

Underlying Motivational Indicators behind Voting Behavior in Major Elections: A Statistical Methodology

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Abstract

The fundamental assumption in voting behavior is that it is not random, at least for (presumably) intelligent voters who are not committed to one candidate as a hardcore Democrat or a Republican in the US or Conservative or Labour in the UK. If this fundamental assumption is correct, there are factors underlying motivational indicators behind the voting behavior. The following statistical methodology is used to identify them. The methodology starts with exhaustive pretests and methodological studies to develop a set of questions which are pairwise uncorrelated or orthogonal for the voters well before the election to determine the relative importance of underlying issues. These include the political issues such as taxation, fiscal policy, job creation strategy as well as demographic factors of the candidate such as age, race, gender, education and extend of political experience and also demographic factors of the voters. The initial steps of the statistical technique of factor analysis usually plays an important role in developing a set of a few questions whose answers are approximately pairwise orthogonal. This is completed before the election. After the election we find out the actual voting behavior and perform logistic regression with the dichotomous voting behavior and the results of the motivational components. The coefficients of multiple logistic regressions indicate the motivational factors and their importance (after standardization by dividing by their standard errors).

Key Words: Factor analysis, logistic regression; orthogonal; Path analysis