

The Schum Challenge: 7th June 2005

September 16, 2005

Chapter 1

Introduction

1.1 The Nature of This Beast

The following document is an interdisciplinary study of a set of emails that circulated among different groups of people connected to the Leverhulme evidence project, both before and after a one-day colloquium usually known as the “Schum challenge”. The emails themselves form the body of the document: the footnotes consist of a commentary drawn up by Dr. Jason Davies which reflect discussions with Professor Stephen Rowland (who, together, comprise the Interdisciplinary team). As such, it is our ‘work-in-progress’ and it is planned to use this as part of our final report.

1.2 Why Are We Showing You This?

At this stage we would like you to comment on anything that strikes you. In particular, in relation to your own contributions, is there any comment you want to make in connection with your own contributions? And secondly, taking this text as a whole, is there anything you find striking and worth commenting on? At the point of ‘show and tell’ to the Project, the discussions have been arranged and some notes added. It is hoped that the Project (and especially the participants or interested parties) will offer comments and then those comments will feed into our ongoing deliberations for a final version, which will form part of the Interdisciplinary Team’s report at the end of the Project. It will be much expanded, with introductory sections on the various themes that emerged: ie, we expect to concentrate on developing frameworks for the current document (rather than adding exponentially to the footnotes) and will treat your comments, should you have any, as more material for our analysis and report. Any concern about privacy should be raised if you make comments (eg whether you are speaking ‘off the record’ at

any given point).

1.3 Ways To Read This Document

This document is a pdf, which means that it will always print with identical pagination on any machine: it can therefore be referenced reliably during discussion by page and paragraph number. It contains hyperlinks which enable the reader to navigate the cross references (and there are many). It is also designed to be usable as a printed docum. Cross-references refer to the email in question by number and page. In practice, it may be easiest to use both at once. Depending on your pdf viewer, the links may not be visible: recent versions of Acrobat Reader should show them, albeit in a rather ugly way. It is, however, intended that the printed version should be sufficient: the hyperlinks will not appear as any different from normal text in the printed version.

1.4 Modifications to the Email Exchange

Some of the material quoted in the email exchange has been excised (where *clearly* superfluous by dint of repetition) and the emails have been reordered to show the current *response* first: you will see (indented) what the person was replying to. This inevitably leads to some repetition of material, despite the editing. Quotation levels are indicated by indentation, thus:

original message

Response 1 to original message

Response 2 to response 1 (pertinent message)

Please note that some conversations moved away from the group (either deliberately or accidentally) and at other times, people quoted material that had apparently been sent to them privately *back* to the wider list. In such cases, the quoted material is included in full.

Misspellings and syntax have *not* been corrected, though a few emailer-induced errors have been checked and altered to reflect the intended outcome. Some long URLs have been changed to ‘tinyurl’ entries which avoid excessively long lines (but still point to the same place on the web).

Chapter 2

Setting Up the Challenge

2.1 Negotiating the Structure

2.1.1 Philip Dawid wrote with title *Schum challenge*

addressing Evidence Personnel¹ (Thursday, April 7, 2005 1:15:36 pm)

Dear all,

Arising out of a recent “Narrative Study Circle”, which discussed David Schum’s book “The Evidential Foundations of Probabilistic Reasoning”, it has been suggested that, during his next visit here, planned for the week beginning 6 June, we hold a (say) half-day open meeting at which he can be invited to show how his conception of a unified “Science of Evidence” can indeed be made to work across a variety of fields. He has (like the Queen) graciously agreed to this suggestion.

The idea would be to line up say 4 speakers, from the more sceptical wing² of the Evidence Programme, and have each present a problem relating to using evidence in their field that they feel might pose a suitable challenge to this thesis. Ideally this would be of a fairly specific and concrete nature, although in some way representative of the generality of such problems.

So I am hereby soliciting such contributions. Please reply quickly, if possible, with your vaguely formed ideas, but be prepared to flesh these out fairly soon. If we can get written material to Schum in advance that would obviously be a good thing. He will be given an opportunity to respond at the meeting, but I would

¹‘Evidence Personnel’ refers to ‘core participants’ of the Project: they are listed in an appendix. At a later stage, the discussion was circulated among the wider community of the ‘Evidence list’ (to which any interested party can subscribe.)

²Thus, the framework is set up: Schum seen as ‘central’, others ‘sceptical’. This particular formulation, with all the understandings generated by terms such as ‘challenge’ will be contested and (arguably) superceded in the discussions that follow.

expect (hope) that the problems will be meaty enough to require further sustained effort over a period of time.

I am sending this message only to those significantly involved with the Evidence Programme, but please feel free to draw it to the attention of any colleagues you feel might be willing to get actively involved in such an enterprise.

Initial soundings suggest a suitable meeting date could be Tuesday 7 June, p.m. Please let both me and Victoria know if you want to be involved but would prefer some other timing.

Philip

2.1.2 Tony Gardner-Medwin wrote with title *Re: Schum challenge*

addressing Philip Dawid and the Evidence Personnel (Thursday, April 14, 2005 10:50:16 am)

At 17:31 12/04/2005, Philip wrote:

Dear all,

We have had a good response to this, with offers from:

1. Trisha Greenhalgh/Janet McDonnell/Emma Byrne
2. Jason Davies
3. Tony Gardner-Medwin
4. Stephen Rowland

Trisha et al. even offered a double session, but that seems a bit OTT to me (and I think to poor Dave Schum)!

So far as I can assess, the only day that you could all manage is Tuesday 7 June – and Stephen is not free between 12 and 1:30. But we can take a lunch break then...

Can all involved please quickly confirm your availability then? Also indicate how long is the *minimum* time you feel it would take to present the issues clearly.

We now want, at the very minimum, titles and brief abstracts for the presentations. But the more detail can be provided in advance the better. And the earlier the better...

Dave: Please circulate the above list with any suggestions, requests or demands of your own.

Best wishes,

Philip

Dear Philip,

Is this OK? 7th is fine. I can go on at any length!

Tony

Race: taboo or not taboo? Its different status as evidence in medical and legal decisions.

It can be right, when deciding on a patient's diagnosis and treatment, to take account of statistics correlating race and disease. It is generally wrong, in a criminal trial, to use statistical correlations between race and crime as evidence. I will explore the difference, considering whether it is a matter of ethics, prejudice, utility, relevance, or a difference in the nature of medical and legal decisions. Background is available at <http://tinyurl.com/9gedo>.

Tony GM

2.1.3 Stephen Rowland wrote with title *Re: Schum challenge*

addressing Philip Dawid and the Evidence Personnel (Friday, April 15, 2005 9:31:09 am)

At 17:31 12/04/2005 +0100, Philip Dawid wrote:

Dear all,

We have had a good response to this, with offers from:

1. Trisha Greenhalgh/Janet McDonnell/Emma Byrne
2. Jason Davies
3. Tony Gardner-Medwin
4. Stephen Rowland

Trisha et al. even offered a double session, but that seems a bit OTT to me (and I think to poor Dave Schum)!

So far as I can assess, the only day that you could all manage is Tuesday 7 June – and Stephen is not free between 12 and 1:30. But we can take a lunch break then...

Dear Philip and All

I just want to be clear about the purpose of this meeting.³

I see it as a valuable opportunity to invite Schum to apply his framework for tackling questions of evidence in relation to our problems. I don't see it as an opportunity for us to present papers on how we deal with our evidential questions. We have the opportunity to do that at other times.

I think it might be useful to have a structure which ensures that this happens and that we don't end up focussing on our presenters' ideas rather than Schum's.

³This is the first attempt to tackle the framework of the day – previous discussion had worked within the suggested framework. At this point, the framework is not particularly contested.

No doubt each of us could take an hour to outline our problem. But if we have a reasonable understanding of what we are talking about we should be able to do it in ten minutes.

I'm not sure what time frame you had in mind, but if we had four problems and an hour for each, then it might be reasonable to use the time as follows:

10 minute presentation of the problem
5 min opportunity for Schum to respond 'off the cuff' if he wishes
25min discussion of the problem by all (including Schum)
10 min response from Schum in the light of the discussion
5 min response by the presenter on the value of Schum's contribution
leaving 5 min to get ready for next session.

I would recommend that timing is kept to closely.

I wonder what others think about this.

Best wishes

Stephen

2.1.4 Tony Gardner-Medwin wrote with title *Re: Schum challenge*

addressing Stephen Rowland and the Evidence Personnel (Friday, April 15, 2005 9:52:55 am)

In response to Stephen, I think an hour much too long to devote to each of 4 issues like this. Maybe 2 hours in all for 4 topics including discussion, then a chance after lunch for David Schum to bring together thoughts in a synthesis and response.

Tony

2.1.5 Philip Dawid wrote with title *Re: Schum challenge*

addressing Stephen Rowland and Evidence Personnel (Friday, April 15, 2005 11:08:35 am)

On Fri, 15 Apr 2005, Stephen Rowland wrote:

Dear Philip and All

I just want to be clear about the purpose of this meeting.

I see it as a valuable opportunity to invite Schum to apply his framework for tackling questions of evidence in relation to our problems. I don't see it as an opportunity for us to present papers on how we deal with our evidential questions. We have the opportunity to do that at other times.

On Fri, 15 Apr 2005, Tony Gardner-Medwin wrote:

In response to Stephen, I think an hour much too long to devote to each of 4 issues like this. Maybe 2 hours in all for 4 topics including discussion, then a chance after lunch for David Schum to bring together thoughts in a synthesis and response. Tony

Dear All,

I concur with Stephen's description of the aim of the exercise, and with both his and Tony's concerns over length. But it might not be appropriate to impose a one-size-fits-all timing constraint. If, as I propose, presenters focus on one specific case of evidential significance arising in their discipline, rather than generalities, it may take a little longer than 10 minutes to make the background and the evidential issues intelligible. But this should be kept to the absolute minimum – the shorter and punchier the better!

In the light of this, can presenters please advise me (again!) of the time they think they would require?

For those of you who have not yet done so, I very much recommend looking at the book "Evidence and Inference in History and Law" (eds William Twining and Iain Hampsher-Monk, Northwestern University Press, 2003) – in particular, as some sort of model for what I have in mind, the exchange between Mark Geller and Terry Anderson. Anderson applied Wigmorean analysis to a very specific problem posed by Geller: when did the ability to read cuneiform script die out? This analysis was developed over a period of time and involved very substantial work – it is not something that could be replicated off-the-cuff in a meeting like ours. But I would encourage a similar tight focus for our own "challenges", and hope that at least some of these will lead to such longer term investigation.

Philip

2.1.6 Janet McDonnell wrote with title *Re: Schum challenge*

addressing Philip Dawid and the Evidence Personnel (Friday, April 15, 2005 2:33:38 pm)

Hello All, I think the one-hour model from Stephen would be right for us – we may need a little more than 10 minutes to set out the case but we can try to satisfy

the spirit of Stephen's suggestion and avoid giving a seminar. I think we might need 15 mins and then just be ready to supply more detail/clarification as the need arises during the session.

Janet

2.1.7 Tony Gardner-Medwin wrote with title *Re: Schum challenge*

addressing Philip Dawid and the Evidence Personnel (Friday, April 15, 2005 5:13:09 pm)

Dear Philip, What I proposed for discussion is certainly not comparable to the sorts of case studies in the Dialogues of Twining and Hampsher-Monk. So I think I should pull out. My proposal does I think challenge a science of evidence in a really fundamental way by contrasting different fields: the importance of defining, clarifying and avoiding confusion between the different hypotheses one might address in a problem, and to which evidence should be relevant. But this is a different sort of problem from what you want, and it sounds as if this occasion would not be the right one on which to try to present it.

Yrs, Tony GM

2.1.8 Philip Dawid wrote with title *Re: Schum challenge - draft programme*

in response to Jason Davies (private exchange) (Tuesday, April 26, 2005 4:02:57 pm)

On Tue, 26 Apr 2005, Jason Davies wrote:

I haven't had a chance to look at it (Schum's book on Evidence) again though we've ordered a copy for CALT which I hope to pick up very soon. How long before you want a title? it will get priority as soon as I can look at the book properly.

you're not obliged to look at anything... just to come up with a specific problem that you feel may raise some interesting and challenging evidential points.

schum's main thesis is that there is (or could be) a context/substance-blind approach to evidence analysis, so a good challenge would be one that says "in my discipline the problems are really rather special"⁴

phil

⁴A formulation by one who has positioned himself as 'not sceptical', but rather in the centre thus far. This restatement of the aims of the day (admittedly in private) stresses the willingness

2.2 Establishing the Programme

2.2.1 Philip Dawid wrote with title *URGENT: Schum challenge*

addressing Terry Anderson and Evidence Personnel (Friday, May 6, 2005 1:42:18 pm)

Dear all,

I am attaching a revised programme for the “Schum challenge” event on 7 June. Every one I have heard from agrees that we should go ahead with this, even if Dave Schum himself can not be there (though I remain hopeful that he can be).

I will leave it to speakers to decide on the balance between presentation and discussion within the overall 45 minute slot.

Please will ALL INVOLVED let me know BY NEXT MONDAY 9 MAY whether or not you are happy with this, or have any changes to make.

(JASON: Please provide a title!)

Philip

Evidence Workshop: Challenges to an Integrated Theory of Evidence
Tuesday 7 June 2005, Galton Lecture Theatre (Room 115, 1-19 Torrington Place)

Draft Programme (6 May 2005)

9:30 Arrival, coffee

9:45 Introductory remarks Philip Dawid

10:00 Challenge 1. The relationship between research and teaching Stephen Rowland

10:45 Coffee

11:15 Challenge 2. Race: Taboo or not taboo? Tony Gardner-Medwin

12:00 Challenge 3. TBA Jason Davies

12:45 Lunch

2:00 Challenge 4. “Are you coming from where I’m coming from?” Competing constructions of evidence in health care policy making. Trisha Greenhalgh, Janet McDonnell, Emma Byrne.

2:45 Case Study: Wigmore meets the last wedge: Mark Geller, Terry Anderson

3:45 Tea

4:15 General discussion

of Professor Dawid, despite his repeatedly standing for agreement and consensus, to be open to serious dispute. This tension has persisted throughout the Project, and has been a formative factor in its success in holding together a disparate group who lack easy unifying principles.

2.2.2 Philip Dawid wrote with title *[Evidence] Evidence Workshop: 7 June*

addressing Evidence list (Monday, May 9, 2005 3:12:35 pm)

Please see below for details of an important “Evidence” meeting.⁵
Philip Dawid

Evidence Workshop: Challenges to an Integrated Theory of Evidence

Tuesday 7 June 2005 Galton Lecture Theatre (Room 115, 1-19 Torrington Place)

BACKGROUND

One of the principal motivations behind the “Evidence” programme at University College London is the possibility of identifying and developing an “integrated theory of evidence”⁶, comprising fundamental features of the nature and behaviour of evidential reasoning that apply across the very broad range of disciplines and types of evidence that are represented in the overall programme. Arguments in favour of such an integrated theory, and some account of its possible nature and content, have been forcefully presented by David Schum in many articles over a long period, and brought together in his book “The Evidential Foundations of Probabilistic Reasoning” (Wiley, 1994).

Unsurprisingly, the “Schum thesis” has met with a degree of scepticism.⁷ This one-day workshop has been organised to give some of the sceptics an opportunity to present challenges to the Schum thesis, in the form of specific evidential problems that present themselves from within their own fields of study. There will also be a presentation by Mark Geller and Terry Anderson of their collaborative attempt to apply methods of organising legal evidence, as developed by Wigmore, to a specific historical question. This is described in the collection “Evidence and Inference in History and Law: Interdisciplinary Dialogues” (W L Twining and I Hampsher-Monk, eds), Northwestern University Press (2003).

It is very much hoped that David Schum will be able to participate, in spite of recent illness. In any case, others will be there to represent his point of view (as best they can), and there will be plenty of time for discussion of both specific and

⁵This is the first ‘public’ announcement of the Challenge. It therefore represents the first broad formulation of the day for non-participants.

⁶Note assumption (claim) of integration as the desired end. Since Philip is the Project Leader, it is *never* easy to decide whether to relate to him as an ‘ordinary’ contributor, the person answerable to the Leverhulme (and thus deserving our intellectual loyalty) etc. Should his ideas be given weight appropriate to his rank? Or are we all equal? These questions are navigated rather than answered in the exchanges.

⁷Again, the formulation of a ‘central’ and ‘marginal’ framework.

general issues.

This is an important event for the whole Evidence programme⁸, and it is hoped that many participants and interested outsiders will be able to attend.

Refreshments and lunch will be provided for those who give advance notice of their attendance. Please inform Victoria Kingham before 31 May if you plan to be there.

Evidence Workshop: Challenges to an Integrated Theory of Evidence

Tuesday 7 June 2005, Galton Lecture Theatre (Room 115, 1-19 Torrington Place)

PROGRAMME

9:30 Arrival, coffee

9:45 Introductory remarks Philip Dawid Statistical Science, UCL

10:00 Challenge 1. The relationship between research and teaching: Stephen Rowland; Centre for the Advancement of Learning and Teaching, UCL

10:45 Coffee

11:15 Challenge 2. Race: Taboo or not taboo? Differences between legal and medical decisions. Tony Gardner-Medwin Physiology, UCL

12:00 Challenge 3. The failure of knowledge: the place of ignorance (an anthropological perspective). Jason Davies Centre for the Advancement of Learning and Teaching, UCL

12:45 Lunch

2:00 Challenge 4. "Are you coming from where I'm coming from?" Competing constructions of evidence in health care policy making. Trisha Greenhalgh, Primary Care and Population Science, UCL; Janet McDonnell; Emma Byrne. Greenwich University Business School

2:45 Case Study: Wigmore meets the last wedge: Mark Geller, Hebrew and Jewish Studies, UCL; Terry Anderson, Law, University of Miami

3:45 Tea

4:15 General discussion

2.2.3 Philip Dawid wrote with title *Schum challenge*

addressing Terry Anderson and Evidence Personnel (Friday, May 20, 2005 6:25:30 pm)

Dear Challengers,

⁸Why? We are not told what rests on this in any detail. Possible readings might include: that the Project is 'stuck' in some way and this is our best chance to 'move it along'; that the Project's prestige rests upon its 'success' or audience numbers (etc.)

It occurs to me that it might be a good idea for you to refresh your memory of the talks Dave Schum gave last summer. If you go to the website at <https://www.evidencescience.org> and click on Seminars in the events sections, you can then access (near bottom of list) the announcements of those talk. Attached to those for 27 May and 2 June 2004 you will find pdf files of the slides he used.

Hope this is helpful...⁹

Philip

2.2.4 Philip Dawid wrote with title *Schum challenge*

addressing Tony Gardner-Medwin and Evidence Personnel (Sunday, May 29, 2005 11:13:30 am)

Dear Challengers,

You each have a 45 minute slot for your challenge, to include the presentation and some discussion. There is also a session set aside for further discussion at the end of the day.

I originally suggested the following indicative timings:

- (a) Presentation of the problem: 15 minutes
- (b) Initial response by Schum: 10 minutes
- (c) General discussion: 15 minutes
- (d) Response by presenter(s): 5 minutes

If you feel this is inappropriate for you, by all means make an alternative suggestion. I strongly suggest that you come armed with visual aids, handouts or whatever, to enable you to make your presentation in as compact yet informative a style as possible. I also strongly suggest that, so far as possible, you focus on particular examples we can get our teeth into, rather than generalities.¹⁰

I am not sure at the moment of the extent to which Dave Schum will wish to contribute, but William Twining, Terry Anderson and I will be there to try and

⁹The structure of Schum/central and challengers/periphery is thus restated and strengthened. The current model is that of ‘sceptics’ ‘taking on’ Schum, who, as it were, holds the high ground for the purposes of the Challenge, if not the Project. What would be a successful outcome of such a formulation? The term ‘challenge’ is rather martial but this is *somewhat* modified at times yet the desired outcome is said in the next email to be more of an *integration*. This seems to mean that Schum’s model will ‘absorb’ its challengers, meeting their challenge successfully and thus ‘disabling’ them, even *enlisting* them. In some senses, the possibility and desirability of successful challenge is seriously muted since the desired outcome is Schum or *something very like* Schum’s existing work. See also, however, the next note.

¹⁰The challengers are meant to respond (only when they are) well versed in Schum’s *general* ideas (but cf the private exchange where Davies is advised that he need not read Schum’s book, at 2.1.8: Schum’s book is a great deal more discursive than the presentation materials.

make some form of response. We all 4 need to get as much advance notice as possible of what you plan to present *and any materials you plan to use*.¹¹

I am looking forward to the event (though not without some trepidation)¹². Very many thanks for agreeing to participate.

Philip

2.2.5 Philip Dawid wrote with title *Challenge workshop 7 June*

addressing Evidence challenge participants and Gianluca Baio (Sunday, June 5, 2005 3:07:19 pm)

Dear “Evidence Challenge” participants,

I am attaching as a Word file, and also appending below as plain text, the programme for Tuesday’s workshop.

Please see the website www.evidencescience.com for more information, maps, etc.

I look forward to seeing you there.

Philip Dawid

Evidence Workshop Challenges to an Integrated Theory of Evidence

Tuesday 7 June 2005, Galton Lecture Theatre (Room 115, 1-19 Torrington Place)

PROGRAMME

9:30 Arrival, coffee

9:45 Introduction: The Schum thesis: An integrated theory of evidence Philip Dawid, Statistical Science, UCL David Schum, George Mason University

10:15 Challenge 1 The relationship between research and teaching Stephen Rowland, Centre for the Advancement of Learning and Teaching, UCL

11:00 Coffee 11:15 Challenge 2 Race: Taboo or not taboo? Differences between legal and medical decisions. Tony Gardner-Medwin, Physiology, UCL

12:00 Challenge 3 The failure of knowledge: the place of ignorance (an anthropological perspective). Jason Davies, Centre for the Advancement of Learning and Teaching, UCL

¹¹The preparation by the ‘central’ figures creates a hermeneutic gap between audience ‘sceptics’ and ‘centralists’. The last will be publicly responding to the concerns raised, with time for preparation – the ‘centralists’ are therefore in the strongest position. Thus, while the structures of discussion *permit* ‘scepticism’, the Challenge maximises the persuasive opportunity of the ‘central’, ‘universalist’ position.

¹²Again, the importance of the meeting is restated – but without elaboration.

12:45 Lunch

2:00 Challenge 4 “Are you coming from where I’m coming from?” Competing constructions of evidence in health care policy making. Trisha Greenhalgh, Primary Care and Population Science, UCL Janet McDonnell & Emma Byrne, Greenwich University Business School

2:45 Case Study: Wigmore meets the last wedge Mark Geller, Hebrew and Jewish Studies, UCL Terry Anderson, Law, University of Miami

3:45 Tea

4:15 General discussion

5:30 Close

The purpose of these challenges is to promote discussion¹³, in the context of specific problems, of the possibility and scope of an “integrated theory of evidence” comprising fundamental features of the nature and behaviour of evidential reasoning that might apply across a very broad range of disciplines and types of evidence. Lead discussants will include David Schum, Philip Dawid, Terry Anderson and William Twining (Law, UCL).

2.2.6 Philip Dawid wrote with title “*Challenge*” session chairs and timings

addressing Nigel Harvey and others (see message for recipients) (Monday, June 6, 2005 2:46:52 pm)

Dear Challenge Chairmen (cc. Presenters/Respondents):

Many thanks for agreeing to chair a session in tomorrow’s “Evidence Challenge” workshop.

The designated respondents to the 4 challenges are Schum (DS), Twining (WT), Anderson (TA) and Dawid (PD). Any or all of these should be given opportunities to contribute, before inviting floor discussion.

The 2:45 session is not a challenge, but a presentation of a case study.¹⁴

Appended below are some tentative suggestions for the division of the time on the various sessions. Following his stroke, Schum’s contributions are particularly tentative, and nobody should feel offended if he has to skip out of some sessions.

¹³Despite finding elsewhere the assumption of a ‘centre’ the not infrequent allusion to, and wish for, discussion softens any drawing of strong lines between the ‘centre’ and the ‘margins’ – which are nonetheless reliably constructed. There is almost an alternation between the strong positioning (assumption of centre) and the ‘open-door’ genuine willingness to hear from the (marginalised) ‘opponents’.

¹⁴The difference is not defined at this point: it will turn out to be ‘here’s one we did earlier’.

I stress the “tentative” nature of all these timings: chairmen should be prepared for some flexibility – to some extent you will have to play it by ear. But it will be important to prevent the whole programme from running late. I appreciate it will be very hard to keep to such tight overall timings, but we simply can’t afford too much overshoot, so chairmen are requested to be (pleasantly) vicious.

I am looking forward to seeing you all tomorrow.

Best wishes,

Philip

SUGGESTED TIMINGS

SESSION 1. Chair: Nigel Harvey

9:45- PD 5 mins

10:15 DS 15 mins

WT 5 mins

TA 5 mins

10:15- Rowland 15 mins

11:00 PD 10 mins

WT 5 mins

TA 5 mins

Floor discussion 5 mins

Rowland response 5 mins

SESSION 2. Chair: Hasok Chang

11:15- Gardner-Medwin 15 mins

12:00 TA 10 mins

PD/DS 10 mins

Floor discussion 5 mins

G-M response 5 mins

12:00- Davies 15 mins

12:45 WT 10 mins

TA 5 mins

DS/PD 5 mins

Floor discussion 5 mins

Davies response 5 mins

SESSION 3. Chair: Mike Joffe

2:00- Greenhalgh et al. 15 mins

2:45 WT 10 mins

TA 5 mins

DA/PD 5 mins

Floor discussion 5 mins

Greenhalgh... response 5 mins

2:45- Geller/TA 30 mins

3:45 DS/PD/WT 10 mins

Floor discussion 10 mins

Geller/TA response 10 mins

SESSION 4. Chair: Jim Smith

4:15- General discussion 1 hour

5:30 Rounding off

APD/WT/TA/DS 15 mins

Chapter 3

After the Challenge: Feedback

3.1 First Thoughts: Positive

3.1.1 Philip Dawid wrote with title *Challenge feedback*

addressing Evidence challenge personnel (Wednesday, June 8, 2005 10:56:39 am)

Dear all,

My heartfelt thanks for your stimulating contributions to the “challenge” workshop yesterday.

I think now that it would be very helpful if each of you (including those in the “cc:” who were openly in the audience) were to make, and circulate to this list, some brief jottings of what (if anything) you yourself got out of the day, and your overall view of it. Can I urge you to do this while the memory is still fresh?

My own general view is that we made some small progress¹ towards clarifying some ambiguities, resolving some misunderstandings, and developing the beginnings of a shared understanding of the scope and limitations of an “integrated science of evidence”.² If I am right this is no mean achievement, and the day will have served its purpose very well.

Starting pretty much from rock bottom, I think we have now advanced to base camp. I should like to believe that we can move on from there, pulling together to make further progress onwards and upwards (though this may well be slow, and punctuated by diversions and detours to evade a range of obstacles and impedi-

¹This phrasing will turn out to mask a difficult scenario. At this point, the day is seen in terms of reaching understanding rather than (eg) framing differences: the glass is half-full, as it were. There follows an extended metaphor, with powerful and revealing implications – some in tension. This metaphor emphasises unity in reaching a common – and distant – goal.

²Note the emphasis on ‘reaching agreement.’.

ments.)³

Perhaps now is the time to take up an earlier suggestion of mine that we should try and establish cross-disciplinary partnerships to explore the evidential problems of one area from the perspective of another. Stephen and I have agreed to do this in relation to his “teaching and research” challenge. Let me encourage you all to explore such possibilities seriously, and let us know what develops.

Once again, many thanks for your part in what I think was a very worthwhile event.

Philip

3.1.2 Stephen Rowland wrote with title *Re: Challenge feedback*

addressing Philip Dawid and Evidence Personnel (Wednesday, June 8, 2005 2:05:31 pm)

Dear All

Thank you to Phil for arranging this day - and the evening - which I very much enjoyed (with the exception of the noisy air conditioner).

I agree with many of Phil’s comments below. I think the start we have made consists largely in beginning to sketch out some of the difficulties.⁴ While the day was appropriately structured around David Schum’s ideas, I think it is important that these are seen as only one of a number of important resources for the programme to draw upon.⁵

I think some felt that Schum’s ideas had not really been challenged. I don’t share that view. I think the challenges had the effect of making it clear that the kind of evidential reasoning involved in his approach is of value, but does not help us with some of the problems in social enquiry.⁶ Specifically, it does not (nor is it,

³Here, a sense emerges of a gradual erosion of differences, in pursuit of a common goal (whose existence is assumed to be agreed?). The climbing metaphor presumably includes the idea of gathering at a summit, where distances between people will be necessarily and inevitably reduced and everyone will ‘come together’.

⁴In contrast to the assumed strategy of agreement (cf 3.1.1), here we have a wide and inclusive net cast. There is a tension between this openness and the framing of a ‘centre of gravity’ with ‘fringes’ that appears elsewhere. The dynamics of this remain unclear: is this a ‘generous victor’ who can afford to make minor modifications to the assumed ideal and unified set of theorems? Or is it a willingness to have fundamental tenets questioned (and if so, on what grounds?). Participants would have to decide for themselves just how far this welcoming of differences will be extended. (None of this is meant to imply that the interest is not genuine).

⁵In contrast to the preceding message, there is also a ‘decentralising’ tendency here: where commonality was stressed, now we have emphasis on a more level field where primacy is not asserted. Instead there is a refusal to allow *any* particular set of ideas to dominate, or be the given point of departure or consensus.

⁶Rowland here anchors the authority of his statements by a) referring to social enquiry (a loose term, but his own background *is* eclectic and b) using material presented during the Challenge and

I believe, intended to) help us with the difficult issue of identifying and clarifying questions, concepts and theoretical resources. These are so often the difficulties - and most of the work - with social and policy related enquiry.

It may be that disciplinary differences hinge not so much around the acceptability of the Schum approach, but rather around the identification of questions, concepts, etc. which need to be framed before this approach can get a foot-hold. Certainly in my own research approach, which tends to be towards illuminative enquiry rather than hypothesis testing, the kind of step by step processes of evidential reasoning have only a limited place. In some forms of illuminative enquiry many would argue that it is unwise to formulate questions too precisely at an early stage and that the major purpose of such research is to frame, rather than answer, questions.⁷

These difficulties, or limitations, in evidential reasoning raise for me the question of the scope of the programme. In my field of work I think it is important that the programme can raise a thoughtful critical response to the rhetoric of evidence-based practice/policy/etc that usually means no more than the most shallow forms of empiricist research in which there is virtually no thought given to the relationships between correlation and causation, for example.⁸ If it is to do this, it will need to cast its interests much wider than simply forms of evidential reasoning, to consider wider questions. This would inevitably lead us into methodological debates⁹ around empiricism, positivism, relativism, etc. (I know such words are often over used and vague.) I think we have shied away¹⁰ from such debates so far, perhaps because of entrenched positions, or tacit assumptions.¹¹

discussion. He simultaneously alludes to 'desired outcomes' while also appropriating vague yet substantial intellectual allies to authorise his statements – which are a profound challenge to the universalist claims made for the Schum thesis.

⁷A third aspect of a message which seeks to reframe the entire project: the notion of agreement, or a centre, has already been contested and now even the *type* of result is also redefined. Though a great number of differing interpretations of both this and the previous email are possible, in most of them this message stops the 'common journey' dead in its tracks. To extend the metaphor of climbing a mountain, we are now pointing out an entirely different summit.

⁸Here, it is highlighted that evidence is being referred to in terms of *empirical* approaches.

⁹Here, a need for exploration of *underlying* assumptions is posited: the interest is less on *implementing* or discovering an assumed agreed model that needs to be 'merely' uncovered. At this point, it is extremely unclear whether a posited agreed model is to be negotiated or discovered, as it were. Rowland is concerned that 'evidence' may be linked to a rather narrow form of empiricism.

¹⁰An interesting choice of terms, implying some sense of avoidance rather than simply not considering it important. This links to themes that emerged in William Twyning's discussion in November [possibly to be cross-referenced within a final document – transcript is in progress]. Some feel that an exploration of terms and assumptions would be a process of infinite regress, with the terms used for clarification being themselves subject to contestation.

¹¹It is not clear whether we are dealing with an avowedly *disciplinary* position here: in other words, the need for questioning assumptions is asserted, itself without any context. In addition,

I don't know whether others might share any of these ideas, but they do suggest to me that we are now at an appropriate stage to think about the next steps in the programme as a whole, or rather, the next steps in how the various projects might 'speak' to each other more effectively in order to generate a genuinely interdisciplinary 'science' (in the widest sense) of evidence. This would support Phil's idea of cross-disciplinary partnerships, although, of course, such things have to arise out of the projects and cannot be 'forced'.

So I think that's all quite an achievement and good use of a day.¹²

Best wishes

Stephen¹³

3.1.3 Jason Davies wrote with title *Re: Challenge feedback*

addressing Stephen Rowland and Evidence Personnel (Wednesday, June 8, 2005 2:13:35 pm)

A historian's perspective.¹⁴

Overall, the Schum Challenge day went a great deal better than might have normally been expected of such a mixture under such time constraints. The smooth running seemed to facilitate what is fairly described as a breakthrough (no less) for the Project, to my mind.¹⁵

Essentially, the day provided a chance to discover that participants had been far more unclear than we realised about what different interests and claims were. In some ways, this seemed absurdly easy when it actually happened: in brief, it seemed to me that various concerned parties discovered to some relief that we

Rowland does not offer any potential 'good' reasons for ignoring these issues, though they did appear in an earlier seminar run by William Twynning in November 2005 (where it was acknowledged by Dawid that we *could* get involved with 'deeper' questions, but that the Project would make much less progress. There again, agreement was stressed as a criterion for 'right answers'. Rowland's formulation does not allow for the *choice* being deliberately made by 'pro-consensus' members of the group. Perhaps then, his comment assumes that to have made the choice deliberately is unthinkable; it does threaten to cast it as unacceptable.

¹²Again, the summation is powerful language: though the subject moved away from the *results* of the Challenge several paragraphs earlier: Rowland appropriates the Challenge to his formulation, despite the fact that, for four paragraphs, we have been considering not how we *did*, but how we *might* work (the transition is hard to fix but arguably begins with the words 'It may be that disciplinary differences ...' (above, 3.1.2).

¹³Is this a disciplinary approach? If so, which?

¹⁴The most explicit disciplinary position stated, but the message ends with a declaration that, from Davies' other 'authorised' position on the Project (Interdisciplinarity) there is more to say..

¹⁵The strongest, and most positive, claim made for the day – certainly so far. The context is emphasised here, not just the workings of the day itself but (implied) the idea that breakdown was a possibility ('such a mixture').

were almost entirely ‘on the same page’. This is a bold claim to make for such a diverse group, and it may be that concerns were left unvoiced. But for many (to whom I spoke) there was a realisation that key terms and interests had been badly misunderstood, and the Schum Challenge day allowed many of these to be clarified. I list some below:¹⁶

the claims made for a ‘substance-blind’ approach to evidence were clarified as being much more limited than many had feared;¹⁷

certain terms were being heard as highly charged (eg ‘science’) when they were not intended to be particularly strong terms; the role of what can loosely be described as ‘considered judgement’ was specifically excluded from the process suggested.

To an outsider, it might seem tardy to have discovered these ‘basics’ after such a long time. But all the hard work to date has, in retrospect, been a process of becoming self-conscious about such matters: in a sense, we have been like the PhD student deciding on an exact title (which can take at least a year of a three-year process in the humanities.) In a literal sense, then, we have defined the issue, in that we have demarcated what it is not.¹⁸

I will say more in an interdisciplinary report that Stephen and I will draw up more fully in due course.

3.1.4 Nigel Harvey wrote with title *Re: Challenge feedback*

addressing Philip Dawid and Evidence Personnel (Wednesday, June 8, 2005 3:02:36 pm)

At 10:56 08/06/05 +0100, Philip Dawid wrote:
Dear all,

¹⁶An attempt to clarify which misunderstandings were pertinent: cf 3.1.2.

¹⁷Here is the first non-epistemic argument: emotional aspects are referred to (see also below, ‘highly charged’). These have the effect of broadening the perspective, beyond the relatively narrow factors of bases of knowledge and frameworks of debate – certainly appropriate for an educationalist, and rather at odds with his earlier declaration that he was speaking as a historian: he does not say whether this still applies to his comments.

¹⁸A different definition of progress is enacted here: it mirrors Dawid’s formulation at 3.1.1 (‘clarifying some ambiguities, resolving some misunderstandings, and developing the beginnings of a shared understanding’) but does *not* point to any direction (in contrast to Dawid’s metaphor of a ‘base camp’). This could be read in two ways (at least): it could support the idea that we are now better equipped to depart on our ‘journey’ onwards and upwards; or it could imply that the Project has already achieved some of its key work – the articulation of difference – and that no departure will actually take place: we are already at the ‘summit’.

My heartfelt thanks for your stimulating contributions to the “challenge” workshop yesterday.

I think now that it would be very helpful if each of you (including those in the “cc:” who were only in the audience) were to make, and circulate to this list, some brief jottings of what (if anything) you yourself got out of the day, and your overall view of it. Can I urge you to do this while the memory is still fresh?

Dear All

I thought the day went well. Planning and organization were good and the meeting succeeded in clarifying some ideas and dispelling some misconceptions. I felt people came away having understood more about the aims that other researchers had and how those aims differed from their own.¹⁹ By the end of the discussion, the boundaries of the notion that evidence can be analysed in a substance-blind way seemed to be clearer to everyone. The challenges then seemed to pertain to how the results of such analyses, once completed, can be used in decision making in particular domains (rather than to the claim that such analyses are possible in those domains.) Reasons for misunderstanding and misconception of ideas in other disciplines²⁰ are surprisingly difficult to identify sometimes.²¹ I think that the day may have helped to identify some of the ones that may have been afflicting our programme.²² If I’m right, it attained a degree of success, even if it did not always have the character that people expected it to have beforehand.²³

I enjoyed the day and would like to thank everyone, especially Philip and Victoria, who put so much effort into it.

Best wishes

Nigel

¹⁹Difference is once again highlighted (cf 3.1.2). However, here, it is discussed in terms of *aims*: at other points it seems more focussed on methodology.

²⁰This is one of the only references to disciplines in the entire exchange: for the most part, ‘misunderstanding’ is posited at a more generic level and disciplinary differences are not alluded to explicitly. The other key reference is made by Anderson at 3.7.9.

²¹On an initial reading, this appears to offer scope for open discussion. But it might be taken in more than one way: the phrase ‘reasons for *misunderstanding*’ implies that something *could* (and even, normally *would* be, ‘understood’ in an agreed way – so we return to ‘centralisation’ and ‘marginalisation’.

²²An interesting choice of words, and possibly the strongest centralising formulation so far: it seems to allude to some kind of temporary yet persistent failure, which is not explicitly named or described.

²³It is not clear here whether ‘clarifying misunderstandings’ is the *key work*, or the ‘preliminary’ to ‘setting off’ in search of a ‘science of evidence’.

3.2 Second Thoughts: A Note of Caution

3.2.1 Trisha Greenhalgh wrote with title *RE: Challenge feedback*

addressing ‘Jason Davies’ and Evidence Personnel (Wednesday, June 8, 2005 3:15:31 pm)

A historian’s perspective.

Overall, the Schum Challenge day went a great deal better than might have normally been expected of such a mixture under such time constraints. The smooth running seemed to facilitate what is fairly described as a breakthrough (no less) for the Project, to my mind. . . .

I’m not so sure.

I feel that there is a temptation to veer towards ‘group think’²⁴, having had a very enjoyable day and decided what fine chaps we all are.

I felt the day was very useful NOT because we came any closer to reaching “agreement” (I certainly didn’t agree with much of what was being said), but because the areas of disagreement (dare I use the word incommensurability) were clarified.²⁵

I genuinely admire the Wigmorean approach and feel it has a place in the scholarly and systematic analysis of evidence in relation to clear, focussed, hypothesis-driven questions of a certain type. I also feel that after seeing some worked examples, particularly Mark and Terry’s fascinating presentation at the end, I understand much more clearly how this approach is actually applied in practice, and how it might add value. So it was all worth it, just for that.

Here’s where I part company with many of yesterday’s discussants. I feel that the circumstances in which this “integrated science of evidence” is helpful and appropriate are relatively limited²⁶, whereas some people yesterday seemed to think it was virtually universally applicable. I felt at some stages in yesterday’s discussion, we were back discussing some pretty elementary philosophical questions such as ‘does all intellectual enquiry have to be highly focussed, hypothesis

²⁴Does this imply the suppression of difference in a false economy of agreement? Certainly it is framed in a way that seems to endeavour to protect difference which is seen as being under threat

²⁵A very clear statement of the importance of difference: cf 3.1.3.

²⁶Apparently, the first introduction of this verdict of *limitation* to what is often claimed to be the centre ground: rather than being questioned fundamentally, eg through the contestation of agreement as a criterion of evaluation, instead its role is circumscribed and not directly addressed. In a sense then, we have two discernible ‘sceptical’ strands present so far – the assertion of difference (over agreement) and the assertion of limitation, which admits some claims to utility but not to universal application.

driven, and summarisable in terms of algorithmic alternatives?’ If the answer is yes, my response is ‘to a man [sic] with a hammer, everything is a nail’.

In terms of where this leaves the Leverhulme project, I think we should look critically at whether we have really “reached agreement”, and indeed at whether this was an appropriate goal to aim for. I feel just a tad like I’m being asked to give my life to Jesus....²⁷

Trish

3.2.2 David Lagnado wrote with title *Re: Challenge feedback*

addressing Philip Dawid and Evidence Personnel (Wednesday, June 8, 2005 3:40:03 pm)

At 10:56 08/06/2005, Philip Dawid wrote:

Dear all,

My heartfelt thanks for your stimulating contributions to the “challenge” workshop yesterday.

I think now that it would be very helpful if each of you (including those in the “cc:” who were opnly in the audience) were to make, and circulate to this list, some brief jottings of what (if anything) you yourself got out of the day, and your overall view of it. Can I urge you to do this while the memory is still fresh?

Hi

I too enjoyed the meeting. It clarified several of the ‘opposing’ positions, and helped dissolve some issues of contention.²⁸ For me it also raised several questions:

What would an integrated science of evidence look like? Would it consist in a set of core principles that could be used to generate a variety of formalisms and methodologies for acquiring, processing & using evidence? (e.g., could Wigmore charts, Bayesian networks and argumentation logics all be derived from these core principles?) Would it be primarily normative, or would it have prescriptive and descriptive dimensions (i.e., how much do we need to worry about the accessibility

²⁷A vivid metaphor: it will be Greenhalgh who is the recipient of the other vivid metaphor in the exchanges (below, 3.6.1)

²⁸Another variant on the state of play: in this case, language is used that is less prone to privileging any particular position through the recasting of ‘scepticism’ and ‘sceptics’ to ‘opposing positions’ which acknowledges the variety of arguments and moves the language from describing people (‘sceptics’) and alluding instead to ‘positions’. However, the language that follows is charecteristic of the ‘centralising’ position.

of this science to non-expert reasoners)? What criteria could we use to assess any potential set of principles? (Would it be circular to talk about evidence here?)²⁹

I also think that it important to sharpen and refine some of the challenges that were voiced, and to continue the dialogues in a more focused manner. There are fundamental disagreements that remain unresolved³⁰, and it would be a shame if these fell by the wayside.

cheers Dave

²⁹Here the *result* of successful interchange is discussed rather than assumed: how would we know we were there when we got there?

³⁰Resolution is the key factor, rather than (eg) the recognition of differences. What would resolution look like? Does understanding mean agreement, or respecting one another's positions?

3.3 Attempts at Resolution

3.3.1 Jason Davies wrote with title *RE: Challenge feedback*

addressing Trish Greenhalgh and Evidence Personnel (Wednesday, June 8, 2005 3:55:15 pm)

I'm not so sure.

I can't see anything in your account that disagrees with anything in mine...we got clearer about where evidence is relevant and where it is not. The only thing I can see between what we (you and I) said is that I thought they were being very clear about where evidence was relevant - and at every occasion, they stressed that they were talking about specific types of instance, and refused to try to appropriate (eg) judgement or (eg) policy-making. I was less convinced that this was others' perception though...

3.3.2 Jason Davies wrote with title *Re: Challenge feedback*

addressing David Lagnado (accidentally omitting the rest of the list!) (Wednesday, June 8, 2005 4:13:00 pm)

What would an integrated science of evidence look like

not sure if we are supposed to be discussing this in this group, so please tell me if not...³¹

Firstly, I think one thing that the term science should be largely dropped³² (bear with me). It is used to mean so many things that it can *only* be misleading. What do we gain over calling it 'a science of evidence' that we don't have in talking about (eg) 'an interdisciplinary approach to evidence' or 'a subject-blind approach to evidence'? Those in science departments are accustomed to using the word in a rather innocuous way (often because they are ignorant of its history...); those in the humanities, on the other hand, are used to hearing it as a *contrast* with what they do (papers on 'a science of history' always kick up a storm, often - but not always - based on misunderstanding). For instance, if 'science' is a mild

³¹This message is actually sent privately in error so none of what follows has been seen by anyone other than Lagnado, though these points have been raised at intervals during the lifetime of the Project.

³²This is the first problematisation of 'science' in the discussion - unfortunately only to Lagnado.

claim, then there should be no problem dropping it for an equally general term. But if it claims things like ‘universal application’, ‘repeatability’ etc – such are the usual claims for science, then we are in trouble because the humanities will simply not be able to use it, for all the reasons they don’t speak about being scientific now. History is no less meticulous, rational, comprehensible etc for not being scientific. I stress this is not a storm in a teacup - unless you want to privilege non-humanities perspectives, which means you have dropped the interdisciplinary ball already.

Secondly, my interest (allow me to flag it now) in the near future is precisely the opposite: I think (and cautiously invoke some of Trish’s argument, without her permission) we need to clarify further in what context this approach to evidence operates, and not just to allay fears. It will be far easier to discuss it when we know what it is *not*, because its scope will be clearer to us.

3.3.3 David Lagnado wrote with title *Re: Challenge feedback*

addressing Jason Davies (still off-list, perhaps not realising) (Wednesday, June 8, 2005 4:31:42 pm)

1. Point taken about the use of ‘science’.
2. I think we’re just emphasizing two sides of the same coin here. Discussing in more detail what it would look like clarifies what it is *not*, and it’s intended scope etc. It also has the additional benefit of helping us develop something positive (rather than just knowing what we’re not planning to do).

Trisha’s comments aside, I think some common ground is being developed...³³

³³A measure of progress. And what does ‘aside’ amount to? If we ignore disagreements, then we agree...

3.4 Problems Reiterated

3.4.1 Janet McDonnell wrote with title *Re: Challenge feedback*

addressing Philip Dawid and Evidence Personnel (Thursday, June 9, 2005 1:13:39 pm)

Dear Philip and All,

Assuming the phatic bits (thanks to organisers, lot of work, nice reception in evening, etc), I too am in the less-optimistic-about-what-was-achieved-camp. I think the original idea of the ‘challenge’ was to try to get down to some specifics about the problems different groups are attempting to address and in particular to see what part if any the schumian et al armoury could play in addressing this by brings some real problems to the ‘table’. One outcome would have been a better appreciation of what each ‘side’ is dealing with, another would be to scope/identify the limitations of the armoury.³⁴

There wasn’t much engagement at all with any specifics, and I think this weakened what was possible to achieve in the way of richer understanding all round. Perhaps this was to do with the structure of the event, and/or perhaps, in retrospect the rhetoric of ‘challenge’ was not particularly helpful. Maybe we should try collaboratively working on some problem(s) and thus get to understanding via non-confrontational constructs. Others have also suggested this.³⁵

More fundamentally though I feel that we do have some issues which will have to be addressed by going down the route Stephen has outlined more eloquently than I can in his response.

“If it is to do this, it will need to cast its interests much wider than simply forms of evidential reasoning, to consider wider questions. This would inevitably lead us into methodological debates around empiricism, positivism, relativism, etc. (I know such words are often over used and vague.) I think we have shied away from such debates so far, perhaps because of entrenched positions, or tacit

³⁴Though there is a persistent awareness of difference, it is proving very hard for the participants to position them (thus the scare quotes used here). We can, though, tentatively assume that most people have come to conclusions about whether they are being counted among the ‘sceptics’ or the ‘centre’ – after all, the day was constructed along those lines, and an invitation to speak (from the ‘centre’) implies a position. It is worth noting here that the speakers do not fall into a neat division, like ‘arts/humanities vs sciences’: this speaker is in Computer Science. Potential ways of seeing what unites the ‘sides’ include ‘personal’ differences (ability to tolerate ambiguity), disciplinary differences (do some disciplines urge the need for agreement more than others?), or positional (some are more ‘central’ to the Project than others, as reflected in funding or the listing of A and B projects).

³⁵Thus rather than challenging an assumed position, McDonnell attempts to reframe the entire position and structure of the event. Previously, ideas had been set up to be knocked down, as it were: that approach is put aside here.

assumptions.”

I am still not sure how clear it is, or I should say whether it is accepted, that the situations we are interested in are ones where people are trying their best to make informed decisions based as far as possible on evidence but where the reasoning they (must) use has, of necessity, to go beyond what can be proved categorically or probabilistically to what is plausible. The reasons why people do this is an ontological issue not a question of poor reasoning with evidence. Basically we are saying that people aren't (just acting) stupid(ly), implying that if they used Wigmore charts, or whatever they would get to the truth or as close as they can? let's say probable truth.³⁶

I think where we have agreement, then, is in the not-very-interesting-region - namely if deductive or probabilistic reasoning is possible it should be done, and to go a bit further, even when it might not be always possible, a good training on cases where it is applicable would heighten one's awareness about one's reasoning in general.

What we are doing is working in the swampy ground.³⁷ On the high ground?³⁸ if we were there, we should use the weapons of logic and probability, and somewhere else there are the badlands where evidence plays little part (machivelli, acceptance of bad rhetoric like ad hominem, post hoc ergo propter hoc, ad misericordium, petito principii) where none of us want or need to go. However, I am not at all sure that there is agreement that the nature of the situations we are interested cannot be reduced to one where logic and probabilistic reasoning will give us 'truth'. Like those who advocate using Wigmore charts, etc we are concerned to help people improve the way they reason with evidence. However we cannot help them unless we accept the characteristics of the situations in which they wish to bring evidence to bear. We itemised some of these yesterday? they are the well-rehearsed distinctions between 'rational problem solving' and practical decision making? all discussed ubiquitously in the literature from at least the last 30 years

³⁶This paragraph makes explicit a great number of themes encountered in the Project thus far, not just the Challenge itself. We move sharply beyond 'definable' issues into much more nebulous concerns: in a sense, McDonnell is pointing out that claims to universality have actually only been applied to a limited range of scenarios so far.

³⁷This may well be a reference to the framework and language of Schon, D. (1983) *The Reflective Practitioner: How Professionals Think In Action*; see <http://tinyurl.com/dmvhf> for further details. We cannot tell, of course, who would have recognised the reference. Thus, it may have seemed to be a metaphor relying on 'generic' understanding, or a precise reference to an academic frame of reference.) Here, we have a further response to the metaphor of establishing a base camp - we are not there yet, nor are we in a position to establish any base camp.

³⁸Though this character appears as a question mark, it was originally intended to be an 'em-dash' (–). However, it appeared as a question mark in many emailers and in the compilation posted by Philip Dawid to the Evidence List. It is impossible to tell *what* people saw, but many did see the email in the form presented here.

on policy making, decision making, and so on. So, whilst we are admitting as ‘rational’ such rhetorical devices as use of analogy and metaphor, and acknowledging that different audiences find arguments (and evidence) more or less plausible depending on what value hierarchies they adhere to and what argumentative moves they consider legitimate we still have an interest in evidenced-based action.

Janet

3.4.2 E.L.Byrne@greenwich.ac.uk wrote with title *Re: Challenge feedback*

addressing Janet McDonnell and Evidence Personnel (Thursday, June 9, 2005 1:40:16 pm)

Dear Evidencers,

I’d like to add my voice to that of Janet’s and to stress again (sorry to belabour the point) that we wouldn’t for a moment propose “abolishing” recourse to probabilistic or formal logical reasoning. Our position, simply put, is that there are other, still rational, approaches to problem solving, policy making, decision making and so forth. These methods can be brought to bear when logic and probability are not appropriate, nor even desirable, tools.

I believe that the event helped to further understanding of the respective positions, though there may still be some way to go. However, it’s not the case (nor should it be) that understanding = agreement.³⁹ I’d like to lend my weight to calls for a collaborative framing of the discourse in order that such understanding that we do have be increased and the resulting areas of disagreement be profitably explored - who knows what exciting findings lurk therein!⁴⁰

Thanks to Janet for her rather more eloquent treatment of our position, and thanks to the organisers and participants of the challenge day

3.4.3 Philip Dawid wrote with title *Re: Challenge feedback*

addressing Janet McDonnell and Evidence Personnel (Thursday, June 9, 2005 1:53:20 pm)

VERY briefly, in response to Trisha, Janet and Emma:

An “integrated” theory of evidence need not be monolithic, any more than a “uni” versity should seek to shoehorn all academic enquiry inside a single ap-

³⁹Understanding is explicitly made a theme on its own terms here: it will recur at intervals.

⁴⁰We have now moved from claims of ‘mutual understanding’ and ‘base camps’ to calls for a *preparation to explore* as yet undefined areas of disagreement.

proach. What (I hope) binds us together is a shared interest in deepening our understandings, of both our own and of others' positions.⁴¹ Out of this common ground, let a thousand flowers bloom!⁴²

Philip

3.4.4 Trisha Greenhalgh wrote with title *RE: Challenge feedback*

addressing 'Jason Davies' (once again, privately, possibly in error) (Thursday, June 9, 2005 4:25:25 pm)

I'm not so sure.

I can't see anything in your account that disagrees with anything in mine...we got clearer about where evidence is relevant and where it is not. The only thing I can see between what we (you and I) said is that I thought they were being very clear about where evidence was relevant⁴³ – and at every occasion, they stressed that they were talking about specific types of instance, and refused to try to appropriate (eg) judgement or (eg) policy-making. I was less convinced that this was others' perception though...

At one stage Janet asked them a specific question - what sort of problem is this approach relevant to? And the reply came loud and clear: "all problems".

Trisha Greenhalgh

3.4.5 Philip Dawid wrote with title *Challenge feedback: email post*

addressing Evidence challenge personnel – Terry Anderson (Thursday, June 9, 2005

⁴¹Once again, we have a tension between agreement and inclusivity of difference. The project is constructed as shared but honours differences (note the concessions from talk of a 'base camp'). The critical issue is whether the envisioned 'deeper understandings' can *also* be shared: is this a cycle that can continue indefinitely (if project grants permitted) or are we still considering a recognisable cut-off point (academically, or intellectually or in a time-frame)? In interdisciplinary terms, we might expect to see a transformation of a particular discipline (on a small scale, admittedly): thus, there would be a point at which the audience for a particular set of thoughts, presented by a particular individual, would no longer be the interdisciplinary Evidence Project, but other members of the same (or similar) discipline(s).

⁴²A celebration of difference? And are we talking about finding questions as suggested above (2.1.5), or answers to questions?

⁴³Earlier (??, Greenhalgh spoke of limitation, here it is expanded with the criterion of relevance.

6:06:29 pm)

Dear all,

Many thanks to those who have provided some feedback on the “Evidence challenge” day. That has been an interesting interchange in itself.

I am thinking of putting these messages together and circulating them round the full evidence list. Does any one object to that? Is there any one who wants to add further to this interchange before I do so? (this could alternatively, and perhaps preferably, be done by posting further messages to the list).

Philip

3.5 Problem Compounded

3.5.1 Jason Davies wrote with title *Re: Challenge feedback: email post*

addressing Philip Dawid and Evidence Personnel (Thursday, June 9, 2005 11:14:53 pm)

Does any one object to that?

nope.

I would like to add that Janet has clarified what I didn't understand about her position nicely: but I understood the 'pro-Evidence' statements differently from her.⁴⁴ To be more precise, when the question that Trish mentioned was asked, I think it was misunderstood...(clear now?:-)

3.5.2 Stephen Rowland wrote with title *Re: Challenge feedback: email post*

addressing Jason Davies privately (Friday, June 10, 2005 9:48:09 am)

At 23:14 09/06/2005 +0100, Philip wrote:

Does any one object to that?

nope.

I would like to add that Janet has clarified what I didn't understand about her position nicely: but I understood the 'pro-Evidence' statements differently from her. To be more precise, when the question that Trish mentioned was asked, I think it was misunderstood...(clear now?:-)

NO

Stephen Rowland

3.5.3 Janet McDonnell wrote with title *Re: Challenge feedback: email post*

addressing Jason Davies privately (Friday, June 10, 2005 9:59:55 am)

⁴⁴Yet another formulation of opposition. The statement is perhaps overly compressed – but whether that is haste, carelessness, or a lack of definition about the different positions is hard to say.

Does any one object to that?

nope.

I would like to add that Janet has clarified what I didn't understand about her position nicely: but I understood the 'pro-Evidence' statements differently from her. To be more precise, when the question that Trish mentioned was asked, I think it was misunderstood...(clear now?:-)

not really but would be interested in elaboration via back channel? BTW very much enjoyed your piece - am always amazed by a historian's perspective - i.e. looking over millennia, j

3.6 Problem Rejected

3.6.1 Philip Dawid wrote with title *RE: Challenge feedback: email post*

addressing Trisha Greenhalgh and Evidence Personnel, apparently bringing a private discussion back to the list (this message has multiple quotation levels – they should make sense in the sequence presented: (Friday, June 10, 2005 11:07:35 am)

On Thu, 9 Jun 2005, Trisha Greenhalgh wrote:

Good idea - funny how the emails seem to cut deeper than some of the discussion on the day - or perhaps it's just that I missed some of it.

did you get to any of the geller-anderson session? that was quite educational.

i am particularly sorry that you missed anderson's off-the-cuff wigmore chart for your problem. i think that had quite an impact on some folks at least...

philip⁴⁵

On Fri, 10 Jun 2005, Trisha Greenhalgh wrote:

Geller-Anderson presentation was excellent, but the wigmore chart on our evidence (reported to me) didn't help at all - I could have drawn it up myself and indeed my own scholarly analysis looked pretty similar. The point is, it didn't answer the question we posed - which is what should be DONE. Read Janet's email carefully – I really don't think you've grasped where we're at yet, and that's the disappointment :-).⁴⁶

Dear Trish,

⁴⁵Here, we see an extended exchange: there seems to have been some (private) progress on a thorny topic (Dawid has been stating probably the most unified position, and Greenhalgh the most fragmented, up to now). Since some of it was private, we only here see the results. But the point that email has 'cut deeper' is interesting in itself: what made it so?

⁴⁶There is a claim of a lack of understanding, despite the preceding claim that email has facilitated a *deeper* understanding 'cut deeper'.

Almost certainly I'm NOT coming from where you're coming from... and conversely! It seems to me that you are quite unreasonably expecting something that nobody is claiming to be able to provide, and are, again unreasonably, frustrated not to be getting it.⁴⁷

The current state of a putative “integrated theory of evidence” (to give it a grand and certainly undeserved name) is extremely primitive. We do not now have, and can not reasonably expect ever to have, some sort of super-hero theory that will whizz out of a clear sky and solve every one's difficult problems⁴⁸ (and I don't believe that Schum or any one else involved should be read as making any claim to such magical powers). Until now the main concerns have been with understanding the basic purely inferential aspects of reasoning with evidence.⁴⁹ How to use evidence to inform decision and policy is certainly an important question – and there is of course a formal theory of one – and many-person decision problems, heavily studied by psychologists, economists, statisticians etc., though the scope of this is pretty limited (though perhaps greater than some are willing to admit) — and we have not yet studied such policy issues in a broader context. I do think that this is an important area for further study, but it won't be a doddle. I also think that it should be treated as a distinct problem, that can only really be addressed AFTER we have some understanding of the inferential impact of the evidence in play.⁵⁰ In your own problem, this would involve, *inter alia*, addressing the issue of the perceived quality hierarchy of different types of evidence. This is I think the first problem (itself of course non-trivial) to attack, before we can begin to move on to policy issues.

The overall task as I see it is to subject such problems to various existing and still-to-be-developed general techniques (including, but certainly not confined to, Wigmore charting), to see what light these can shed.⁵¹ Then by identifying the

⁴⁷There now begins a very rich response. The claim that there is a lack of understanding is implicitly rejected; rather, it is asserted that understanding is not lacking – rather that the position being proposed is unreasonable. No counter-allegation of misunderstanding is made: perfect, or at least *reasonable*, understanding is assumed here. Given that what will follow is a thorough rejection of Greenhalgh's position, the move away from the diplomatic use of the term 'misunderstanding' perhaps shows an entrenched position – or perhaps is the best demonstration so far that the misunderstandings go deeper than has been hitherto been acknowledged.

⁴⁸An interesting metaphor: the hyperbolic metaphor threatens to dismiss utterly (rather than work with) Greenhalgh's position.

⁴⁹Whose main concerns? At this point the situation becomes extremely complicated: Dawid has sidelined a number of posts that have already appeared by asserting the primacy of these inferential aspects in the discussion.

⁵⁰We now appear to have a divide between 'theory' and 'practice', with the primacy of the 'science of evidence' being asserted once again. This term will be asserted again later (See e.g. 3.6.1, 3.7.1, ??, ?? and 3.7.9).

⁵¹From an interdisciplinary perspective, it is notable that, thus far, the discussion has not been visibly *disciplinary*. Rather, the participants have generally appealed to a generic type of reason-

ways in which these fall short, we can try and improve or replace them. I don't think that we should give up on this enterprise just because it is difficult and still very rudimentary, and certainly not out of frustration that the tools we currently have aren't up to the job. I very much hope that every one who thinks they have some sort of place on our "Evidence" programme would be happy to sign up to this very minimal "mission statement".⁵²

The term "Science" has been a cause of some confusion in our programme,⁵³ but I would like to emphasise one aspect of the "scientific method" that seems to me crucial: that is that we should take an experimental and incremental approach in our studies of evidence. We come with tentative suggestions and standpoints, not ready made answers.⁵⁴ These suggestions need to be tried out on real-world problems, and their strengths and weakness identified. From this point of view I think your challenge was very appropriate, and (though you may not agree...) a great success!

I can understand, but not really sympathise with, your disappointment that the problems you can't solve we can't solve either. We are at the very bottom of the learning curve and have a long climb ahead. Let's not lose heart too quickly.⁵⁵

ing: some, such as Dawid, have aimed to reduce the difficulties by focussing on one aspect (here, the inferential aspects of reasoning with evidence); others have wished to *expand* the focus by asserting that we need to 'step back' and keep such reasoning in context.

⁵²This is perhaps a useful, if arbitrary, point at which we might explore potential meanings: it will also highlight the difficulties of clarifying any statement. We might, for instance, see the project leader urging a rather troublesome group to stop fussing and 'get on with it'; alternatively, we could see someone – an ordinary participant – who wishes to check that he has understood some common ground, and has attempted to identify that common ground. Each participant in the group, of course, hears a different version. Dawid seems to minimise the spread of the question and discussion: in other words, he seeks to simplify the issues to the point where everybody can agree on what they are doing. This is not flagged as a disciplinary practice, but given Dawid's statistical background, it seems likely that he is extending a practice common in his discipline. The pattern seems to be that one agrees on certain premises that proceeds to a solution, and we can reasonably speculate that he is unaccustomed to spending so much time on what he considers cursory preliminaries. His main protagonists, however, refuse to move 'on'. The search for consensus continues on in the next paragraph.

⁵³'Confusion' is an 'interesting' choice of words: it implies misunderstanding rather than contestation – once again, agreement is posited as *perfectly possible*. In fact, there is little evidence of confusion, but some *problematization* of the term. Though Davies' message (on problems with the term 'science' above (3.3.2) was accidentally sent in private, the issues raised there have been voiced at intervals throughout the project.

⁵⁴A good example of where we might see 'confusion': these claims are amongst those made by discipline that habitually refer to themselves as 'sciences'. They are also made by those that do *not*: in fact it is hard to see how a discipline would *not* claim it was proceeding with such caution.

⁵⁵We now revert to the ideas mentioned above, where consensus must be reached in order to proceed and evidential questions are given primacy (when this was itself being contested). 'Losing heart' seems to imply that Greenhalgh had despaired of the *shared* task – when arguably, it was the issue of sharing the same task that was being contested. A great deal more could be said of

All good wishes,
Philip

3.6.2 Trisha Greenhalgh wrote with title *RE: Challenge feedback: email post*

addressing 'Philip Dawid' and Evidence Personnel (Friday, June 10, 2005 11:37:22 am)

Dear Trish,

Almost certainly I'm NOT coming from where you're coming from... and conversely! It seems to me that you are quite unreasonably expecting something that nobody is claiming to be able to provide, and are, again unreasonably, frustrated not to be getting it.

Yes, maybe you're right! We came in on Tuesday trying to see whether we could mesh some incommensurables, and we weren't able to, and I've no right to be disappointed. I do feel that exposing these "disappointments" and talking them through is critical for the academic 'reframing' that is the key byproduct of interdisciplinary work.⁵⁶ So sorry if anyone took that personally. I wasn't disappointed in the people, honest.

I've just had a fascinating conversation with William T who was keen to point out that Terry A is generally very keen to emphasise that the Wigmorian approach is NOT a universal solution for every problem but a specific approach designed for (and best applied to) the task of inferential reasoning. As someone's already said, it may have been a distortion to bring our guests over and present them with a raft of problems and say 'go on, solve THAT'. In some ways my team are skiing off piste (miles away from inferential reasoning), and maybe subconsciously expecting others to follow.⁵⁷ But I disagree with you Phil that the way to research policymaking is to get better at inferential reasoning and THEN apply this approach to the difficult problems faced by policymakers. We're approaching it very differently - from a different conceptual and theoretical framework, and we think we're onto something.

But the most important thing to note is surely that for once at UCL, we're spending some time using our brains to address difficult intellectual problems instead of filling out bits of paper for the bureaucrats. That for me is a real plus of

these paragraphs, and these notes have by no means exhausted the possibilities and implications.

⁵⁶The idea that interdisciplinary work is based on *difference* is restated again, in contrast to the preceding message.

⁵⁷Here, disagreement is conceded – which allows for the retention of a position other than the vision of a shared task: though it is *noted* here, it will be *asserted* in the following lines.

what we've called the 'Schum challenge'. I don't really care whether we "reach agreement"!⁵⁸

DARE I suggest that we should all pick up in a year's time and report back with MORE DATA??? And that aim for a better understanding of our different perspectives rather than an "integrated theory of everything"?

Trisha Greenhalgh
Professor of Primary Health Care

3.6.3 Philip Dawid wrote with title *RE: Challenge feedback: email post*

addressing Trisha Greenhalgh and Evidence Personnel (Friday, June 10, 2005 11:52:12 am)

On Fri, 10 Jun 2005, Trisha Greenhalgh wrote:

... But I disagree with you Phil that the way to research policymaking is to get better at inferential reasoning and THEN apply this approach to the difficult problems faced by policymakers. We're approaching it very differently - from a different conceptual and theoretical framework, and we think we're onto something.

I confess that, right after sending that, I had some second thoughts! I in fact believe that, when the specific goal of an evidential analysis is to inform some policy choice, that aim needs to be kept clearly in mind to guide the framing and development of an appropriate "purely inferential" analysis.⁵⁹

DARE I suggest that we should all pick up in a year's time and report back with MORE DATA??? And that aim for a better understanding of our different perspectives rather than an "integrated theory of everything"?

Wonderful idea. Suggest a date!⁶⁰

Philip

⁵⁸Once again, though greater understanding is mentioned, *difference* is reasserted. The position of difference is asserted alongside the notion of shared agreement, however. As such, it appears not to challenge it directly – until we register that its existence actually defeats the 'greedy' notion of agreement.

⁵⁹This is possibly the greatest concession made by any party during these discussions. Interestingly, it is not in response to a direct challenge, but rather arises from reflection during the framing of a response. The previous suggestion, made above (see 3.6.1) is now withdrawn, and the distinction between 'the theory' and 'practice' is elided in favour of a context-specific formulation.

⁶⁰A wonderful hybrid of different approaches: 'difference' is accepted, even celebrated. But the

3.6.4 Jason Davies wrote with title *Re: Challenge feedback: email post*

addressing Jason Davies and the Evidence Personnel (Friday, June 10, 2005 12:17:14 pm)

I would like to add that Janet has clarified what I didn't understand about her position nicely: but I understood the 'pro-Evidence' statements differently from her. To be more precise, when the question that Trish mentioned was asked, I think it was misunderstood...(clear now?:-)

since this went down like a stone, I'll explain more fully.
Trish said:

At one stage Janet asked them a specific question - what sort of problem is this approach relevant to? And the reply came loud and clear: "all problems".⁶¹

I understood this to mean something like the following: it was asked with the implication that 'relevant to all problems' implied such things as 'can this assist in making non-evidentiary decisions (like policy-making)?'. But what was understood and answered was 'can this contribute something in its specific role of dealing with evidence to any problem?' ie it was asserted that where the approach works (to examine the treatment of evidence), it can contribute. In my assumed example then, rather than assist in policy-making judgements, the approach could assist in checking the conclusions about those things on which judgements could be made.

I am struggling to think of useful analogies. Perhaps each 'side' could say-whether I am on the right track?

3.6.5 E.L.Byrne@greenwich.ac.uk wrote with title *Re: Challenge feedback: email post*

addressing Jason Davies and Evidence Personnel (in direct response to the previous message) (Monday, June 13, 2005 10:44:57 am)

idea of 'proceeding apace' is retained. It is also worth noting that both participants went *away* and either consulted further (Greenhalgh) or reconsidered what had been said (Dawid). The differences were not resolved 'publicly', but elsewhere.

⁶¹This exchange is now posted to everybody for the first time – it had previously occurred privately.

Hi Jason (et al.)

A useful attempt at synthesis. Certainly we'd be among the first to argue that where such approaches are of use then they should of course be adopted. However, their use in policy making is largely restricted to only those questions in which the definition of the set of evidence to be considered is uncontentious, and that some single or competing hypotheses or questions already exist.⁶²

With regard to your example, below - it would be excellent if this were the case, however policy decisions are not easily verifiable by some objective standards. Reasons include:

The fact that one can't clearly identify the effect of the policy decision taken. The policy is not implemented in isolation nor is it implemented against a static background. The effect of the policy cannot easily be separated from the effects of changes in society for example.

Nor can one verify against any meaningful standard such as "the best" policy (best on what grounds? according to whose values?)

The definition of the "problem" to be solved may be as contentious as the solution, so there is no one "hypothesis" being tested (eg, is sex education for the under 16s a policy to: delay sexual activity, make such activity safer, sell more condoms, prevent teenage pregnancies, destroy the nuclear family unit, undermine religious dogma, all (or none) of the above... apologies for the effect on spamfilters!)

What we would argue instead is that rather than attempting to verify the outcome (the policy itself) we should be bringing reflective practice, support tools, frameworks or whatever else is in our arsenal, to improving the policy making /process/. This is where we come back to the thorny problem of using evidence. Part of that process should ideally be a conscious and well understood attempt to "make sense" of the evidence. Some of that evidence could be a randomised controlled trial for example, or some other such evidence that allows us to adopt a probabilistic or formal-logical way of deciding what that evidence "points to".

But there are other types of evidence, and other questions about evidence, that require some further, rational, "healthy" techniques in order to incorporate that evidence into the process. For example: how do we incorporate questions of ethics, values or moral good in our considerations?⁶³ How do we account for

⁶²A restatement of the principle of limitation, but formulated differently; rather than the exceptions being brought forward as a challenge, the role of evidence is instead explicitly contextualised and circumscribed. The focus suggested earlier, which was based on narrowing the field of interest, is effectively ruled out if any progress is to be made in this particular area (that is, policy making). Thus we have an impasse: on the one hand, there is an attempt to pick out *one specific* domain for research on inferential reasoning; on the other hand, those areas that have been excluded are persistently restated. Thus, the attempt to 'cherry-pick' an area which lends itself readily to a positivistic study is rejected.

⁶³Here again, the attempt to focus only on areas that are deemed 'appropriate' is refuted: though

competing frames such as those who view sex ed as state interference in a private matter vs those who see sex ed as a necessary tool to prevent some social ill.

This is where we feel that “healthy” rhetoric has its part to play.⁶⁴ A judicious understanding of Rhetoric would allow us to differentiate between unhealthy influences (as *baculum* arguments, the framing of false dichotomies, fallacious *ad hominem*) from healthy arguments (the informative use of analogical reasoning, the finer graining of concepts by dissociation). We feel that this would incorporate the /reality/ of how policy decisions need to be made in practice with a striving for the ideal - a transparent and healthy process of policy making.

I’d like to attempt a synthesis here - though I await correction, as it’s based on a tentative understanding of your presentation. It’s early days yet but I feel that judicious use of “healthy” rhetoric would not be a prescriptive extension to institutionalised, routinised decision making. Rather, it could provide groups of policy makers with tools to recognise and make the wise and discretionary judgements that are characteristic of the charismatic style,⁶⁵ whilst to some extent inoculating those same groups against the capricious tendencies that are among the charismatic style’s less desirable traits.

Emma Byrne

3.6.6 Jason Davies wrote with title *Re: Challenge feedback: email post*

addressing Emma Byrne and Evidence Personnel (Monday, June 13, 2005 11:09:43 am)

I’d like to attempt a synthesis here - though I await correction, as it’s based on a tentative understanding of your presentation. It’s early days yet but I feel that judicious use of “healthy” rhetoric would not be a prescriptive extension to institutionalised, routinised decision making. Rather, it could provide groups of policy makers with tools to recognise and make the wise and discretionary judgements that are characteristic of the charismatic style, whilst to some extent inoculating those same groups against the capricious tendencies that are among the charismatic style’s less desirable traits.

there was the concession that questions of evidence should in fact be affected by the context (above, 3.6.3) the case is stated strongly here: the argument that focussing on inferential reasoning is not merely advanced in isolation – its virtual redundancy in this area is demonstrated.

⁶⁴A new element enters the scenario, or rather, it is explicitly mentioned for the first time. We thereby move from issues of *knowledge* to issues of *presentation*. Evidence no longer dictates the enquiry but serves an agenda.

⁶⁵Drawing on Davies’ paper give at the Challenge, which is available in note form at <http://tinyurl.com/353w8>).

I still maintain (mildly!) that this would not be contested by anyone who spoke last week. I am not in any way suggesting that there is a way of ‘checking’ that ‘the right policy’ has been implemented (which *seems* to be what you think I am saying). But i’m caught in the middle here, as it were, trying to speak for both sides of this. What do others make of this discussion?

3.6.7 E.L.Byrne@greenwich.ac.uk wrote with title *Re: Challenge feedback: email post*

addressing Jason Davies and Evidence Personnel (Monday, June 13, 2005 12:11:01 pm)

Mea culpa: I misunderstood your statement ”[This] approach could assist in checking the conclusions about those things on which judgements could be made.” – I took that as a suggestion that they could be used to validate the judgements themselves, rather than the basis on which those judgements may be founded - my apologies.

If there is agreement on (and understanding of) our position then that’s extremely heartening, and quite surprising. However I wasn’t sure last week that we’d successfully conveyed our position, to the point where it was universally understood. I’d rather reach a position of disagreement based on perfect understanding than agreement based on “false consciousness” :)⁶⁶ However it seems that our position is becoming clearer - perhaps this on-line wrangling has helped! Nevertheless - I still welcome well founded (or even ill founded) disagreement...

That said - thanks for the surveying of the common ground,

Emma

⁶⁶If ‘disagreement based on perfect understanding’ is possible, what is the basis of the disagreement? Different values? Would understanding (and note we have had several claims of misunderstanding levelled at different people in different ways) lead to agreement or a greater recognition of difference? Both seem to be assumed by different contributors at different times.

3.7 Framing the Problem More Widely

3.7.1 Hasok Chang wrote with title *Re: Challenge feedback: email post*

addressing Emma Byrne and Evidence Personnel (Tuesday, June 14, 2005 4:56:13 pm)

Dear all,

Here are some of my thoughts following the evidence meeting on the 7th. Apologies for this late entry – only now I’ve managed to get enough time and mental space away from exams, etc.

First of all, I’d like to add to the chorus of thanks to the organisers and speakers for a most enjoyable and stimulating day.

Many people have already pointed out the importance of distinguishing evidence and its use. Once the distinction is made, I don’t hear anyone in the group saying that there is a substance-blind method of finding the best of use of evidence (for social policy, etc.). So there we seem to have agreement. Still, we are left with an interesting and difficult problem of project-definition for our programme as a whole, since some of us clearly are concerned about use and others prefer to focus on evidential reasoning itself for now.

Setting that question aside (not because it’s unimportant, but because I don’t have anything bright to say about it at the moment), let me turn to another issue that seems to deserve further discussion.

Does evidential reasoning always involve dealing with hypotheses? I am inclined to say yes, though I have to think more about this. (But I don’t disagree with Trish and Stephen – read on!) If we say something is “evidence”, it has to be evidence FOR (or against) something; what could that something be, except a hypothesis? So, I think the talk of evidence only makes sense in the context of the testing/confirmation of hypotheses.⁶⁷ (Saying that is not the same thing as saying that a substance-blind approach is possible. In fact, I was just debating about this with the philosopher Peter Achinstein several weeks ago at the LSE: Achinstein, who definitely believes that there is a substance-blind concept of evidence, does not agree that evidential reasoning always happens in the context of hypothesis-testing.)⁶⁸

Now, this is NOT to say that all reasoning or thinking or learning has to involve hypothesis-testing. Therefore, I would certainly not answer the following question

⁶⁷Another variation on the theme of limitation.

⁶⁸When this sentence is analyzed closely, it betrays several ambiguities: is Achinstein said to agree that evidential reasoning *only* happens in this context? Or perhaps that it sometimes *fails* to occur in this context (when it should occur)? Furthermore, does he believe that this substance-blind concept already exists, or that it is (merely) plausible and possible to construct one?

(as put by Trish) in the affirmative: “does all intellectual enquiry have to be highly focussed, hypothesis driven...?” And I have no objections to Stephen’s approach, “which tends to be towards illuminative enquiry rather than hypothesis testing”.

The broader point is this: not all good processes of enquiry, judgement or inference are evidence-based, even if they are experience-based or fact-based.⁶⁹

One possible response: “Yes, but why should we care? We are a research programme concerned about evidence. Lots of jolly good things are not about evidence, but that shouldn’t impact on what we are trying to do. Particularly, to say that some things aren’t and shouldn’t be evidence-based is no argument against the possibility or desirability of crafting an integrated science of dealing with situations that ARE about evidence.”

A different response (quoting Stephen again): “I think it is important that the programme can raise a thoughtful critical response to the rhetoric of evidence-based practice/policy/etc... If it is to do this, it will need to cast its interests much wider than simply forms of evidential reasoning, to consider wider questions.”

It is not clear to me how we can reconcile these two positions in a way that gives our programme overall coherence. But here is one suggestion: we could take it as part of the remit of an “integrated science of evidence” to clarify its own limits.⁷⁰ In other words, we could try to answer this question: given that this is what we think evidence is, what kind of role can it play, where? That could be at least one part of the overall aim of our programme.

Sorry to ramble on a bit. I hope this is constructive in moving our big-picture debate forward.

best,
Hasok

3.7.2 David Lagnado wrote with title *Re: Challenge feedback: email post*

addressing Hasok Chang and Evidence Personnel (Tuesday, June 14, 2005 5:18:41 pm)

At 16:56 14/06/2005, Hasok Chang wrote:

Dear all,

Here are some of my thoughts following the evidence meeting on the 7th. Apologies for this late entry – only now I’ve managed to get enough time and mental space away from exams, etc.

⁶⁹Chang neatly disestablishes any claim to the primacy of empirical inquiry.

⁷⁰Chang here aligns himself with the ‘sceptics’, and calls for acknowledgements of further limits on the claims of evidence and inferential enquiry, before responding to the challenge of his statement: so much for ‘entrenched sides’ ...

First of all, I'd like to add to the chorus of thanks to the organisers and speakers for a most enjoyable and stimulating day ...

Hi Hasok

Thanks for some illuminating comments. I agree that it is important for any purported 'integrated theory of evidence' to clarify its own limits. I would just add that there at least two (non-exclusive) ways to proceed:

- (1) to actually forge ahead and construct something, then investigate its scope wrt a variety of real problems
- (2) to debate its scope/limits beforehand

I can't help feeling that at this point (1) is more promising - not just because something (however limited) will actually be developed, but also because it will provide a better target for sceptics to aim at (and the goal-posts are less easily shifted).⁷¹

cheers

Dave

3.7.3 Stephen Rowland wrote with title *Re: Challenge feedback: email post*

addressing Hasok Chang and Evidence Personnel (Tuesday, June 14, 2005 6:09:46 pm)

At 16:56 14/06/2005 +0100, Hasok Chang wrote:

Here are some of my thoughts following the evidence meeting on the 7th. Apologies for this late entry – only now I've managed to get enough time and mental space away from exams, etc.

First of all, I'd like to add to the chorus of thanks to the organisers and speakers for a most enjoyable and stimulating day.

Many people have already pointed out the importance of distinguishing evidence and its use. ...

Dear All

Just a very obvious point in response to Hasok's seemingly obvious point that evidence must be evidence for something, ie for a hypothesis.

This is of course true. All instances of evidence relate to a hypothesis.

But it does NOT follow from this that the truth value of all meaningful propositions are to be judged on the basis of evidence. In particular, moral statements

⁷¹Though the idea of limitation is accepted, we have a restatement of the model whereby there are 'central' and 'marginal' positions that can be occupied: this implies methods which ideas are put forward, then (con)tested.

(like ‘one should be nice to people’) may or may not be true, but its truth does not depend upon evidence (although, of course, whether or not people believe it to be true is based upon evidence).⁷²

Policy statements (and educational ones) are invariably a complex mixture of factual and moral assertions. Only the former can be based upon evidence. Therefore such statements cannot normally be justified solely on the grounds of evidence.

Unless, that is, you believe (as some philosophers do) that all moral propositions can be reduced to factual ones. (ie that ‘ought’ can be reduced to ‘is’)⁷³

Sure this is all very obvious to everyone, but perhaps needs saying
best wishes

Stephen Rowland

3.7.4 Trish Greenhalgh wrote with title *Re: Challenge feedback: email post*

addressing h.chang@ucl.ac.uk and Evidence Personnel (Tuesday, June 14, 2005 8:02:00 pm)

Hasok: “If we say something is ‘evidence’, it has to be evidence FOR (or against) something; what could that something be, except a hypothesis?”

Answer: an argument....???

trish

Prof Trish Greenhalgh

⁷²Rowland reasserts a point made earlier that evidence does not apply in moral questions: see above, 2.6.5.

⁷³See above, 2.8.1. The position from which Rowland is arguing here is not declared: is it a disciplinary one? If so, which? Or is it ‘generic’? He has training and experience in a number of different disciplines, including philosophy (the only one referred to here explicitly). As in so many other cases here, disciplinary is largely set aside (at least explicitly) and arguments are constructed in terms that at least *appear* to be generic.

⁷⁴A good moment to point out the way that different people have attempted to navigate what was thought to be ‘obvious’, here presumably indicated by the three question marks: it appears elsewhere in different forms. Throughout the exchanges, most participants have, to a greater or lesser extent, been forced to articulate what positions and relationships that they presumably did not expect others to misunderstand. On repeated readings, the depths of ambiguity and choice of paths of reasoning – which were apparently taken without a sense of any dilemma of understanding – in many of the messages are more evident than they perhaps were at the time the emails were composed: which brings us to the difficult task of deciding on the role of this particular question. The relationship between hypothesis and argument is explored in more detail later on in the exchanges.

3.7.5 Jill Russell wrote with title *Re: Challenge feedback: email post*

addressing Hasok Chang and Evidence Personnel (Wednesday, June 15, 2005 7:42:59 am)

At 4:56 pm +0100 14/6/05, Hasok Chang wrote:

Many people have already pointed out the importance of distinguishing evidence and its use. Once the distinction is made, I don't hear anyone in the group saying that there is a substance-blind method of finding the best of use of evidence⁷⁵ (for social policy, etc.). So there we seem to have agreement. Still, we are left with an interesting and difficult problem of project-definition for our programme as a whole, since some of us clearly are concerned about use and others prefer to focus on evidential reasoning itself for now.

But is it as unproblematic as you imply to distinguish evidence and its use? How do we decide where the construction of evidence ('evidential reasoning itself') ends and its use begins?

If the boundary between these entities is seen as more indeterminate than the two positions you identify ('we are a research programme concerned about evidence', and 'the programme needs to cast its interests much wider than simply forms of evidential reasoning') are perhaps not so difficult to reconcile.

I think there's a danger here that theory (in the sense of 'evidential reasoning itself') gets placed outside practice. Evidential reasoning and use of evidence are both social practices, and both can (need to?) be explored as such.⁷⁶

Jill

3.7.6 Philip Dawid wrote with title *Re: Challenge feedback: email post*

addressing Trish Greenhalgh and Evidence Personnel (Thursday, June 16, 2005 1:21:47 pm)

On Tue, 14 Jun 2005, Trish Greenhalgh wrote:

⁷⁵Presumably 'best use'.

⁷⁶There is an important challenge here: a thread that has run through and is being refined here: now we have what threatens to be a complete collapse of the distinction between 'theory' and 'practice'.

Hasok: “If we say something is ‘evidence’, it has to be evidence FOR (or against) something; what could that something be, except a hypothesis?”

Answer: an argument....???
trish

surely not! when we call on evidence as part of an argument, it is because we consider it relevant, directly or indirectly, to the purpose of that argument, which is to support/undermine/persuade others of some conclusion (i.e. hypothesis). the argument itself is an instrument, not an end.

i myself would slightly widen hasok’s claim, and regard the scope of “evidence” as relating to *discrimination* between contending hypotheses⁷⁷ (including as yet unframed hypotheses), rather than focused on a single hypothesis. police aiming to gather “evidence” against their prime suspect might do well to remember this...

philip

3.7.7 Tony Gardner-Medwin wrote with title *Re: Challenge feedback: email post*

addressing Philip Dawid and Evidence Personnel (Friday, June 17, 2005 10:41:51 am)

On Tue, 14 Jun 2005, Trish Greenhalgh wrote:

Hasok: “If we say something is ‘evidence’, it has to be evidence FOR (or against) something; what could that something be, except a hypothesis?”

Answer: an argument....???
trish

surely not! when we call on evidence as part of an argument, it is because we consider it relevant, directly or indirectly, to the purpose of that argument, which is to support/undermine/persuade others of some conclusion (i.e. hypothesis). the argument itself is an instrument, not an end.

i myself would slightly widen hasok’s claim, and regard the scope of “evidence” as relating to *discrimination* between contending hypotheses (including as yet unframed hypotheses), rather than focused

⁷⁷To what extent was *this* assumed by a philosopher of science? And was he assuming whatever he assumed *as* a philosopher of science?

on a single hypothesis. police aiming to gather “evidence” against their prime suspect might do well to remember this...

philip

Dear evidencers,

I’ve been away as those of you who have posted will probably realise from auto-replies. My memories of the Schum day, though almost washed away by the fantastic sights, tastes and rains of Hong Kong, are also v positive. I haven’t read the correspondence as well as I should, but felt I could maybe try to make a clear distinction that could help to clarify some issues.

Arguments may be intended either (i) to arrive at a belief, or to alter the probability (degree of belief) that people assign to a factual proposition. or (ii) to arrive at a decision, or action, or policy.

Type 1 (the commonest type in academia)⁷⁸ is the simpler. A fact is “relevant evidence” if it alters the belief, either directly or indirectly (i.e. conditional on some other fact or belief). Type 1 doesn’t depend on values or utilities. Examples would be “Is climate change a fact?”, “Does regime Y have WMDs?”, “Does this parent abuse his children?”, “Could three siblings die of SIDS?”, “Will it rain here tomorrow?”, “Do students prefer lectures given by active researchers?”, “Do specialist nurses lead to better outcomes in circumstances X?”, “Does being nice to people make them be nice in return?”

Type 2⁷⁹ (probably the commonest in Tricia’s life, and the real world generally!) is more complex. Unlike type 1, it depends on utilities (values placed on outcomes). Evidence may be relevant either (or both) because it affects beliefs related to the policy or because it affects utilities, or beliefs about utilities. To run through the list of beliefs above and ask some related decision questions : “Shall we raise US fuel tax?”, “Shall we go to war with Y?”, “Shall we remove this child from his father?”, “Shall we acquit the defendant?”, “Shall we take the

⁷⁸Is this true across the board? There follow an interesting set of reified assertions with a range of claims to authority: they appear rather formal (presented as factual, formalised distinctions) and thus claim authority – yet they are not supported by (disciplinary or academic) documentation. Presumably, then, they derive their authority from their ‘transparency’ and ‘self-evident rightness’: that is, they rely on undisputed unisemantic access to a generic (non-disciplinary) type of understanding. Most of the exchanges thus far have also appealed to this generic level, but this set of ideas is apparently not expecting to be disputed: other appeals to ‘generic’ understanding were framed much more as *negotiated*, rather than indisputable assertion (despite the concession at the end – ‘any disagreements?’)

⁷⁹Is this distinction different from the ‘ought/is’ distinction? It is not framed in that way but does contain certain elements that seem to depend on a distinction of this kind. If so, it is not the first time that a theme has been re-introduced in a different form: indeed, at this point, it seems possible to speak of the exchanges moving not ‘forwards’, but rather ‘spiralling around’ the issues, refining the terms of reference. This process continues with the next section.

umbrella?”, “Shall we have teaching-only universities?”, “Shall we allocate the budget this way or that?”, “Shall we be nice to people?”.

Just to take the horny old second issue here, suppose facts increase belief that regime Y has a secret programme producing deliverable nuclear weapons. This evidence may increase belief (type 1) that Y has intent to attack other countries, which itself may be the foundation of the argument (type 2) for going to war. But it may also increase greatly the estimates of the negative utility of going to war with Y (you will get nuked), perhaps so much that it may act against a decision to go to war.

I’m not sure whether anyone is really confused between these different kinds of argument and applications of evidence, but it seems possibly useful to set them out quite explicitly. Any disagreements?

Tony GM

3.7.8 Philip Dawid posted a compilation of the emails up to this point

on Fri Jun 10 13:00:42 BST 2005.

They can be viewed at <http://tinyurl.com/9tdyx>.

3.7.9 Terence J. Anderson wrote with title *[Evidence] Belated Evidence Challenge feedback*

addressing Philip Dawid (Wednesday, June 29, 2005 8:23:11 pm)

Philip and all,

I enjoyed the conference and meeting many of the participants. I have read the feedback and thought it might be helpful to clarify a bit further what Wigmore's chart method is (and is not). I have also sketched what a "Wigmorean challenge exercise" might look like. I hope it is useful.

Notes on Wigmore's Chart Method in Response to Challenge Feedback

The chart method of analysis is a tool. It is the most rigorous method of analysis known to Schum, Twining, Anderson, and others for depicting the relationships between the "evidence" and a hypothesis to be tested or an argument to be made. It can be used at any stage of an inquiry, from initial investigation through critiquing the arguments supporting or attacking a hypothesis that has been accepted or rejected. Its principal advantage stems from the fact that it requires the analyst to be very precise in identifying every step in an inferential argument that might be open to doubt and to produce a product that others can readily critique and refine.

The chart method is, however, only a tool for analysis and for argument testing. It is not a tool that magically⁸⁰ identifies solutions. (Nor is it the only tool. For example, Bayes' Theorem and Bayes Nets are also tools that are useful in many contexts.) Given a body of evidence and a proposition to be advanced, an analyst can depict in charted form her view of the strongest way in which the available evidence and inferences can be marshaled to support the proposition and the strongest way in which her opponent might marshal the evidence and inferences to undermine or oppose the proposition. This is, in essence, what I did in charting the necessary steps that had to be considered in the Iamblichus phase of Mark's argument that cuneiform remained a living script until the third century A.D. It is

⁸⁰Presumably a deliberate allusion to the earlier reference to 'magical' solutions above (3.6.1).

also what I attempted, at a macroscopic level, at the conference in structuring the epilepsy dialog as a Wigmorean might.

The macroscopic structuring is important because it identifies the principal propositions being advanced so that the relevance of particular item of evidential data can be identified.⁸¹ Significant insights, however, ordinarily come from the microscopic analysis necessary to identify, inference-by-inference, the propositions necessary to demonstrate the relevance of the particular items and, by so doing, to identify the potential sources of doubt or weaknesses in the argument. The Iamblichus analysis in *Evidence and Inference in History and Law: Interdisciplinary Dialogues* (William Twining and Ian Hampsher Monk, eds, Evanston: Northwestern Univ. Press 2003) (at 156-67) provides an illustration of microscopic analysis.

For purposes of the project, a Wigmorean “challenge” could be: Can the chart method of analysis be usefully employed across and within disciplines and other contexts to any inquiry that endeavors to discover and rationally demonstrate the strengths and weaknesses in the arguments that provide a logical justification for a hypothesis, be it a proposition to be proved in a legal case, a claim to be advanced in a historical context, a policy proposed or adopted in health care context, etc. We claim that it can or, with Popperian caution, we claim that we have not yet been confronted with a problem to which the tool could not be usefully applied.⁸²

A full test of the Wigmore challenge may exceed the interest and available resources of those involved in the Leverhume evidence projects. The learning barriers that a Wigmorean analyst trained in one discipline, such as law, must overcome in order to apply the method to a problem in another, such as Assyriology, almost certainly precludes a cross-disciplinary exercises.⁸³ (A point illustrated and developed in *Evidence and Inference* at 140.) Trained Wigmorean analysts could be found, but the project has little to offer that which might attract them to make the investment necessary to apply the method in a foreign discipline. The only realistic alternative would be to train post docs from the several projects in Wigmorean analysis and to assign a project from within the discipline or context in which they

⁸¹ Does this assume the hypothesis structure?

⁸² A strong claim: to what extent does use of this tool (merely) reframe issues such that it *can* be applied? A lot hinges on what is defined as ‘useful’ in this context; is this an assertion of primacy, or is it scalable to whatever the disciplinarians in question would wish (eg in policy-making issues), where it has been argued not only that the difficult issues are *not* inferential but also that questions of evidence are formulated depending on the required context (see above 3.6.3).

⁸³ The practical limits of interdisciplinarity are highlighted here: can interdisciplinary work actually take place then? Or is this asserted for a particular example (Wigmorean analysis). If this is a special case, why should that be? This might be taken to undermine the entire Project: if Wigmorean analysis is too complex to be applied without serious training, then what prospects does the Project have? Would the ‘universal science of evidence’ be simplified to the point of non-utility? Or perhaps need to be developed to a point where it became a distinct discipline?

are working. That would be feasible, but the question whether responding to the challenge warrants the diversion of post doc time required is one that only those involved could answer.

Terence J. Anderson
Professor of Law
University of Miami, School of Law

3.7.10 Joffe, Michael wrote with title *[Evidence] Belated Evidence Challenge feedback*

addressing the Evidence List (Sunday, July 3, 2005 9:30:40 pm)

Dear all

Sorry to respond so late, but I was away and then after I came back I thought, maybe it's too late now.

The "challenge day" and the subsequent discussion were very interesting, and I think led in useful directions. My first frustration, though, is that I'm not sure where it has left the programme. Do we all accept Tony's analysis of type 1 and type 2? I do, and was going to try and formulate something along the same lines until I read his email (but I'm glad I didn't, as he gave better examples than I would have done).

If we do accept Tony's distinction, what is the scope of the programme to be? I would favour explicitly restricting it to focus on Type 1, which I would characterise as being about knowledge, and exclude Type 2, which is about decisions. Type 2 involves values, and inputs of many different kinds – and with policy decisions and legal decisions, other complications arise, as Emma ...⁸⁴ and others have said. If we try and include all this, we are in danger of our discussions becoming too diffuse to be useful.

So maybe we should focus on Type 1 only, and just consider Type 2 insofar as it influences Type 1. Up to now, we've placed no restrictions on discussion, other than the implicit ones set by the various contributions, and by our own personal perceptions of the meaning of the word "evidence" – but maybe it is time to decide what is in and what is out?

My second frustration is that we have not properly done justice to the Type 1 discussion. In one of the first contributions, Stephen talked about illuminative enquiry rather than hypothesis generation and testing. Although this has been referred to at various times since, it has got mixed up in the decisions/values debate, which is a separate issue. In situations where hypotheses do not play a major role

⁸⁴A name has been removed here to reflect the fact that one of the correspondents asked for two emails to be removed.

– Stephen’s illuminative enquiry – does this integrated discipline of evidence (or whatever we’re going to call it) have nothing to contribute? Or maybe it is relevant in certain ways if adapted? Hasok suggests that we address this by setting limits – restricting the scope of an integrated discipline of evidence to the hypothesis situation. I would prefer to try and engage with the type of work Stephen and other members of the group do, to see what useful connections can be made. In fact I think we’ve already done some of this, but perhaps it has not been made very explicit.

Also, returning to situations where hypotheses are being used, “evidence” applies to the testing but not the generation of hypotheses, and there are philosophical issues here that I think we’ve been avoiding – is it possible to have an integrated discipline of evidence without addressing these? – concerning what I might loosely describe as the two-way relationship between theory and empirical reality.

Best wishes

Mike

3.7.11 End of Discussion?

That was the last message posted by 27.7.05.

Chapter 4

Appendix: Email Conversations

4.1 Difficulties

4.1.1 General Difficulties

There are many difficulties in compiling a set of conversations carried out on email.

Just the actual task of turning email exchanges into usable documents is time-consuming: much material has to be stripped out manually, mainly signatures, headers and excessive quoting (where the poster simply hit 'reply'.)

There are then all the difficulties of cataloguing overlapping conversations, except that even a chronological transcript cannot do justice to the extent of the overlaps: people refer back to earlier messages than were being discussed. Chronology is much less reliable than in a conversation. Thus some indication of precisely what a poster is addressing needs to be included. Other factors include the accidental omission of 'reply to all' – some emailers will do this automatically, others do not. Thus several conversations spiralled off the main body and became 'one on one' conversations, which were themselves often (deliberately) brought back to the main group (which itself varied: sometimes it was the full Evidence list, but at others was the Personnel actively involved in the Challenge). This document reflects those conversations that Jason Davies had 'off-list' but the fact remains that many (potentially more interesting) conversations may have taken place off-list (people may have spoken more frankly, especially about each other.)

4.1.2 Technical Difficulties

Top-posting

On the web as a whole, ‘top-posting’ is not encouraged. This is where a poster includes the previous message (usually in its entirety) and puts their answer at the top. This breaks down when conversations became complex. Unfortunately, most emailers default to top-posting. Thus, it is impossible to tell how much of the quoted message is being addressed. It also becomes necessary to strip out large amounts of material that would otherwise be duplicated repeatedly.

The standard way of representing the problem of top-posting is like the following paragraph:

```
Because it messes up the flow of reading.  
>How come?  
>>I prefer to reply inline.  
>>>What do you do instead?  
>>>>No.  
>>>>>Do you like top-posting?
```

Some of the conversations actually ended up more like this:

```
Because it messes up the flow of reading.  
>>>What do you do instead?  
>>>>No.  
>How come?  
>>I prefer to reply inline.  
>>>>>Do you like top-posting?
```

Or even (where internet quotes were not used by emailers):

```
Because it messes up the flow of reading.  
What do you do instead?  
>>>No.  
>How come?  
>I prefer to reply inline.  
>>>>>Do you like top-posting?
```

This requires careful comparison with earlier messages to ascertain who said what, and when. This record is thought to be reasonably accurate – there are no obvious *non-sequiturs* and the original messages were identified, and the quote levels adjusted accordingly. In addition, to make the document readable, messages are represented *as if* ‘bottom-posting’ had been used – ie *both* the original message was trimmed to become indicative rather than exhaustive in reference to what was being responded to *and* the quoted material was moved so that it was above the reply. This was necessary to avoid forcing the reader to go back and forth: the document should make sense in the order in which it is presented, though the reader may have to refer back to get a fuller version of what is being addressed.

Chapter 5

Appendix: Evidence Personnel

There follows the list of those who were involved in all stages (including setting up the Challenge.)

John Adams
Terry Anderson
Hasok Chang
Andrew Chesher
Phil Dawid
John Fox
Tony Gardner-Medwin
Mark Geller
Hidehiko Ichimura
Jason Davies
Jill Russell
David Lagnado
Richard Leary
Simon Lee
Janet McDonnell
Nigel Harvey
Stephen Rowland
Roy Bailey
David Schum
Bob Sharples
Trisha Greenhalgh
William Twining

Index of Posters