

# Dangerous Ideas (Key Insights)

- What is micro? Artificial distinction between micro and macro.
  - Not restricted to the individual
  - Anything with decision-making capability
  - Macro effects can emerge from micro-behaviors
  - Short-term vs. long-term distinction (Will Moore)
- Do we have to follow doctrine?
  - Doctrine has no magic
  - Difference between what the commanders want and what they need
- Do we need models? A lot can be done from analyzing indicators (McBride)
- Permanent repository of rules/relationships like CYC for the social sciences
- Increase in rogue leaders -> individual profiling is important (Post)

# Consensus

- Every model is context-dependent
- No model is knowledge-free (Post)
- The independent variables are themselves context-dependent.
- Requirements for models can't be driven by the consumer.
- Common ontology is too restrictive
  - “Federated” thesaurus (lexicon).
- Strike out the word prediction from modeling and simulation
  - Rather, models help anticipate or understand
  - Create plausible futures

# What we don't know

- How to connect the people on the ground with the social scientists?
- If the military does a task (for example, give water in an SSTR task), what are the implications from a societal point of view?
- Situation awareness: what to look for in a village you are going through?

# Perennial issues

- Data issues: what data exist?
  - SOA architecture for data needs
- Scale/Units
  - Individual, group, organization?
  - Feedback across scales
- Variables/constructs, leading indicators
- Approaches: how to decide on a model?
  - Assumptions
  - Dashboard approach
  - Evolution of preferences
  - Evolution of norms
- Uses of models: commander's intent, field operators, should model ourselves

# Take Away Points from HSCB Modeling Workshop

## Session 1: Micro 28 July 2008

- Basic definition of micro level of socio-cultural phenomena – Micro unit can make its own decisions; lowest reducible decision making unit
- Prediction, in terms of accurate point prediction, needs to be relaxed. Instead, a looser notion of forecasting possible, multiple futures, is more realistic
- Participants voiced concerns about what the government needs to provide them, especially data
- Approach settled upon was to bin concerns and recommendations into several categories

# Recommended Considerations for BAA HSCB Micro-modeling Breakout Session

- **Approaches**
- Transparency on How to decide on models
- Specify assumptions and limitations of models (for all micro models, best with short term phenomena)
- ID missing components/theories
- Include Qualitative and Quantitative models and bridge them
- Hypothesis testing/gaming/COA analysis
- Dashboard – to apply a variety of models to specific problems, models do not necessarily need to be combined
- Micro model must operate in an operational framework of macro and other models
- Sources of empirical data: content analysis, polling, ethnographies, case studies, SMEs need to be varied and well-specified
- Feedback across emergent levels
- Evolution of preferences (habituation)
- Evolution of norms
- Impact of macro-variables on micro phenomena
- Need to address commander's intent vs. field operators vs. what social scientists can provide
- Need to include models of ourselves in our models of red and green populations
- Models should be validated in part by peer review
- Include strong representation of social scientists/interdisciplinary
- Multiple futures exploration vs. prediction
- Service oriented architecture
- **Data Issues**
- What data exist?
- What does not exist? Gaps
- Actually empirically based; no synthetic data
- Need to address validation of data
- How are data tied to questions asked?
- Common Ontology/ Thesaurus (cross disciplinary/cross mil/civ/IC)
- Use expertise of personnel previously deployed
- Models should provide both Hindsight (retrodiction) AND foresight (prediction)
- **Variables/Constructs to Consider** (very incomplete list)
- Legitimacy
- Shared motive/intent
- Differentiate between what people say and what people do
- Genetic and biological variables relevant to human behavior
- Psychological variables
- Need leadership psychological profiles, especially since many post-cold war conflicts are precipitated by rogue leaders; can be focused on leader predominant societies
- Family structure/dynamics
- Peer influences
- Economic variables
- Education
- Demography
- Social networks
- Goals (explicit vs. implicit, private vs. public)
- Leading indicators/intervening variables that lead up to ultimate dependent variables
- **Scale/Units**
- Individuals:
- Groups:
- Micro unit can make its own decisions; lowest reducible decision making unit
- Also consider scale across time