

**Changing Conflicts:
Methodological Implications for Strategic Thinking**

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Paret (2018) discusses the Napoleonic wars, especially the war of 1806 and the defeat of Prussia at Jena and Auerstedt, because “They occurred at a time of great change in the organization and use of force.” (p.5) Paret writes that “Clausewitz noted that these wars had moved from the eighteenth-century ideal of limited conflict between standing armies, which left the social and economic environment relatively untouched, toward a new concept of unlimited or ‘total’ war.” (p.7) “What mattered”, Paret writes, “was to recognize that the enemy had adopted important new ways of fighting, and to respond to them in organization, training, tactics, and strategy, even if this required changes elsewhere as well.” (p.28) Paret’s point is to recognize the historical process of change, and then to adapt accordingly. This is retrospection for the purpose of projection to the future.

I would extend Paret’s thought as follows. What also matters is to recognize that the enemy will continue to innovate in ways that are not yet known. Paret’s response, in part, is to innovate before the enemy does. The gist of my response is to expect to be surprised, and to embed robustness against surprise in operational and strategic plans and attitudes. This requires augmentation of currently accepted modes of strategic thinking. There is no doubt that strategic thinkers are highly sensitive to uncertainty. However, the issue is methodological: what conceptual tools are needed in responding to uncertainty?

Stated differently, my point is motivated by the contemporary adherence to scientific optimism, which is the belief that tomorrow we will know and understand much more than today, and as a result we will, tomorrow, have material and conceptual tools that are unimaginable today. Scientific optimism is a fundamental tenet of modernity. However, what is not always noticed is that scientific optimism implies that today we are vastly ignorant. Our epistemic optimism about tomorrow should imbue us with epistemic modesty today, but that is not always the case.

My contribution is in a sense Clausewitzian, in distinction to Jomini. Jomini believed in basic strategic principles: move on interior lines and concentrate force against strategically vulnerable weakness. I do not advocate a specific strategic principle, for reasons explained by Clausewitz (see Clausewitz, 1832, book 2, chapter 2). However, I do advocate a methodological principle for preparing for surprise. It would be rhetorical rubbish to call this methodological principle an anti-principle, but the point is that this is not an operational or strategic principle in the sense of Jomini, but rather a principle by which one approaches operational and strategic thinking. This is Clausewitzian.

I now introduce my methodological proposal: info-gap robust-satisficing.

The decision methodology that could be called “predictive optimization” begins by identifying the best available information, understanding, and theoretical and contextual insight, including perhaps assessments of uncertainty. This knowledge entails information and understanding about friendly

and adversarial capabilities, geopolitical constraints and opportunities, domestic politics, terrain, logistics, and whatever else is deemed relevant. Predictive optimization chooses the option whose knowledge-based predicted outcome is best.

Predictive optimization is usually **unsatisfactory** when facing deep uncertainty because our knowledge is likely wrong in important respects. Instead, we advocate the decision methodology of robustly satisficing¹ outcome requirements.²

The basic idea of info-gap robust satisficing is to first identify outcomes that are essential — goals that must be achieved — and then to choose the option that will achieve those critical outcomes over the greatest range of future surprise. We use our knowledge in two ways. First, to assess the putative desirability of the alternative options, and second, to evaluate the vulnerability of those options to surprising future developments.

The robust-satisficing strategy is the one with maximal robustness against uncertainty while satisfying the critical requirements. In other words, what is optimized is not the predicted quality of the outcome, but rather the immunity to error and surprise. The outcome will be satisfactory, though not necessarily optimal, over the greatest range of future deviations from our current understanding. What constitutes a satisfactory outcome can be as modest or as demanding as one wants, though the robustness decreases as the demands increase.

The method of robust-satisficing acknowledges that objective knowledge about the world can be obtained. Nonetheless, robust-satisficing also acknowledges that vast domains of reality are unknowable and must be managed decision-theoretically in a way that differs from predictive optimization.

I will discuss two examples, one on intelligence assessment, and one on force development.

References

1. Ben-Haim, Yakov, 2006, *Info-Gap Decision Theory: Decisions Under Severe Uncertainty*, 2nd edition, Academic Press, London.
2. Ben-Haim, Yakov, 2014, Strategy selection: An info-gap methodology, *Defense & Security Analysis*, 30(2): 106–119.
3. Ben-Haim, Yakov, 2015, Dealing with uncertainty in strategic decision-making”, *Parameters*, the US Army War College Quarterly, 45(3) Autumn 2015.
4. Clausewitz, Carl von, *On War*, edited and translated by Michael Howard and Peter Paret, 1984, based on the 1832 edition. Introductory essays by Peter Paret, Michael Howard and Bernard Brodie, Princeton University Press, Princeton.
5. Paret, Peter, 2018, *The Cognitive Challenge of War: Prussia 1806*, Princeton University Press.

Additional papers dealing with info-gap robust-satisficing in national security can be found here: <https://info-gap.net.technion.ac.il/homeland-security/>

¹To satisfice means “To decide on and pursue a course of action that will satisfy the minimum requirements necessary to achieve a particular goal.” *Oxford English Dictionary*, online version accessed 7.4.2016.

²Further discussion of these ideas are found in Ben-Haim 2006, 2014, 2015. References to work of many scholars using info-gap robust-satisficing can be found at info-gap.com.