Group Belief in Structured Coalitions

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In ordinary language we often meet sentences when belief or knowledge of group of people is discussed. recent studies outline several important features of group belief such as: "not arbitrary subsets of agents should form a group", "individual beliefs should not imply group belief" etc. In this work we impose a structure on a set of agents first of all to be able to express the idea of a coalition (well formed group) and secondly to give a natural semantics for group belief operator. We define group belief of a set of agents to be common belief of the corresponding coalition of agents. Based on this equivalence we discuss several properties of group belief operator and also interrelation of group belief with individual beliefs. As a main result we show Kripke completeness of a corresponding logic.