

Electoral Laws and Electoral Competition. Gary W. Cox, *Department of Political Science, University of California, San Diego, La Jolla, CA 92093, U.S.A.*

It has long been thought that electoral laws exert important influences on the number of political parties that can survive in equilibrium, on the degree of disparity between vote shares and seat shares, and on other features of electoral competition. This paper investigates how different electoral laws affect the position-taking incentives of parties and candidates, in the context of a spatial model similar to that of Hotelling (1929) and Downs (1958).

The specific electoral laws examined include those determining the number of seats at stake in a given electoral district, the number of votes each voter is allowed to cast, whether voters can vote more than once for the same candidate, and how a given vector of voter decisions is translated into an allocation of seats. I suggest a crude division of electoral systems into those producing predominantly centripetal incentives and those producing predominantly centrifugal incentives. In the former systems—which include the simplest case, investigated by Hotelling and Downs, of two candidates competing for a single seat—optimal strategies for seat-maximizing politicians lead them to converge on the median of the voter distribution. In the latter systems, in contrast, seat-maximizing behavior leads to a dispersion of candidates and parties across the policy space.

The paper considers both 'sincere' and 'strategic' voters. Among the factors found to promote a central clustering of candidates, at least in non-cumulative systems, are the following: increases in the number of votes per voter (reminiscent of Papageorgiu and Thisse, 1985); outlawry of 'partial abstention'; and decreases in the district magnitude. In systems allowing the cumulation of votes, matters are a bit different.

Learning and the Evolution of Group-Beneficial Traits. Robert Boyd, *Department of Anthropology, University of California, Los Angeles, CA 90024, U.S.A.*

Many important models of the evolution of social behavior have more than one evolutionarily stable strategy (ESS). Examples include coordination games (Sugden, 1985), contests (Maynard Smith, 1982a), mutualism (Maynard Smith, 1982b), reciprocity (Axelrod and Hamilton, 1981), and sexual selection (Kirkpatrick, 1981). Here we show that if groups at alternative equilibria have different extinction rates, selection among groups can cause the spread of the strategy that leads to the lowest rate of group extinction even when groups are usually very large, migration rates are substantial, and 'extinction' entails only the disruption of the group and the dispersal of its members. The main requirements are: (1) individuals drawn from a single surviving group make up a sufficiently large fraction of newly formed groups, and (2) the processes increasing the frequency of successful strategies *within* groups