

•Olsson, Erik J. (Lund University, Sweden);

TITLE: Social Network Topology, Truth, and Value: Agent-based Simulation of Collective Competence in Connected Groups

Our beliefs are shaped by others. Our social networks thus have a crucial role in our determining what we believe to be true. Sometimes this is for the good because our peers help us form a more accurate belief. Sometimes it is for the worse because we let our peers lead us astray. In this context, we address via agent-based computer simulations the extent to which the patterns of connectivity within our social networks affect the likelihood that network peers converge on a true belief. We contribute to the literature by providing a detailed statistical analysis concerning the exact contribution of various network metrics on collective competence in finding the truth. Moreover, unlike other similar models our framework incorporates a more fine-grained and realistic representation of belief and trust, and it also allows for agents to receive information from outside the network.