

## COOPERATION UNDER THE SHADOW OF THE FUTURE

### EXPLAINING LOW LEVELS OF AFGHAN COOPERATION WITH ISAF DEVELOPMENT AND SECURITY PROJECTS

Dr. Nehemia Geva  
Dept. Political Science, Texas A&M University  
[e339ng@polisci.tamu.edu](mailto:e339ng@polisci.tamu.edu)

Dr. Belinda Bragg  
NSI, Inc.  
[bbragg@nsiteam.com](mailto:bbragg@nsiteam.com)

Prepared for SMA PAKAF RCU II Academic Consortium Dec 2010

### INTRODUCTION

This project addresses two major interrelated objectives. The first objective is a substantive one: we are interested in better understanding why Afghan participation in ISAF and ISAF-sponsored initiatives is low, even when participation offers the opportunity for significant near-term benefits. We contend that the ISAF mission in Afghanistan presents a clear example of a shadow of the future decision problem for the Afghan people. Specifically, that low levels of Afghan participation result from the knowledge that ISAF presence is finite and that, after ISAF withdraws, insurgents will punish those who cooperated effectively negating the value of any benefits gained from that cooperation. This situation presents a serious policy challenge for ISAF, and a better understanding of the dynamics and factors that affect Afghans collaboration with ISAF's local initiatives will help develop policies that can mitigate the current situation.

The second, broader, objective is to demonstrate the utility of the experimental method to the work being conducted by SMA and other groups supporting US forces in complex environments such as Afghanistan. That is, we posit that experimentation can help us understand (test hypotheses and provide empirical evidence) complex contexts where data are scarce and the data that is available are problematic.

The utility of the experimental method is tested in the context of the substantive question of this project: Why are Afghan citizens reluctant to cooperate with small-scale initiatives started by ISAF forces? Their intention is to improve conditions for the Afghan people as well provide incentives to support the consolidation of an Afghan governed nation. While there are several potential accounts of why the Afghans do not collaborate with ISAF – mostly cultural – in this paper we explore the utility calculations of the Afghans. We focus mainly on the Afghan perception of the major counter force

to prevent such collaboration, that is, the Taliban. In their attempt to stop such cooperation the Taliban conducts nightly deterrent acts, which include addressing threatening letters to the locals and sabotage for those collaborating with the American forces. We argue that in addition to these small-scale Taliban attacks – there is another dark cloud hovering in the future. The fact that The ISAF's commitment is finite and the related issue of the future relative strength of the Taliban versus the ISAF established Afghan government.

### WHAT IS THE SHADOW OF THE FUTURE?

Much decision theory that seeks to explain how individuals make choices focuses on the comparison of costs and benefit. Decision makers are assumed to be rational and seek to maximize utility. That is, they are considered to be purposive (goal oriented) and chose the alternative that gains them the greatest benefit. The expectation is that future consequences – either costs or benefits – are discounted and play a lesser role in the decision calculus than immediate costs and benefits.

In some decision contexts, however, future costs can be of such a magnitude that they outweigh any near-term benefits. In essence, the benefits of an immediate action are overshadowed by the expectation of future costs arising from that action. For example, many anti-smoking campaigns rely on offsetting the (supposed) social advantages of smoking now by focusing attention on the future costs of damage to one's health, or death.

In the context of the ISAF mission in Afghanistan the shadow is cast by the continued presence of Taliban opposition to ISAF and GIRoA. The Taliban has been active in creating and disseminating propaganda designed to undermine support for ISAF and GIRoA. One common tactic is the use of threatening night

letters, or Sahbnamah”, particularly targeting those involved in community development efforts and the establishment of schools (International Crisis Group 2008). Videos, mobile phone images, audio recording and websites are also used by the Taliban to delegitimize ISAF and GIROA, and communicate their threatened retribution for collaboration (International Crisis Group 2008). In general, the overarching theme of Taliban propaganda focuses on characterizing their violent acts as heroic while portraying the Afghan government as treasonous to the Afghan people, and ISAF forces as invading crusaders. The propaganda often threatens individuals if the Taliban’s guidance is not followed, and reinforces its message with news items portraying violent events being perpetrated against Muslims such as attacks on civilians carried out by Israeli, U.S., or ISAF troops (Johnson, 2007).

These Taliban actions are designed to influence the decision calculus of the Afghan population away from the immediate benefits they may gain from ISAF and GIROA actions and toward the costs of those actions. Their characterization of these costs is not constrained to immediate effects, such as collateral damage. Rather, there is the clear message that cooperation will result in punitive reprisals.

### **HOW CAN WE CONCEPTUALIZE THE CHOICE FACING AFGHAN CITIZENS?**

The first step in applying experimental methodology to the study of a decision context is to develop a conceptual model of the choice set available to the individual. The players– the entities that can influence the outcome – in this model are the individual decision maker themselves, ISAF, GIROA and the Taliban. We can conceptualize the Afghans’ response to the ISAF projects as comprised of three choices: Cooperate with ISAF; defect and support the Taliban or; sit on the fence and do nothing. Each of these choices, as illustrated

in Figure 1 below, also has implications for the longer term balance of power between GIRoA and the Taliban.

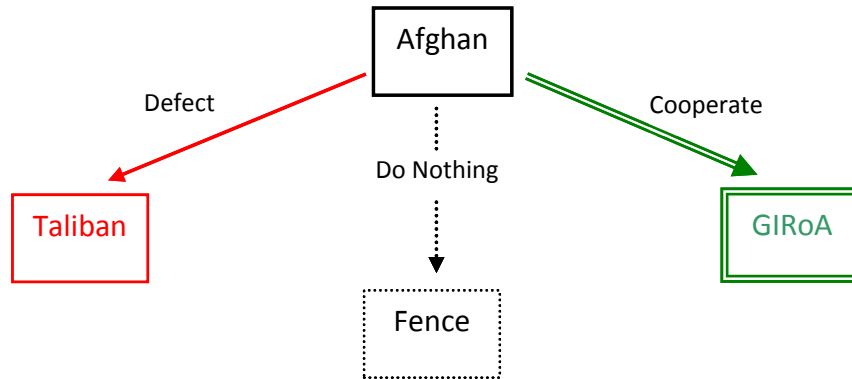


Figure 1: Decision model for Afghan citizen

**WHAT DETERMINES CHOICE? CALCULATING THE COSTS AND BENEFITS OF COOPERATION**

The next step in the modeling process is to examine the factors that drive the choice between these three actions. As discussed above this model assumes that we are dealing with rational individuals, and thus we can analyze choices in terms of the costs and benefits associated with each outcome and the probability that both will eventuate.

**BENEFITS OF COOPERATION**

The benefits of cooperation relate directly to the scope and focus of the cooperative project in which the individual is being asked to participate. As such the calculation of benefit can be broken down into the following factors:

Benefit of Cooperation  $B=DP+SP+RP$

Where:

DP=Dimension of project (security; development)

SP=Size of project (monetary value)

RP=Relevance of project to villager’s needs

**COSTS OF COOPERATION**

The costs of cooperation are more diverse. The first costs relate to the possible actions the Taliban may take to deter cooperation. These may take the form of negative inducements (punishments for those who cooperate) or positive

inducements (rewards for those who do not cooperate). The target of retaliation can also differ. In some case threats are made against the individual themselves, while in other cases their family or community in general are targeted (International Crisis Group 2008). The wider community environment can also affect the magnitude of costs associated with cooperation. If an individual's community (in-group) is aligned with the Taliban, cooperation brings additional costs and risks, whereas an in-group that is already aligned with ISAF and GIRoA interests can mitigate some of the potential costs of cooperation.

Cost of Cooperation:  $C=TR_{TS}(TR_P-TR_R)$

Where:

$TR_R$ =Taliban response – rewards

$TR_P$ =Taliban response – punishments

$TR_{TS}$ =Taliban response – target salience (self/family or other)

#### **EXPECTED CONSEQUENCES OF COLLABORATION**

The final element of the decision calculus relates the probabilities associated with each outcome. These in turn define the expected utilities of the choice made. In essence this is where the shadow of the future comes into play.

From this we can determine the parameters under which an individual will chose to cooperate, defect or sit on the fence:

From this we can determine the parameters under which an individual will chose to cooperate, defect or sit on the fence:

*If  $E[DP+SP+RP] > E=[TR_{TS}(TR_P-TR_R)]$  then the outcome will be cooperate.*

*If  $E[DP+SP+RP] < E=[TR_{TS}(TR_P-TR_R)]$  then the outcome will be defect and support the Taliban.*

*If  $E[DP+SP+RP] = E=[TR_{TS}(TR_P-TR_R)]$  then the outcome will be sit on the fence.*

Most simply put, if the benefits of cooperation are greater than the costs, then the rational individual will cooperate. However if the costs outweigh the benefits a rational individual will defect and support the Taliban. If the two are equal then the expectation is that the rational individual will not be able to choose between the two actions and will therefore do nothing, or sit on the fence.

**WHAT DETERMINES CHOICE- CAN WE CHANGE AN INDIVIDUAL'S MIND?**

If we accept the premise that an individual chooses to cooperate with ISAF or not using rational calculation of costs and benefits then this raises the possibility that we can increase levels of cooperation by influencing the costs benefit components. The next step therefore is to identify which, if any, of the elements above that contribute to the cost-benefit calculation can be changed by ISAF or GIRoA actions.

**WHAT CAN ISAF DO?**

There are multiple points at which ISAF can influence the cost-benefit factors for the individual Afghan. The choice of cooperative project to offer directly determines all elements of benefit. More generally, ISAF forces can influence the perceptual environment by engaging the Taliban. Their capabilities can be decreased through kinetic operations or their motivation to oppose GIRoA and ISAF governance efforts can be reduced by investing representatives in the governing process. Weakening Taliban capabilities and motivations will also increase the relative strength of GIRoA, decreasing the shadow of the future.

**WHAT CAN GIRoA DO?**

GIRoA enters the cost-benefit calculation in terms of the probability that the Taliban will be in a position to punish those who cooperate with ISAF projects. The weaker GIRoA is, the more likely it is that the Taliban will be able to punish cooperative choices. Thus, by increasing its perceived legitimacy through improved provision of government services, particularly development, security and governance projects, GIRoA can increase its current strength relative to the Taliban and the probability that it will be able to successfully combat Taliban actions once ISAF forces leave.

**WHAT CAN THE TALIBAN DO?**

The Taliban can use wither rewards or punishments to remind individual Afghans of the potential consequences of cooperation. These actions also serve the more general purpose of undermining the perceived efficacy and legitimacy of GIRoA and thus the probability that they will hold control of the country after ISAF leaves.

Putting all these elements of the model together we can construct a model of the ways in which the different players can potentially influence the decision calculus of the Afghan citizen. This is an important stage in the modeling process as it helps us to identify all the possible variables of interest. From here we move to constructing tests of the model to determine whether our hypothesis concerning the primacy of costs in the decision calculus of Afghan citizens is supported by the findings from the model test.

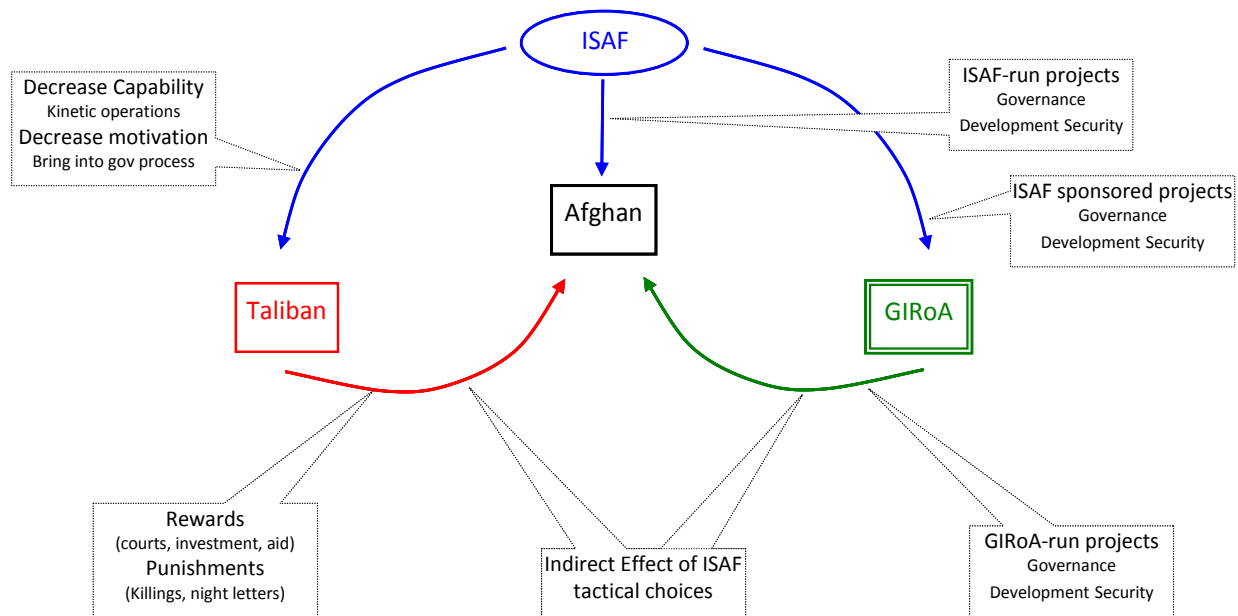


Figure 2: Player effects on choice set for Afghan citizen

**THE ADVANTAGES OF EXPERIMENTAL TESTING OF MODELS OF DECISION MAKING**

We acknowledge that policy making in this complex environment is based on current knowledge and information of the policy makers. Yet, periodically the knowledge and information base requires updated empirical verifications. (On factors that influence the need for updates in sequential decision-making, see Billing and Hermann, 1998.).

The literature on information processing in choice suggests several diverse options decision makes can use. (Sylvan, Ostrom and Gannon, 1994). The



decision maker can resort to use of analogies, i.e. use available information of “similar” cases<sup>1</sup>. The drawback of this method is the extent of similarity between the “analogous” case and the current situation. (See Vertzberger 19xx). Another option is to use secondary sources, i.e., existing (or to be collected) data-sets that allude to the variables the decision maker considers relevant to current choices. The utility of such proxies is limited to the reliability of these sets and their actual relevance (and thus validity) to the variables of interest. The third option is to resort to individual level surveys. Excluding the logistic costs of such endeavors, one has to realize the problems inherent in this method, i.e., social desirability biases, as well as issues of sample representation. These issues dampen the reliability and validity of such an approach.

We do not intend to imply that the methods described above are inherently faulty and not be used. We believe that their careful application may yield decent evidence for the policy maker. Yet, we propose to augment the relatively conventional methods with a less used option – the experimental method.

The key feature of experimentation is the fact that the researcher introduces the variation in the independent variables (supposedly the causal factors that are explored). The researcher defines the number of variations per variable, their intensity and their timing. The researcher then monitors the changes that result in the dependent variable(s) – in a rigorously controlled environment. In a perfectly controlled environment, any change in the dependent variable(s) can be attributed to the introduced variation in the independent variables.

The underlying concept of experimentation is control. The experimental procedure requires a control of the instructions to the participants, the context in which the independent variables are embedded and the way the dependent variables are measured. Variables that cannot be controlled directly (e.g., individual differences) are “controlled” by random assignment of the individuals/unit of research to the treatments (changes in the independent variables).

---

<sup>1</sup> The decision maker can employ information of previous events from the same environment, e.g., – Afghans actions during the Russian occupation. Additionally, it is possible to exploit information on ‘similar’ events in other environments, e.g., Southern Lebanon during the Israeli occupation).

While experiments were mostly criticized for their restricted samples of participants (i.e., students, Sears 1989) – a point we will return to shortly, one should consider that the hallmark of the experimental procedure – control – implies “artificiality” of the empirical domain. The context investigated in an experiment may be too simplistic (relative to reality), too short in duration and more. Experiments are usually confined to a small number of independent variables (usually three) and do not assess too many dependent measures. The last points are at vast contrast to the multivariate studies where the researcher imputes 10-15 variables on the right hand side of the equation to accommodate anticipated changes in one dependent variable. However, one should consider that experiments are usually designed to “helps sort out competing hypotheses more effectively than does trying to find the precise combination of variables in the field” (Ostrom, 1998, 17; see also Morgan and Wilson 1989). The requirement of representing a conceptual model within the constrained and controlled environment of an experiment poses as many challenges as attempts to mathematically formalize a theory. Only extreme specification of the conceptualization allows for the initial design of experimental procedures. Thus, regardless of the pattern of the data that is being collected, we believe that this attempt helps shape and refine the theory.

Experiments are designed mainly to test hypotheses that were *deduced* from a given theory. An additional major purpose of experiments is to learn about consequences of controlled counterfactual scenarios that originate in more loosely defined theories. In this case the findings may lead us to suspect what may happen, (and did not happen yet), in the real world (Mook 1983). We concur with Mook's (1983:386) remark that "Ultimately what makes research findings of interest is that it help us understand everyday life. That understanding, however, comes from theory or the analysis of mechanism; it is not a matter of "generalizing" the finding themselves." Hence, what is generalizable is the theory rather than the specific findings. The findings merely support the logic of the theory in cases where the experiment is an appropriate representation of that theory. A comprehension of this logic undermines much of the criticism of the lack of external validity of experiments that are based on students' participation.

### MOVING FROM THEORY TO EXPERIMENTATION

Experimental research is much better suited to the examination of processes as careful design can enable direct but unobtrusive measurement of decision processes. By moving to an experimental approach we can therefore, achieve several goals at once. First, experimental research provides a unique ability to control many aspect of the environment, including the independent variables of interest. This control enables researchers to break down complex relationships and explore particular theoretical links in the presence or absence of other factors (McDermott, 2002), a consideration of particular advantage in this area of study. We can, in effect, silence the high levels of “noise” suffered by econometrics models that rely on historical data by holding all contextual factors constant. Any changes in the dependent variable can therefore be attributed to experimental manipulation, providing a high degree of support for causal inference.

The distance between the experimental and the real world presents hazards as well as opportunities and the transition from theory to experimental design needs to be undertaken with great care. It is crucial to remember that a good experimental design is not one which replicates reality but one in which the researcher can isolate causation, test theories and generate hypotheses. As such, this experiment should be seen as a first, very small step; isolating the most basic components of the general conceptual model and determining their effects on the probability of cooperation. Once this basic relationship is established additional factors can be added and comparisons drawn between these controlled experimental results and case and statistical studies drawing on real world data.

As discussed above, what we seek to capture in our experimental design are the fundamental mechanisms underlying the general decision model developed to explain levels of Afghan cooperation with ISAF projects. The model is well-suited to an experimental design; however the substance presents certain challenges. Specifically, how can an American undergraduate student be motivated to feel and respond to a situation in a way that reflects the decision processes of an Afghan citizen?

## **REALISM**

It quickly became apparent that a focus on mundane realism; basing our experimental scenarios on events similar to the real world (Aronson & Carlsmith, 1968), was unlikely to work for several reasons. First, most of our participants were unlikely to be familiar enough with the details of the Afghan conflict from the perspective of Afghan citizens and thus would require lengthy and complex background information in order to be able to complete the experiment. In our experience such situations introduce the high probability that participants will miss vital elements of the manipulation, decreasing the internal validity of the design. Or, as Aronson, Wilson, and Brewer put it: “Many events that occur in the real world are boring and unimportant in the lives of the actors or observers. Thus, it is possible to put a participant to sleep if an experimental event is high on mundane realism but remains low on experimental realism” (Aronson et al., 1998, p. 131).

Second, to test the theoretical propositions underlying the design we also have to generate a response based on the participant’s sense of personal investment in the decision presented in the experimental scenario. That is, as Wallis and Friedman (1942) argue, we need the participants to react to actual stimuli, rather than their conjecture of how they might respond if they were confronted with a more mundanely realistic situation. To attempt to artificially generate this perception in a single session in a laboratory setting is simply not feasible. Thus, what was required was an experimental setting high in both experimental and psychological realism; one in which the psychological processes that occur in the experimental scenario are similar to those that occur in the real world (Aronson et al. 1998, p. 132).

## **CHOICE OF EXPERIMENTAL DESIGN**

To achieve a valid experimental design we needed to create a scenario which mirrored the theoretically important elements of the model scenario and would resonate with undergraduates at an American university. More specifically, we were concerned that if we designed the experiment within the Afghan context our results would be driven not by the model but by participants pre-existing

knowledge and biases. In particular we were concerned that if participants knew the identity of the players (ISAF, GIRoA and the Taliban) that information alone, rather than the strategic context, would drive their choice. For this reason we determined that an abstracted, incentivized experimental design would be most appropriate.

In an abstracted experimental design all indicators of the specific context are removed, while the strategic relationships and choices remain intact. In this instance this required us to keep the basic characteristics of the players (Afghan citizen, ISAF, GIRoA and the Taliban) and their relationships to one another, removing just their names and the specific nature of the cooperative initiative. This raised an additional problem; how were we to generate the realism we needed to reflect the seriousness of the choice facing Afghan citizens in a laboratory setting and within Internal Review Board ethical standards?

The short answer is there is no way to recreate life and death situations in a laboratory. However, the crucial thing to remember is that it is not the absolute level of severity of choice that is key to model, but how changes in the factors that contribute to that severity (by altering cost and benefit levels) influence outcomes. That being the case, our experimental design had a more realistic goal to meet; we needed to generate some level of actual costs and benefits for participants in order to have experimental realism. The most straightforward way of doing this is to incentivize the choice participants make, that is, to link their choice to a monetary reward.

### **CHOICE OF VARIABLES**

The next choice we need to make regarding our experimental design relates to the independent variables – the factors the model proposes determine an individual's decision to cooperate or not. Returning to our earlier discussion of the costs-benefit calculation underlying choice we can generate a list of independent variables derived from the model. The full list is presented in the table below:

---

<b>PROJECT</b>	Scope Visibility Dimension Relevance to Afghan citizen
<b>CONTEXT</b>	Duration of ISAF presence Duration of project Current strength of GIRoA Taliban reminder type (reward; punishment) Taliban reminder salience (self; family; other) In-group alignment (Taliban; GIRoA)

---

Table 1: Independent variables derived from conceptual model

It is beyond the scope of a single experiment to manipulate this number of independent variables. For this reason the variables that are most central to the model and relevant to the research question are chosen for analysis. The other variables are set at values that reflect representative project and context characteristics.

In order to increase the relevance and realism of the scenario the project characteristics were chosen to reflect the types of projects commonly undertaken using CERP funds.

		VALUE OF VARIABLE
<b>PROJECT</b>	Scope	Small
	Visibility	ISAF
	<i>Dimension</i>	<i>Manipulated variable</i>
	Relevance to Afghan citizen	High
<b>CONTEXT</b>	Duration of ISAF presence	Short
	Duration of project	Medium (2-5 years)
	<i>Current strength of GIROA</i>	<i>Manipulated variable</i>
	Taliban reminder type	Punishment
	Taliban reminder salience	High (self/family)
	In-group alignment	divided

Table 3: Value of independent variablese for first experiment

**WHAT SPECIFIC QUESTIONS CAN THIS EXPERIMENTAL DESIGN ADDRESS?**

The following questions are addressed by this initial experimental design:

- What dimension of relevant, small-scale, ISAF project generates the most cooperation?
- What is the impact of perceived GIROA strength on probability of cooperation with ISAF?
- Do small-scale ISAF security projects generate more support than small-scale ISAF development projects when GIROA strength is weak?

**THE EXPERIMENT ITSELF**

As discussed above, in order to avoid the pitfalls of role playing in the experiment we came up with a content free context that has no reference to the situation in Afghanistan and yet captures and conveys the main factors of our modeling of that situation.

To best demonstrate this translation, below are the instructions given to the participants (in blue), with explanation of the connections to the Afghan context (in italics).

**Instructions:**

You have just been given \$10 to play in a very short strategic game. The goal of this game is to finish with as much money as possible.

*As discussed earlier (see section on realism) the intent here is not to replicate the severity of the decision facing Afghans. Rather, we only seek to replicate the potential for actual loss. \$10 is not a realistic representation of a person's full life assets, however we know from previous work (Hermann Bragg Geva, Geva Bragg Hermann) that students take quite seriously the opportunity to gain this amount of money. Additionally, participants were handed \$10 prior to starting the experiment in order to actualize the potential for loss.*

In addition to yourself, there are 3 other players in the game.

Player A [representing ISAF]

Player B [representing GIROA]

Player C [representing the Taliban]

**As you play, keep in mind the following facts:**

- All the other players are competing to control the game.
- A and B are partners.
- C is competing with A and B.
- A is only in the game for a short time and will leave before the game ends.
- B and C will stay for the entire game and are competing for control.
- In previous games like this A has not been reliable and has failed to complete projects.

**Your role in this game is to decide what you are going to do with your \$10.**

You have 3 options:

1. Cooperate with A
2. Cooperate with C
3. Do not cooperate with anyone

*These options capture the options identified in the conceptual model (Figure 1) as available to Afghan citizens: collaborate with ISAF, Taliban or sit on the fence*

The decision you make will affect how much money you have at the end of the game – between \$0 and \$17. The exact amount you receive will be determined by the choice you make, and the actions of the other players (determined by the experimental condition in which you are randomly placed).

On the following page you will be given more information about the amount of money each choice can make you and what risks are involved in each option.

**THE GAME**

You have received an offer from player A to invest \$5 in a cooperative project A has organized.



- If you chose to invest, A promises you will earn a return of \$12 (or \$10 pending whether the project is a development or security, respectively),<sup>2</sup> this would give you \$17 (or \$15) at the end of the game).
- A tells you that there is a 90% probability that the project will be completed and you will get the \$12 (or \$10) return.
- However, A has a history of failed projects has often not paid investors.
- Player A will withdraw from the game once the time for completing the project is over, whether or not the project is finished. After A leaves the game Player B will take over A's projects. [*This information reflects the reality where ISAF forces pull out of Afghanistan and GIRoA assumes rule of the country.*]
- Player C (A and B's rival) wants to stop you and others from cooperating with A. [*This reflects Taliban position and activities*].
- In previous games C has used punishment to try and stop people from cooperating with A's projects.
- There is a 20% chance that C punishes you by taking \$5 of your \$10. There is one way to avoid this cost with certainty<sup>3</sup>:
  - Pay C \$2 as a show of support. However if you give money to C, you cannot invest in A's project
- Once A leaves the game B and C will be competing for control. C has announced that when A leaves he will take control of the game and punish anyone who invested with A. This punishment will be the loss of \$10. [*The amount of the punishment intended to suggest that all the money a participant had upfront will be gone. In essence this reflects the fear of the Afghans that all their assets - including life - are at risk*].
- Since C and B are equal in power, the probability that C will take \$10 from you if you invest with A is 50%. [*There were three conditions of this treatment suggesting that B is stronger with 20% of C implementing the punishment, and that B is weaker hence leading to 80% chance of C punishing the subject*].
- You can guarantee you will not be forced to pay the \$10 by giving C \$2 now. However if you pay C you cannot invest with A.

---

<sup>2</sup> We posited that the direct returns from a development project are somewhat higher than a security project.

<sup>3</sup> We wanted to capture the probable, but low certainty, of the Taliban immediate punishment of the potential collaborators. We also provided the realistic measure to avoid this punishment, i.e., collaborating with the Taliban (the \$2 payment), and refraining to collaborate with the ISAF initiative.

To summarize: The main manipulation of the shadow of the future is the three levels of probability that C (the Taliban) will harshly punish the subject. The secondary manipulation, which targeted the dimension of the project, differed in the amount of positive return once the project is successful (5\$ in security and 7\$ in development projects). The second expression of the dimension treatment was the likelihood of C (the Taliban) exerting the immediate retaliation (taking 5\$). We designed that the security project which intend to increase the safety of the people prevents C from such a punishment (-0 probability), while in the development project C can apply this punishment with a probability of .2).<sup>4</sup> The main dependent measure of the study is the particular choice the people make. Additional measures were used to help account for the choices. The study was conducted on the dec-tracer © a web-based research platform that records unobtrusively the way individuals process information on route to choice.

### THE RESULTS

In the following discussion of the experimental results we refer to the actors by their actual names in order to facilitate analysis. Before entering into a detailed examination of the results it is useful to consider our findings in light of the three key research questions we derived from this application of the conceptual model and the utility of the shadow of the future as an explanation for constraints on cooperation.

- The project dimension, whether it was a security or development project had little or no effect on the rate of cooperation.
- As expected, cooperation with ISAF projects was more likely when GIRoA was stronger than the Taliban, although the relationship did not reach statistical significance.
- Also as expected participants more likely to pay off Taliban when GIRoA weak, and this finding is statistically significant.
- Cooperation with ISAF is more likely when GIRoA stronger (expected direction, not statistically significant)
- The decision to sit on the fence (keep money) is not affected by either the project dimension or GIRoA strength.

Overall the results indicate that fewer than 50% chose to invest with ISAF, even though this was the only option that enabled them to increase their assets, and the findings underscore the impact of the shadow of the future:

---

<sup>4</sup> These changes imply different payoffs for the two projects.

**CHOICES**

Figure 3 shows the percentage of the participants who chose a particular option across experimental conditions. As can be seen, less than 50% of participants chose to invest with ISAF, even though this is the only option that provides an opportunity to increase their assets. The majority of the actors opted to sit on the fence or to “buy insurance” against future Taliban reprisals.

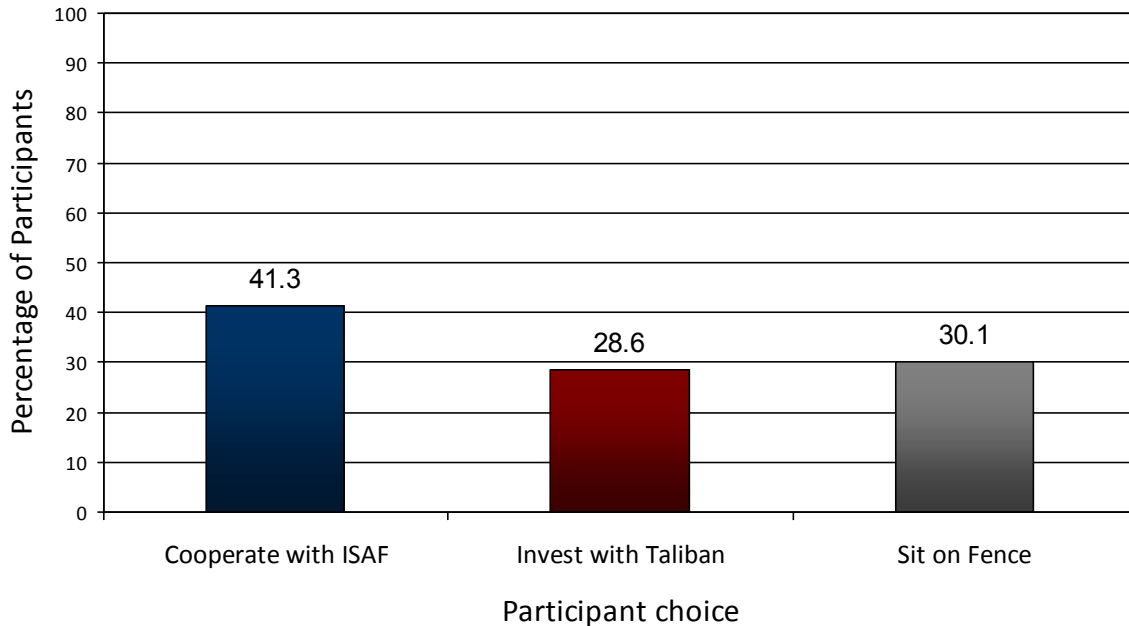


Figure 3: Distribution of outcomes (choices) by percentage across all experimental conditions

To assess the effects of the experimental conditions on each choice we conducted a 3 x 2 between groups ANOVA using as the dependent variable whether the participants picked a particular option (score of 1) or did not (score of 0).

**CHOICE 1: COOPERATE WITH ISAF**

Figure 4 illustrates how the proportion of participants deciding to collaborate with ISAF relates to the manipulated shadow of the future. More people invested their money in conditions where they were told GIRoA was expected to be strong than the Taliban when ISAF leaves (54%) than in conditions where they were told GIRoA would be weaker than the Taliban (32%). However, while this trend is in line with our expectations, the differences between the

experimental conditions is not statistically significant. We should note that while there is a tendency of the participants to collaborate more with ISAF in Security projects (44%) than in developmental (39%) this contrast is not statistically significant.

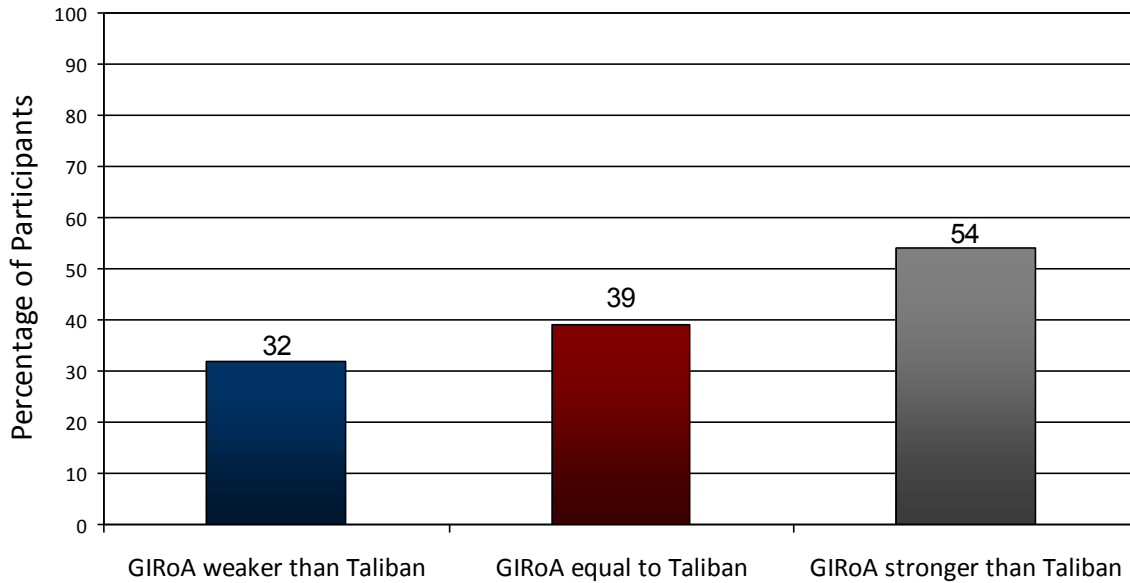


Figure 4: Percentage of Participants choosing to cooperate with ISAF

**CHOICE 2: INVEST WITH THE TALIBAN**

Figure 5 shows the statistically significant effect of the shadow of the future on the choice to invest with the Taliban [ $F(2,127)=5.04$   $p<.008$ ]. A posteriori Scheffe test confirmed that the proportion of subjects who invested with the Taliban when GIRoA is expected to be weak in the future (41%) is significantly smaller than the proportion of subjects who will invest with the Taliban when GIRoA is expected to be strong (12%).

The proportion of participants who chose to invest with Taliban in a security projects is 25%, slightly higher than for a development project (31%), although not statistically significant.

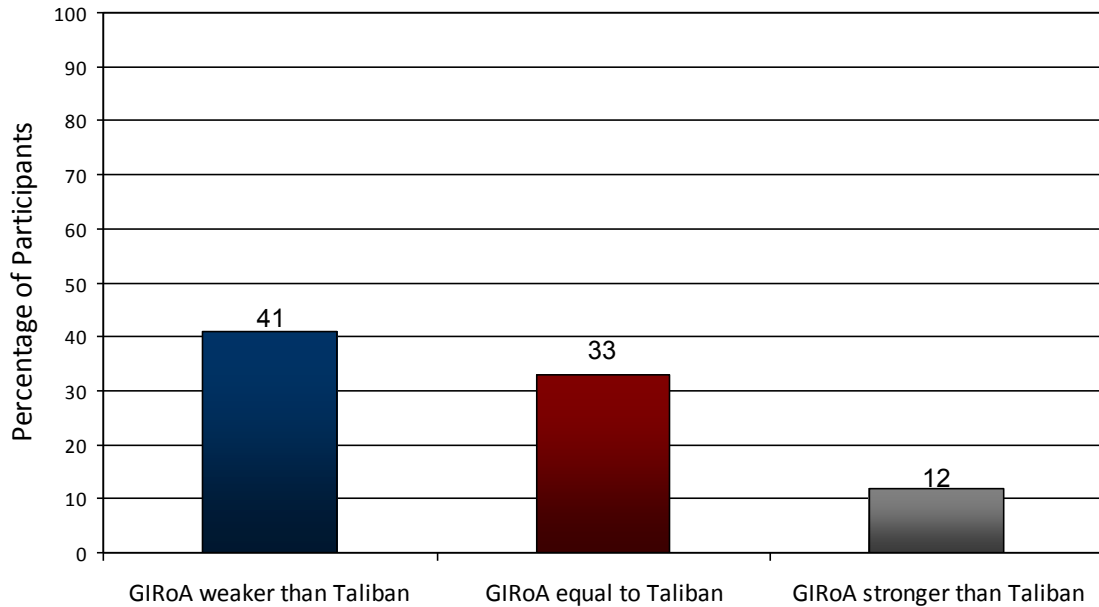


Figure 5: Percentage of Participants choosing to invest with the Taliban (scheffe  $p < .01$ )

### CHOICE 3: SIT ON THE FENCE

The proportion of participants choosing to sit on the fence was not affected by any of the experimental conditions. While 30% of the subjects chose this options (sit on fence) – it is plausible that this is a reflection of the fact that this is the simpler choice as it does not require consideration of all the expected utilities associated with the other two options.

### COMPARING CHOICES ACROSS PROJECT DIMENSIONS: THE ROLE OF THE SHADOW OF THE FUTURE

The three panels of Figure 6 show that only when GIROA is expected to be strong in the future – the majority of people (54%) will collaborate with this actor at the present. When GIROA is expected to be weaker than the Taliban individuals will avoid the current collaboration.

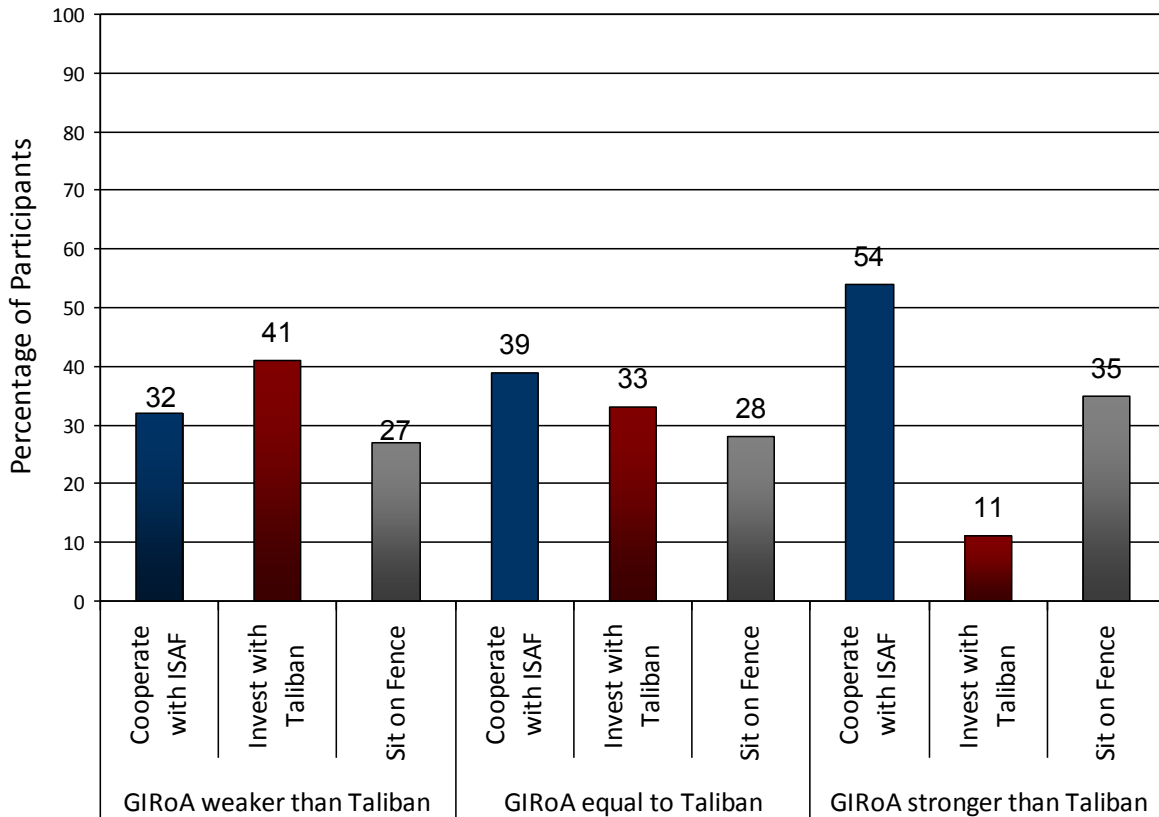


Figure 6: Participant choice as a function of GIRoA strength

**DECISION CALCULUS**

One of the questions that we explored in this experiment addresses the decision calculus of the individual in this particular context. Were they trying to maximize their gain or alternatively were they trying to minimize losses.

We employed three items to learn about the process. These questions were asked following their choice, but prior to receiving their money as a result of their choice.

- If you invested in A’s project, how much money would you have at the end of the game?
- If you paid C, how much money would you have at the end of the game?
- If you just kept your money, how much would you have at the end of the game?

Across all experimental conditions 57% of the subjects picked the option that they considered to yield the highest payoff. In other words, the majority of the

participants in this experiment were utility maximizers.<sup>5</sup> However, in a posteriori analysis when we compared the proportion of maximize as a function of the choice they have made (ISAF, Taliban or sit on the fence) we find that among those who opted to collaborate with ISAF 98.1% were maximizers, while only 20.0% among those who picked to collaborate with Taliban and 37.5% of those who chose to sit of the fence were maximizers, [ $F(2,127)=67.57$   $p<.0001$ ]. Stated differently, two distinct motivations are at operation. On the one hand there are those who want to maximize and thereby collaborate with ISAF, while there are those who want to minimizes losses and would prefer to sit on the fence or collaborate with the Taliban.

When we take the two sets of results together, it seems that that shadow of the future - or the potential threat of the Taliban being stronger than GIROA may affect a shift in the decision calculus from maximization to loss aversion.

In the last section of the result we demonstrate the internal validity of the experiment. We specifically show that despite the seemingly complexity in the scenario and the instructions the participants comprehended the context and the treatments as we have designed.

### INTERNAL VALIDITY

We used four questions as manipulation checks. These questions were asked following the choice the participants made, but before they have received their money. The questions are:

- How likely is it that USAF's project will be completed?
- How likely is it that Taliban will take \$5 from you to try and stop you from investing with USAF?
- How likely is it that Taliban will take \$10 from you if you actually invest with USAF?
- In your opinion how risky is it to invest in USAF's project?

While the experimental scenario defined the probability of the project's completion as .9 the subjects were not that off. The mean response is .71, and as intended it was not affected by experimental conditions.

The second item pertained to the immediate deterrence of the Taliban for collaboration with ISAF. The experiment included two such probabilities that were contingent on the nature of the project ( $p=0$  for the security project and  $p=.2$  for the development project). The responses suggest that this treatment was not effective. Across all condition the threat of the Taliban seemed more probable then we introduced in the experiment ( $p=.43$ ). The responses were not affected by the project treatment. Moreover, the "current deterrent" was affected by the shadow of the future [ $F(2,127)=3.97$   $p<.02$ ]. The relative future

---

<sup>5</sup> Please not that such a coding disregards whether the participant's calculation is accurate.

power of Taliban vis-a-vis GIRoA affected the immediate deterrent. This pattern is reflected in Figure 7.

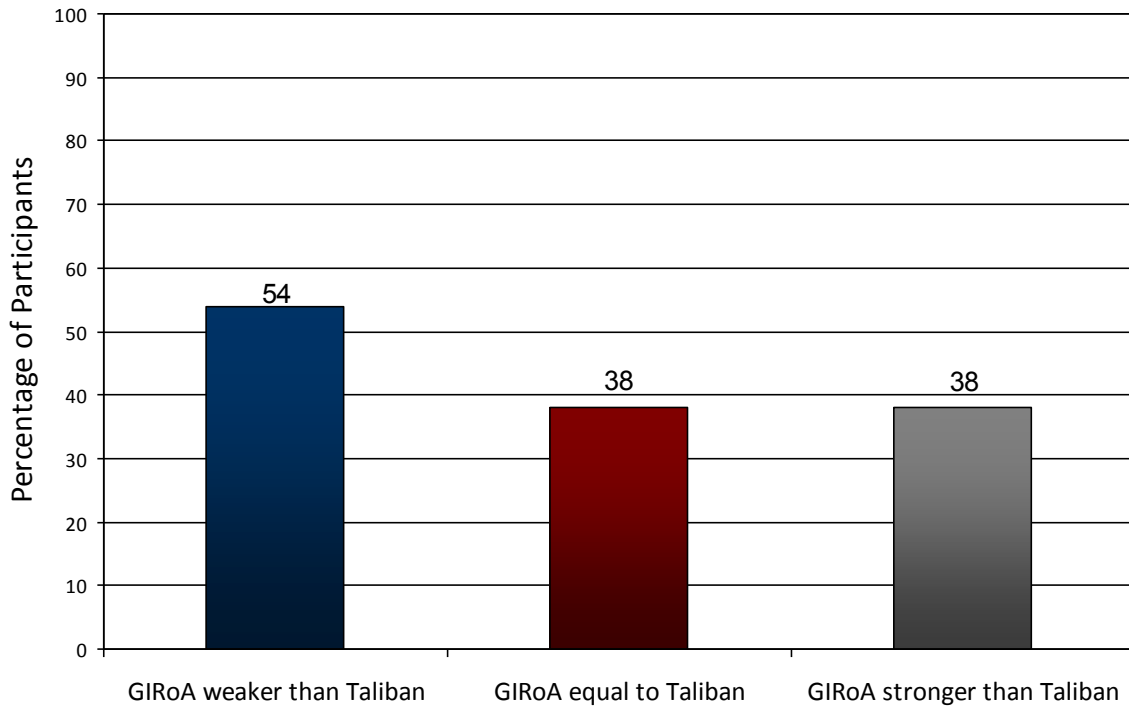


Figure 7: Perceived likelihood of incurring short-term punishment by Taliban

It is quite plausible that the diluted effect of the immediate deterrent of the Taliban (as related to the collaboration projects) is the reason the dimension of the project had no direct effects on the choice (see above).

The last two items assessed the strength of the major manipulation of the experiment, i.e., the variations in the shadows of the future.

In our manipulation the relative strength of the Taliban versus GIRoA was reflect by the probability that the Taliban will be able to punish the Afghani ISAF collaborators. The treatment included three levels .2 .5 and .8. Figure 5.x shows that the subjects were fully tuned to these variations [ $F(2,127)=11.62$   $p<.0001$ ]. The Scheffe posteriori tests show that the GIRoA weak condition was statistically different from both the parity and the stronger Taliban conditions.

Finally when asked how risky it is to invest in an ISAF project - the subjects identified that it is riskier to invest when GIRoA is expected to be weak in the future 7.3 (on a 0-10 scale) than when parity will exist or when GIRoA will be stronger (5.2 and 5.8 respectively),  $F(2,127)=10.31$   $p<.0001$ .



To sum, the manipulation of the shadow of the future was effective and can account for the difference in the choice propensity of the participants. The manipulation of the dimension of the project was barely visible and in fact was influenced by the shadow of the treatment manipulation. Hence, subsequent replications have to address this issue.

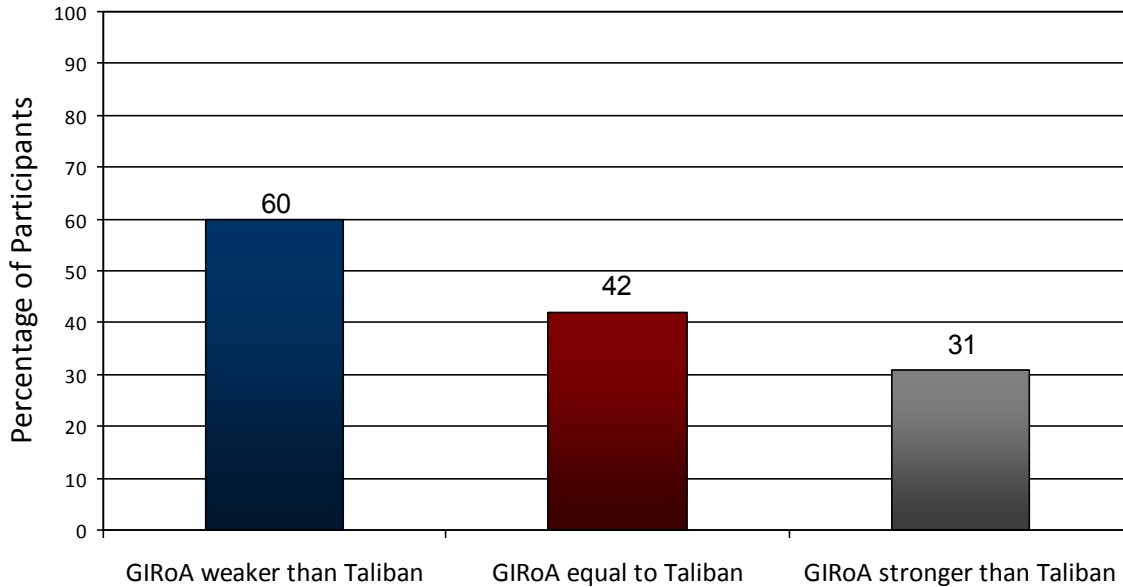


Figure 7: Perceived likelihood of incurring long-term punishment by Taliban (Scheffe  $p < .01$ )

## DISCUSSION

This study presents a conceptual model designed to help explain why Afghan citizens are reluctant to cooperate with ISAF projects intended to improve their quality of life in the near-term. Rather than rely on cultural or historical explanations for this reluctance we propose that this behavior is consistent with rational calculation that gives weight to future costs as well as near-term benefits. It is this shadow of the future that undercuts the perceived benefits to cooperation and decreases individuals' willingness to cooperate with ISAF projects.

Although preliminary these findings suggest several important factors that need to be taken into consideration when determining the likely response to ISAF projects.

- The shadow of the future matters: The perception that GIRoA will not emerge as the stronger actor once ISAF leaves is critical in preventing cooperation with ISAF projects in the present

- These results suggest that not all subjects are utility maximizers, rather decisions are based on the principle of minimizing potential losses. This is most clearly demonstrated by the choice to pay off Taliban or sit on fence
- Choice can in some instances be better understood as driven by minimizing risk, rather than by the potential for gain.

These findings support the current ISAF focus on strengthening GIRoA's governing capacity. If Afghans develop greater trust in the strength of GIRoA; its capacity to provide basic governance functions such as security and rule of law; then the impact of the shadow of the future will begin to decrease. As concern over future reprisals diminishes, cooperation with ISAF projects can be expected to increase. As increased cooperation and investment in ISAF projects indirectly reinforces the governance capabilities of GIRoA over time a positive feedback loop should develop.

---

BIBLIOGRAPHY

---

- Aronson, E., & Carlsmith, J. M. 1968. Experimentation in social psychology. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (Vol. 2, pp. 1-79). Reading, MA: Addison-Wesley.
- Aronson, E., Wilson, T. D., & Brewer, M. 1998. Experimentation in social psychology. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 1, pp. 99-142). Boston, MA: McGraw-Hill.
- Billings, Robert S and Charles F. Hermann. 1998. "Problem Identification in Sequential Policy Decision Making: The Re-representation of Problems." In *Problem Representation in Foreign Policy Decision Making*.eds. Donald A. Sylvan and James F. Voss. Cambridge: Cambridge University Press.
- Geva Nehemia Belinda Bragg and Charles F. Hermann. 2002. "Effects of Primary Group Identity and Decision Rules on Foreign Policy Decision Making Groups: An Experimental Analysis" Paper presented at the 2002 International Studies Association Convention
- International Crisis Group. 2008. "Taliban Propaganda: Winning the War of Words?" *Asia Report* No. 158, 24 July 2008.
- Johnson, T. 2007. The Taliban Insurgency and an Analysis of Shabnamah (Night Letters). *Small Wars and Insurgencies*
- McDermott, R. 2002. Experimental methodology in political science. *Political Analysis*, 10(4), 325-342
- Mook Douglas G. 1983."In Defense of External Invalidity" *American Psychologist* 379-387.
- Morgan, T.Clifton and Richard K. Wilson. 1989. "The Spatial Model of Crisis Bargaining: An Experimental Test." Paper presented at the Annual Meeting of the International Studies Association, London, 1989.
- Ostrom, E. 1998. A behavioral approach to the rational choice theory of collective action. Presidential address. American Political Science Association, 1997. *American Political Science Review*, 92(1), 1-22.

Sears, David O. 1986. "College Sophomores in the Laboratory: Influences of a Narrow Data Base on Social Psychology's View of Human Nature." *Journal of Personality and Social Psychology*, 51 (3): 515-530.

Sylvan Donald, A., Thomas M. Ostrom and Katherine Gannon. 1994. "Case-Based, Model-Based, and Explanation-Based Styles of Reasoning in Foreign Policy" *International Studies Quarterly* 38:61-90

Vertzberger, Yaacov Y. I. 1990. *The World in Their Minds: Information Processing, Cognition, and Perception in Foreign Policy Decisionmaking*. Stanford, CA: Stanford University Press.

Wallis, W. A., & Friedman, M. 1942. The empirical derivation of indifference functions. In O. Lange, F. McIntyre, & T. O. Yntema (Eds.), *Studies in mathematical economics and econometrics in memory of Henry Schultz* (pp. 175–189). Chicago, IL: University of Chicago Press.