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Propositions

accompanying the dissertation

LEARNING LOCAL ABSTRACTIONS IN COMPLEX DECISION-MAKING SYSTEMS

by

Elena CONGEDUTI

1. Abstraction is the key to managing complexity (this thesis).
2. In state abstraction, identifying aggregation schemes is more important for task performance than modeling the ground state uncertainty they induce (this thesis).
3. In stationary systems, large and complex dynamics reduce to simple and steady local effects (this thesis).
4. Mathematics holds *intrinsic* beauty beyond its applications.
5. Narrative feedback, peer feedback, and self-assessment are more effective than grading for learning.
6. Work flexibility enhances productivity and mental well-being.
7. Meat market prices should be substantially higher to reflect production, environmental, health, and opportunity costs.
8. An academic system that overvalues debate prizes visibility above scientific contribution.
9. The Monty Hall problem ¹ shows that humans would rather be consistently wrong than changing their mind.
10. What sounds like an intelligent explanation in media is the result of overfitting to outcomes.

These propositions are regarded as opposable and defensible, and have been approved as such by the promoters prof. dr. F. A. Oliehoek and prof. dr. C. M. Jonker.

¹The Monty Hall problem refers to a probability puzzle where a contestant chooses one of three doors, behind one of which is a prize. After revealing a non-winning door, the host offers the contestant the chance to switch. Counterintuitively, switching doubles the chance of winning.