

Decision Making in Defense and Military Affairs: 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 by innovations and events. Using our faulty models in trying to optimize policy outcomes is infeasible, even irresponsible. The practical implication of severe uncertainty is that we must ask: What outcomes are required? What performance is essential? How can we be robust against surprise? We describe the methodology of info-gap decision theory, and consider several examples: the US decision to invade Iraq in 2003, force development planning, and the paradox of optimal monitoring and surveillance.

Selected references in military affairs

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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 edition, Academic Press, London.
- Yakov Ben-Haim, 2010, *Info-Gap Economics: An Operational Introduction*, Palgrave-Macmillan.

More sources: info-gap.com