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Simon DeDeo* (sdedeo@indiana.edu), School of Informatics and Computing, 901 E 10th St.,
Bloomington, IN 47408. *From Wikipedia to the Arab Spring: Game Theory and Collective
Cognition.*

In an analysis of range of social systems, from online collaboration in Wikipedia to revolutionary activity in Tahir Square, we find a common structure to social reasoning that crucially involves the formation of long-term memories and dispositions. No individual member serves as the system memory or reasoner; these dispositions are, instead, collective states of the group as a whole. The underlying computational structure appears to make use of at least one (formally) unbounded resource. We provide a game theoretic account of group-level strategies based on a simple belief-formation mechanism, and show the challenges that arise in connecting these group level phenomena to the beliefs and desires of the underlying individuals. (Received February 10, 2014)