Staged Appreciation
looking out and in for black swans

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General Sir Rupert Smith, British Army
General assumption

The problems facing us in contemporary operations are socially complex as well as being open-ended.

Research question

How might we use an open multi-perspective approach to help us more openly understand how to support decision-making in socially complex situations?

First we need to introduce some concepts and do some re-orientation.
Environmental and Social complexity

Consider complexity in terms of:

• Environmental complexity, which demands that sense-making and response actions need to consider unexpected extents of interactions and unanticipated effects of actions;
  ➢ what can happen rather than what will happen.

• Social complexity, which asks for attention to be widened and points of view to be broadened to take in relationships (actual and achievable) in order to see the potential for possible options, interdependencies and re-configurations;
  ➢ what could happen rather than what should happen.
Example Systems

Increasing number of 'nodes'

Gas in a container
Weather
Space shuttle
Aircraft
Car
Termite hill
Flock of birds
Teams
Institutions
Climate
Society

Increasing intricacy of the 'couplings'

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## Character of decision and analysis

<table>
<thead>
<tr>
<th>Single common goal</th>
<th>Nested goals</th>
<th>Multiple conflicting goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>agreed anarchy</td>
<td>mission command</td>
<td>binary decisions</td>
</tr>
<tr>
<td>power-to-the-edge</td>
<td>consensus-seeking</td>
<td>freedom of action</td>
</tr>
</tbody>
</table>

### GARBAGE-CAN
- multi-criteria analysis
- multi-attribute utility

### POLITICAL
- Compatible
- Conflicting

### PROCESS
- quantitative methods
- operational analysis
- scenario-based study
- kill-chains

### RATIONAL
- perfect market
- hand-over control
(e.g. air traffic control)

### Situational complexity vs. Social complexity

<table>
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<th>Situational complexity</th>
<th>Social complexity</th>
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<tr>
<td>PROCESS</td>
<td>RATIONAL</td>
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Meeting the challenges through open inquiry

Many practitioners who have experienced contemporary operations might agree that they are characterised by four things in particular: complexity, ambiguity, uncertainty and volatility and by the fact that they all tend to be 'wicked problems' – problems that are intractable and circular with complex inter-dependencies – where solving one problem can create further problems or make the whole problem greater.

Open approach: going...

...away from solely:
• objective and normative analyses
• single viewpoint
• fixed frames
• probability
• trend prediction
• advocacy

....towards:
• subjectively sensed appreciations
• multiple viewpoints
• adaptive framing
• possibility
• open imagination
• balance with inquiry

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Belief and surprise

Belief Function

Future outcome

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Closed-eyes / open-eyes
Institutional or individual ‘blinds’

Belief Function

Closed-eyes observables

Open-eyes Imagin-ables

Future outcomes

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Belief Function

Most probable outcomes

Less probable future outcomes

Closed mind

Region of possibility

Open mind

Closed-mind / open-mind
Probabilistic models / possible futures
### Closed-open matrix: some illustrations

<table>
<thead>
<tr>
<th>Closed-open mind</th>
<th>Open-open mind</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Closed eyes</strong></td>
<td><strong>Open eyes</strong></td>
</tr>
<tr>
<td>A very scary place to be!</td>
<td>Let us see....</td>
</tr>
<tr>
<td>We know it’s there but we can’t see it</td>
<td>What might be deemed possible if we adopt different viewpoints and widen scope of view...?</td>
</tr>
<tr>
<td>We see only what our models predict via our set of indicators</td>
<td>Able to see ‘out of model’ events but can only respond to what is known</td>
</tr>
<tr>
<td>So this is what will happen next</td>
<td>Just deal with it as if it’s a white swan</td>
</tr>
</tbody>
</table>
Option-making

Comfort of closed eyes and minds relates to a restricted set of options, which may be due to:
- institutional pressures to conform (e.g. blame culture);
- lack of confidence in people to allow discretionary trust, etc.

Understand where people are in terms of their ranges of options.
- What might be the implications of painting others or yourself into a corner?

Encourage use of narrative and imagination in order to create new options (e.g. creating ‘hedging’ options to deal with ambiguity).

Opening options will then naturally extend sense-making.
- Understanding and avoiding pacific shrimp syndrome.
‘Staged’ Appreciation

- Where people are
- Sense-making: open-eyes/open-mind
- Belief / surprise
- Choice-making
- Focus function and preference
- Stakeholder viewpoints and multi-perspectives

See written paper for more detail of the appreciation of the situation as a whole.
Concept of a stakeholder viewpoint: single viewpoint

Contextual Reasoning

Stakeholder

Predispositions, pre-conceptions and prejudices

Need

Repertoire of actions

Desire

Information

Problem context

Perception of where I am
Perception of where I want to be
What I have to do

‘World of actions and observables’

Influence

Context

Need

Repertoire of actions

Desire

Information

Problem context

Perception of where I am
Perception of where I want to be
What I have to do
Clausewitz meets Turing

People’s degree of freedom of options that lies behind?
Different people’s perspectives

With respect to any socially focused future option:

How might it affect people in terms of what they really care about?

From a perspective of:
Day-to-day survival
Educational
Financial
...

![Diagram showing survival line of perspective with discomfort and comfort points, perceived position on survival line, desired position on survival line, and difference providing drive to add or reject options.](image-url)
Drive to add or reject options

Lines of Perspective:
What people care about.

LOP1
LOP2
LOP3
LOPn

Perceived Position

Desired Position

δ

Lines of perspective such as survival, social, educational, financial, etc

Stakeholder’s drive for action
An analytical framework: single stakeholder

Stakeholder’s value system with respect to future option (e.g. paying supportive locals)

Desires

Needs

Information

Perception

‘World of actions and observables’

Desired position

LOP_{D1}

LOP_{D2}

LOP_{D3}

LOP_{Dn}

LOP_{N1}

LOP_{N2}

LOP_{Nn}

Order

Means

Variety of options

Drive

Course of action

Repertoire of options
“What if...?” analysis

‘If we do this, how might this affect others?’

Viewpoint: Diaspora

Viewpoint: Council

Viewpoint: Old-timers

Possible options
Take aways

Think about how to visualise a social landscape for *where people are*.

Where there’s a way there’s a will – what lies behind behaviours?

Black swans signify need for internal adaptation – subjective surprise.

Open inquiry is about supporting collaboration by enabling us to put on someone else’s shoes*.

*helps us to take our own off first!
Questions?

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If everybody is thinking alike, then somebody isn't thinking.

General Jan Smuts
one-time terrorist
Illustrative Example: Counter-IED

Options for action
Candidate questions

- Candidate forward-looking "What if?" question:
  - Is it deemed reasonable to pay for IEDs to be handed-in? If so, how much?

- Candidate backward-looking "Why?" question:
  - Why did the number of IED incidents not decrease during poppy harvest in 2007?

- Within our adaptive analytical framework, "why?" questions are very challenging due to the multiplicity of frameworks required.
Potential Stakeholders for C-IED in Afghanistan

- Coalition Command
- Ordinary Soldier
- ATOs (ie IEDD operators)
- Local population (Collateral)
- Local population (Protection)
- Bomb operatives (inc. finance & training)
- Afghan forces (inc. police)
- UK Public
- UK Government
- Tribal Elders (inc. District Councillors)
- Taliban

- Businessmen (Legitimate)
- NGOs
- Afghan Government
- Businessmen (Non-legitimate)
  - (inc. narcotics/weapons trading)
- Media
- UK Analysts (Int. etc)
- …
Stakeholder interests

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>What defines main aspects of stakeholder interest in IED.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taleban</td>
<td>IED as force element</td>
</tr>
<tr>
<td>ATO Operator</td>
<td>IED as device to be 'made safe'</td>
</tr>
<tr>
<td>Local population</td>
<td>IED as personal threat or opportunity</td>
</tr>
<tr>
<td>Media</td>
<td>IED as news-story element</td>
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### Context: paying for IED

<table>
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<th>What defines main aspects of stakeholder interests in IED</th>
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<tr>
<td>Owner</td>
<td>IED as force element</td>
<td>• Geographical</td>
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<tr>
<td></td>
<td></td>
<td>• Financial</td>
<td></td>
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<td>• Educational</td>
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<td>• Ideological</td>
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<td>• Political</td>
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<tr>
<td></td>
<td></td>
<td>• Operational</td>
<td></td>
</tr>
<tr>
<td>Operator</td>
<td>IED as device to be 'made safe'</td>
<td>• Geographical</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Professional</td>
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<td>IED as force element</td>
<td>Geographical, Financial, Educational, Ideological, Social, Societal, Technical, Organizational, Political, Operational</td>
<td>No. of regions of influence, Level of self-financing, number of schools, % signed-up to ideology, Taliban with referent power, Re-established societal control, numbers with IED skills, % positions of authority, Degree of Governmental power, % reqd operative status</td>
</tr>
<tr>
<td>IED as device to be 'made safe'</td>
<td>Geographical, Professional, Social, Operational, Technical, Analytical, Organizational</td>
<td>% secure patrols &amp; safe areas, Degree of achievement, Extent of social knowledge, % reqd operative status, Extent of device knowledge, Amount of support, Degree of autonomy</td>
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Discussion of multi-perspective approach

- Adopting different viewpoints and considering multiple perspectives has potential for providing interesting cross-stakeholder insights.
- The conceptual framework supports a more open and subjective approach to analysis.
- The outline analytical method helps to open-up inquiry and tries to avoid advocacy – visualisation needs further work.
- The approach encourages thinking about possibility in addition to probability – also brings out importance of addressing surprise in addition to beliefs and expectations.
QUESTIONS?

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