

1 **Reviewer 1:** Thanks for your feedback! Your understanding is correct: the algorithm is exponential in the number of
2 states of nature d . The algorithm is tractable in all the other parameters. We will emphasize this aspect in the final
3 version of the paper. If the paper is accepted, we will provide more intuition on the NP-hardness proof using the ninth
4 content page for the camera ready version.

5 **Reviewer 2:** Thanks for your comments!

6 – Re “*showing that any optimal signaling scheme can be written as a combination of a finite number of signals*”. We
7 agree with the reviewer that the proof of this results is intuitive. We decided to include this result in the main body
8 of the paper since it is crucial when proving that the running time of our algorithm is exponential in the number of
9 states, and polynomial in the other parameters. We will include a more informal discussion of the results using the
10 ninth content page for the camera ready version.

11 – Re “*notation*”. Thanks for your feedback on the notation. We will try to simplify the notation as much as possible.
12 However, a formal presentation of our technical results will inevitably require many symbols. On the use of the
13 symbol W : we preferred to use different variants of the same symbol as they denote entities which are conceptually
14 related.

15 – Re “*related works*”. Due to the limited space we presented only the results closest to ours. We agree with the
16 reviewer that the algorithmic Bayesian persuasion literature includes many other works that adopt models technically
17 different from ours. We will include some additional discussion on these alternative frameworks in the appendix.

18 **Reviewer 3:** Thanks for your feedback. Our hardness results show that when the number of states of nature is free
19 the problem is not approximable. However, when the number of states of nature d is fixed, the algorithm requires
20 polynomial time, thus showing that the number of states is the only source of hardness. Indeed, this may be considered
21 a first restricted scenario where our algorithm has a poly-time guarantee. To the best of our knowledge this is the first
22 work studying Bayesian persuasion in the online setting. Hence, the first results that need to be provided are arguably
23 the hardness and fixed-parameter tractability of the problem in the general setting, which is precisely what we present
24 in the paper. The study of ad-hoc algorithms for other restricted settings would not be well motivated without the set of
25 general results that we are presenting. We agree with the reviewer that the study of poly-time algorithms for restricted
26 settings is a natural next step for this line of research.

27 We will add the suggested paper to the related works (thanks for the pointer!) and reword line 41.