

Editorial

A Preface for the Special Issue “Economics of Conflict and Terrorism”

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The current Special Issue presents an interesting collection of seven articles that expand the existing literature on the subjects of terrorism and conflict. The papers present significant empirical, methodological, and theoretical contributions.

Two papers from the present collection use game-theoretic foundations in order to examine the empirical issues in relation to the notion of conflict. The first, by George and Sandler [1], uses two-step GMM estimates of the demands of E.U. members for defense spending based on alternative spatial-weight matrices. They found that the consistent and robust estimates of E.U. military spending during the post-Cold War differs from past non-spatial and spatial E.U. defense spending estimates. Most notably, free riding, indicative of strategic substitutes, characterizes E.U. members' military expenditure. In the second paper, Bang, Basuchoudhary, and Mitra [2] use machine learning to empirically shift between competing models of terrorism or nonlinear patterns. Machine-learning algorithms focus on predictive accuracy instead of tests of significance; in this sense, they can identify whether a variable is predictive or not, even if it is endogenous with the target variable, terrorism. Second, game-theoretic approaches often predict the nonlinear relationships between variables, where equilibria switch in comparative static scenarios. They found that models predicting economic opportunity, development assistance, and ethnic tensions may not be predictively salient. In contrast, those that predict a more formidable target would elicit more terrorist attacks and are predictively salient.

There are two papers that present methodological innovations. Balcaen, Du Bois and Buts [3] use prospect theory to study the uncertainty of conflicts between a State challenger and a defender. The article raises awareness with regard to cognitive bias associated with conflict choices. The article yields two specific recommendations. First, future research could confront test subjects (e.g., decision makers, such as politicians, or regular citizens) with hybrid threat scenarios that involve hypothetical policy responses and different outcomes. Second, as hybrid attacks occur frequently, we can conduct large-N statistical analyses. The article written by Ganzfried [4] studies a new algorithm for approximating Nash equilibrium strategies in continuous games, which are difficult to solve since the pure strategy space can be infinite. He implements the algorithm in the Blotto game. His algorithm converges quickly and is the first algorithm to solve the continuous case of the game.

Last but not least, three theoretical articles exist. Faria and Arce [5] study a dynamic game in discrete space and find a number of new results, namely, the fact that counter-terror is limited; defensive counter-terror limits the worst-case scenario, while proactive counter-terror reduces the capacity of terrorists; proactive counter-terror is the most effective of the two, however it is underprovided; and, finally, cyclical attacks are independent of counter-terror policy and depend on the terrorist's time preferences and tactic adjustment costs. Oliveira and Silva [6] study the incentives produced as a result of retaliation for the formation of an international counter-terror coalition. The benefits of joining such a coalition are the relatively lower spillover benefits as a result of the retaliation. The cost

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of joining a coalition is the anticipated backlash from retaliation. Boudreau, Matthews, Sanders, and Bagchi [7] examined the momentum in conflict, where victory in the initial stage can provide an advantage in the final stage. They discovered that the impact of elasticity of effort on levels of effort has no bearing on the value of momentum itself. Instead, momentum helps a player by enhancing the marginal chance for victory in the second-stage contest. This concept provides a theoretical foundation for Pyrrhic victories.

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