Dr. Yakov Ben-Haim Professor Yitzhak Moda'i Chair in Technology and Economics



Technion Israel Institute of Technology Faculty of Mechanical Engineering Haifa 32000 Israel

yakov@technion.ac.il http://info-gap.com http://yakov.technion.ac.il Tel: +972-4-829-3262, +972-50-750-1402 Fax: +972-4-829-5711

Ethics and Uncertainty: An Info-Gap Approach

18 January 2021, 14:30–15:30 Faculty of Mechanical Engineering Technion — Israel Institute of Technology Remotely by zoom https://technion.zoom.us/j/97718722005 The seminar will be presented in English

Abstract

Consider these questions:

- You are designing a device that can result in vast destruction in an aggressive adversarial country, but you are unsure whether that destruction will be military or civilian. However, without this device, the adversary can inflict vast destruction on your country. Should you proceed, and how should you go about deciding?
- You are developing a technology whose long-range environmental impact is unknown, but may be either severely detrimental or tremendously beneficial. Only time will tell. Should you proceed, and how should you go about deciding?

Consequentialist ethics justifies actions if the good value outweighs the bad value, as assessed with respect to moral maxims. In choosing between alternative actions one must choose the action that maximizes the net moral goodness of the outcome. However, infogap theory demonstrates that this optimization will have negligible robustness against uncertainty. In other words, ethical consequentialism is not reliable for insuring ethical behavior when facing deep uncertainty. We demonstrate an alternative approach, based on satisficing the degree of moral goodness, and maximizing the robustness to uncertainty. We show that decisions based on this robust-satisficing approach may or may not agree with decisions based on classical consequentialism.

Selected publications

• Yakov Ben-Haim, 2006, *Info-Gap Decision Theory: Decisions Under Severe Uncertainty*, 2nd edition, Academic Press, London.

• Yakov Ben-Haim, 2018, *Dilemmas of* Wonderland: *Decisions in the Age of Innovation*, Oxford University Press.

• Yakov Ben-Haim, 2021, Robust-satisficing ethics in intelligence, working paper.

Additional information: http://info-gap.com

 $^{^{0}\}lectures\talks\lib\technion2020me-abs002.tex 27.12.2020$