

Intentional and causal urges: when to ascribe life or mind to artificial systems?

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How do we decide whether or when Artificial Intelligence systems are cognitive or Artificial Life models are alive? Despite the many different ways in which these decisions are made and specific criteria are used, in both cases the final verdict has a strong intuitive component: The Turing Test is a way to harness the decision in a particular way; but why would making a specific impression on a human observer be a good criterion for deciding whether an AI system is cognitive? Similarly, why would a CA model of growth be considered a possible form of life? In both cases, many of us have tendencies to interpret mind-like or life-like phenomena as being actual example of mind or life. Still, many of us also have tendencies to question the step from looking like mind or life to actually being a mind or alive. The result has been a wavering attitude in which both tendencies coexist, while a more definite view on this issue remains elusive. Research on the automatic tendency to detect causality and animacy provides a way to make sense of this wavering attitude. The upshot of this research is that we have an inbuilt intentional urge: a prereflective tendency to categorize certain objects or displays as alive and even intentional. We also have a causal urge: a prereflective tendency to interpret events with specific visual features in causal terms. Both urges seem to be mutually exclusive. These automatic reactions are subsequently elaborated and scrutinized in a more reflective mode, which can lead to either the acceptance or rejection of the first automatic reaction. This research can have important and wide-reaching implications for discussions on the status of artificial cases of life and mind. Foremost, it would explain the wavering attitude when it comes to formulating criteria for making decisions either way. Strong intuitive judgements and reflection do not necessarily coincide. It seems clear that we should be more critical of our own intuitive judgements in this area. At the same time, it is less evident how exactly we can come to a more critical and ultimately sounder judgement on these matters. At present, it seems best just to start out with trying to sort out the options and issues. For example, a way out would be by differentiating between design research in which AI and ALife would fall and descriptive and explanatory research where empirical cognitive science and biology belong. Another important issue would be whether the intuitive mutual exclusiveness of causal and intentional interpretations is really to be trusted and should be taken to imply a serious dichotomy in the natural world. In this talk, I will start out with the problem of ascribing life and mind, introduce the literature on the intentional and causal urges, and focus on the possible implications for artificial life and mind.