Autocorrelation

Correlation of a variable with itself, whenever considering observations with a gap in time (temporal autocorrelation) or in space (spatial autocorrelation). If presence of a quality in part of a territory makes its presence in neighbouring areas more or less probable, there exists a contiguity effect in the spatial structure, the phenomenon shows spatial autocorrelation; positive autocorrelation: neighbouring regions tend to have identical properties or similar values (e.g. homogeneous regions, regular gradients); negative autocorrelation: neighbouring regions have different qualities, or strong and weak values alternate. Measures of autocorrelation depend on the analysis scale, on the level of resolution of the grid through which the distribution is observed. These measures are ratios between covariance measured for a given interval and total variance. The most frequently used indices are those of Moran (1950) and Geary (1954).

See also: neighbourhood
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Bibliographie