

Review of: "Notes on the Implications of Ignoring Bayes' Rule in Search and Rescue Practice in the UK"

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Potential competing interests: No potential competing interests to declare.

The manuscript is a nice attempt to show the application of Bayes' theorem in social work. It particularly addresses the problem of finding a missing person and shows the gain in probability of success using Bayes' theorem over traditional methods.

Though the problem is discussed in detail using appropriate examples, most of the time the author fails to convey what he wants to say. Like in the example of three marbles - 'With three marbles in a bag - red, blue, and yellow, for example, we know that the likelihood of our picking the yellow one, having previously picked the red one, is 16.5%, since there was a 1 in 3 (33%) chance of picking red, followed by a 1 in 2 (50%) chance of subsequently picking the yellow out instead of the blue' - it seems like $\Pr(Y|R) = 16.5\%$, which is actually not the case.

The concept of new and previous POAs is very well defined, but the notations are a little bit confusing. The difficulties while adopting the Bayes' procedure are written clearly. The table showing the results might be explained in more detail for better understanding of the readers.

I would say the manuscript may be accepted with some small changes in language for clear understanding.