

Polarization and Convergence: Measurement in the Absence of Cardinality

Gordon J. Anderson (University of Toronto)

Abstract: Polarization and Convergence, terms employed in many situations in the social sciences, can be interpreted as describing types of transition process between populations observed at departure and arrival points. Typically the processes are calibrated in the context of variates that convey a sense of distance between, and concentration within, groups in a resultant “snap shot” arrival state distribution, so the phenomena can only be established by comparing indices at two points. Yet in many environments the terminologies are applied to groupings that are categorical and ordinal in nature, devoid of a meaningful cardinal distance measure (for example, socio-economic, political, educational and health status variables) and which relate to transitions between non-comparable states (for example parental social class to child educational outcome). In such contexts measurement must rely upon the anatomy of the transition process without dependence on a cardinal distance measure or the comparison of cardinally non-comparable states. Accordingly here Polarization/Convergence indices and tests based upon the structure of an underlying transition process are proposed and implemented. The tools have many diverse applications, 3 examples from Canadian Generational relationships, the world size distribution of Gross National Product per capita and Chinese Social to Educational Class Structures illustrate their use and revealing many interesting features of polarizing and converging behaviors.