

Abstract:

We experimentally investigated the relationship between participants' reliance on algorithms, their familiarity with the task, and the performance level of the algorithm. We found that, when participants could freely decide on their final forecast after observing the one produced by the algorithm (a condition found to mitigate algorithm aversion), the average degree of reliance on high and low performing algorithms was not significantly different. Experienced participants relied less on the algorithm than inexperienced participants, regardless of its performance level. The reliance on the low performing algorithm was positive even when participants could infer they outperformed the algorithm. Indeed, participants would have done better without relying on the low performing algorithm at all. Our results suggest that, at least in some domains, excessive reliance on algorithms, rather than algorithm aversion, should be of concern.