

# Strategic Planning for Defense and Security: An Info-Gap Approach

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## Abstract

There is a moral imperative to do one's best when making high-consequence decisions for defense and security. However, our understanding is often wrong and we are frequently surprised. Using our faulty understanding in trying to optimize policy outcomes is infeasible, even irresponsible. The practical implication of deep uncertainty is that we must ask: What outcomes are required? What performance is essential? How can we maximize our robustness against surprise? Under deep uncertainty, don't try to optimize the outcome. Rather, make the outcome good enough, and maximize the robustness against uncertainty. We describe the methodology of info-gap decision theory, and consider two examples: (1) qualitative analysis of the decision to invade Iraq in 2002, (2) quantitative methods for force development.

## Selected references in military affairs

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- Yakov Ben-Haim, Cascading Failures in Hierarchical Networks with Unity of Command: An Info-Gap Analysis, *International Journal of Disaster Risk Reduction*, to appear.
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- Yakov Ben-Haim, 2015, Dealing with uncertainty in strategic decision-making, *Parameters*, US Army War College Quarterly, 45(3) Autumn 2015.
- Yakov Ben-Haim, 2014, Strategy selection: An info-gap methodology, *Defense & Security Analysis*, 30(2): 106-119.

## General introduction to info-gap theory

- Barry Schwartz, Yakov Ben-Haim, and Cliff Dacso, 2011, What Makes a Good Decision? Robust Satisficing as a Normative Standard of Rational Behaviour, *The Journal for the Theory of Social Behaviour*, 41(2): 209-227.
- Michael Smithson and Yakov Ben-Haim, 2015, Reasoned Decision Making Without Math? Adaptability and Robustness in Response to Surprise, *Risk Analysis*, vol.35, #10, pp.1911-1918.

## Books on info-gap theory and application

- Yakov Ben-Haim, 2006, *Info-Gap Decision Theory: Decisions Under Severe Uncertainty*, 2nd ed., Academic Press.
- Yakov Ben-Haim, 2010, *Info-Gap Economics: An Operational Introduction*, Palgrave-Macmillan.
- Yakov Ben-Haim, 2018, *Dilemmas of Wonderland: Decisions in the Age of Innovation*, Oxford University Press.

**More sources:** [info-gap.com](http://info-gap.com)