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THE LESS-IS-MORE-HYPOTHESIS REVISITED

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Eleven years ago, I published the conjecture that under particular evolutionary conditions, often associated with the emergence of novel traits within a lineage, gene loss is an important driver of phenotypic change (*Am. J. Hum. Genet*. 64,18-23 (1999)). Human evolution meets the requirements of the "less-is-more" hypothesis, posing the provocative possibility that humans are, in some senses, degenerate apes. Since this publication appeared, vastly more data clarifying the circumstances under which gene loss occurs in evolution have appeared. In the current report, I will review this literature and present a more comprehensive formulation of the less-is-more hypothesis. I will also evaluate the extent to which comparative analyses of primate genomes support its applicability to human evolution.

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