Irregular Warfare Analysis Workshop WG 3: Information Operations/PSYOP/Social Sciences

Working Group Out Brief

3-6 February 09

Chairs: Mr. Ottenberg (AT&T), Ms. Grattan (Group W)

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Agenda

- Working Group Purpose/Charges
- Participants
- Schedule / Briefs
- Approach
- Findings / Suggestions
- Key Take-Aways

Working Group Purpose/Charges

Purpose: Improve the foundations of information operations/PSYOP analysis; identify existing analytic capabilities and shortfalls; explore the application of quantitative and qualitative methods for improving analytical capabilities; evaluate and recommend concrete applications.

1. What are the Information Operations/Psychological Operations (IO/PSYOP) activities, operations research, and social science tools or methods that would provide insight and or understanding of Irregular Warfare?

2. What analytical efforts have been done in support of these activities and what was the result?

3. What are the gaps in analytical methods and tools that are used to conduct IO/PSYOP? What analytic applications could be adapted from social sciences and operations research in order to fill these gaps and enable further studies or analysis?

4. What do our discussions suggest about analytical methods with regard to IW in general? What can we say about the 'way ahead'?

Participants

- Tom Cioppa, TRADOC
- Debbie Duong, OSD PAE SAC
- Scott Helfstein, USMA CTC
- Christopher Paul, RAND
- John Lawson, USMC
- Scott Shields, JS
- William Young, N81
- William Bennett, BAE
- Jason Wendel, SOCOM
- Vic Garcia, SOCOM
- Jay Earles, SOCOM
- Christopher Rate, SOCOM
- John Crino, OSD PA&E

- Mohamed Hassabeinabi, SOCOM
- Jeremy Allen, SOCOM
- Robert Watwood, SOCOM
- Dennis Crall, SOCOM
- Brian Sweeny*, SOCOM
- Stephen Black, TRADOC
- Edward Cerer, TRADOC
- Lawrence Chinnery, JIOWC
- James Crutchfield, Lockheed Martin
- Richard Deckro, AFIT
- Jeffrey Edwards, TRADOC
- Anne McGee, JIEDDO
- Sidney Fincher, USAOTC
- Douglas Hoffman, USMC

* Presenters – unable to participate in WG for entire symposium

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Participants

- Thomas Leydorf, Wave Tech
- Thomas Mcnamara, JHU/APL
- Edward Negrelli, Leonie, LLC
- Michael Ottenberg, AT&T
- Karen Grattan, Group W
- Timothy Perkins, USA
- Jason Quirin, SOCOM
- Richard Rigazio, USN
- Todd Sherman, Lockheed Martin
- Rita Maria Szymanski, MITRE

- George Waltensperger, Lockheed Martin
- John White, NGIC
- Kirk Michealson, Lockheed Martin
- Derrick Smith, USSOCOM
- Stu Starr, IDA
- Adam Shilling, CAA
- Donna Middleton, NG
- Greg Jannarone, SOCOM

- **~43 signed up for the WG**
- **~ 20% social scientists**
- **Great SOCOM J39 participation**

Working Group #3 Agenda - Wednesday

Wednesday, 4 February		
1300 - 1430	1) <u>Welcome</u>	Mr. Mike Ottenberg Ms. Karen Grattan
	2) Problem Setting	Dr. Christopher Paul, RAND
	3) A View from the Ground	John Lawson, USMC, Moderator
	- AQ's Comm: Strategies, Capabilities and Results	Dr. Scott Helfstein, USMA, CTC
	- Iraq	LTC Vic Garcia, J39, SOCOM
	- PSYOP Support to NAVCENT	Maj. Jason Wendell, J39, SOCOM
	- Analysis of Afghanistan Tribes	LTC Brian Sweeney, J39, SOCOM

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Working Group #3 Agenda - Thursday

Thursday Morning, 5 February		
0800-1430	4) **Key Problems in IO/PSYOP**	
	- **Open Space Technology**	**Ms. Karen Grattan Entire Group**
	5) **Methods, Models, and Tools I**	**Dr. Scott Helfstein, USMA, CTC, Moderator**
	- **Case Study**	**Scott Shield, JS**
	- **Case Case Study Application to Algeria 1956-1962**	**Dr. Bill Young, N81**
	- **Operation Iraqi Freedom Strategic Communication Analysis and Assessment**	**COL Tom Cioppa, PhD, TRADOC**
	6) **Methods, Models, and Tools II**	**Dr. Scott Helfstein, USMA, CTC, Moderator**
	- **Agent Based Modeling**	**Dr. Debbie Duong, SAIC**
	- **Media Influence Model, COMPOEX**	**Dr. Bill Bennett, BAE**
	7) **Key Problems in IO/PSYOP**	
	- **Refine Capabilities, Gaps, and Priorities**	**Ms. Karen Grattan Entire Group**

Working Group #3 Agenda - Friday

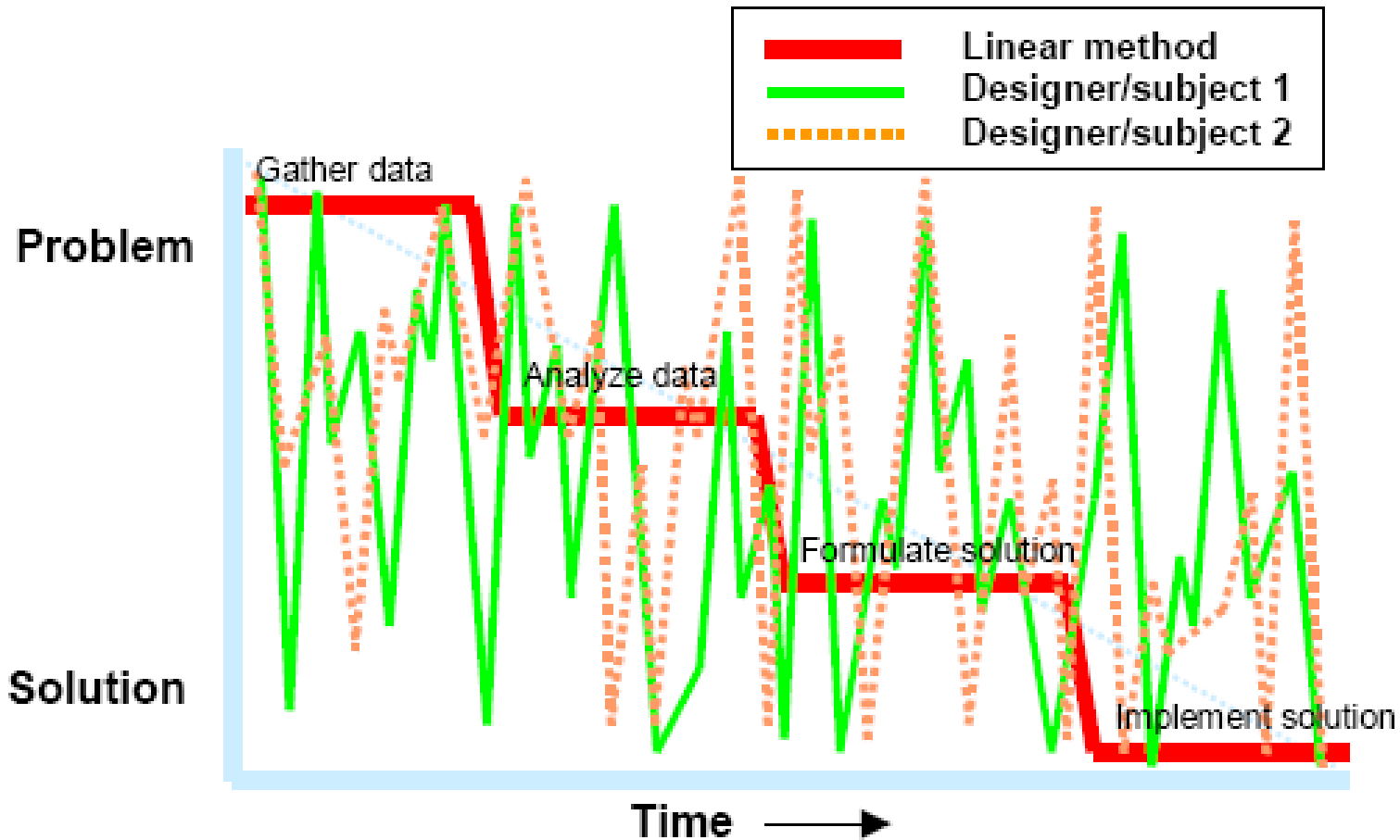| Friday Morning, 6 February		
0800-1100	8) **Synthesis**	**Entire Working Group**
1300-1330	**WG3 Brief to Workshop**	

Approach

Figure 3: A wicked project with a second designer working on the problem

Conklin (2005)

Primary Themes Identified

- **Issues about how we see the world—at the philosophical level**
- **Issues about how we organize and prepare ourselves—within DoD and across whole of government**
- **Issues around analytic design—who participates and what we eVALUEate**
- **Issues of unintended consequences of our activities**
- **Issues of operational/operator constraints**

Strategy and Philosophy Issues

- Every action (even lethal action) is a PSYACT
- Must clearly define goals and messages at the strategic level
- PSYOP must be integrated with related activities such as PA and CMO.
- Resonant points—find items of common interests with local populations—we can't expect them to support OUR agenda
- Taxonomy and clear definitions are helpful
  - (but these definitions cannot be blinders that limit conceptual thought in planning, operations, or assessment)

Organizational Issues

- **Ownership: PSYOP is/should be under umbrella of strategic command message**

- **Lexicon: analysts and operators need to have same lexicon**

- **Military needs to train and educate leaders to understand "soft" skills such as PSYOP and what these bring to the fight**

  - **analysts can help construct valid case studies as part of officer/soldier education**

  - **a robust case study can provide basis for wargame ("road to conflict"), the case study can capture a full problem set that would facilitate learning on complex issues**

- **Any PSYACT may lead to unintended consequences, may compromise DoS, USAID, or Peace Corps programs**

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Dealing with Unintended Consequences

- Unintended Targets of Messages
  - It is important to maintain consistency to develop trust
- Unintended Consequences of the message itself
  - For unintended consequences that happen for lack of knowledge
  - For unintended consequences that happen because they are too complex: **APPLY** understanding above to:
    - BOGSAT
    - War gaming
    - Simulation Analysis, Agent Based and System Dynamics
- Unintended Long Term Effects and Enemy exploitation of the Message

Analytic Design Issues

- **How do we appropriately choose models methods and tools for OD in PSYOPS?**
  - **Generic tools that can be fine-tuned to the situation through social discourse**
  - **Develop different solutions that you can test**
  - **Know the TYPE of your problem**
  - **Test and compare using same data sets**
  - **Get a formal standardized data set**
- **What disciplines should be on the team? How do we choose the right ones and access them?**
  - **Analytic Ability/skills regardless of field**
  - **Open-minded and able to work across disciplines**
  - **Familiar with both military and OD process**
  - **Have both field and background analysis capabilities**

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Analytic Design Issues

Measuring Outcomes in Influence Operations
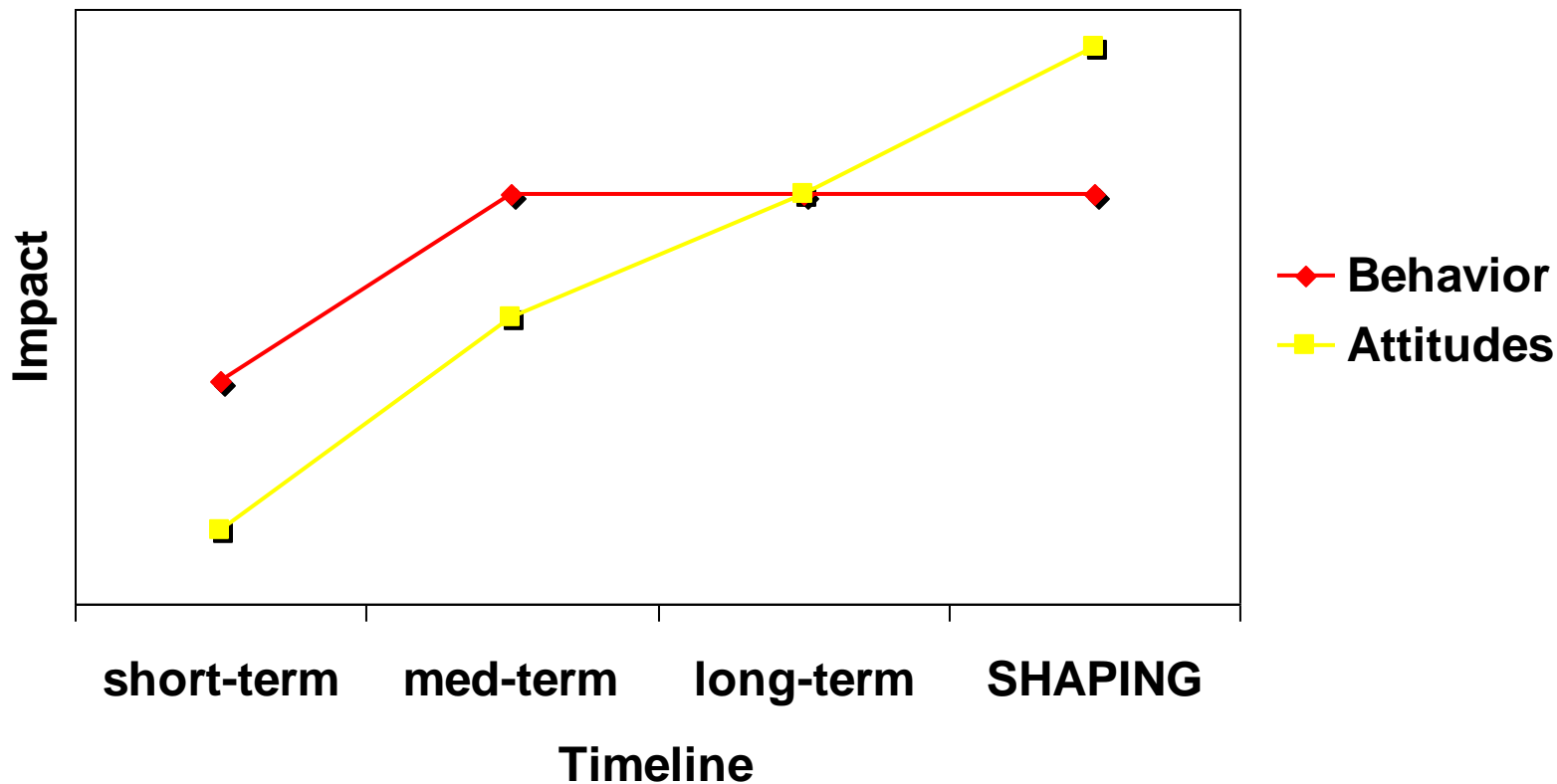
Constraint Issues

- Resource Constraints

- Legal/ Ethical Constraints

- Human Capacity Constraints

- Organizational Constraints

- Difficulty in demonstrating effectiveness of information products

Key Working Group Take-Aways

- **A coherent taxonomy and lexicon of IO is required**
  - **Analysts and operators must use the same set of definitions**
- **Models, methods, and tools must provide mechanisms for learning, understanding of the problem, not prediction**
- **Coordinate PSYOP across related combined, joint, and inter agency arenas**
- **Develop robust case studies which capture a full problem set to greatly benefit exercises, education, and training**
- **Non-kinetic assessment (MOP, MOE) must be in the initial plan**
- **Key gaps in PSYOP capabilities must be resolved by other means (traditional social sciences, ORSA approaches may assist)**
  - **Red teaming**
  - **Evolutionary development of M&S**
  - **Enhanced Wargaming (Phase 0)**
  - **Human terrain and media analysis**

'Information is 60% of the COIN fight' – General Petraeus

Irregular Warfare Analysis Workshop WG 3: Information Operations/PSYOP/Social Sciences

Working Group Out Brief

3-6 February

- Backup slides

Goals

- Inform

- Develop an appreciation for what is experienced as "ground truth" with regard to planning, implementing and evaluating PSYOP efforts.

- Identify gaps in IO/PSYOP that lend themselves to examination using operations research and social science tools

- Identify potential quantitative and qualitative methods, tools, approaches, data that may assist in solving gaps

- Identify concrete actions for future action to implement or test the application of the potential approaches defined in this WG

Scope

- Information Operations is composed of a wide variety of operations (e.g. Deception, Destruction, OPSEC, EW, PSYOP).

- We are limiting our discussions to PSYOP only.

- We are limiting our discussion to the application of social sciences techniques to IO/PSYOP and not the application of social science to IW in general.

Definitions

Joint definitions, concepts, and doctrine form the basis for all of our discussions (JP1-02, JP3-53, etc).

Information operations. Actions taken to affect adversary information and information systems while defending one's own information and information systems. Also called IO. (JP1-02)

Psychological operations. Planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. The purpose of psychological operations is to induce or reinforce foreign attitudes and behavior favorable to the originator's objectives. Also called PSYOP. (JP 1-02)

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Definitions

Public affairs. Those public information, command information, and community relations activities directed toward both the external and internal publics with interest in the Department of Defense. Also called PA. (JP 1-02)

Public diplomacy. Those overt international public information activities of the United States Government designed to promote United States foreign policy objectives by seeking to understand, inform, and influence foreign audiences and opinion makers, and by broadening the dialogue between American citizens and institutions and their counterparts abroad. (Approved for inclusion in the next edition of JP 1-02.)

Public information. Information of a military nature, the dissemination of which through public news media is not inconsistent with security, and the release of which is considered desirable or nonobjectionable to the responsible releasing agency. (JP 1-02)

Propaganda. Any form of communication in support of national objectives designed to influence the opinions, emotions, attitudes, or behavior of any group in order to benefit the sponsor, either directly or indirectly. (JP 1-02)

Approach

What is Different About This?

- **How we typically view problems:**
  - **As deterministic problems**
  - **We can fully understand the problem**
  - **Tendency to frame problems too simplistically, instead of as an interactive system**
  - **Solve the problem as given**
  - **The problem is "out there"**

- **Operational Design view:**
  - **Non-deterministic problems**
  - **We cannot fully understand the problem, we must position ourselves to learn, we must learn as we go**
  - **Question everything, question all of our assumptions**
    - Why are we doing this? Why are we thinking this way?
  - **Use systems theory to understand complex systems**
  - **We are part of the system that defines the problem**

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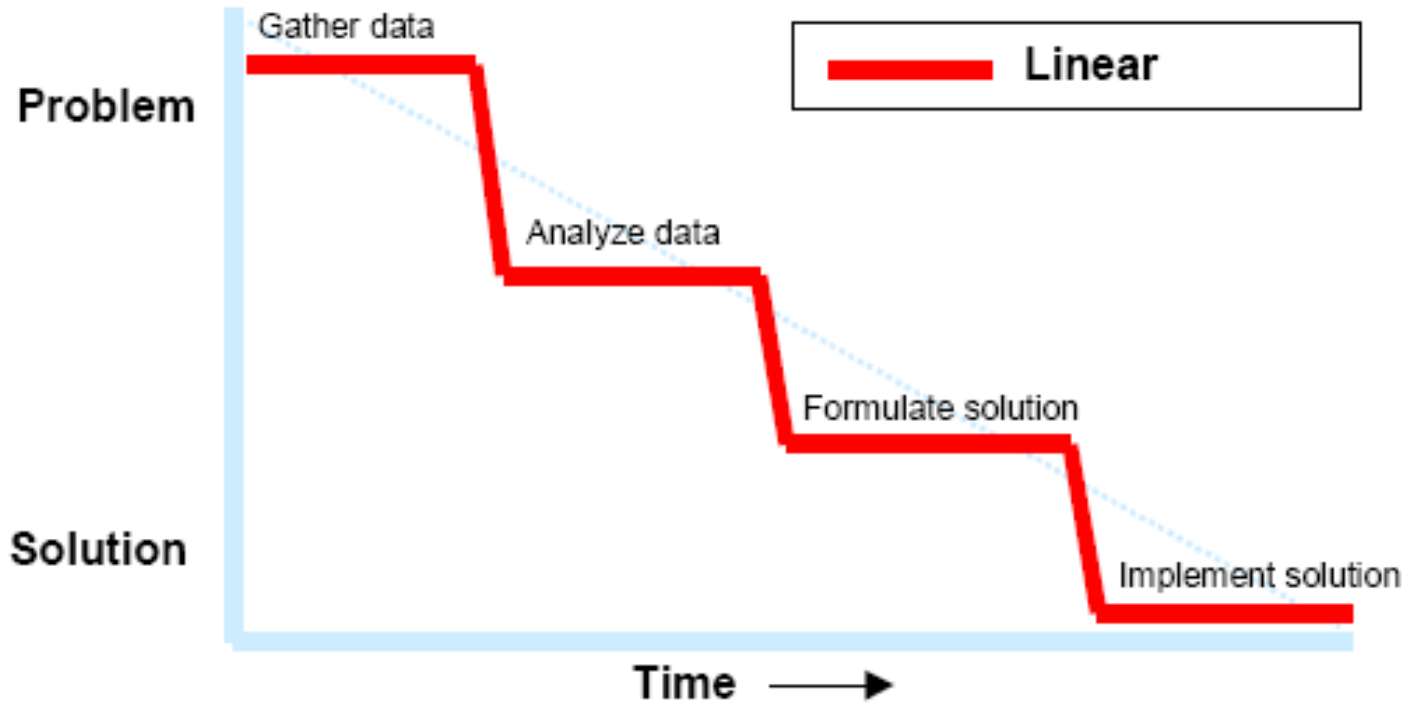
Approach

Figure 1: Traditional wisdom for solving complex problems: the "waterfall"

Conklin (2005)
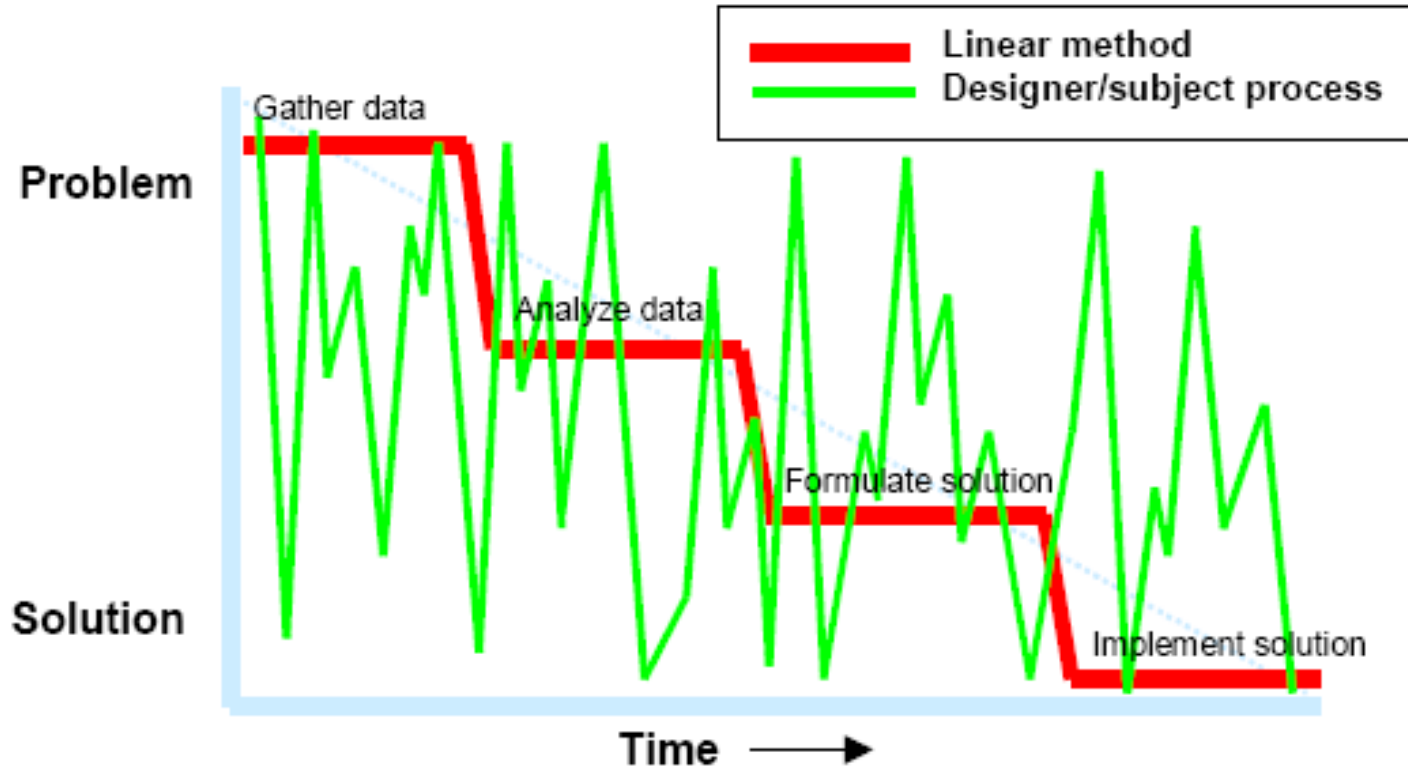
Approach

Figure 2: Pattern of cognitive activity of one designer -- the "jagged" line
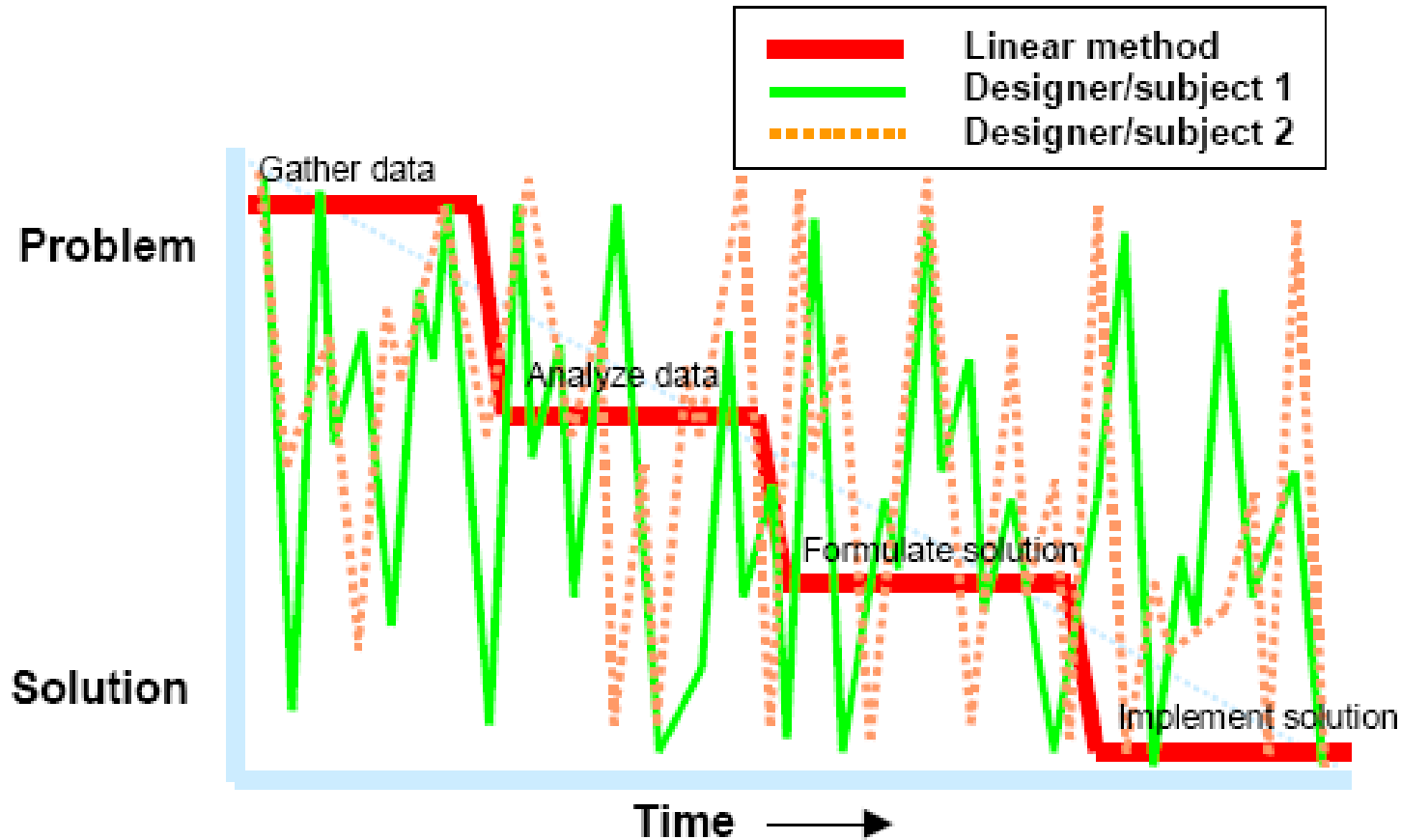
Conklin (2005)

Approach

Figure 3: A wicked project with a second designer working on the problem

Conklin (2005)

Theme

- **What are the critical problems or issues which must be addressed in order to increase capacity to conduct effective PSYOP?**

- **How do we employ new ways of thinking to put us in a position of advantage.**

- **What are the framing questions which help us approach the analytic area in question?**

Primary themes identified

- **Issues about how we see the world—at the philosophical level**
- **Issues about how we organize and prepare ourselves—within DoD and across whole of government**
- **Issues around analytic design—who participates and what we eVALUEate**
- **Issues of unintended consequences of our activities**
- **Issues of operational/operator constraints**

Strategy and Philosophy Issues

- M&S outstrips social science, needs evolutionary approach as conceptual models improve, build the models … not universally held

- Must integrate with civil affairs to ensure

Strategy and Philosophy Issues

- Every action (even lethal action) is a PSYACT

- Must clearly define goals and messages at the strategic level

- PSYOP must be integrated with related activities such as PA and CMO. PSYOP or PA magnifies the effect of CMO (such as MedCAPS, agriculture improvement programs, projects).

- Resonant points—find items of common interests with local populations—we can't expect them to support OUR agenda, and we cannot expect them to sacrifice for OUR agenda

- Taxonomy and clear definitions are helpful
  - but these definitions cannot be blinders that limit conceptual thought in planning, operations, or assessment

Philosophical Requirements (1 of 3)

- **Leadership should establish a strategic vision / concept for PSYOP; at least in a theater or campaign**
  - **Operational objectives and effectiveness follows**
- **Determine what our message should be and intended audience**

Philosophical Requirements (2 of 3)

- **Course of Action (CoA) development should include PSYOP assessment for each COA**
  - **How does the analyst assist the planner with COA development?**
    - **Effect on audiences**
    - **Task accomplishment**
    - **Kinetic versus non-kinetic**
    - **Success assessment criteria**
    - **Prioritization**
    - **Plan for failure and unintended consquences**

Philosophical Requirements (3 of 3)

- **Red Teaming to account for adversary PSYOP/counter-Strategic Communication**

- **Identify resonant points in key aspects of belief/value system and work your Strategic Communication message to work with them**
  - **Social network modeling**

- **Assume US views/perspectives on influence is biased to US values -- must counter balance**

Organizational Issues

- Ownership: PSYOP is/should be under umbrella of strategic command message

- Lexicon: analysts and operators need to have same lexicon

- Military needs to train and educate leaders to understand "soft" skills such as PSYOP and what these bring to the fight

- -analysts can help construct valid case studies as part of officer/soldier education

- -a robust case study can provide basis for wargame ("road to conflict"), the case study can capture a full problem set that would facilitate learning on complex issues

- -case study on informational dimensions of conflict in Phase 0 or during IPB is more proactive than waiting until engaged

- PA and PSYOP don't talk? They need to…

- May need to constrain "black" PSYOP to reduce other agencies' or commander's scruples in working with or using PSYOP

- Kinetic ops have a psychological effect…

- Any PSYACT may lead to unintended consequences, may compromise DoS, USAID, or Peace Corps programs

Dealing with Unintended Consequences

- Unintended Targets of Messages
  - Tailor the way the message is presented to different groups, but not what message is sent. It is important to maintain consistency to develop trust
- Unintended Consequences of the message itself
  - For unintended consequences that happen for lack of knowledge
    - More understanding of possible consequences by getting more people who know the population looking at it
      - Better cooperation with IA and Intelligence community
      - Employ Academics/Social Scientists
      - Make better use of operational experience
      - Serve the population more, so that they tell you.
  - For unintended consequences that happen because they are too complex : **APPLY** understanding above to:
    - BOGSAT
    - War gaming
    - Simulation Analysis, Agent Based and System Dynamics
- Unintended Long Term Effects and Enemy exploitation of the Message
  - For unintended consequences that happen for lack of knowledge
    - Have people on the ground and population monitor effects and re-spin for damage control
    - Keep promises (especially by knowing when a promise was made
  - For unintended consequences that happen because they are too complex: **APPLY** understanding above to:
    - BOGSAT
    - War gaming
    - Simulation Analysis, Agent Based and System Dynamics

Analytic Design Issues

- **How do we appropriately choose models methods and tools for OD in PSYOPS?**
  - **Generic tools that can be fine-tuned to the situation through social**
  - **discourse (like the MpiCE project – Measuring Progress in Conflict Environments which provides a list of MOEs for organization's SMEs to choose from to tailor to specific situation).**
  - **Develop different solutions that you can test**
  - **Know the TYPE of your problem**
  - **Test and compare using same data sets**
  - **Get a conformal standardized data set**
- **What disciplines should be on the team? How do we choose the right ones and access them?**
  - **Analytic Ability/skills regardless of field**
  - **Open-minded and able to work across disciplines**
  - **Familiar with both military and OD process**
  - **Have both field and background analysis capabilities**

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Analytic Design Issues

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- What is the appropriate approach to measure effectiveness? What else needs to be measured?
  - Step 1: Know the intent of campaign or conditions to be changed
  - Step 2: then you can set measures up front and constantly refine over time (iteratively)
- How should we study outcomes of our actions?
  - COORDINATE – form friendly network of interservice, interagency, govt, private partners
  - Tailor to sub-groups and integrate
  - Do in steps – eg – how much closer did I get to the goal? (eg – goal 50% positive polling – track trends from beginning)
  - Give your partners the collection requirements so they can collaborate
  - Don't rely on a single measure (eg – not just polling)
  - There should be different measures for different timeframes – short/medium/long
  - Short – single behavior events (eg – vote, obey curfew, etc)
  - Medium – trends in behavior (eg. Calling a reporting hotline)
  - Longer term – attitudes underlying (Must understand what attitudes underly your objectives and then what behaviors reflect these attitudes iot measure them)
  - Address both good and bad outcomes
  - Cannot measure attitudes directly (polling can help but is not entirely reliable)

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Analytic Design Issues

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- **Gap: need to fund longer-term studies on what kinds of observable behaviors reflect the attitudes we are likely to seek (eg – what behaviors underly acceptance of a "market democracy"?)**

- **Further issue: giving people something positive, something to say "yes" to –something which reflects their self-interests and values.   This approach might be more effective (can sponsor studies to determine) but also more likely to provide the types of objectives which lend themselves to observable/measurable behaviors.**

Analytic Design Issues

Measuring Outcomes in Influence Operations
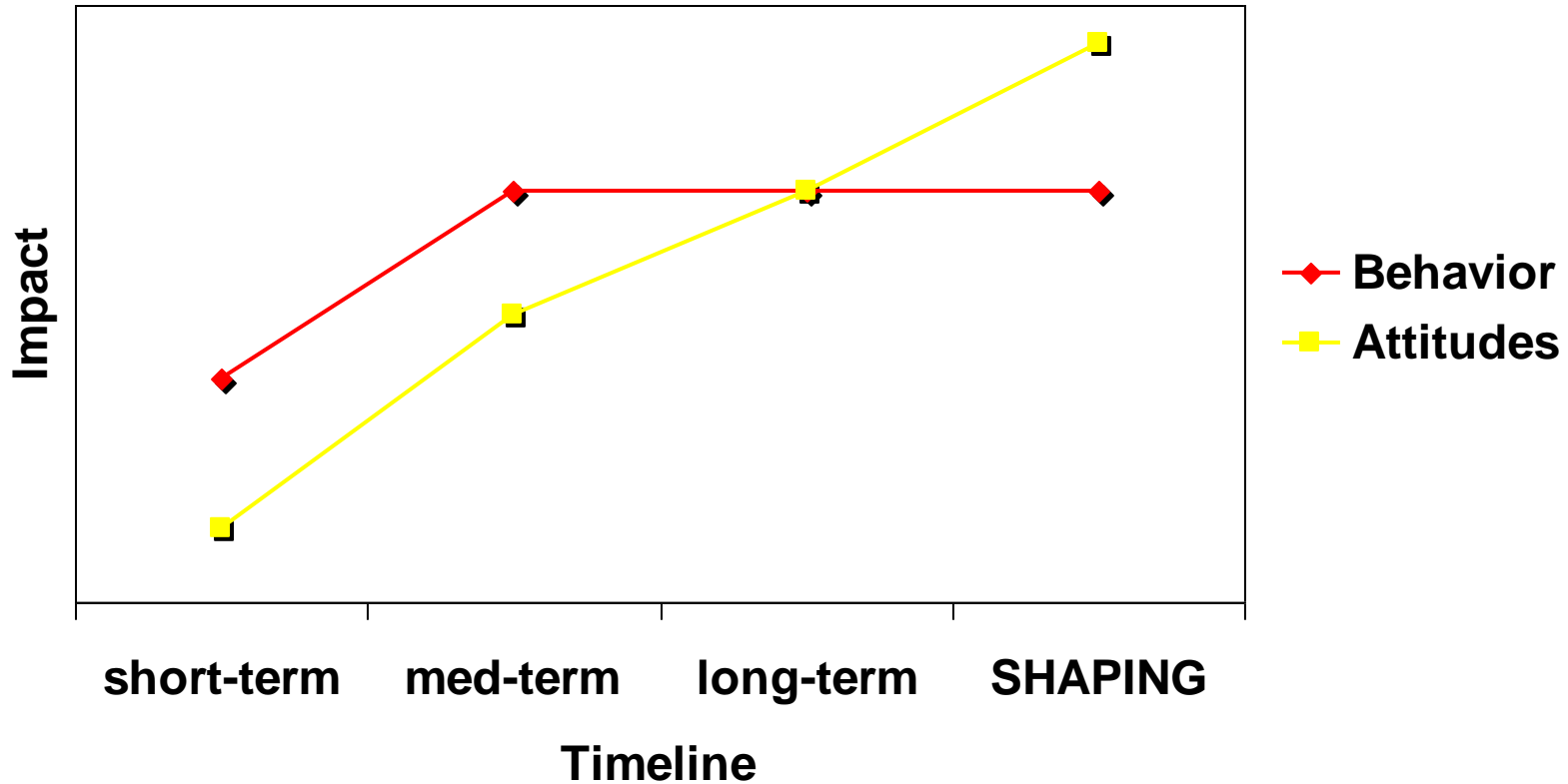
Constraint Issues

Resource Constraints
   Time
   Money
   Number of people
   Access to media outlets/ share of voice

Legal/ Ethical Constraints
   Smith-Mundt(?) Act and other US laws and regulations
   Host nation restrictions/ SOFAs
   RoE
   Scruples- PSYOP is nasty business, right?
   Local national govt control of media outlets (non-permissive)

Constraint Issues

- Human Capacity Constraints
  - People who know how to do PSYOP
  - Advocacy for the discipline
    - Convincing leadership that PSYOP is useful and appropriate
    - Converting high-ranking advocates
  - "Know Yourself"- must understand own culture to make comparisons
  - "Know the other"
    - Cultural Awareness
    - Language/ Translation/ Cultural Literacy (beyond mere translation)
    - Understanding local attitudes (HTT work, CMO, F2F)
  - Capturing/ Transmitting learning
    - TTPs
    - Training/ Education of operators, leaders, "strategic corporals"

Constraint Issues

- Organizational Constraints
  - "Kinetic culture" within US military
  - Career paths do not encourage development skill sets for "era of persistent conflict"
  - Inadequate organizational structures to accomplish missions within time constraints
  - Approval process for products
  - Strategic integration of PSYOP, PA, public diplomacy, and other strategic communications
  - Joint, interagency, combined, multi-national integration

- Difficulty in demonstrating effectiveness of information products
  - Difficult to show commander's return on investment

Analytic Design Issues

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Analytic Design Issues

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  - **Longer term – attitudes underlying (Must understand what attitudes underly your objectives and then what behaviors reflect these attitudes iot measure them)**
  - **Address both good and bad outcomes**
  - **Cannot measure attitudes directly (polling can help but is not entirely reliable)**

Key Working Group Take-Aways

- **A separate workshop could address social science support to IW analysis in general**
- **M & S tools are immature to support PSYOP**
  - **Initial steps in the areas of social network analysis, systems dynamics, agent based models, and hybrids**
  - **May be more applicable to support longer terming planning at higher echelons due to data requirements, time constraints, and expertise requirements**
  - **May not be applicable at the operational and/or tactical levels because PSYOP is not being implemented at the initial planning stages – reactive, not pro-active operation under time constraints**
  - **Conceptual models are useful for understanding the problem**
- **Measuring Effectiveness of the message on target audience attitudes, perceptions, and actions**
  - **Easier to modify behaviors in the short term, but need to modify attitudes in the long term**
  - **Easier to measure behaviors; less able to measure changes in attitudes**

We Have Just Scratched The Surface