

Review of: "Intersections of Statistical Significance and Substantive Significance: Pearson's Correlation Coefficients Under a Known True Null Hypothesis"

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This is a nicely worked out article on the usefulness of p-values using a framework of Pearson's correlation coefficient. The article develops on earlier work by the author (Komaroff, E. Relationships Between p -values and Pearson Correlation Coefficients, Type 1 Errors and Effect Size Errors, Under a True Null Hypothesis. *J Stat Theory Pract* **14**, 49 (2020). <https://doi.org/10.1007/s42519-020-00115-6>) and uses reasoning similar to Altman, N., Krzywinski, M. P values and the search for significance. *Nat Methods* **14**, 3–4 (2017). <https://doi.org/10.1038/nmeth.4120> regarding the interplay between p-values and effect sizes. Some minor typos exist throughout the text regarding inconsistent subscripts. The idea of supporting the usefulness of p-values by actually understanding them better instead of abandoning them is strongly supported by this reviewer (see e.g. Verykoui, E.; Nakas, C.T. Adaptations on the Use of p -Values for Statistical Inference: An Interpretation of Messages from Recent Public Discussions. *Stats* **2023**, *6*, 539-551. <https://doi.org/10.3390/stats6020035>). Better understanding of a statistical tool that has been and still is so fundamental in scientific research is of utmost importance. Valuable general resources include: Senn S. *Dicing with Death: Living by Data*. 2nd ed. Cambridge University Press; 2022 and Mayo, D.G., Hand, D. Statistical significance and its critics: practicing damaging science, or damaging scientific practice?. *Synthese* **200**, 220 (2022). <https://doi.org/10.1007/s11229-022-03692-0>.

Including additional resources can help ensure consistent information throughout the text, making it easier for the general reader to understand.