

# Form of Preference Misalignment Linked to State-Pooling Structure in Bayesian Persuasion\*

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## Abstract

We study a Bayesian persuasion model in which the state space is finite, the sender and the receiver have state-dependent quadratic loss functions, and their disagreement regarding the preferred action is of arbitrary form. This framework enables us to focus on the understudied sender's trade-off between the informativeness of the signal and the concealment of the state-dependent disagreement about the preferred action. In particular, we study which states are pooled together in the supports of posteriors of the optimal signal. We provide an illustrative graph procedure that takes the form of preference misalignment and outputs potential representations of the state-pooling structure. Our model provides insights into situations in which the sender and the receiver care about two different but connected issues, for example, the interaction of a political advisor who cares about the state of the economy with a politician who cares about the political situation.

**Keywords:** Bayesian persuasion, strategic state pooling, preference misalignment, graph procedure

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