holds the Yitzhak Moda'i Chair in Technology and Economics at the Technion—Israel Institute of Technology.

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• Many additional sources at: http://info-gap.com

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