April 19, 2024

Dear Cognition Editor,

Please find attached the manuscript entitled "How wise is the crowd: Can we infer people are accurate and competent merely because they agree with each other?", which we would like to submit for publication in *Cognition*.

The literature on the wisdom of crowds – in particular that relying on the Condorcet Jury Theorem – shows that when competent individuals have a convergent opinion, they tend to be correct. In this manuscript, we ask whether the reverse inference also holds: can we infer that people are right, and that they are competent, from the fact that they agree with each other?

We first introduce analytical arguments and simulations showing that, under a wide range of assumptions, it is normatively justified to infer, from the fact that sources agree on an answer, that their answer is accurate, and that the sources are competent. Then, in a series of 6 experiments (UK participants, total N = 1197), we demonstrate that participants do make these inferences, both in continuous and categorical choice scenarios.

We believe that these results – both simulations and experiments – are a novel contribution to the wisdom of crowds literature. Although our experimental results are obtained in very abstract contexts, we believe our results have a range of applications in real world settings. For instance, scientists are a group of people who reach agreements on a variety of issues. The inferences we demonstrate here might thus explain why many people, in spite of not understanding much about science, believe it to be broadly accurate, and scientists to be broadly competent.

Given that our manuscript investigates general mechanisms of how humans aggregate information, which might be of interest to an interdisciplinary public within the cognitive sciences, and that it combines strong theoretical and empirical dimensions, we believe that *Cognition* would be the perfect outlet for publication.

For possible reviewers, we would suggest:

Lucas Molleman I.s.molleman@uva.nl

David Vladimir Budescu <u>budescu@fordham.edu</u>

Thomas Morgan thomas.j.h.morgan@asu.edu

Thank you for your consideration,

Jan Pfänder, Benoît de Courson, and Hugo Mercier