

Risk factors for violent dissident Republican incidents in Belfast: A comparison of bombings and bomb hoaxes



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Theory

Building on the foundations of environmental criminology, Caplan and Kennedy (2011) developed RTM as a spatial diagnostic technique to operationalize features of the environment and determine their spatial influences related to a specific outcome. Each location has an associated value to an offender, which is determined by the opportunity for crime that it offers. RTM can be used to identify the locations that have the greatest estimated opportunity and therefore pose the highest level of risk. RTM identifies high risk locations that are potentially correlated with the presence or absence of future event(s) in a particular location. The number of relevant features deemed to have a spatial influence on increasing the likelihood of crime determine the level of risk. In combination, these correlates of criminal events identify areas within a city at the highest risk of future incidents. Whilst retrospective hot spot mapping attempts to predict the likelihood of the locations of future attacks based solely on where attacks have previously occurred, RTM can be used to estimate future risks of all areas.

Method

Risk terrain modelling (RTM) was applied to each type of incident to identify significant risk factors for bombings and bomb hoaxes committed by violent dissident Republicans in Belfast, Northern Ireland. The RTMDx Diagnostics Utility (Caplan and Kennedy, 2013) software automates the statistical procedures involved in RTM and was used to identify the significant risk layers. This tool evaluates the relative influence and importance of risk factors. The variables are examined and the most problematic risk factors are selected to build the overall best model.

Findings

Previous protests and riots, punishment attacks, and areas dense with pubs and bars were identified as risk factors for bombings. Punishment attacks, police stations, and places dense with shops were identified as risk factors for bomb hoaxes. Descriptive statistics regarding predictive accuracy indicated that half of incidents for both types occurred in high or very high risk cells in a 3-year post-study period. RTM could be a useful tool in guiding targeted responses to the violent dissident Republican threat in Belfast. The results suggest that there is some assessment of risk by the offenders, and that they are selecting targets rationally. Due to the differences in risk factors for the two types of events it can be proposed that there may be differences between targets relevant to ideology and realistic targets with increased chance of success.