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The Design Argument Revisited through Evolutionary Computation: Imperfection, Robustness, and Creative Emergence

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Abstract-

This article offers a fresh perspective on the argument from design by drawing on modern evolutionary computation, which we propose as a more fruitful analogy for divine design than traditional craftsmanship models. We focus on genetic algorithms, which mimic biological evolution through operators that emulate combination, selection, and mutation, and bring new insights from practical experience with such algorithms. Far from being easy to implement, genetic algorithms require carefully designed codifications, operators, and parameters. Very importantly, in genetic algorithms, suboptimality emerges not as a flaw but as an essential trait: exploring imperfect solutions allows uncovering better, creative designs. In addition, imperfection is also linked to robustness: evolutionary outcomes are near optimal and flexible rather than finely tuned and fragile. Because genetic algorithms evolve a population of designs, diversity is both a requisite and a result. Building on the analogy between divine design and evolutionary computation, we argue that a divine designer would appear to value growth, adaptability, robustness, diversity, and creativity above static perfection.

Index Terms- Design, Theodicy, Evolution, Engineering, Genetic Algorithms, Evolutionary Computation, Optimization

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