UCL Policy Commission on Communicating Climate Science

"Seeing Yourself See":

Description and outcomes from an experiential event

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1. Introduction: why the 'Seeing Yourself See' event was held

Following wide-ranging discussions by experts in contemporary psychosocial science and neuroscience knowledge and understanding – including a workshop run by Dr Renee Lertzman on aspects of psychosociology – and noting ongoing difficulties in public communication by the climate science community, the UCL Policy Commission on Communicating Climate Science decided to investigate whether an experiential event would be a useful means of opening up new perspectives to practising climate scientists to enable them become more effective communicators.

The specific aim of the day was: *to improve the way climate scientists communicate their science by helping them understand how the human brain works*. The hypothesis was that by allowing the scientists to experience how their own brain operates – especially how it draws "meaning in context" from its senses – and by analogy that of their audience, through demonstration, experiment, personal discovery and narrative, they would become more empathetic, insightful and effective communicators.

2. Objectives, approach and methods

The event was intended to encourage the climate scientist participants to see differently; to generate doubt; to "know less at the end of the day"; and thereby to stimulate new thinking about audience engagement and response. The main themes and points covered are described below.

It was suggested that climate science needed a "meta-narrative" which is accessible, coherent and robust, and delivered consistently, persistently and with conviction.

The plan was to evaluate the impact of the event in the following ways:
*   by comparing short video clips produced by the climate scientists before and after their experience;
*   through an Evaluation Session run on the day;
*   through a follow up discussion by the organisers and presenters;
*   through a short follow up telephone questionnaire to each of the climate scientists.
In the event, the video clips produced by the climate scientists before the event misunderstood the purpose. Consequently, it was decided not to follow through with the production of an "after" version as it wouldn't have supported the intended evaluation.

3. Content of the workshop: insights shared

Perception
*   People tend to assume that the brain and senses evolved to see the world the way that it is, but it actually evolved to generate meaning in context – because this is essential to our survival and success

- Context is everything; there is no inherent value in information without it
- Meaning is derived from finding relationships and patterns
- Our brains overdose at it – and will find meaning where there is none (musical lyrics played backwards for example)

Social groups and human cooperation
- The same processes, such as fear, can both bind a group and promote differentiation
- Narratives create group bonds and symbolic markers
- Social contagion is a powerful force
- Social groups are structured in concentric circles up to ~150, beyond which heuristics are adopted
- It is important to be aware that creating and maintaining relationships are very different processes
- Endorphin-generating activities such as eating and laughing break down barriers
- Stress narrows the mind

Group cooperation and competition
- Humans are able to organise toward pursuing a goal as a group incredibly rapidly
- Different roles emerge within groups with no explicit communication and no hierarchy
- Humans are innately 'political' - most cognitive effort is directed towards unconsciously predicting and responding to the behaviour of the group
- Diversity has a positive effect – behaviour that seems asocial in isolation can be beneficial to the group

Narrative
- The mind makes sense of complex situations and large amounts of data by organizing information into a standard narrative structure
- The structure consists of a sender, a subject, a helper, an opponent, an object and a receiver
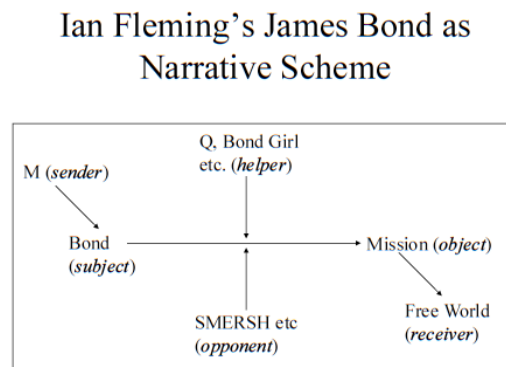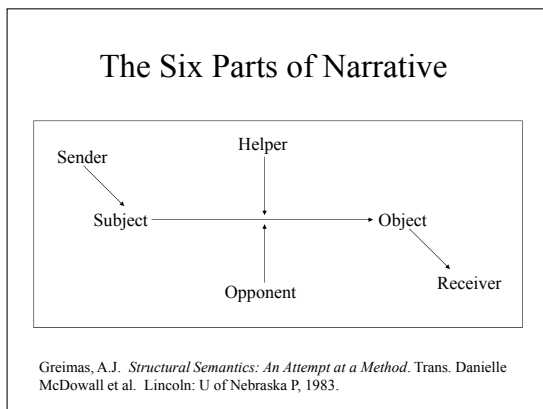- All narrative can be characterised according to this structure (Figure 1)

Figure 1: 'The Six Parts of Narrative'; Figure 2: Ian Fleming's James Bond as Narrative Scheme. Both supplied by Dr James Carney

Conclusions on perception
- All changes begin with doubt
- Assumptions are hidden in the unconscious
- The stress of not knowing the answer to big questions drives the mind to innovate
- Science formally embraces uncertainty and permits (even celebrates) having been wrong
- Play provides a mechanism to embrace uncertainty and create new possibilities
- de Bono's 'Six Thinking Hats' was noted as a helpful approach

Seeing how others see affects how we see
- Lead by example
- Admit mistakes

- See quality in being different

How we see ourselves and how we see others
- Belief is a state of mind in which we hold an idea to be true
- Beliefs are driven by actions. If an action is inconsistent with an existing belief, people will self-justify the action by assembling arguments in support, thereby potentially shifting the belief away from its original position
- Through a cycle of actions and self-justifications, people may convert an initially loosely-held belief into a strong conviction
- Cognitive dissonance is the stress generated when confronted with evidence that conflicts with beliefs
- Dissonance results in discomfort, dumbfounding and a pressing need to reconcile
- Dissonance is especially strong when there is a challenge to self-image and identity: most people see themselves as good, smart, kind and competent
- We unconsciously and automatically make social evaluations about others; perceiving agency, intentions, motivations and character traits even when they don't exist
- We are especially well equipped with mechanisms to make social and moral judgments of others: good or bad, honest or cheater, trust or distrust
- From our own self-image as good, kind and competent, we account for those who hold different beliefs as ignorant, stupid, crazy and/or evil, and often seek and find hidden motivations where there may be none
- We constantly run the danger of mistaking the desire to be right with the truth

Branding
- Brand is a reputation and branding is the process by which a reputation is built and managed
- Brands know and understand their audience – better than the audience does
- Brands know and understand their competitors
- Brands know and understand themselves – what they are for and what they are seeking to achieve
- Effective brands connect with their audiences and deliver a reality consistent with the message

4. Evaluation

A final session in a focus group format was held to evaluate the 'seeing yourself see' experience on climate scientists, with the discussion structured around three questions:
- "What were your motivations for attending today?"
- "What do you think our motivation was for organising the day"?
- "Where there any key 'standout' moments for you?"

Views of organisers and participants
The overall view of the organisers and participants was that the event had been unique, highly intellectually stimulating and enjoyable. All five participants felt it had been useful and should be delivered to others – especially students.

Their motivation for attending was curiosity in general as well as specific curiosity generated by the title of the event; a desire to learn about psychology of communication and interest in communicating more effectively; and exploring how to communicate more effectively to climate dismissers. When asked, participants were unclear about the motivation for organising the day. Some talked about it being some sort of experiment focused on communicating their science more effectively.

All agreed that the intensity of the event had been too great, giving insufficient time for discussion and reflection. There was a need both to pare back the content and extend the time. There was wide support for the event to be extended to (at least) an evening plus full day, recognizing the difficulty to persuade busy people to give up the time. It was noted that, ironically, much of the delivery had been

in "information deficit" mode. The opportunity to drive home the power of demonstration and personal discovery had not been sufficiently exploited.

Success of the event

The event exposed that two key assumptions of the organisers were not fulfilled. Contrary to expectations:

- **Climate scientists do not have a shared understanding of their role in society – regarding public discussion and policy.**
- **They do not recognize the need for a climate science "brand".**

This seems to result in part from the concept never having been raised in their training or professional development, and in part from it not being a recognized element of their daily professional experience – for example as an expectation or priority from their peers of line management.

Without such shared understanding, the central aim of the event (to make climate scientists "more empathic, insightful and effective communicators") becomes harder to achieve. The follow-up interviews, conducted a month after the event, indicated that the experience did not cause participants to immediately rethink the content and delivery of their presentations. However, some of the participants indicated they were thinking about this, and it is possible that the event will have a continuing influence over a longer period of time.

The event was successful in revealing those assumptions to the Commission, and subsequently informed further discussions. It also illustrated the scale of the challenge in engaging scientists themselves with the effective communication of climate science.

Further key lessons learnt from the event include:

- Future events will need to establish agreement on the role of climate scientists and on the need for a Climate Science "brand" before proceeding with the experience.
- More time should be given for interaction and reflection.

Appendix A: Participants/Facilitators

The climate scientists attending were chosen to cover a range of experience both of climate science and its public and policy communication. They were invited personally by Professor Chris Rapley and consisted of:
- Dr Richard Betts – Head of Climate Impacts, Meteorological Office and Exeter University
- Prof. Simon Buckle – Policy Director, Grantham Institute, Imperial College
- Dr Manoj Joshi – Lecturer in Climate Dynamics, University of East Anglia
- Dr Anson MacKay – Professor in Environmental Change, UCL
- Dr Liz Thomas – Ice core glaciologist, British Antarctic Survey

The key facilitators and presenters were:
- Dr Isabel Behncke, UCL LottoLab
- Dr James Carney – Beautiful Mind
- Dr Rich Clarke, UCL LottoLab
- Dr Kris De Meyer, King's College London & Aniku
- Dr Beau Lotto, UCL LottoLab
- Professor Chris Rapley, UCL Earth Science
- Dr Nick Smith, UCL Psychology
- Mr Stuart Youngs, Creative Director, Purpose

The workshop was held at the Shepherd's Bush Theatre in London, to provide a non-academic neutral and more 'creative-feeling' environment. Although it was at times noisy and hot, overall this worked well

Appendix C: Background on the UCL Policy Commission on the Communication of Climate Science

The UCL Policy Commission on the Communication of Climate Science was established in late 2012 with the aim of *exploring and recommending how climate scientists can more effectively communicate with policy-makers, businesses and the public*. In particular, it agreed a focus on three issues:

- The role of climate scientists in contributing to public and policy discourse and decision making on climate change
- The insights that scientific research and professional practice provide into how people process and assimilate information and how such knowledge offers pathways to achieve more effective engagement
- The approaches climate scientists can adopt to effectively communicate their messages

The Commission's experts were assembled from a range of UCL Departments including Earth Sciences, Geography, the Energy Institute, Science and Technology Studies, Neuroscience, and Brain Sciences, as well as including social science experts from King's College London, Anglia Ruskin University and Royal Roads University.

Appendix B: **Follow up Event at Kings College by Dr Kris de Meyer**

One of the contributors to the event, Dr. Kris De Meyer, incorporated the feedback from the participants about the need for conversation and questioning time into a similar event that was organised at the King's Cultural Institute in October 2013.

The event was run for a group of about 35 climate communicators and artists. The same material, condensed in 1 hour in the 4 July event, was spread out over 3 hours, with a 30 minute closing discussion at the end. The presentation material was interspersed with frequent 2-3 minute discussions or small exercises in groups of 4-5 people, after which opinions of the small groups were brought back to the main group. This allowed people to express their own opinions and question arguments. It also allowed the presenter to react to specific concerns of the participants.

Overall this led to great openness in the participants, and gave them time to digest individual pieces of understanding better. The feedback after this event has been extremely positive, so it seems that allowing time for constant conversation/questioning is indeed the right approach.