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|  | Gal Rosenzweig |

 February 4, 2021

Dear Editors

Enclosed please find the typescript of my essay, *Assessing the True State of Affairs in Courts: Science at Our Service*(approximately 15,000 words), along with my full CV.

The essay suggests that the reason for courts’ mistakes, particularly regarding the perpetrator’s identification, is that the legal system currently judges the validity of evidence based on perceptions rather than on specific measurements of reality as an external reference. Drawing on my experience as a prosecutor and a military judge, as well as my recently published scientific research regarding concealed information discovery based on involuntary eye movements, I examine the similarities and differences between the legal and the scientific inquiry processes. I suggest an analytical, science-based approach to guide the courts in assessing the validity of each piece of evidence in place of a perception-based approach, as recent scientific findings point to a gap between perception and reality. As the scientific method shows, comparisons to reality are crucial for obtaining accuracy and precision of measurements.

To address the difference between what is considered “fact” in the legal inquiry context and that of the scientific inquiry context, I further examine the adjustments needed for applying the scientific method to the measurement of legal facts. I believe that this approach may help reduce the number of wrongful convictions by helping the courts better evaluate the level of certainty of their findings.

Please note that I have obtained a patent (U.S. 10568557) with Professor Yoram S. Bonneh for methods to uncover concealed information based on involuntary eye movements mentioned in the essay.

Thanking you for your consideration

Sincerely

Gal Rosenzweig