

Third Parties and the Dynamics of War Expansion

Kyle A. Joyce: Dissertation Abstract

While most international conflict research focuses on the onset, escalation, duration, and outcome of wars—often ignoring the effect of third-party participation (i.e., expansion) on the war process—the absence or presence of third-party participation directly affects how a war unfolds. While 80% of interstate wars do not expand to include third-party states, those wars that do expand are often the deadliest in terms of fatalities. Indeed, among all interstate wars between 1816 and 1997, the 20% that expanded account for a full 88% of the fatalities. These statistics reveal two diametric puzzles: 1) Given the strong interests third-party states have in which side wins a war, why don't *more* wars expand? 2) Given the high costs of participating in war, why do *so many* wars expand? In short, while all wars have the potential to expand, why do some wars expand while others do not? I address these puzzles by examining the determinants of whether and when third parties join ongoing wars. I offer a theory of war expansion that explains the puzzles of third-party joining.

I argue that a third party's decision of whether or not to join an ongoing war is informed by three interconnected relationships: 1) that between the original belligerents themselves, 2) those between the original belligerents and each third party considering joining, and 3) those between each third party and all other third parties. Additionally, each third party's decision is based on the current dynamics of the war (which side is winning, which is losing, and by how much), its belief about the future evolution of the war with and without its participation, and its belief about which other third parties will join and on which side. In short, war expansion is complex and dynamic, requiring a theoretical model that can capture these relevant relationships as well as the shifting dynamics of the war itself.

Extant formal models of war expansion focus on a single third party's decision to join without accounting for how this decision is influenced by: 1) each third party's belief regarding the joining decisions of all other third parties and 2) the dynamics of the war. One of the reasons current models ignore these parts of a third party's decision is that the formal tools (decision and game theory) commonly employed become mathematically intractable when asked to handle more than three actors, not to mention dynamics. I demonstrate how decision and game-theoretic models break down when tackling this complex problem and offer agent-based modeling as the most appropriate tool to explain why and how wars expand.

I develop an agent-based model and run computer simulations of war in an artificial international state system. I run these simulations under varying initial conditions to examine the emergent behavioral patterns of third parties during the simulated wars as well as the effects of third-party intervention on the war dynamics. The emergent patterns serve as theoretical predictions (i.e., hypotheses) of the behavioral patterns that should emerge in the real world under parallel conditions. I test these hypotheses by using statistical analysis to evaluate how well the predictions withstand empirical scrutiny of real-world data. For example, one behavioral pattern I test is that short wars are characterized by balancing and counter-balancing dynamics—a third party joins the initially weaker side (balancing), then a third party joins the initially stronger side (counter-balancing), and so on. In contrast, long wars are characterized by balancing and bandwagoning dynamics—a third party joins the initially weaker side (balancing), then other third parties join the same side (bandwagoning). By using a combination of formal and empirical methods to develop and test hypotheses like this one, I contribute concrete insights into the mechanisms of why and how wars expand and add to our knowledge of conflict processes more broadly.