

Naive Physics Revisited

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Abstract

Pat Hayes's naive physics papers were highly influential in the 1980s and 90s, inaugurating the field of qualitative reasoning, inspiring the CYC project, and laying the foundations of the semantic web. Back then, the underlying motive for studying common sense physics was the development of human-level AI. But this grandiose aim slowly faded into the background of mainstream AI research, and has only recently been revived, under the new moniker of artificial general intelligence (AGI). Nowadays, AGI is being pursued through the methodology of neural networks, an approach that was anathema to the logic-oriented common sense reasoning community that arose in the 1980s. In this talk I will examine the importance of common sense physics for contemporary AGI research, highlighting a number of insights from AIs past that are still relevant today.

Biographical Sketch

Murray Shanahan is Professor of Cognitive at Imperial College London and a Senior Research Scientist at DeepMind. He works on artificial intelligence, neurodynamics, and philosophy of mind. Educated at Imperial College and Cambridge University (Kings College), he became a full professor at Imperial in 2006, and joined DeepMind in 2017. He was scientific advisor to the film *Ex Machina*, and regularly appears in the media to comment on artificial intelligence and robotics. As well as many scientific papers he has published several books, including *Embodiment and the Inner Life* (Oxford University Press, 2010) and *The Technological Singularity* (MIT Press, 2015).