1035-91-1177   **Jason Kronewetter*** (`jkronewe@math.uci.edu`), Math Department, UC Irvine, 103 MSTB, Irvine, CA 92617, and **Donald G Saari** (`dsaari@uci.edu`), UC Irvine Math Department, 103 MSTB, Irvine, CA 92617. *Applications of Topology to Decisions.*

Economic models as well as aggregation and decision problems with holes in the domain can be difficult to analyze because, unexpectedly they are related to Arrow's Impossibility Theorem. Topological dictators crop up from symmetries in the structure of the domain. For instance, when deciding where to locate a satellite, the complete set of choices (domain) could be modeled by a sphere. The dictatorial settings can be removed in a way similar to the resolution of Arrow's Theorem, by recognizing that decision procedures are not using information about the topology of the domain. (Received September 19, 2007)