



Letter: Natural complexity is commonplace

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Lahki Goenka claims (Other Voices, Aug. 4) that the odds of DNA having formed naturally are so unlikely as to be ludicrous, and that the same is true for complex nonliving phenomena. Goenka concludes that, "The more one delves into the mysteries of nature, the more the evidence points to the presence of a creator."

But Goenka seems to assume that natural complexity has no history. The human brain, which Goenka used to construct his essay, enables us to make uncountable numbers of behaviorally appropriate decisions across our entire lifetimes in an ever-changing and complicated world, using millions or billions of changes in neural connections that can take place in split seconds. Yet the humans that generate such brains start out as single cells. Darwin began explaining the situation with this marvelous, unmet 1859 challenge: "If it could be demonstrated that any complex organ existed, which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down."

Goenka might have reflected that the sequence of changes enabling development of the complex organs he uses every day almost certainly was constructed evolutionarily, step by small step, primarily via the well-documented long-term process of differential reproduction and survival that Darwin called natural selection. Whenever changes in either physical or biological universes are variably persistent, and also variably cumulative, we have to interpret the odds underlying complex outcomes - including the ongoing replication of DNA molecules - by assessing the odds underlying the (sometimes still technically inaccessible) numerous, successive, slight modifications responsible for the complexity.

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