

Evaluating civil development in counterinsurgency operations: the case for a field experiment in Afghanistan

ADAM LOCKYER*

It is a widely held belief that civil development programs play a central role in any counterinsurgency campaign. It is assumed that civil development assistance is key to ‘winning the hearts and minds’ of the civilian population, which, in turn, is crucial for victory. However, there is currently little evidence to support this belief. This article begins by analysing the different methods that have been used in Afghanistan in order to evaluate the effectiveness of civil development programs since 2001. It finds that these methods have severe limitations. Indeed, based solely upon current methods of evaluation, we have no reliable evidence whether civil development programs are actively improving security, having no impact or making matters worse. As such, this article makes the case for a field experiment approach to be adopted in Afghanistan. It argues that field experiments are the most powerful methodology currently available to social scientists for making causal inferences and, by making minor changes to the way in which civil development is distributed, we can vastly improve our understanding of the relationship between aid and security.

Keywords: Afghanistan; civil development; counterinsurgency; field experiments

According to the habitually cited formula, ‘revolutionary war is 20 per cent military action and 80 per cent political’ (Galula 1964: 89).¹ Over the course of the Afghan conflict, however, the military aspects of the counterinsurgency campaign have come under the greatest scrutiny. The findings of these studies are now well rehearsed: the military must focus more on securing and protecting the civilian population (Kilcullen 2009); there are currently too few foreign troops for the job (Blackwill 2011; Boot 2010); the application of firepower remains too indiscriminate (Oppel 2010); the military has failed to

*Adam Lockyer is a Lecturer in US Politics and Foreign Policy in the United States Studies Centre at the University of Sydney. In 2009, he received his PhD from the University of Sydney. Previously, he has been a Visiting Fellow at both the Lowy Institute for International Policy (Sydney) and the Center for Strategic and International Studies (Washington, DC). <adam.lockyer@sydney.edu.au>

‘seal’ the Afghan–Pakistan border (Chaudhuri and Farrell 2011); and the list goes on. In a break from this literature, this article examines one of the more prominent non-military aspects of the counterinsurgency campaign: civil development. In particular, it will discuss the advantages and challenges associated with different methodological designs for evaluating the impact of civil development on security and stability.

Do civil development programs improve security? This fundamental question is pressing for two reasons. First, from July 2011, the Obama administration announced that it intends to begin scaling back its troop commitment to Afghanistan. Although these troop withdrawals are likely to be modest—at least at first—the remaining coalition partners are already reconsidering the viability of their long-term military commitments. As such, over the coming years, the importance of civil development programs to foreign powers attempting to influence the security situation in Afghanistan will increase. Second, it is widely accepted that attempts by Kabul and its foreign partners to reassert their authority through military force alone are unlikely to succeed. Indeed, it could prove to be counterproductive. ‘Historically, the more military pressure is put on a fragmented society like Afghanistan’, argued Gilles Dorronsoro (2009: 9), ‘the more a coalition against the invader becomes the likely outcome’. Hence, less coercive measures might be more successful in influencing the Afghan population and combating the insurgents. Within this context, civil development programs are likely to become an increasingly important instrument in expanding Kabul’s control over the Afghan population. But, as this article will show, we still have little idea what effect these programs are currently having on security.

This article analyses the different means that have been used in Afghanistan to evaluate the effectiveness of civil development programs since 2001. It argues that these methods have severe limitations, particularly in data gathering and measurement. Indeed, based solely upon the current methods for evaluation, governments, commentators and academics have no reliable evidence as to whether civil development programs are actively improving security, having no impact or, in fact, worsening the security situation. Based on current evaluation techniques and the overwhelmingly anecdotal nature of the available evidence, any of these three hypotheses might be correct. This article submits that the best way for the Australian government to move forward in understanding the impact of civil development on security would be to slightly restructure its civil development program in Uruzgan so that it fulfils the requirements of a field experiment. Although aid would continue to be supplied in much the same manner as it is now, a field experiment would provide a vehicle through which we can accurately measure the impact that these programs are having on security. In turn, these results could enable the Australian government to adjust its civil development program, if needed, so as to improve its impact on security and stability.

Civil development and counterinsurgency

Since the early 1960s, civil development programs have been considered to be at the core of counterinsurgency campaigns. During the second half of the twentieth century, the major powers witnessed a stark change in their fortunes in guerrilla confrontations. Compared to the nineteenth-century easy beats, the insurgents of the twentieth century had progressively been putting up much stiffer resistance, to the point of achieving a series of decisive victories following World War II (Arreguín-Toft 2001: 97; Lyall and Wilson 2009: 69). The major powers of Europe and North America watched with alarm as a seemingly unstoppable tide of guerrilla victories swept across China, Cyprus, Indonesia, Yemen, Cuba, Algeria, Rhodesia, Mozambique, Bangladesh, Vietnam, Cambodia and Laos.

In response, scholars and practitioners began searching for answers by spying on the opposition's playbook. They read the writings and speeches of the leading revolutionaries of the time, including Mao Tse-Tung (1962, 1963), Abdul Haris Nasution (1965), Georgios Grivas (Foley 1965), Che Guevara (1998) and Vo Nguyen Giap (1976), and the theme was always the same. At the core of revolutionary guerrilla strategy—according to the guerrillas themselves—was the civilian population. The civilian population was the 'centre of gravity' of guerrilla warfare. The guerrillas were reliant on the civilian population as a source of supply, intelligence, recruits, concealment and other forms of support. As such, ideally, there should be no daylight between the guerrillas' and the civilian population's political objectives, preferences, attitudes and desires. As Guevara wrote:

We must come to the inevitable conclusion that the guerrilla fighter is a social reformer, who takes up arms as the embodiment of the angry protest of the people against their oppressor; guerrillas fight in order to change the social system that keeps all their unarmed brothers and sisters in ignominy and misery (Guevara 1998: 17).

The early revolutionary thinkers emphasised that the distance between the guerrillas and society should be minimised. The guerrillas, by demonstrating that they were fighting on behalf of the civilian population, were to attempt to merge ideologically, politically and physically with them (Kilcullen 2009). Eventually, the guerrillas aimed to become physically indistinguishable from the civilian population, thereby gaining a virtually endless supply of resources and allowing them to mount a prolonged campaign of attrition against an isolated and unpopular incumbent government (Asprey 1994; Johnson 1962; Laqueur 1998; Stubbs 1989).

Astute practitioners, scholars and commentators read these writings and collectively contributed to the evolution of the 'attitudinal approach' to counterinsurgency. The core assumption of the attitudinal approach to counterinsurgency is that a community will cooperate with the belligerent it prefers to

see victorious and will resist the other. That is, communities choose to grant either the incumbent or the insurgent control over them. Essentially, the attitudinal approach treats insurgencies as violent elections, in which, according to John Collins (1974: 15), '[t]erritory is not terribly important', as the 'main battleground is in men's minds'. The thinking went that if the population could be encouraged to turn their backs on the guerrillas, then the insurgents would become isolated and easily defeated. The government could 'drain the sea', to turn Mao's overly used dictum back on itself.

Once the allegiance of the population is identified as the principal battleground in an insurgency, the function and appeal of the 'hearts and minds' approach to civil development becomes clear. Incumbent governments implementing 'hearts and minds' programs attempt to use civil development as an avenue through which they can become the population's preferred victor in the civil war. Douglas Blaufarb and George Tanham, for instance, submitted that it

would seem to stand to reason that if an army takes the trouble to do such things as build schools and roads and treat the sick, the people who benefit will be grateful and have favourable feelings towards the government's forces (Blaufarb and Tanham 1989: 25).

In the words of David Gompert and John Gordon (2008: xxxix), the government, 'by sharing public services generously . . . may prove that [it] cares and thus earn . . . wide popular support'.

As mentioned, the attitudinal approach to counterinsurgency first emerged in the early 1960s. It has since become the mainstream school of thought in counterinsurgency. Although largely being derived from fairly dubious origins (i.e. revolutionary leaders), the attitudinal approach has been internalised by counterinsurgency war colleges the world over, and has subsequently been passed down through the generations (Branch and Wood 2010; Dixon 2009; Krepinevich 2005; Mockaitis 2003). But is it true? And what is the actual impact of civil development on expanding the incumbent government's authority?

Sowing some seeds of doubt in the attitudinal approach

There are good reasons to suspect that the attitudinal approach, and therefore civil development programs, may have little impact on improving stability or security, or expanding the government's authority. These reasons are fourfold.

First, attitudes and behaviour do not always correlate. Contrary to the fundamental assumptions of the 'hearts and minds' formula, communities might prefer to see the government victorious, but may nevertheless actively support the insurgents, or vice versa. In civil war, the stakes are too high to follow one's 'heart' at the expense of pragmatism. Nathan Leites and Charles Wolf offer an

illustrative example from the Algerian Civil War, where ‘attitudes’ played no instrumental role in the decision-making calculus:

An old Muslim, arrested for having sawed off telegraph poles, explains to a captain who expresses surprise about the deed: ‘Sir, the French come and tell me: you musn’t [*sic*] saw off poles; if you do, you go to prison. I say to myself: I don’t want to go to prison, I won’t do it. The French leave. At night, the rebel comes and says: saw off the poles from here to here. I answer: no, the French would put me in prison. The rebel tells me: You cut the poles or I cut your throat. I calculate: If I don’t cut the poles, he’ll surely cut my throat; he has done it to others, in the next village. I prefer going to prison. So Sir, I cut the poles; you caught me; put me in prison!’ (Leites and Wolf 1970: 129).

Under these circumstances, which must be accepted as being common to civil wars, an individual’s attitudes and behaviour are not aligned. Historical studies have suggested that local politics, threats of violence and economic incentive structures will be much better predictors of behaviour than attitudes (Berman *et al.* forthcoming; Fellman 1990). In sum, it is fair to suspect that attitudes might mean very little in a civil war environment.

The second, and related, reason is that there are grounds to suspect that the early revolutionaries overstated the extent that guerrillas *must* align their political aims with those of the civilian population. William Minter (1994: 204) has observed, for example, that ‘guerrillas are just as capable of imposing themselves on civilians as is a conventional force’ (see also Cole 1985: 63). Indeed, there are many examples of guerrilla groups using coercion to extract information, force to conscript new recruits, and physical intimidation to seize money and possession from civilians.² From the Revolutionary United Front in Sierra Leone through to the Lord’s Resistance Army in Uganda and, of course, the Taliban in Afghanistan, guerrillas have often relied heavily on violence and terror to impose themselves on the population.

Third, individual behaviour in guerrilla conflicts has been shown to be frequently apolitical. At least initially in a civil war, most individuals and communities are more concerned with local issues than lofty political narratives (Kalyvas 2003). As community members throw their support behind rival sides in the civil war, it often becomes apparent that local communities are using the conflict to settle old scores, renew simmering rivalries and advance their interests. In Sri Lanka, for example:

villagers did not simply have politics thrust upon them; rather they appropriated politics and used them for their own purposes ... [thus] people were not necessarily enemies because they were in different parties; more often they had ended up in different parties because they were enemies (Kalyvas 2003: 479).

Similarly, criminal groups and bandits frequently adopt the narrative of either the government or the rebels to legitimise their raids and criminal enterprises. In other words, civil wars graft pre-existing personal and local conflicts, grievances and issues onto the macro-narratives of conflict. Only a very small proportion of combatants and their supporters are ideologically, politically or religiously committed to one side or another. The majority of people support belligerents due to short-term rational calculations that are based on local issues and the threat of violence.

Finally, civil development programs, under a ‘hearts and minds’ formulation, aim to provide education, employment, medical care and basic utilities equally to all the civilian population. These services are public goods and are therefore non-excludable. Hence, the government is not demanding a behavioural change from any section of the population in order to receive rewards. Pro-government, anti-government and neutral citizens all have equal access to electricity, schools and health clinics. In contrast, opposition groups are generally far more discriminating to whom they supply rewards. The opposition only supplies rewards to those individuals who actively oppose the government. In short, there is an asymmetry in the reward system. The government does not demand a change in a community’s behaviour to gain access to social and economic resources, while the opposition does.³ Indeed, holding all else equal, under this incentive structure, a rational community would side with the insurgents and gain access to both sources of economic assistance.

These four points, in and of themselves, do not nullify the attitudinal approach to counterinsurgency. They do, however, cast sufficient doubt over the fundamental assumptions at the core of current doctrine to warrant an examination. Our current theory is weak and, as the second section of this article will show, our empirical tests are even weaker.

Civil development programs in Afghanistan

This discussion brings us back to the original question: do civil development programs improve security in Afghanistan? As this section will show, the short answer is that we simply do not know. There have been a number of different attempts made to measure the impact of civil development programs on security. The two methods that are most relevant to the current discussion are: (1) output evaluations and (2) the Tactical Combat Assessment and Planning Framework (TCAPF), which has been used by the US and British militaries.

Output evaluations

For the most part in Afghanistan, Australian and international efforts to measure the impact of civil development programs on security have been based on output evaluations. These monitoring and evaluation techniques attempt to

observe and measure two impacts: development and attitudes. Pure development evaluations attempt to record and measure the output of specific projects—for example, recording the number of patients that a new health clinic treats or how many children attend a recently built school (Campbell *et al.* 2009; McNerney 2005–6). This is by far the most popular method of evaluation, largely due to the ease of data collection and analysis. Output evaluations may also attempt to measure the impact of the civil development projects on the attitudes of the population. This information is generally gathered one of three ways. The first method is by specialist development personnel conducting follow-up evaluations on their projects. The second method enlists personnel from the military to report back on their perceptions of the impact of the project. This method is usually only reverted to when insecurity inhibits the movement of civilian governmental personnel. And, finally, there has been a progressive move towards using Afghan non-governmental organisations (NGOs) (such as The Liaison Office) to monitor development programs.

Government and Afghan NGOs use similar methods for evaluating attitudes. In a typical example, The Liaison Office describes its research method as follows:

Using community-level connections we conduct focus groups [*sic*] discussions and individual interviews with local stakeholders (beneficiaries *and* implementers) in order to evaluate reconstruction and development programmes, and assess the overall civil-military engagement strategies of international actors from the perspective of local communities.⁴

Through utilising focus groups and ‘asking around’, these evaluations allow a picture to be sketched of the impact of a particular development project on a community. However, generally, these reports make no effort to report precisely how this evidence has been collected. Furthermore, the reports are normally silent on exactly how many people were interviewed, the circumstances of their interview, the respondents’ position in the community, or even the respondents’ age, sex or occupation. In short, these reports completely lack the ability to be replicated by other social scientists.

The limitations of output evaluations

There are a number of fundamental problems with the current approach. The first is its subjectivity. The method is heavily reliant upon experts to gather data, construct village profiles and evaluate the program’s impact. This, in turn, produces many problems. Experts arrive with their own experiences, paradigms and prejudices. Hence, when collecting information on a given community, practitioners will generally seek those ‘stakeholders’ who they already perceive as important. In response to this problem, development agencies have produced

'handbooks', such as *Peace and Conflict Impact Assessment*, but these do not overcome the fundamentally subjective nature of the evaluation process. Ultimately, the development official will be making subjective decisions on whom to interview; the relevance, credibility and interpretation of different responses; and what should be understood as the community's 'consensus' view.

The second limitation is that this technique lacks standardisation. In highly unstable and insecure regions, it makes intuitive sense to build a high degree of flexibility into the evaluation process. Thus, using the military in one situation, foreign development experts in another, and a local NGO in yet another region (or time) makes practical sense. Indeed, in reality, the military is often drawn upon to give a sense of the impact of civil development programs. Similarly, the current technique of using interviews, focus groups and stakeholder meetings (as the situation allows) also helps to overcome the inherent difficulties involved with data collection. Yet, this flexibility is purchased at the price of standardisation. Without standardisation, there is no mechanism through which to compare the effectiveness of civil development programs between locations. This practice does not allow for any reliable conclusions to be drawn as to the relationship between civil development programs and 'attitudes', let alone the security situation.

To be fair to the current evaluation technique, its focus has normally been at the micro level of analysis. Development officials have usually only been concerned with understanding whether their civil development programs have been successful in a particular place and time. Examining whether civil development programs help to reduce violence is a macro-level question. As such, it is unfair to expect that the current evaluation technique would be entirely suitable to answering this question. Nevertheless, in order to fully understand the impact of civil development programs at the macro level, a research design must be found that can be replicated, has observable and measurable variables, is objective and does not invite selection bias. In other words, it must possess internal and external validity. Clearly, the current evaluation technique does not fulfil these criteria.

The Tactical Combat Assessment and Planning Framework

In response to the limitations of output evaluations, James Derleth from the Office of Military Affairs at the United States Agency for International Development began work on the TCAPF (*New York Times* 2007). The TCAPF represents the core of the United States Marine Corps' latest handbook on stability operations (USMC 2010). It was developed in response to the realisation that religious tensions, business interests, competition over natural resources and communal feuds all potentially expose the community to increased Taliban influence. The TCAPF was created in order to help coalition

forces identify the root causes of instability and violence in a local area, formulate responses to these causes, and then evaluate how effective these efforts have been.

The concept at the heart of the TCAPF is that soldiers on their patrols will ‘randomly’ stop and ask villagers four questions:

1. Has the population of your village changed in the last 12 months? If yes, by how much and why?
2. What is the greatest problem facing your village? Why?
3. Who do you trust to resolve these problems? Why?
4. What should be done first to help the village? Why?

The first question is supposed to indicate the degree of (in)stability in the region—the rationale being that population change will indicate instability. The second question suggests the cause of the instability and the final two questions ask the respondent to suggest avenues for addressing the instability. In regions implementing the program, every marine patrol is expected to conduct at least three interviews (Wilson and Conway 2009). Constant data collection is intended to ensure that a significant sample is quickly gathered. Normally, the interviewees are ‘randomly’ chosen by coalition soldiers. The interviewer and translator do not carry clipboards (which make villagers hesitant to volunteer information); instead, the marines remember each interviewee’s answers until they can be recorded, which normally occurs on returning to their vehicles or leaving the village. As junior non-commissioned officers and marines are the main collectors of data, the survey is kept deliberately simple so that little additional training in survey techniques is required.

Civil development programs then respond to these needs. For example, if respondents answered that water access is the key cause of instability in the area, then civil development programs will concentrate on remedying this problem. Figure 1 summarises typical results from the TCAPF data.

One of the supposed advantages of the TCAPF is its usefulness in evaluation. Over time, the TCAPF shows changes in the percentage of respondents who believe a particular issue is the major problem in an area. It thus allows commanders to evaluate the effectiveness of their civil development programs in relieving the causes of instability.

The limitations of the TCAPF

In many ways, the TCAPF is an improvement on the evaluation processes that have preceded it. It makes a serious attempt to overcome the fundamentally subjective nature of previous programs. Its aim of generating quantitative data that can be analysed geospatially should be applauded. Nevertheless, it contains many problems of its own.

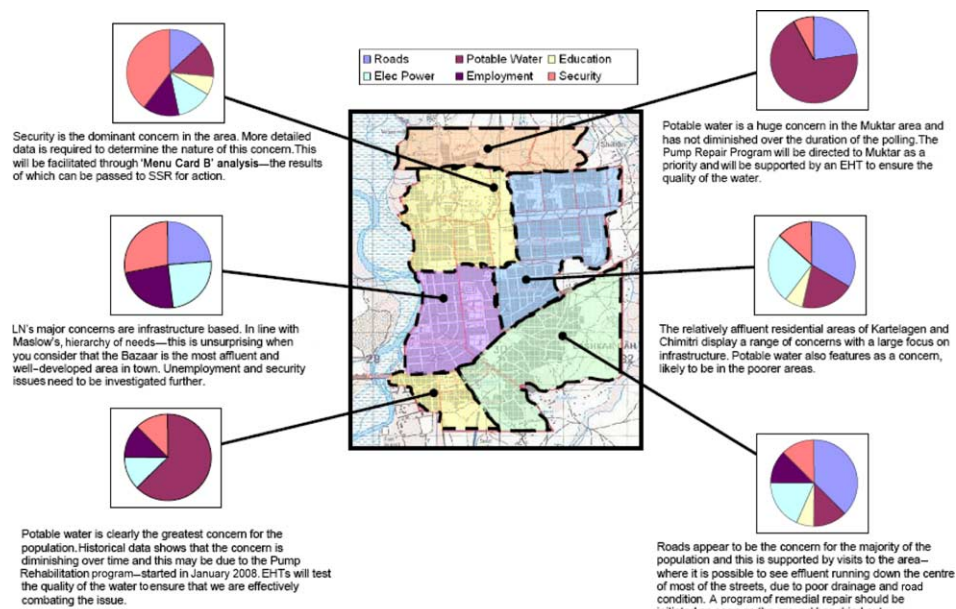


Figure 1. Typical results from the TCAPF data, created by using the TCAPF of the British Army's 52nd Brigade in Helmand.

The first problem with the TCAPF is in the data collection. Although the TCAPF survey strives for standardisation, in practice it falls short. The TCAPF is structured in such a way as to provoke conversation, rather than to ask a series of standardised questions in standardised ways. As such, there will be substantial variation in the way the survey is delivered. It is easy to imagine that two soldiers would administer the survey in substantially different ways, or even that the same soldier might deliver the survey differently at the start of her patrol and at the end of a long, exhausting march. As David Wilson and Gareth Conway have pointed out:

soldiers are not as experienced as social scientists when it comes to a commitment to scientific rigour, nor are they experienced interviewers with a high level of ability to ask questions consistently and probe respondents in order to gain more relevant or more complete answers without biasing the data in any way (Wilson and Conway 2009: 13).

Variation could also occur in how the translator asks the questions or how the specific responses are translated from Dari/Pashto into English.

Second, since it was not anonymous, the data is biased. Interviews are conducted in public, and so interviewees are highly likely to want to give answers that will not get them into trouble with their neighbours or local Afghan political leaders, or lead them to be denounced to the Taliban. Similarly, interviewees probably shape their answers to please the armed soldier standing in front of

them. For example, if they answered that ‘access to water’ was a problem the last time the soldiers passed through, and subsequently those same soldiers had dug a well, the interviewee may feel obliged to answer that the project had been successful—regardless of its actual impact. Similarly, they may tell soldiers that the coalition forces would be the best organisation to solve the underlining causes of instability, regardless of what they actually thought, particularly since there is the prospect of coalition forces providing civil development aid to the community.

Third, the TCAPF is plagued by selection bias. When US marines are spotted, Afghan civilians have a number of options available to them. They can run; they can hide; they can ignore; or they can make themselves available to a heavily armed marine wishing to administer a social science survey on the stability in their region. In other words, the interviewees self-select themselves into the study. This is not necessarily a problem as long as baseline data is collected to ensure the sample actually reflects the characteristics of the wider population. However, the TCAPF does not contain a method of ensuring diversity in the sample. As such, it is likely that the sample will not reflect the actual diversity of the population—for example, if the data existed, it would likely show that women were grossly under-represented in the sample.

Fourth, as data is collected on what the interviewees consider to be ‘the greatest problem’ facing their village, the surveys are relative. Hence, over time, if water access surpasses electricity as a village’s greatest problem, the data does not show if the water situation has become worse or if the availability of electricity has improved.

Finally, there is no firm definition of the meaning of ‘local’, which can fundamentally affect the analysis. In Figure 1, for instance, the British decided to divide the town into six separate sectors. Yet, there is no firm methodological rule in place for determining the size and composition for these sectors. The British unit could have divided the town into any number of sectors and along any number of demarcation lines. Any change in the divisions would likely yield very different results. Further, ethnographic variation across Afghanistan means that these decisions are best judged by the local commander. However, as each commander employs different criteria, there will be significant variation in the size, ethnographic make-up and geography of sectors between provinces. In turn, this can potentially affect the quality of the data and severely limit its ability to be generalised across the country.

In short, although the TCAPF is a major step towards introducing robust monitoring and evaluation into understanding the impact of civil development on security, the data remains biased, the analysis lacks internal validity and the conclusions are speculative. Clearly, a new method for making causal inferences between civil development and security is necessary. This tool is desperately needed in order to allow policy makers to make short- and long-term decisions in relation to the allocation of aid and civil development programs.

A field experiment in Afghanistan

Field experiments offer an extremely promising means of finally uncovering the true causal relationship between civil development and security (if one exists). Experiments are quickly becoming the ‘gold standard’ for causal inference in the social sciences and present many opportunities for policy makers to test their own assumptions about the world (Gerber and Green 2008; Harrison and List 2004; Heckman and Smith 1995; Imai *et al.* 2008; Paluck 2009; Shadish *et al.* 2008). As it has been questioned elsewhere: ‘If we can construct an experimental setting in which we can vary whether certain assumptions of a theory are true or false, will we observe outcomes that are consistent with theoretical propositions?’ (Druckman *et al.* 2006: 631).

The strength of field experiments lies in the process of *randomisation*. Randomisation solves many of the problems traditionally associated with observational studies in the social sciences. First, randomisation removes selection bias by design. At the core of the experimental approach is the separation between the ‘treatment groups’ and ‘control groups’. As the name suggests, the treatment group receives whatever the independent variable is attempting to test. The control group does not receive the treatment and, as such, acts as the counterfactual. In other words, the control group resembles what the treatment group would have looked like had it not received the treatment. Figure 2 summarises the process.

Randomisation of the treatment and control groups is a fundamental break from traditional observational studies. The investigator assigns subjects to either the treatment or control group by a ‘coin toss’ or in an equally random way. Random assignment also ensures that the treatment and the control group do not deviate on observed or unobserved variables. Given a sufficiently large sample, characteristics will all be averaged out between the two groups. If done properly, there should be no additional reasons why the treatment group would take on different characteristics besides being the result of the treatment. The comparability between the treatment and control groups allows any outcome differences to be directly attributed to the treatment. This is a major advance on observational studies, where selection into treatment is often associated with the potential outcomes of the experiment. Thus, in most social science research, there has traditionally been a strong bias term. Field experiments are different.

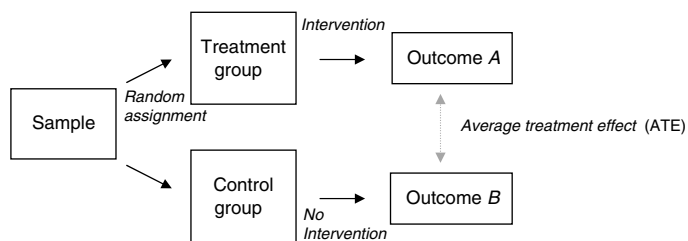


Figure 2. The experimental process.

There are no pre-existing differences between the groups that could be influencing the differences in outcomes.

An Australian field experiment in Uruzgan Province

The field experiment approach offers a vehicle through which to study the impact that civil development has on security. It offers the opportunity to test many of the fundamental assumptions that have been guiding policy decisions for decades, which are based on flimsy theory and empirical evidence. The results could potentially improve the application of civil development programs, not only in Afghanistan, but into the future as well.

Uruzgan Province in south-central Afghanistan offers a valuable opportunity to conduct a field experiment on civil development and security. It has a good-sized population of roughly 320,000 inhabitants, who are divided into 45,000 families across 506 villages (*The Economist* 2009; TLO 2009). The number of prospective villages contributes substantially to the attractiveness of the province. The province is, by Afghan standards, also relatively uniform: 97 percent of Uruzganis live in rural villages and mostly in the mountains (over 70 percent). Agriculture is the main source of income across the province, with wheat, maize, rapeseed, flax and opium representing the main crops. The uniformity of community size, geographic conditions and microeconomics will be helpful for comparison.

The size of the Australian contingent in Uruzgan Province is relatively modest. The Australian Defence Force currently has 1241 personnel in the province, along with 21 federal police and 9 civilian aid experts. The Australian Agency for International Development's (AusAID's) activities in Uruzgan focus on community-level development programs, such as the health, education, agriculture, water and basic infrastructure sectors. Fortunately, these are also the types of project that a field experiment would be most helpful in assessing.

The Australian contingent is delivering quantifiable development outputs. However, although Australian assistance was expected to reach around AU\$20 million in 2010–1, the need continues to far outstrip available resources (Australian Government, Department of Defence 2011). The fact that the Australian contingent does not have the resources to deliver aid programs to every village in the Uruzgan Province is at the heart of this proposal. The current allocation of civil development is determined by want and feasibility. Civil development programs are assigned to villages where there is a need, where the local forces possess the capabilities and materials to help, and where the political and security environment allows a program to be established. Invariably, however, local politics also plays an important role in influencing where and when civil development programs are established. In short, allocation of civil development programs has been rather ad hoc, being driven by opportunity rather than by an overall strategic vision. The field experiment approach would offer a break from the current process. Randomisation would be used to decide

which villages receive civil development programs (i.e. the treatment group) and those that do not (i.e. the control group).

Some may argue that this way of determining treatment is unethical. However, a strong case could also be made that this selection process is *more* moral and ethical as each village has an equal chance of receiving treatment from what is, essentially, a lottery. Furthermore, as was shown above, there is currently no reliable theoretical or empirical evidence as to whether civil development improves security (or is, indeed, harmful). Medical researchers designing clinical trials are faced with similar ethical considerations. They do not know what effect a new drug will have on fighting a particular disease. Hence, a priori, it makes no ethical difference whether a subject is allocated to treatment or control. Similarly, civil development might be beneficial or detrimental to security. We simply do not know what effect treatment will have on the subject. This being the case, any moral or ethical conundrum can be avoided.

Problems and solutions to a field experiment in Uruzgan Province

There are a number of challenges for a field experiment in Uruzgan Province. First, the sample size will be relatively small, and ongoing violence might cause a high attrition rate among subjects in the study. We can overcome this problem with the use of ‘pair matching’ (Bruhn and McKenzie 2009; Imai *et al.* 2009). Pair matching is a methodological technique where two subjects that share similar characteristics are paired together prior to one being randomly assigned to the treatment group and the other to the control group. If, for any reason, one of the subjects must be eliminated from the study, then the partner also gets withdrawn from the study. In other words, if a large village were forced out of the study (in either the treatment or control group), then a second village of roughly equal size and demographic make-up would also be removed (from the opposite group). In this way, the study would remain unbiased.

Pair matching is done prior to the start of the study and by covariance balancing. Villages would be paired on the basis of baseline measurements, which would probably include the size of the village, geography (mountains, plains, etc.), main crops, location (including being far enough apart to avoid ‘spillover’) and current level of insecurity. As outlined above, due to the favourable conditions for a field experiment in Uruzgan Province, the ‘pairing’ process would be relatively straightforward. The uniformity of Uruzgan across village size, microeconomics and local geographies provides a valuable opportunity.

Second, treatment should remain roughly constant across the treatment group. Some variation in the treatment is warranted. In clinical trials, for example, the dosage might be adjusted based upon the height and weight of the subject. Similarly, it is unlikely that the effect of a school built in a small village and a large town would be the same. Treatment can be customised to the

subject. But this must be within carefully defined limits. Once again, 'pair matching' would be useful here. Subjects that require similar treatments could be paired in order to ensure balance in the sample. Through this process, the experiment can remain unbiased.

Third, ideally in field experiments, there will be different researchers managing the intervention (i.e. the allocation of the treatment) and gathering data on the dependent variable. Commonality can bias the result. As it will most likely be AusAID personnel administering the treatment, preferably another organisation would measure the security in the sample villages. Presumably, the Australian Defence Force would be the leading contender to rate the security in each village in the study, but the further removed the organisation is from the investigators, the better it is for the internal validity of the study (Schroden 2009). In a perfect world, the measurement of the dependent variable would be undertaken by an organisation outside the study, and would be occurring with or without the experiment. As such, available security measurements from coalition partners or NGOs might be drawn upon.

Fourth, the Afghan government and aid NGOs must not be allowed to provide civil development to the control group. This has been a common problem in field experiments conducted in Africa. Prior to these experiments, the host governments and NGOs were providing aid where and when they could (Humphreys and Weinstein 2009). However, the field experiment caused the host governments and NGOs to focus their efforts on the villages that were missing out on civil development packages through the experiment. In other words, exogenous parties supplied increased aid to the control group, while ignoring the treatment group (because they did not require it). It goes without saying that this process will completely undermine the experiment.

Fifth, unlike most experiments in the physical sciences, this field experiment is not 'against nature' but 'against man'. That is, the experiment is strategic. If civil development is positively affecting security in a village, the Taliban might possibly mount their own intervention and attempt to slow, halt and then reverse the impact of the treatment. This is not necessarily a negative development. Indeed, it might produce interesting results: civil development does not have a positive effect on security in situations where the opposition is able to intervene. However, the danger is that a significant number of treatment villages will have to be removed from the study due to deteriorating security situations.

At first, this list of possible problems arising from a field experiment might seem rather substantial. Yet, compared to alternative methods of understanding the true impact of civil development on security, it is amazingly short. The equivalent observational study would be far more complex, involve sophisticated statistical models, and its results would still not be nearly as accurate. An observational study would be subject to the normal suite of biases, including substantial measurement errors, confounders and self-selection. By design, field experiments overcome all these problems and, as such, represent the very best

social science research available today. The findings will prove extremely valuable to short- and long-term decision-making. The conclusions, theory and results would be capable of guiding future development programs in Afghanistan and beyond.

Conclusion

This article has made the case for a field experiment to be implemented by the Australian contingent in Uruzgan Province in order to uncover the true impact of civil development on security. It has argued that the 'attitudinal approach' to counterinsurgency is based upon flimsy theory, having originally been derived from the writings of revolutionary thinkers in the 1960s and 1970s. Since that time, the attitudinal approach to counterinsurgents has become an article of faith at the centre of counterinsurgency strategies from Vietnam through to Afghanistan. Furthermore, there is presently very little empirical evidence to support the fundamental assumptions of the attitudinal approach.

This being the case, this article has advocated for a field experiment to be designed for Uruzgan Province. Experiments are the most powerful tool that social scientists have to make causal inferences. They remove all the traditional problems with observational studies. A field experiment can, once and for all, show what impact civil development is having on security in Afghanistan. These findings would allow the development of more robust theory and better guidance for policy decisions into the future. We would be better able to spend money effectively and, hopefully, start to turn around a conflict that, by many reports, is currently heading in the wrong direction.

The potential policy implications are far-reaching. A positive relationship between civil development and improved security would be a strong argument for additional aid. Indeed, this finding might suggest that resources, which are currently being directed towards the military dimension of the counterinsurgency program, might be better allocated in civil development. A finding that no relationship exists between the treatment and improved security would demand a reevaluation of the entire civil development program, with the view to either making it more effective (followed by a new set of field experiments) or maybe its scaling back. Finally, results which show that civil development worsens the security environment might expose a military opportunity. In this eventuality, the civil development is probably having the desired effect (decreasing the attractiveness of the opposition) and the Taliban are intensifying their operations in response. This would allow the government to predict where insurgent activity is likely to increase in the future and set its plans accordingly. This would represent a major step towards overcoming the eternal dilemma of the counterinsurgent—not knowing where or when the guerrillas will strike.

Notes

1. Some have been even more adamant. General Paik Sun Yup, for instance, wrote that '[n]inety nine percent of counter-insurgency operations is civil affairs, or winning the people's hearts and minds. Insurgents are fishes living in a pond and people are the water. If they are separated, it is easy to catch them' (Mills 2006: 16).
2. Even the much celebrated Eritrean People's Liberation Front (EPLF) was not above forceful recruitment. Young (1997: 127) reported 'that Eritrean youth did occasionally report that as well as fleeing the Derg, they also left their homes to avoid being forcefully conscripted into the EPLF'.
3. There is also some evidence to suggest that the population itself prefers excludable rewards. Popkin (1988: 59) observed that 'the Viet Minh tried to treat confiscated land as communal land ... This was a decidedly unpopular measure among the peasantry—who demonstrated a marked preference for private property—and the Viet Minh quickly reverted to allotting confiscated lands to their *supporters*' (my emphasis).
4. See <www.tlo-afghanistan.org/research-and-analysis> (accessed 25 July 2010).

References

- Arreguín-Toft, Ivan, 2001. 'How the weak win wars: a theory of asymmetric conflict', *International Security*, 26(1): 93–128.
- Asprey, Robert B., 1994. *War in the shadows: the guerrilla in history* (New York: William Morrow).
- Australian Government, Department of Defence, 2011. 'Fact sheet: Afghanistan', <www.defence.gov.au/op/afghanistan/info/factsheet.htm> (accessed 28 May 2011).
- Berman, Eli, Jacob N. Shapiro and Joseph H. Felter, forthcoming. 'Can hearts and minds be bought? The economics of counterinsurgency', *Journal of Economics*.
- Blackwill, Robert D., 2011. 'Plan B in Afghanistan', *Foreign Affairs*, 90(1): 42–50.
- Blaufarb, Douglas S. and George K. Tanham, 1989. *Who will win? A key to the puzzle of revolutionary war* (New York: Crane Russak).
- Boot, Max, 2010. *Afghanistan: the case for optimism* (New York: Council on Foreign Relations).
- Branch, Daniel and Elisabeth Jean Wood, 2010. 'Revisiting counterinsurgency', *Politics and Society*, 38(1): 3–14.
- Bruhn, Miriam and David McKenzie, 2009. 'In pursuit of balance: randomization in practice in development field experiments', *American Economic Journal: Applied Economics*, 1(4): 200–32.
- Campbell, Jason, Michael E. O'Hanlon and Jeremy Shapiro, 2009. 'How to measure the war: judging success and failure in counterinsurgency', *Policy Review*, 157, <www.hover.org/publications/policy-review/articles/5490>.
- Chaudhuri, Rudra and Theo Farrell, 2011. 'Campaign disconnect: operational progress and strategic obstacles in Afghanistan, 2009–2011', *International Affairs*, 87(2): 271–96.
- Cole, R. G., 1985. 'A system description of counter insurgency warfare', *Policy Sciences*, 18(1): 55–78.
- Collins, John M., 1974. *Grand strategy: principles and practices* (Annapolis, MD: Naval Institute Press).
- Dixon, Paul, 2009. "'Hearts and minds"? British counter-insurgency from Malaya to Iraq', *Journal of Strategic Studies*, 32(3): 353–81.
- Dorronsoro, Gilles, 2009. *Focus and exit: an alternative strategy for the Afghan war*, Policy Brief, January (Washington, DC: Carnegie Endowment for International Peace).

- Druckman, James N., Donald P. Green, James H. Kuklinski and Arthur Lupia, 2006. 'The growth and development of experimental research in political science', *American Political Science Review*, 100(4): 627–35.
- The Economist*, 2009. 'The Dutch model: the flower-skewers partly vindicated', 12 March.
- Fellman, Michael, 1990. *Inside war: the guerrilla conflict in Missouri during the American Civil War* (New York: Oxford University Press).
- Foley, Charles (ed.), 1965. *The memoirs of General Grivas* (New York: Praeger).
- Galula, David, 1964. *Counter-insurgency warfare: theory and practice* (London: Pall Mall).
- Gerber, Alan and Donald Green, 2008. 'Field experiments and natural experiments', in Janet M. Box-Steffensmeier, Henry E. Brady and David Collier (eds), *Oxford handbook of political methodology* (New York: Oxford University Press), pp. 1108–32
- Giap, Vo Nguyen, 1976. *How we won the war* (New York: Recon).
- Gompert, David C. and John Gordon, 2008. *War by other means: building complete and balanced capabilities for counterinsurgency* (Santa Monica, CA: RAND).
- Guevara, Ernesto 'Che', 1998. *Guerrilla warfare* (New York: Roman & Littlefield).
- Harrison, Glenn W. and John A. List, 2004. 'Field experiments', *Journal of Economic Literature*, 42(4): 1009–55.
- Heckman, James J. and Jeffrey A. Smith, 1995. 'Assessing the case for social experiments', *Journal of Economic Perspectives*, 9(2): 85–110.
- Humphreys, Macartan and Jeremy M. Weinstein, 2009. 'Field experiments and the political economy of development', *Annual Review of Political Science*, 12: 367–78.
- Imai, Kosuke, Gary King and Clayton Nall, 2009. 'The essential role of pair matching in cluster-randomized experiments, with application to the Mexican universal health insurance evaluation', *Statistical Science*, 24(1): 29–53.
- Imai, Kosuke, Gary King and Elizabeth A. Stuart, 2008. 'Misunderstandings among experimentalists and observationalists about causal inference', *Journal of the Royal Statistical Society*, 171(2): 481–502.
- Johnson, Chalmers A., 1962. 'Civilian loyalties and guerrilla conflict', *World Politics*, 14(4): 646–61.
- Kalyvas, Stathis N., 2003. 'The ontology of "political violence": action and identity in civil wars', *Perspectives on Politics*, 1(3): 475–94.
- Kilcullen, David, 2009. *The accidental guerrilla: fighting small wars in the midst of a big one* (Oxford: Oxford University Press).
- Krepinevich, Andrew F., 2005. 'How to win in Iraq', *Foreign Affairs*, 84(5): 87–104.
- Laqueur, Walter, 1998. *Guerrilla warfare: a historical and critical study* (New Brunswick, NJ: Transaction).
- Leites, Nathan and Charles Wolf, 1970. *Rebellion and authority: an analytical essay on insurgent conflicts* (Chicago: Markham).
- Lyall, Jason and Isaiah Wilson, 2009. 'Rage against the machines: explaining outcomes in counterinsurgency wars', *International Organization*, 63(1): 67–106.
- Mao, Tse-tung, 1962. *On guerrilla warfare*, trans. Samuel B. Griffith (New York: Praeger).
- Mao, Tse-tung, 1963. *Selected military writing* (Peking: Foreign Languages Press).
- McNerney, Michael J., 2005–6. 'Stabilisation and reconstruction in Afghanistan: are PRTs a model or a muddle?', *Parameters*, 35(4): 32–6.
- Mills, Greg, 2006. 'Calibrating ink spots: filling Afghanistan's ungoverned spaces', *RUSI Journal*, 151(4): 16–25.
- Minter, William, 1994. *Apartheid's contras: an inquiry into the roots of war on Angola and Mozambique* (London: Zed Books).
- Mockaitis, Thomas, 2003. 'Winning hearts and minds in the "war on terrorism"', *Small Wars and Insurgencies*, 14(1): 21–38.
- Nasution, Abdul Haris, 1965. *Fundamentals of guerrilla warfare* (London: Pall Mall).
- New York Times*, 2007. 'Army enlists anthropology in war zones', 5 October.

- Oppel, Richard A., 2010. 'Violence helps Taliban undo Afghan gains', *New York Times*, 3 April.
- Paluck, Elizabeth Levy, 2009. 'The promising integration of field experimentation and qualitative method', *Annals of the American Academy of Political and Social Science*, 628(1): 59–71.
- Popkin, Samuel L., 1988. 'Political entrepreneurs and peasant movements in Vietnam', in Michael Taylor (ed.), *Rationality and revolution* (Cambridge: Cambridge University Press), pp. 9–62.
- Schroden, Jonathan J., 2009. 'Measures for security in counterinsurgency', *Journal of Strategic Studies*, 32(5): 715–44.
- Shadish, William R., M. H. Clark and Peter M. Steiner, 2008. 'Can nonrandomized experiments yield accurate answers? A randomized experiment comparing random and nonrandom assignments', *Journal of the American Statistical Association*, 103(484): 1334–44.
- Stubbs, Richard, 1989. *Hearts and minds in guerrilla warfare: the Malayan emergency 1948–1960* (Oxford: Oxford University Press).
- TLO (The Liaison Office), 2009. *Three years later: a socio-political assessment of Uruzgan Province from 2006 to 2009* (Kabul: TLO).
- USMC (United States Marine Corps), 2010. *Assessment and measures of effectiveness in stability ops*, Handbook No. 10–41 (Fort Leavenworth, KS: Center for Army Lessons Learned).
- Wilson, David and Gareth E. Conway, 2009. 'The tactical conflict assessment framework: a short-lived panacea', *RUSI Journal*, 154(1): 10–5.
- Young, John, 1997. *Peasant revolution in Ethiopia: the Tigray People's Liberation Front, 1975–1991* (Cambridge: Cambridge University Press).