Review of: "Darwin, Gödel, Luria, Delbrück: Biomedical, Mathematical, and Metamathematical Perspectives on Attributes and Consequences of Random Somatic Mutations Subject to Selection"

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This manuscript considers the ways in which "random mutation" is understood by the scientific community and how advances in research over the past several decades have revealed that mutation is a more complicated process than what was originally conceived by Luria and Delbruck. It asks the scientific community to expand its consideration of mutation to consider an array of rare but intriguing manners by which phenotypes may be altered in a given organism and/or its surrounding organisms. Ideally, this expansion would occur in mathematical terms. However, it is hard to see how any formula could account for the myriad of ways in which phenotypic alteration may take place by direct or indirect means. It would be helpful for the authors to consider the rarity of these emergent phenomena and if it would be possible for any formula to account for what seems to be an ever-expanding menu of options for phenotypic variation.

Nonetheless, the authors do a great job of making the reader consider the complexities of heredity and the evolution of the scientific community's understanding of mutation in an evolutionary context.