

Bush's (and/or Kerry's) Problem of Strategic Credibility

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1 Introduction

On April 13, 2004 President George W. Bush held a press conference in which he urged Americans to stay the course in Iraq saying “We must not waver.” In his February 15, 2004 opinion piece, *New York Times* columnist Thomas Friedman urged Presidential-candidate John Kerry to commit to stay in Iraq.¹ These statements, and others like them, are designed to convey the U.S.’s commitment to a policy in Iraq.

Unfortunately, these statements ignore one of the central insights of game theory: namely, that statements of commitment are credible only if these actions are supported by the agent’s incentives.² This paper builds a simple model of the current strategic interaction in Iraq between the U.S. forces and Iraqi insurgents. The model illustrates the problem of strategic credibility faced by the current U.S. Administration (and by any future U.S. administration) and draws policy recommendations by analyzing the strategic interactions of the game.

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¹Friedman suggested that Kerry state publicly: “READ MY LIPS – if I am president, I will not cut and run. I will not pull our troops out in the face of your intimidation the way Ronald Reagan fled from Lebanon.”

²The usual analysis of credibility, *i.e.*, requiring subgame perfection, argues that an action is credible only if it is an equilibrium strategy of the subgame. The analysis here deals only with Nash equilibria which are subgame perfect.

Table 1: **The Game**

		Americans	
		Stay	Leave
Insurgents	Resist	$-c_I + \delta V_I, -c_A + \delta V_A$	C, Z
	Cooperate	A, X	B, Y

2 The Model

The game has two players: the Americans and the (Iraqi) Insurgents. Each agent has two possible actions in each period. The Americans can either stay in Iraq, or they can leave. The Insurgents can either resist or they can cooperate. The agents do not observe the actions of the other player before deciding their action, so the stage game is a simultaneous game.³ To focus on the issues at hand, I assume that the strategic interaction ends if the Americans leave or if the Insurgents cooperate.⁴

The payoffs of the game are presented in Table 1 with payoffs for the Insurgents listed first. The payoffs A, B, C, X, Y, and Z represent terminal payoffs of the game.⁵ If the Insurgents fight and the Americans stay, the strategic interaction is repeated. In this case, the payoffs to the Insurgents include a flow cost of fighting, c_I , and a continuation payoff. If V_I is the present value of the Insurgent's equilibrium payoff, then the continuation payoff is δV_I where δ is the discount factor. Similarly, for the Americans, if the flow cost of fighting is c_A and the equilibrium value of the game is V_A , then the payoff from staying is $-c_A + \delta V_A$ if the Insurgents fight.

If the Americans leave, the payoff to the Insurgents is C if they resist, and B if they do not. If the Insurgents resist, they will likely be worshiped as heroes (or feared as tough fighters) by their compatriots. For this reason, it seems reasonable to assume that $C > B$, *i.e.*, that the

³The stage game could be modeled as a sequential move game. Analysis of the sequential move stage game is beyond the scope of this note, but the main insights of this analysis would likely still hold.

⁴In theory, the U.S. could leave and then invade. The folk theorem then implies that any individually rational payoff could be supported as an equilibrium for some discount rate.

⁵These payoffs can be interpreted as the present value of the stream of payoffs that would follow the relevant actions.

payoff to the Insurgents from resisting is greater than the payoff from cooperating conditional on the Americans leaving.

If the Insurgents cooperate, the payoffs to the Americans are X if they stay and Y if they leave. Since the Americans would save a great deal of money by withdrawing from Iraq and since the public does not desire a long occupation of Iraq, it seems reasonable to assume that $X < Y$. Furthermore, the public statements of the Administration suggest that they will pull out of Iraq as soon as possible, and budget pronouncements do not provide any funds for future troop deployments in Iraq.⁶

These two assumptions, $C > B$ and $X < Y$, rule out cooperation by the Insurgents in any pure strategy equilibrium. Even if the Insurgents were better off cooperating if the Americans stay, *i.e.*, even if $A > -c_I + \delta V_I$, cooperating still would not be an equilibrium action since the Americans are better off by leaving. Given that the Americans are leaving, the Insurgents are better off to resist. Therefore cooperation is not an equilibrium strategy for the Insurgents.

This illustrates the problem of strategic credibility for the Americans. The public announcements of U.S. commitment to Iraq are not credible since the Americans' incentives are to leave Iraq if the Insurgents are cooperating. Since the Insurgents are better off resisting if the Americans are pulling out, cooperating is not an equilibrium strategy for the Insurgents. Thus, the public announcements of commitment to Iraq do not encourage the Insurgents to cooperate since they are not credible.

Since cooperating is not an equilibrium strategy for the Insurgents, the only candidates for pure strategy equilibria are (Resist, Stay) and (Resist, Leave). First consider (Resist, Stay). This strategy profile is an equilibrium if $-c_I + \delta V_I > A$ and $-c_A + \delta V_A > Z$. If this strategy profile is an equilibrium it follows that V_I is exactly $-c_I + \delta V_I$. But this implies that $V_I = -c_I / (1 - \delta)$, *i.e.*, the equilibrium payoff to the Insurgents is the present value of resisting forever. Similarly, the equilibrium payoff for the Americans is $V_A = -c_A / (1 - \delta)$, *i.e.*, the present value of staying

⁶President Bush said in his press conference, "In terms of how long we'll be there, as long as necessary, and not one day more."

forever.

The conditions for this strategy profile to be an equilibrium can then be written $-c_I/(1 - \delta) > A$ and $-c_A/(1 - \delta) > Z$. The first condition says that it is better for the Insurgents to resist forever than to cooperate with the Americans. The second condition says that it is better for the Americans to stay forever than to leave.

Next consider (Resist, Leave). The conditions for this to be an equilibrium are that $C > B$, *i.e.*, the insurgents are better off resisting when the Americans leave, and that $Z > -c_A + \delta V_A$. As above, since $Z = V_A$, this latter condition can be written $Z > -c_A/(1 - \delta)$, *i.e.*, the Americans are better off leaving than staying forever.

If $Z < -c_A/(1 - \delta)$ but $A > c_I/(1 - \delta)$, *i.e.*, the Americans are worse off by leaving than by staying forever but the Insurgents are better off by cooperating when the Americans stay than by fighting, then there is no pure strategy equilibrium. In this case, the only equilibrium is a mixed strategy equilibrium.

3 Lessons

Although this simple game clearly does not model all the complexities of the strategic interactions between the Americans and the Insurgents, it does suggest several lessons.

Lesson 1: Strategic Credibility. To induce the Insurgents to cooperate, the Americans must be committed to staying in Iraq even if the Insurgents cooperate. In order for this commitment to be credible, the payoffs must be such that $X > Y$. There are several possible policies the Americans could enact that might change the payoffs such that leaving is more costly than staying.⁷ First, the President could use his reputation to state that American troops will remain in Iraq into the indefinite future. This would make a withdrawal more costly at least to this President. Second, the Administration could budget money for operations in Iraq. It is very difficult to project commitment when there are no funds available. Third, the Americans could move permanent

⁷T. X. Hammes on April 1, 2004 wrote in the *Washington Post*: “To win this kind of war we have to dispel any impression that we will abandon Iraq. We must develop coherent, long-term, interagency plans and processes to execute them. We must articulate them clearly, fund them and then stick to them. Only the concrete expression of our political will across the economic, social and military spectrums can lead us to victory.”

bases from Germany and other European countries to Iraq. Once the bases are permanently established, it would be costly for the U.S. to withdraw.⁸ Note that enhancing the credibility of American commitment requires bearing real costs.

Lesson 2: Making Insurgents Pay Doesn't Pay. Following the recent atrocities in Falluja, there were calls for a tough American response. In the model, this can be seen as increasing the Insurgents' costs, c_I . However, making the Insurgents pay is ineffective as long as the Americans' strategy of staying lacks credibility. In other words, even if the Insurgents are punished severely so that $-c_I + \delta V_A$ is less than A, cooperation still is not an equilibrium strategy since the Americans have an incentive to leave.

Lesson 3: Keep the Troops Safe. As long as Americans are in Iraq, they should be kept as safe as possible and should not undertake risky missions. Risky missions increase the American costs, c_A , and make it more likely that leaving is an equilibrium.

Lesson 4: Pretend Fighting is OK. If the Americans stay, fighting does not have to be fierce in order for it to be effective. One possible equilibrium of the game is (Resist, Stay) with equilibrium payoffs $-c_I/(1 - \delta)$ and $-c_A/(1 - \delta)$. If the costs c_I and c_A could be minimized, then the equilibrium payoff would improve. For example, if resistance from the Insurgents consisted of throwing rotten tomatoes at the Americans and denouncing them vehemently in the free Iraqi press while the Americans only ventured out of their bases for annual parades celebrating the capture of Sadaam Hussein, then the (Resist, Stay) equilibrium would not be a bad outcome. Another way to minimize c_A would be to increase the troop contributions from the coalition in Iraq.

Lesson 5: Declare Victory and Get Out. If the Americans are going to leave Iraq eventually, then we should do it immediately. If $Z > -c_A/(1 - \delta)$, then the equilibrium is for the Americans to leave.⁹ In this case, there are policies the Americans could undertake to improve the payoff Z.

⁸Germany accepted permanent bases on its territory primarily due to the threat of the Soviet Union. Iraqis might accept permanent U.S. bases in Iraq if they were seen as a response to the threat of historical enemies such as Iran and Turkey.

⁹Note that this calculation, requires comparing the payoff to withdrawing to the (properly discounted) payoff of staying forever. If the Americans politicians do not care sufficiently about the future (known in economics as hyperbolic discounting), they may choose to stay even though the long-run payoff would be better from leaving. For example, if the Americans discount future payoffs completely, they may choose to stay since $-c_I > Z$ even though $-c_I/(1 - \delta) < Z$. Complete analysis of hyperbolic discounting is beyond the scope of this note.

For example, we could call it a great victory rather than a defeat. Moreover, we could prepare carefully for the withdrawal so that the last Americans left amid fanfare rather than in helicopters from the U.S. embassy.

4 Conclusion

President Bush closed the April 13 press conference by stating that “When I say something, I mean it.” However heartfelt this statement may be, the commitment can only be credible strategically if America’s incentives support the commitment. President Bush recognizes the importance of credibility since he followed the preceding statement by saying: “And the credibility of the United States is incredibly important for keeping world peace and freedom.” Here I analyze whether America’s commitment to Iraq is strategically credible and suggest some lessons drawn from the analysis of a simple model of the strategic interaction between America and the Iraqi Insurgents.

While the model cannot capture all of the intricacies of the strategic interaction, several relevant lessons can be drawn. First, if the American commitment to Iraq is to be credible strategically, it must be backed up by concrete actions which make withdrawal more costly. Second, excessive punishment of insurgents is not effective if the U.S. cannot commit to staying in Iraq. Third, risky missions for U.S. troops that increase the costs of fighting are not effective. Fourth, fighting need not be costly for it to be effective. Finally, it is not effective to increase the costs of withdrawal by stating that withdrawal would be a defeat because it does nothing to enhance strategic credibility.