

File 20101027.0731: Notes from meeting with Dr Martin:

Julie Sheppard reports that the confirmation forms have not come back from my college yet. We looked at the confirmation report together and Dr Martin made a few suggestions for altering it to be more useful to the assessors.

I wrote the report from a risk management perspective, calling attention to the major risk I see, that of a late change in the research direction. What the assessors want to see is that I am well down the new path and not just starting on it. I argued that in fact I am well down this path; I have been steeped in the problem for years, and I am dragging all this evidence down the new path with me, repeatedly testing it and finding that those tests do not falsify the theory. I have been down many blind alleys (I finally found a blind alley I like—no); this one is much longer, I have not found an end yet and all the tests I have done—the proof that Spence’s criteria for signalling are satisfied, that Akerlof’s requirement that signals be expensive is satisfied, that the convergence behaviour of the model is suggestive of observations in the case studies—all of these tests have succeeded and the hypothesis still holds. So I am growing confident that the theory is correct. I keep trying to falsify it and failing to do so.

I have been thinking about the kind of hard questions that might come up in the confirmation viva. In particular, how do I justify the claim that the convergence behaviour seen in the model has anything to do with the progress of accreditations? The gross behaviour is similar, so there is correlation, but if the similarity is anything other than coincidental, there must be a commonality in the mechanism because there certainly isn’t one in the cause.

I reported that I am confident of the convergence argument, but still a bit wary of the claim that I can predict the final configuration from three early observations of the trajectory. If it is stable, then yes, the maths work out. But if it turns out to be fractally unstable, then it may be chaotic. Even in that case, I would argue that there is a fractal attractor, and that can be characterised.

Dr Flechais will mention that theories have to be falsifiable. He always does.

Dr Martin suggested that the assessors not have those questions uppermost in their minds. What they will be looking for is the general big picture question: how do I intend to validate the theory, how can they be convinced that I am a long way along this new path, and not going to abandon it like the others. How much of the basic work has been done?

The report was purposely written concisely; an awful lot of details were left out for lack of space. I can discuss alternative interpretations, rejected hypotheses, blind alleys and evidence that I would have liked to consider but either lacked access to or did not have time to chase.

The body of the report is fine. The appendices need some polishing. The table of contents of the dissertation is a mixture of prose and bullet points; bullet points are fine but they should be cleaned up and presented in a more clear form. Also, to justify your claim that Chapters 1–3 are essentially written, it would be good to show word counts for each section of each chapter, in lieu of simply appending whole chapters, to give the assessors a feeling of assurance without forcing them to read draft chapters, which they would feel obligated to do if you attached entire chapters.

I will go through my drafts and get the word counts, annotate each of the section headings with that data.

Dr Martin cautioned to explain where each of the the attached papers fit into the structure of the thesis. Right now you are just including them without explanation of where they fit. Of the three papers attached, one has been published, one is in draft, and one has been repeatedly rejected from conferences. I think it is because they did not understand it. It is a controversial idea. I have changed the presentation of this idea somewhat from the time when I started, when it began as a simple failure investigation. I have come to conclude since that the failure of the first case study was not just a matter of certain persons being on the critical path; it was a failure of the system; it was inevitable and would have come to the same end regardless of who was on the critical path. I have talked with several developers and accreditors about my thesis in recent days and they are much more willing to consider it now in this more abstract form. Conferences, I think, I will be more willing to publish it as well. It is less adversarial in abstract form.

I got my passport back, finally; I am free to travel again. I need a few weeks lead time to buy tickets at the discounted rate, but I will be in Oxford at the assessors’ convenience whenever they want to talk.

I will deliver a new version of the report with the appendices cleaned up in a day or so, after I write the quarterly report for the Air Force project manager.

What should I work on next? I could improve the MATLAB model or I could finish the Crosstalk paper. Dr Martin noted that the Crosstalk paper has been hanging fire for a long time; it would be good

to get it finished. One good thing to have in your pocket is an answer for the assessors when they ask what have you accomplished since the work was submitted. If you have some solid results to point to, that makes a good impression of your rate of progress.

## **References**