A fundamental problem in a wide range of biological disciplines is understanding how functional complexity at a macroscopic scale (such as the functioning of a biological tissue) results from the actions and interactions among the individual components (such as the cells forming the tissue). Animal groups such as bird flocks, fish schools and insect swarms frequently exhibit complex and coordinated collective behaviors and present unrivaled opportunities to link the behavior of individuals with the functioning and efficiency of dynamic group-level properties. Using an integrated experimental and theoretical approach involving both insects and vertebrates (including humans) I will address both how, and why, animals coordinate behavior. In some animal groups decision-making by individuals is so integrated that it has been associated with the concept of a “collective mind”. As each organism has relatively local sensing ability, coordinated animal groups have evolved collective strategies that allow individuals to access higher-order computational abilities at the group level. I investigate the coupling between spatial and information dynamics in crowds, flocks, schools and swarms and reveal the critical role uninformed individuals (those who have no information about the feature upon which a collective decision is being made) play in effective consensus decision-making.