Shared Models in Networks, Organizations, and Groups

Joshua Schwartzstein

Harvard Business School

Abstract

Why did the market move the way that it did? What are the implications of the latest school shooting? Why did pollsters get things so wrong? To answer such questions, we often exchange models, stories, narratives, and interpretations with others. This paper provides a framework for thinking about such social exchanges of models. The key assumption is that, following Schwartzstein and Sunderam (2021), when people are exposed to multiple interpretations of the data they go with the one that provides the best explanation. It is immediate that social learning hardens everyone’s reaction to data that is open to interpretation: following the exchange of models people are more convinced they are able to explain the data than prior to this exchange. But we show that social learning often also tempers everyone’s reaction to the data that is open to interpretation: following the exchange of models people’s beliefs are closer to their priors than before this exchange. Tempering prevails, for example, if everyone talks to each other, if networks are formed based on shared beliefs in the likelihood of different states, or if networks are formed based on shared beliefs in the right actions to take. In addition to studying fixed networks, we also consider how managers, politicians, or other agents are able to shape networks to their advantage. Agents who benefit from tempering or from people sharing the same model will encourage a robust exchange of interpretations across people who react very differently to the data; agents who instead benefit from intense or variable reactions will try to limit the exchange of interpretations, especially between people whose initial reactions are moderate and others whose initial reactions are extreme. We apply the framework to consider agenda-setting and the structure of meetings in organizations, as well as the difficulty of combatting myths and conspiracy theories.