

Title: First extension of the model appendix for “Research note: Fighting misinformation or fighting for information?”

Authors: Alberto Acerbi (1), Sacha Altay (2), Hugo Mercier (3)

Date: January 12<sup>th</sup>, 2022

Note: The material contained herein is supplementary to the article named in the title and published in the Harvard Kennedy School (HKS) Misinformation Review.

---

## Appendix B: First extension of the model

In the first extension of the model, we considered the possibility that the acceptance of reliable information or misinformation has an influence at the individual level on the further baseline with which each agent accepts misinformation and reliable information, respectively. In particular, we assumed that an agent that accepts a piece of reliable information will have its baseline acceptance of misinformation ( $B_m$ ) decreased by a value  $K_r$ , and an agent that accepts a piece of misinformation will have its baseline acceptance of reliable information ( $B_r$ ) increased by a value  $K_m$ .

We ran simulations for a fixed value of  $K_r = 0.01$  (i.e., each time an agent accepts a reliable information, its probability of accepting misinformation when it encounters it is decreased of 1%) and for three values of  $K_m$ : 0.01, 0.1, and 1 (i.e., a decrease of 1, 10, or 100% in the probability of accepting reliable information if they accept a piece of misinformation). Starting from the baseline scenario ( $C_m = 0.05$ ;  $B_m = 0.3$ ;  $B_r = 0.6$ ), we ran simulations for  $T = 20,000$ -time steps to reach equilibrium, and our main output was the average acceptance of reliable information and misinformation. Even in the extreme case of  $K_m = 1$  due to the lower probability of encountering misinformation, the average acceptance of reliable information remains higher than the average acceptance of misinformation. The global information score in this situation is lower than the baseline situation (of approximately 20 points), and this difference is mostly due to the decrease in the acceptance of (abundant) reliable information rather than to the increase in the acceptance of (rare) misinformation.