Rage Against the Machines and the Democratic Hourglass?

Examining Outcomes in Counterinsurgency Wars

Brian Forester bgf3@duke.edu

Duke UNIVERSITY

The Puzzle

In counterinsurgency wars, what explains the decreasing likelihood of counterinsurgent (incumbent) victory, as seen in figure 1?

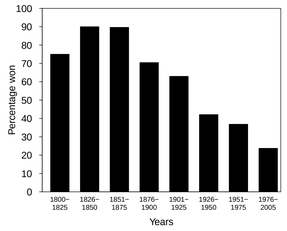


Figure 1

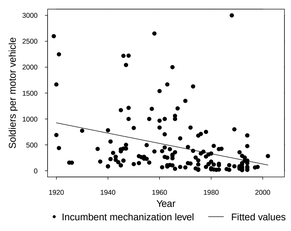
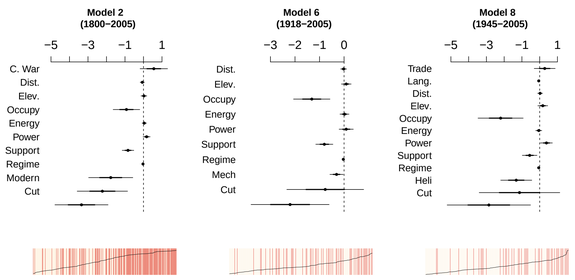


Figure 2

Lyall and Wilson (2009) hypothesize that this is a function of the increasing mechanization of incumbent military forces, as seen in figure 2.

Authors' Results



Using an ordinal DV representing the incumbent's war outcome (*win, lose, draw*), the three logit models above represent the authors' central findings. Substantively, they find that: (1) the modern (post WWI) era, increasing mechanization, and the use of helicopters are all associated with lower probability of incumbent victory; (2) *support* and *occupy* are also associated with incumbent defeat; and (3) *regime* is not a significant predictor of the incumbent's outcome.

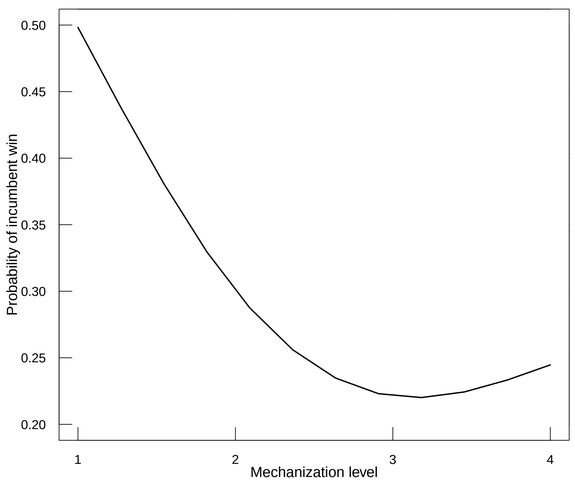
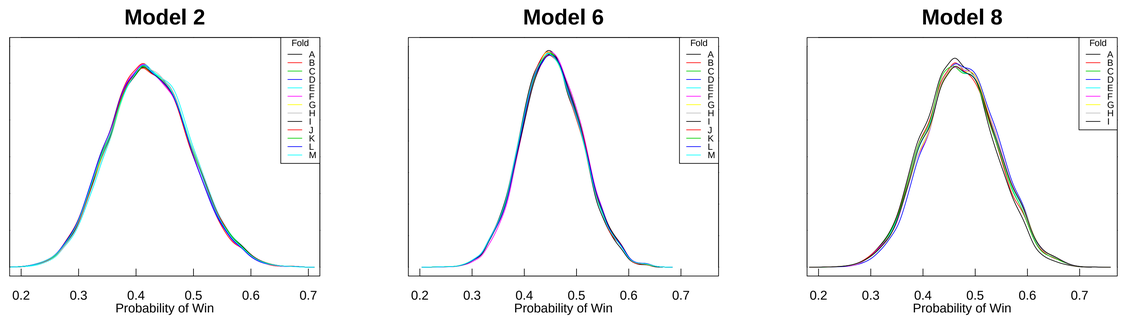


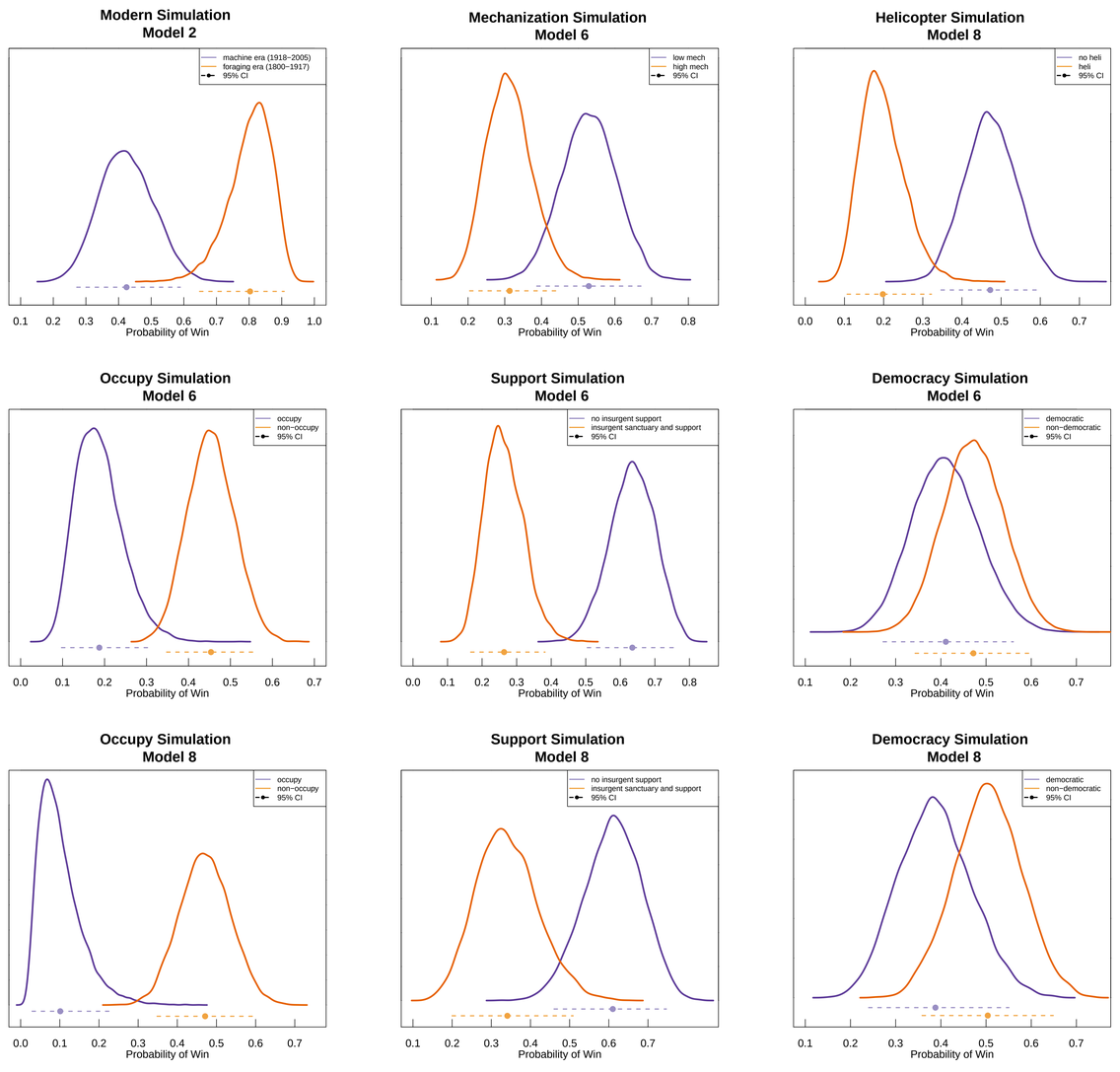
Figure 3. The conditional effect of mechanization. Predicted values computed using model 6, with a cubic spline curve fitted across median values. N=167.

Cross Validation of the Models



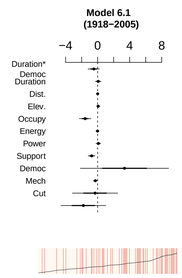
The figures above display the results of cross-validations for all three models. The similarity of the densities indicates that there does not appear to be any data unduly influencing the model estimations.

Statistical Simulations



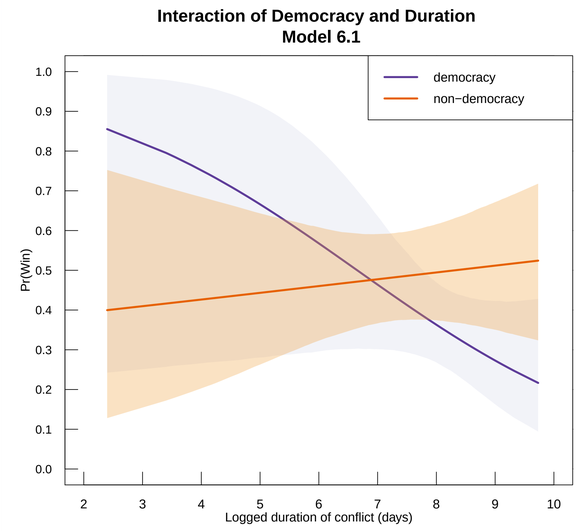
- The dichotomous variables *modern* and *heli* are associated with a higher probability of incumbent loss.
- Incorporating the fundamental uncertainty indicates that *mech* is not as strong a predictor of outcome.
- *Occupy* and *support* are strong negative predictors of incumbent victory.
- There is no significant difference in probability of victory for democracies and non-democracies.

Re-specification



As an extension of the authors' analysis, I wish to test the interaction of conflict *duration* with *democ* by re-specifying model 6. The results of this re-specification are illustrated in model 6.1. A simple likelihood ratio test between model 6 and 6.1 results in a $p \leq 0.05$, thus indicating a better fit of the re-specified model.

Regime Type and Duration



This plot represents the marginal effect of duration on probability of incumbent victory for democracies and non-democracies. The solid lines represent the point estimates, and the shaded areas represent the 95% confidence bands.

High uncertainty makes it difficult to draw definitive conclusions, but we can identify the following:

- Probability of victory for democracies trends negatively as *duration* increases.
- Probability of victory for non-democracies is relatively constant as *duration* increases.
- High uncertainty in shorter conflicts gives rise to less uncertainty as *duration* increases.
- Further empirical analysis is needed in order to gain a robust understanding of the relationship between *duration* and regime type.

Reference

Jason Lyall and Isaiah Wilson. "Rage Against the Machines: Explaining Outcomes in Counterinsurgency Wars." *International Organization*, 63 , pp 67-106, Winter 2009.