How is making up one's mind like taking a decision? Links between Belief Change and Social Choice

Abstract: The topic of belief change is focused on the dynamics of knowledge: how to update, revise and combine information of diverse origins, when that information is encoded in some logical formalism. It is of interest to philosophers, logicians, law theorists and computer scientists. The topic of Social Choice, on the other hand, is focused on the dynamics of preference: how to put forward, choose and aggregate preferences of equally diverse origins, when the preferences are encoded as orders over some set of alternatives. It is of interest to economists, political scientists and computer scientists, though the latter are typically of a different bent than the ones interested in belief change. The two topics are pursued by largely different communities, but I will show that they share a common framework and will make a case for exploring connections between them.