

## Modeling Macro-systemic Change for Counter-insurgency

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The systems model presented by Dr. Crane gives a good sense of the complexity of the relationships involved in suppressing counter-insurgencies. One must pay attention to the dynamic relationships driving the insurgents, affecting the broader populace, determining the effectiveness of the military and police, and underlying the stability or instability of the local and national governments. This is a multi-player game with changing conditions, and thus one of the hardest situations to model with simple rules and equilibrium outcomes.

Fortunately, the human brain has developed over tens of thousands of years, maybe even millions of years (going back to our social primate ancestors) in the context of just such complex relations, and has developed innate skills at judging the social conditions leading to harmony or conflict. One might go so far as to say that attempting to reduce this complexity to mathematical formulae and strict relationships will distort the situation and lead to bad decisions. Building the kind of stable social relationships that discourage insurgency and underpin stable governance is not like calculating the force ratio required to win a military engagement or the targeting to deliver a certain amount of ordinance to a target. It is relatively easy to build a model that will determine how many casualties are likely from a given adversary's force configuration and the counterforce that we can bring to bear against it. It is much more difficult to go from projected (or actual) body counts to the likely stability or instability of a regime.

At this point, I wish to point out two crucial points of the Crane et al model. First, it repeats what has become a fundamental and widely-shared model of social dynamics regarding state reconstruction. This is that such reconstruction rests on four major pillars: security provision, economic reconstruction (jobs and incomes), political reconstruction (self-sustaining and administratively effective government), and social service delivery (health, education, sanitation, energy, transport). [The Crane et al model presents another feature as a 5<sup>th</sup> pillar – the build up of indigenous security forces – but I think that is a mistake, for reasons I will discuss below.]

This four-pillar model has become a common theme in the work of the CSIS reconstruction analysis led by Richard Barton, the State Fragility Index developed by Monty Marshall and myself and the very similar Failed States Index of the Brookings Institution/Center for Global Development. It is also found in the Fragile States Strategy of USAID, the ‘essential tasks matrix’ of the Coordinator for Reconstruction and Stabilization in the US State Department (although they split political reconstruction into two separate areas, one each for government/participation and justice/rule of law), the fragile states planning of the UK’s DFD and the OECD’s Development Assistance Committee. While the World Bank has not quite taken this model to heart -- they are attached to a very vague concept of ‘good governance’ which can be stretched at will to cover all of these pillars, or just economic growth and conflict mitigation, or other combinations – they are the exception. In sum, there is now considerable agreement on a set of core issue areas that need to be the center of action (and hence modeling) for counterinsurgency and state reconstruction.

The second point reflects the earlier observation about the human mind. I find it striking that most of the military commanders to whom this model has been presented were perfectly content with the schematic framework, and relatively uninteresting in formal and quantitative modeling

of these relationships. I think this is because once commanders have a simple set of categories or “boxes” among which to organize the key relationships, they are quite comfortable using their instinctive understanding of human relations to trace and identify the key relationships. Unlike interest rates, whose compounding is confusing and counter-intuitive, group identity and mobilization, responses to changing social conditions, and the interrelationships between groups are things we have been programmed by evolution to grasp. Much like a pitcher throwing a baseball, while physics are involved, you do not get better pitchers by teaching them the physics of baseball flight; you get better pitchers by finding people with a good intuitive natural ability and sense of how to throw a baseball at a target, and refining those skills by tutelage by experienced teachers and practice. To be sure, humans find it very hard to keep more than four or five key relationship explicitly in mind at once; thus a framework that reduces hundreds of potential interactions to four or five ‘themes’ or ‘centers’ around which those can be organized is tremendously valuable. But once a model has performed that function, it is hard to ‘program’ it to work more effectively than a skilled observer.

For example, the Crane et al model includes a presumption that economic growth improves stability. But that is obviously not always true. The growth of the poppy trade and warlord smuggling networks in Afghanistan clearly produced economic growth; but they were not stabilizing in the longer run. Infusing money for construction projects, as in Iraq, may lead to short term spurts of growth and employment, but if consumed by corruption and leading to ineffective projects, they will turn people against the government. In general, the models find it hard to measure the elements of trust or fidelity or fairness that have to be involved in political progress, service provision, and economic growth if they are to promote stability, rather than the reverse. No regime in the Middle East enjoyed more dramatic economic growth than Iran under

the Shah – yet the entire country turned against the Shah and produced a radical revolution.

Thus human judgment may need to say the arrows have been turned around by perceptions and reaction contrary to those predicted in the ‘usual’ situation captured by the rules of the model.

Thus the good news is that we have an increasingly agreed-upon central modeling principle based on four pillars. These pillars in fact go all the way back to Talcott Parsons and action theory, which in the 1940s argued that the essential subsystems in a functioning society were four – economic, political, integrative (social services), and fiduciary (law and security). We can split or add wrinkles to this depending on taste. Thus the CRS splits the legal/judicial system off from either security or governance as a separate pillar. The ‘hairball model’ splits off the indigenous security forces from ‘security’ or ‘governance’ in general – no doubt because it has become a major task of our military to train the domestic security forces for government we support. But I think the most comprehensive and simple way to group these is to consider ‘security’ all those forces that protect people, including indigenous forces (both military and police) and outside intervening forces, while placing “law and judiciary” under the umbrella of government, with which it must be integrated to function.

The bad news (perhaps, it may not be too bad) is that we have a very hard time operationalizing these pillars in terms of reliable measures and stable relationships. I have given the example of economic growth above as a two-edged sword. But in general, any gains in quantity of economic growth, government participation, social services, or security can be offset by perceptions that the delivery or distribution of these things is occurring by means of, or with distributive outcomes that are, ‘unfair’ in some groups’ eyes. To pick on just two examples, the model has headings for ‘governance’ and ‘psychological operations effectiveness.’ Yet we really have no idea how to describe or measure ‘governance,’ or how to judge whether ‘psy-

opps' are effective except by looking at precisely those outputs – violence or stability – that the model wants to use these concept to predict.

How then do we proceed – do we abandon the effort at formal modeling of these relationships and rely on commanders intuitions once they have absorbed the model's basic structure? Or do we persevere in trying to squeeze such fluid concepts as 'governance' into narrower measures and boxes that can be plotted in varying places and contexts as lines on a graph or quantities in an equation?

My answer is to suggest a middle path. After all, another form of 'model' is just a measurement. Any metric presupposes a relationship between the measure and the process that is being tracked by the measure. Marshall and myself have dealt with the 'duality' of the four-pillars (quantities of measurable action or change on the one hand, and perceptions of fairness of those changes on the other) by creating an eight-fold matrix, in which each pillar is tracked by a cluster of measurements of which some aim to track changes in security, economic growth, services, and government, while others aim to track the fairness of those changes through distributional measures.

What we have found, however, is that any measures useful across different contexts have no value in real-world action, because cross-national measures generally rely on open-source information compiled by the World Bank, UN, or other agencies that report information a year or two after the date of observation. This means that commanders in the field need a whole different set of measures to track the four pillars and perceptions in real time. This can be done to some degree by surveys, but surveys are notoriously difficult to carry out in hostile and insecure conditions. This means that commanders are best advised to develop and use their

intelligence services to ferret out information on the pillars and perceptions just as they would to ferret out enemy intentions and troop deployments.

We have learned that counterinsurgency is not a matter of fighting enemy combatants, but of shaping the entire macro-social situation to isolate insurgents, discourage their support, and strengthen the indigenous government that insurgents aim to topple. This means that ‘traditional’ intelligence focused on enemy combatants – however crucial as part of military operations – is not sufficient for the broader task of counterinsurgency and stabilization. For that, intelligence has to be retooled so that commanders can obtain real-time information on the state of the pillars and perceptions in their field of action. Of course, without the four-pillar model (and attention to perceptions), commanders would not know what their intelligence should target other than enemy combatants. I think the reaction the model presentation is thus understandable – commanders react by saying “great, now I know what I have to find out to see how things are going in my field of operations.” But they then expect they will shape their intelligence activities to find those things out in ways that are meaningful in terms of their immediate tasks, their actions, and their means to determine perceptions. They are not really interested in efforts by civilian analysts operating mainly outside the combat zone to model those relationships based on partial or distant data.

I do not think the commanders are wrong in this. I would say they are right. They can be supported by us suggesting metrics or methods to obtain information on the pillars and how changes are perceived, but I think any more standardized efforts to model these relationships in a ‘universal’ or ‘context-free’ situation will be resisted and probably rightly so.

What I do think will happen is that some efforts in the field to track progress on these pillars and popular perceptions or reactions will prove more successful than others, and that shared experience will lead to the emergence of handbooks or manuals based on hard experience.

That said, let me offer some simple measures for each pillar that may be useful in real-world modeling to fill in the kind of red-yellow-green progress charts for each pillar that have been the most common form of operationalizing this wisdom.

- (1) Security: Body-counts, but not where more bodies of insurgents is good. Rather, body-counts caused by insurgent and government action are both bad. In a counter-insurgency, the higher the overall level of violence, the more the insurgents are posing a threat to ‘normalcy.’ Thus the total level of casualties relating to conflict with the insurgency should be tracked, and the lower this falls the better.
- (2) Governance: The critical overall element of governance is not participation, or equality, or democracy – it is trust. If one can get truthful answers to a single question: “How much do you trust the government to protect you and act responsibly?” one can measure governance much more effectively than by looking at constitutions or officials’ actions. Any improvements are positive; the higher the trust level the less room for insurgents to obtain popular assistance or support.
- (3) Economics: Economists have taught us that the key to economic stability is not current data, but expectations. Inflationary expectations drive inflation; fears of unemployment drive recessions. Thus the critical question on which to obtain data is: “Do you think your economic condition will be better, worse, or pretty much the same six months from now.” Positive expectations mean programs are working; negative expectations often mean that even apparent progress is being undermined by corruption, suspicion, or

insecurity. With negative expectations, even real short-term progress is likely to quickly reverse and fail to produce security.

- (4) Social Services: The key to such services is not simply to provide them, but to make sure that they can be sustained by the local or national government once foreign support is withdrawn. If the services cannot be maintained, the government will get no positive boost from them, and the insurgency instead may be boosted. Examples are the schools built in Afghanistan or the clinics built in Iraq – since the local governments could not pay for teachers or doctors, the buildings were soon abandoned or turned to other uses, leading to disillusionment with the government or US support efforts. So the key question here is: “Do you feel that you will have continuing access to the (health care/education/energy/roads) that you need in the future? Do you feel confident they will be supported at a reasonable level?” If the answers are negative, it does not matter how many wells are drilled, roads are laid, schools or clinics are built.

In sum, getting reasonable intelligence on a few simple questions from the field of operations is going to be a better way to use the four-pillar model than computing quantitative relationships among a host of variables whose real content may be altered by perceptions of the people affected.