Cheap Talk with Non-Bayesian Updating

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Abstract

We consider a model of strategic information transmission in which a fully informed expert sends a cheap-talk message to a decision maker who is prior-biased (Epstein, 2006) so that she does not update her belief according to Bayes’ rule. We characterize the set of equilibria and show that all of them are interval partitional. When the degree of preference misalignment between parties is small relative to the degree of prior bias, there exists a unique equilibrium that induces infinitely many actions, and this equilibrium is Pareto superior to all other equilibria. By considering the optimal mediation problem, we show that direct communication à la Crawford and Sobel (1982) is optimal among all possible communication protocols in the presence of prior bias. Moreover, the ex ante social welfare achieved by the most informative equilibrium of our model with prior bias exceeds the upper bound of social welfare characterized by Goltsman, Hörner, Pavlov, and Squintani (2009). The welfare gain stems from the fact that information garbling takes place only in the mind of the prior-biased decision maker and is thus costless for society.

Keywords: Communication, Information Transmission, Cheap Talk, Prior Bias, Non-Bayesian Updating

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