

A new case

The rain was driving horizontally in to my face - stinging needles of water driving in to my skin and eyes. Still, *"I like the rain: it washes memories off the sidewalk"* as Woody would say...

I had arrived at the mansion but had to walk the half mile up to the front door from the electric gates. The guards told me no vehicles were allowed up the drive (apart from those carrying the only resident of the mansion) to prevent the "unwanted insertion of dangerous objects or people" the guards told me without flinching.

Cameras followed me. Dogs followed me (behind electrified fences bordering the driveway each side). I've no doubt guns followed me: this was the home of someone who took security seriously.

When I reached the front door I hammered on it and waited admiring as far as I could see in the torrential rain the over-the-top facade to this 19th century mansion...ok not admiring, more ridiculing, but anyway just trying to take in any details that might come in handy at some point: the job starts when I enter the premises and it ain't over till the money is in the bank.

The door opened with a smooth electronic sigh but an inner wall blocked my way. No wait, it was a body guard with the presence of a wall. He held his hands out: one palm up for me to give him something, the other holding a gun pointed straight at my heart. I gave him my card and a printout of the email that had summoned me. He took both, shut the door with his foot and left me there.

Time passed.

I admired all the tree stumps for a while: the trees must have been cut down for security reasons. I admired the floodlights, the trip wires and the motion sensors. There were probably mines to admire had I had a spade...

The door opened and I was ushered in to the weirdest case of my professional life...but then I think that at the start of every new job...

The background

Of course I had read about the case in the papers before coming here. Once the email had arrived inviting me to help solve the case I had made preliminary enquiries finding out as much as I could from various sources including the police, the hospital, the papers and relatives. It had taken a while and piecing it together had taken some effort but the following basic facts were established and verified.

It was a classic "locked room" case: on the 1st January 2013 at 01:01 Mr Arthur Court had been found in this very mansion in a critical state. He was lying in his bed drenched in blood with an absolute look of horror on his face. He had been stabbed once just below the sternum - the knife had grazed his heart but not punctured it...but that had been enough to send his body in to shock and for a significant period of time his heart had stopped beating. Although his heart was eventually re-started Mr Court never regained consciousness and 4 weeks later his brother had finally given up hope and nature had taken its course within minutes of the life support machine being switched off. There had been no real choice really as since entering the hospital poor Mr Court had been bereft of higher order brain activity, independent breathing, or anything to indicate that the spark of life still burned in him.

The manner of his death would have been solid tabloid newspaper fodder on any day of the week - but Mr Court was the personal butler to Lord Harold Todd - possibly the only hereditary life peer in the House of Lords who was better known for being a Rock God. No stranger to controversy over the years the papers loved his stranger and stranger ways - although this latest (and longest) phase of paranoid recluse was wearing a little thin.

Now the gun-wielding bodyguard showed me in to a room (after frisking me - I had been frisked at the gates but you can never be too careful eh?) and there Lord Todd sat on a leather sofa regarding me thoughtfully. There was a low table in front of him of highly polished wood and on the table was a tray of highly polished silver and on the tray was a tea set of the finest most translucent china - laid out for one.

Case solved (I)

"Finally!" Lord Todd said.

"Yes, you have remarkable security."

"You should have arrived earlier. Move off the rug, you are dripping."

To tell the truth I was a little scared of him, a little in awe - I was (had been?) a fan...I was worried what he was thinking of me. I moved off the rug. I didn't wring my hands or doff my cap, but I might as well have.

"So. You are skilled in solving these crimes?"

"That's what they tell me."

"So. Who killed my butler?"

"Mr Court?"

"He is my butler."

I coughed. I had to say it. "Was." and then I wish I hadn't.

"Oh very good. Yes. Was. Was. Makes all the difference to the question. Excellent, I can see you will be well worth the fee."

Sarcasm. Excellent. I felt foolish and unsure of myself. He was belittling me and I dutifully felt belittled. More importantly, I felt worried that he wouldn't employ me and - frankly - I needed the money.

"Ah yes, the fee."

"I will pay your standard rates as advertised on your website - plus a bonus for solving the case. What do you need?"

"Um, well if you could just tell me exactly what you are after?"

Lord Todd lifted the tea-pot and poured his tea. He concentrated on putting the right amount of milk in before lifting the tea cup and taking a tentative sip. Finally, still without looking at me he said quietly: "What I am after is the person who killed my butler. It is not a surprising question, I hope. I expect you may have predicted that I would ask this question...", he put his tea cup down and snarled, "...because it is so bloody obvious! I have one other question now: have I got the right person on this case?"

"Yes, yes of course! Ok, well then if that's all you want I will solve your case and if there is anything else you need just let me know. The person who killed your butler - Mr Court - was Dr. John Stanley."

At least Lord Todd now looked surprised and (was I imagining it?) impressed: "Dr John Stanley? Never heard of him. How do you know?"

"I rang the hospital and they allowed me access to Mr. Court's treatment notes." I fished out my notebook and read from my notes. "Mr Court's life support was turned off at 13:10 on 28th January 2013 by Dr John Stanley."

There was silence. Lord Todd looked at me with what I took for disgust. "You are joking?"

"Er...no. You asked who killed your butler and I have told you."

There was a longer silence. Lord Todd stood up and carried the tea cup to the window and, looking out, he sipped his tea quietly. At last he turned back to me. "Fine," he spat. "We will start again. This time I will tell you more *precisely* what I want to know and you will tell me *exactly* how you will find it out. Agreed?"

Driver Analysis

"Agreed", I said.

"Alright...so what I want to know is not who killed my butler but who put him in the state that killing him was the only option."

"Ok. Stupid question but can I ask why?" There always comes a time in any investigation when my methods seem even to me to be questionable: they make me ask questions that seem on the face it stupid and so make me look and feel stupid - sometimes! Sometimes the "stupid" questions yield the most surprising results both to me and the person I have asked the question of. The stupid-with-potential-for-surprising questions always come in the first few phases of the investigation during driver, scope and objectives analysis. I have learnt by bitter - oh how bitter! - experience that I neglect these questions at my peril.

"At least we agree it is a stupid question. Is it not obvious why?"

"I can assume if you like. I can assume that you cared for your butler - perhaps immensely - and that you have a burning desire for justice or even revenge and so need to identify who or what that desire must be played out on."

He raised his eyes to the ceiling and sighed. I get that a lot.

"Ok, perhaps not so stupid...I couldn't give a flying shit about the butler. What I *care*" about is that someone got in to this house, put my butler in to a coma and got out without being detected despite the (as you have already observed and experienced) stringent security I have. That puts me at risk. I cannot and will not tolerate that. Yes find the bastard who did it and hang him/her/it out to dry with the pigs but what I want to know is *how they did it* - what holes in my security are there? How do I fix them? Are there any others?" He marched back to his chair and sat down. "Clear enough?"

I took a deep breath. "Um, clearer..." I said slowly. "But I have a few more questions..."

Up went the eyes, out came the sigh but...but he suddenly seemed to relax. He pushed a button on a key ring fob on the table and the bodyguard returned. Lord Todd ordered a chair to be pulled up on the opposite side of the table to him, and tea for me. It looked like I had got the job. I heaved a heavy (internal) sigh of relief and sat down, and started the investigation in earnest.

Objectives analysis(I)

"You want to know several things. Let me see...you want to know

1. How Mr Court's assailant gained entry to his room
2. How Mr Court's assailant left the premises
3. What holes there are in your security
4. How to fix any holes in your security and
5. Are there any other holes in your security

Have I got that right?"

"Yes. Finally..."

"You can see my problems then I hope..." I began.

"**Your** problems?"

I guess I was hired and now I had to move from cowering and snivelling servant in to professional investigator. There comes a point where you just have to do your job and earn your money. To be fair, I have lost a lot of work with this attitude and it was one of the many reasons I needed the money so much. The alternative though would be to let the client be deluded in to thinking he would get something I wouldn't be able to give him. That has led to a lot of wasted work and unpaid fees.

"Yes. **My** problems. There are 5 items on the list and I can only fully address 2 and provide help on a best endeavours case with the other 3. The 2 that I can help with and how Mr Court's assailant gained entry to his room and how he left the premises.

But then there are the other 3...I am not a security expert or consultant - there could be all kinds of holes in your security - and plenty that have nothing to do with Mr Court's attack. As for fixing the holes and then find others...same problem. I can advise, suggest, discuss, contribute, assist... Look, you seem to have 2 sets of objectives here that are not tightly dependant on each other. You can do either without **having** to do the other. These 2 sets of objectives are fixing specific security issues that allowed Mr Court to be attacked, and improving your overall security."

Lord Todd nodded thoughtfully.

"To be honest, you might as well just give the second set of objectives to a specialist in security services."

A brief pause. "Fair enough."

"Great. Now...about the first set of objectives. I have some further questions about those."

The sigh, the eyes to the ceiling. "Why am I not surprised?" Lord Todd said.

Objectives analysis (II)

I was starting to feel more confident. He had seen the logic in the argument that there were 2 sets of objectives and that made think I could work with him. If he had denied the logic of what I said just because he had to piss up a post or he didn't like me then the investigation would be doomed to failure. It's the "yes but" response which can be summarised as "yes but I don't want to accept that even though it is correct". There's a fine line between a "can-do" mentality that all investigators should have and a "Canute" mentality: you know, King Canute of England - thought he could (because he was king) turn back the tides so he went in to the sea and commanded the tide to go back. Actually - the truth *may* be a bit more realistic: rumour has it he was surrounded by sycophants who told him he could do anything because he was King. He demonstrated the absurdity of what was said by commanding the tide to retreat. True or not I prefer that version. However, I digress.

The thing is, I can do analysis, I cannot do miracles. If Lord Todd has insisted on his original objectives I would have had no choice but to throw the towel in. I have tried in the past stating the consequences of what these idiots are saying (and you are an idiot if you deny logic with no logical justification - you might as well tell the tide to go back). It has covered my arse but in the end the invoices were never paid and I went hungry.

So we were left with 2 objectives. I re-stated them to make sure he was clear.

"Ok - so we are left with increasing your knowledge such that you know

1. How Mr Court's assailant gained entry to his room
2. How Mr Court's assailant left the premises.

Next question - the guts of this investigation is that you want to increase security. Given that, do you not need to know

1. Who carried out the attack
2. Are they a threat to you and to know that you will need to know
3. why they carried out the attack?"

I was surprised that Lord Todd looked surprised. Was I missing something or wasn't what I just said obvious? But he definitely looked surprised, surprisingly. He thought before answering - always a good sign and I wish more of my clients would do that. The silence wasn't uncomfortable for me - he needed to think to get his answer right so that I would be working on the right things for his money.

Finally he said: "Yes, I suppose you are right. But the truth is....dammit the truth is I don't care about the butler. If he was mixed up in some criminal crap and they got him I don't care why they did it or what the criminal crap was. If it was a way to get at me then yes, I need to know. But I don't think it was." He paused again and seemed to reach a decision. "Ok, I want you to focus on the first 2 objectives as we agreed and follow up on the rest as second priority."

This was acceptable to me: what Lord Todd and his ilk don't get is that 99% of the time when they are talking priorities they don't twig it won't have any material impact on what I do. It's not like I can decide not to investigate something because I know it will only help achieve certain objectives. If I know which would help with what at the outset I would already know the answer! The critical point was that the scope of the investigation included achieving the objectives of knowing who attacked and why.

"Great," I said. "So let's sort out the rest of the scope."

The eyes and the sigh but I was getting used to that.

Scope analysis (I)

Lord Todd finished his sigh and his eyes returned to me. "Do you ever actually plan to do any work?" He asked in a mild tone.

Truth be told, I was getting a tad irritated with him. Yes, he was a Rock God and yes I was a fan and yes he was my paymaster but - good grief! - I wasn't telling him how to be a legend and yet he felt fine about telling me how to start my job. It does happen a lot in my line of work though - everyone thinks they know how to do it and to be fair it is not exactly rocket science what I do. It's just analysis. The trouble is, most people most of the time would say they do analyse things and yet analysis seems to be the one thing that most people loath and detest and will do just about anything they can to avoid actually doing. Analysis means decomposing a subject to its fundamental components and defining the relationship between those components. Analysis *is* on the other hand an attitude of trusting no-one, believing nothing and proving everything. It means getting rid of personal involvement, of opinions, prejudices, preconceptions and assumptions while recognising the actual constraints that must be worked within or around, and dependencies that must be managed.

I decided it was my turn to sigh and raise my eyes.

"Perhaps you would prefer me just to go off and spend your money without me confirming with you what you are trying to achieve, what the money will be spent on and an idea of when I'll be back?"

"No, I - "

"And believe me it is already hard work just getting a clear idea of what exactly I am meant to be doing." I said it with a smile but every joke has a kernel of truth and he knew that.

"Fire away, what do you need to know?"

There's a framework I use when defining the scope of any case. I use as little or as much of it as I need and I extend it when it doesn't cover all the angles. The framework for defining scope starts with listing the processes that are in scope of the case - that will need to be done.

"So let's see - if I am going to meet your objectives of understanding the who, how, where and why of the attack I am going to need to establish exactly what happened that night, build up the precise chronology of events, document the history of what happened. Then I will need to investigate who might have been involved and why. Finally, I will need to report to you on what steps you need to take to make sure nothing like it can happen again."

"So far so obvious."

Then the scope moves on to listing the people and organisations I would need to engage during the processes. "Ok, so to establish the history of what happened I will need to work with everyone in this house, including you, and the police. To get at the who and why and I am going to need to work with everyone in the house, the police and Mr Court's friends and relatives." Lord Todd looked uncomfortable with that.

"Problem?" I asked.

"Just that I wanted to keep it as quiet as possible that I am stepping up security."

"Hm. What's more important - keeping it quiet or plugging any holes in your security through establishing what happened to Mr Court?"

I often have to bounce around like this between drivers, objectives and scope, especially at the start of a case, as people just don't seem to work in very rational ways...it's a feature of the job and I just live with it.

"Well sorting out the security obviously."

"Then obviously I have to work with his friends and relatives. Agreed?"

He sighed. "Agreed."

But he had pointed out that he wanted it keeping quiet. I couldn't just ignore that. I suggested a principle that I would try and keep to: "I'll be as discrete as I can but if I need to know something then that will take priority. Agreed?"

He nodded. Ok, no change to objectives, but here was a principle I would have to adhere to as far as possible without compromising achieving the objectives: keep it all as quiet as possible.

And so we went on to consider the rest of the scope.

Scope analysis (II)

The framework I use for defining scope then considers locations.

"Now the focus of my attention will be this house as that is where you want to beef up security but to conduct the processes we have agreed I will have to travel to the police station, relatives homes and Mr Court's home - where did he live, by the way?"

"In his room."

"That was his only home?"

"Yes."

"Good grief - really?"

"It's a condition of employment with me. My servants live in the mansion."

Lord Todd was a Rock God, he also lived in a bygone age and was just a little crazy. I shrugged. If this was Mr Court's only home then this was his home. The next part of my scope framework was applications and technology.

"I will need to understand all your current security - cameras, motion detectors and so on. That reminds me - I will need to work with your current security firm as well." This was a 'people' part of the scope and the fact it had popped out like this didn't surprise me: as I said, analysis is rarely linear, it bounces around as thoughts and insights arise. The trick is to recognise the bouncing around and categorise correctly to build up a full, structured analysis.

"Ah, good. Well as it happens I have already got someone from TripleA assigned to you. They are waiting outside."

"Great. I'll get together with them after this chat and organise next steps." The last part of my standard framework for defining scope is data. "So Lord Todd, if I am to conduct all the processes we discussed, I will need to understand everything about Mr Court and his relationships...it will inevitably mean examining you and your relationships as far as they impact the investigation. In short, I will be poking my nose in to your affairs as well as Mr Court's."

"I can't see how my affairs can have any bearing - " he started to say. I cut him off.

"Are you saying I can't include information about you in this investigation? If so, I should warn you that you are significantly increasing the risk of failure as I may not get the full picture of who attacked Mr Court and so how they did it." I have found it helps to cut the waffle and explain the risks that an unrealistic constraint on an investigation has when they arise. Quite often the decision make still goes ahead and whoever is making this decision "accepts the risk" or "underwrites the decision" (my favourite piece of gobbeldygook in this context). It's funny how when the risk materialises and becomes an issue that impedes the investigation (or even causes failure) that these same people suddenly find the risk unacceptable and do not "underwrite" it (whatever that means)!

Lord Todd said "Do what you need to do but you will be bound by non-disclosure agreements that I will aggressively enforce. Tell no-one anything that they positively do not need to know." Another principle to abide by.

"Fine. Right, next steps are that I will write this up and it will be the objective and scope of this investigation. Then I will plan the execution of processes - and work with your security firm - TripleA? - rep."

"Write this up? But you haven't been taking notes..."

"No - but I have been recording." And I showed him the voice recorded I carry around for just this purpose. It had been on since our conversation had started.

He sighed, he raised his eyes. "That," he said, "will definitely be subject to non-disclosure!".

Summary of Objectives & Scope

I spent 10 minutes writing up what I had gathered so far so that I could review and confirm with my paymaster, Lord Todd - as he was paying I thought it important he knew what he was getting for his money. This is what I wrote:

Case: Investigating breaches in the security arrangements of Lord Todd that were exploited in the attack on Mr Court.

Drivers:

1. Mr Court's attack
2. Lord Todd's concerns re security

Objectives:

1. increase knowledge on
 - 1.1. How Mr Court's assailant gained entry to his room
 - 2.1. How Mr Court's assailant left the premisesAchieving Objective 1 will address Driver 1

2. Increase knowledge on
 - 2.1. Who carried out the attack
 - 2.2. Are they a threat to Lord Todd based on why they carried out the attackAchieving Objective 2 will address Drivers 1 and 2

3. This had been unstated so far but was implicit given the drivers - having achieved Objectives 1 & 2 increase knowledge about security issues/faults
Achieving Objective 3 will address Driver 2

Principle:

1. Keep the case as quiet and confidential as possible.
 - 1.1. Minimise the number of people and organisations who know about it.
 - 1.2. Only tell people what they need to know - no more

Scope of the case:

Processes required to achieve objectives:

1. document exactly what happened the night of the attack
2. investigate who might be have been involved and why
3. identify security issues/faults from the products of 1 & 2
4. identify steps that could be taken to fix security issues/faults

People to work with to achieve objectives in the course of executing the processes:

1. Lord Todd
2. Police
3. Mr Court's friends and relatives and contacts
4. TripleA security

Applications & Technology that will be included in executing the processes

1. Security equipment

Data that will be needed by the processes in scope:

1. Mr Court and his relationships
2. Lord Todd and his relationships as far as they impact the investigation
3. Event chronology of the night of the attack
4. Security processes, procedures and capabilities

"Ok Lord Todd," I announced, "perhaps we could just quickly review this...?"

Lord Todd came round to my side of the table and picked my notebook up. Even before he had started reading the inevitable question came: "How long is all this going to take?"

Estimating

How long, how much? Not "thanks, that seems to make sense though thinking about it have you considered this that and the other?" Just "How long? How much?" Followed by (if the answer isn't ridiculously over-optimistic enough) "Why?".

Then comes the bit that really pisses me off - the clients will say things like: "Surely it's just a case of doing this, doing that, bish, bosh, bash and it's done? Shouldn't take more than half an hour? Shall we say 20 minutes?" It always amazes me that people get me in, ask me to do a job for them presumably because they can't do it themselves, then tell me what to do and how long it will take. I wouldn't dream of telling Lord Todd how to be a Rock God and yet he will no doubt feel quite comfortable in telling me how to do my job.

Amazing.

So what I do is compromise because I need the money. How much I compromise depends on how much I need the money. I always start off by giving as good an estimate as I can for what I really think it will take.

So I said "How long, you ask. Well, let's see. There are 4 processes:

1. document exactly what happened the night of the attack
2. investigate who might be have been involved and why
3. identify security issues/faults from the products of 1 & 2
4. identify steps that could be taken to fix security issues/faults

Let's look at process 1: document exactly what happened the night of the attack. Well I guess that means talking to all involved parties (let's say half a dozen at 2 hours each - say 2 days) and reviewing any electronic material (let's say 6 hours - best part of a day). Then I have to write up, review, resolve discrepancies and job done. Write up - let's say 2 days, review etc. let's say another 2 days. So in total 7 days effort. Of course that effort may be expanded in bits and pieces over several days depending on people's availability and the fact that I'll be running the other processes in parallel.

Process 2 is going to be far more vague - a case of following the investigation and where it takes me. The starting point will be considering all Mr Court's contacts who might have a motive and pursuing lines of enquiry based on that. I would like to suggest that I just report to you every other day on progress with this one. You can then stop it at any point if you feel you aren't getting value for money - in which case we can discuss impact on achieving the objectives at that point.

Process 3 is a desk job, pulling together and analysing the products of 1 and 2, and identifying how your current security set-up allowed it to happen. Shall we say 4 days effort for compile, analyse, review and refine?

Process 4 takes the product of Process 3 - must follow on from it as it is wholly dependent on the outputs of process 3. Again, it's a desk job with the expert from your TripleA security firm you mentioned. I guesstimate 2 days effort for the analysis, review and refine.

So in total - 13 days known effort and an open ended effort for process 2. As I said, the elapsed time will depend on circumstances beyond my control, but if we meet every other day I can advise you of any issues impeding progress, or risks that might impede progress.

How does that sound?"

Lord Todd had the grace to look impressed, and I had the good grace to look smug.

"It's good," he said, "but I'm sure it could be done quicker."

It was my turn to raise my eyes to the ceiling and to sigh.

Meet the team

"So," I said, "time to go to work."

"Time to meet your colleague." Lord Todd countered.

"Colleague?"

Lord Todd pressed the button on his key-ring fob. The body-guard re-appeared as if he had just been waiting outside the door...which he probably had.

"Bring in Ms Dixon." Lord Todd instructed.

The body-guard returned almost as quickly as before, but this time with Ms Dixon - she must have been waiting (patiently?) just outside too.

"May I present Ms Dixon," announced Lord Todd. "She is a Triple-A consultant - MY Triple-A full time dedicated consultant. She will work with you and assist in any way she can."

Looking at Ms Dixon I doubted that. Her body language spoke clearly enough: folded arms, shoulders back, standing at a slight angle to me, head slightly tilted back...she looked like she was making ready to charge me and disdain me at the same time. Most communication between humans is non-verbal and ignoring it was just like closing your eyes when reading the background material of a case: dumb. It's also why it is always best to meet clients and others involved in a case face to face: phones lose all the visual messages, and emails lose all the visual AND aural messages.

"Ms Dixon," I said and extended my hand. She (of course) ignored it.

"As Lord Todd has stated I am his dedicated Triple-A Security Services Solution dedicated consultant. I am sure you will appreciate my intimate knowledge of the circumstances here. I have offered to lead the investigation but Lord Todd has deemed an outsider is more likely to be objective. I disagree but will of course follow Lord Todd's instructions."

At least she was honest about her intentions. So many times I have been given the run around by people who say one thing and do another - almost as if it gives them pleasure to see things go wrong. As an aside, it some ways it is comforting to know that conspiracy theories are all junk simply because people cannot work together as an unquestioning team - it ain't human.

To continue the aside...There was a TV series about aliens that invaded Earth - trouble was they looked perfectly like humans except...you could tell an alien by their missing little finger on their left hand. I figure any group of people working together with common objectives, no disagreements, no "politics" - now they really would be aliens missing little fingers or not...

Back to Ms D. The question was now how to establish the best working relationship as clearly it would be key to a successful outcome. As I am useless at "handling" people and "politics" I tend to go for the honest option - might as well say what I mean and at least then if it all goes pear-shaped it went that way for good reasons rather than made-up ones.

"Great. I know how to run these investigations but like you say I have diddley-squat knowledge of the actual circumstances here so I will be heavily reliant on your expertise Ms Dixon."

She didn't have to say anything - her non-verbal body language (aural: sigh, visual: eyes to the ceiling, frown, tightened lips) said it all: honesty may be the best policy...but it doesn't mean it always gets results.

Planning (i)

Ms Dixon and I left Lord Todd and were ushered by our friendly neighbourhood bodyguard in to another reception room. This had desks and whiteboards and phones and other purposeful looking equipment. I crossed to a notice board and pinned up the summary of my analysis so far. Ms Dixon followed me and read it.

This is an odd phase of my job: people think this is when the work begins – but for me the work began walking up the wet driveway observing as much detail as I could and trying to fit it in to the whole picture. Then the important decisions were made with Lord Todd during our initial “discussions” and there had been hard choices made about objectives (exactly what he wanted from the work I was to do for him) and scope (what I was and was not to do, who I could work with and who not, what information I could use and what not, and so on).

So now I had agreed with my employer what he wanted and how I would go about delivering it, **now** it was time to form a plan to execute the scope of the work to deliver the deliverables. So hopefully you can see that a lot of work had already been done and the stuff that mostly decided the success or failure had already been resolved. All that was left to do was follow through on that work – not (I repeat) *starting* to work.

“Interesting,” conceded Ms Dixon at last, “but obvious.”

Yes, well, magic tricks are *obvious* once you know how they are done. And what I had done with Lord Todd had been pure magic.

Arrogant? Me?

“Ok,” I began brightly. “What we need is a plan.”

“Fair enough ... and easy enough. I’ll get the security recordings and review, you interview whoever was around at the time, then we can put the 2 sets of information together. After that I suggest a risk-based set of penetration tests on the security measures and then we can build a matrix of penetration test results to security component. We can prioritise fixes and cost them up and present to Lord Todd. Oh yes, we should also double up guards while we investigate especially round the outside and perhaps they should have infrared motion activated cameras. There are some new high resolution ones that can even reconstruct colour I’ve been meaning to try....though getting them will be a challenge I can tell you: there are only 2 suppliers and they are both German. Do you speak German?”

“Ok,” I said again, more slowly. “What we need is a plan.”

You see, the thing is, people like to talk, and they like to talk about what they are most interested in. And what they are generally not interested in is methodical planning – the only thing they are less interested in is analysis.

Planning (II)

Ms Dixon was not impressed with my response and replied equally slowly “That is what I am talking about.”

So it was a crunch point between me and Ms D. She clearly had views on how she would progress this project and trouble was I knew how she would progress it as well: Ms D had what I call a butterfly mind or – to put it more clinically – she was a divergent thinker. She would start from one point and follow thoughts in many directions – at once! Analysts on the other hand need to be convergent thinkers: directing everything, every thought, every action to solving the problem in hand.

Convergent thinkers are great for solving problems and being methodical. Divergent thinkers are great for creativity, thinking outside of the proverbial box and intuitive insight. One without the other was yin without yan. We would make a great team, but I would have to be the one to structure the activities, to focus our efforts where needed given our scope.

Next problem: could I do that? Technically yes as I had the information needed and knew what to do with it. But did I have the authority to do that? Know your role. Know your remit. What backing do you have from your sponsor?

Lord Todd had explicitly stated I was leading this project – and as yet another aside, this is not my preferred role. I’m an analyst, not a project manager. Project Managers have their skill set and analysts have theirs. They mix like oil and vinegar: a great salad dressing but left to stand they always settle out. Still, needs must.

I crossed over to the summary of my analysis to date. It could be used to inform the project planning as well as solve the case.

“Look,” I began pointing up to the relevant items, “There are 4 processes:

1. document exactly what happened the night of the attack
2. investigate who might be have been involved and why
3. identify security issues/faults from the products of 1 & 2
4. identify steps that could be taken to fix security issues/faults

Let's plan the work by these processes.” and I drew up a table using just the summary of my analysis (see blog post Summary of Objectives and Scope) and a little bit of on-the-fly thinking:

No	Task	Who	Effort	Starting when	Resources needed	Dependencies	Deliverables
PROCESS 1 – define crime chronology							
1	talking to all involved parties	Me	2 day	Tomorrow (Day 1)	Involved parties	Involved parties availability	
2	write up, review, resolve discrepancies	Me	1 day	Day 3		Process 1 Task 1	Involved parties statements
3	reviewing any electronic material	Ms D	1 day	Day 1	Electronic material		
4	write up, review, resolve discrepancies	Ms D	1 day	Day 2		Process 1 Task 2	Electronic evidence
5	Collate involved parties personal accounts and electronic material	Both	2 days	Day 4	Involved parties statements. Electronic evidence.	Process 1 Task 2 Process 1 Task 4	Corroborated involved parties statements
PROCESS 2 – find motive							
1	Investigate motive	Me	5 days ???	Day 1	Involved parties	Involved parties availability	
2	Report to Lord Todd daily or every other day	Me	1 day	Day 2 onwards			Motives report
PROCESS 3 – review security							
1	Analyse security components	Ms D	2 days	Day 5	TripleA tech specs		

2	Define how security components allowed security breach	Ms D	2 days	Day 7		Process 1 Task 5 Process 2 Task 2	Security components weaknesses
PROCESS 4 – address security breaches							
1	Define security breaches counter measures	Ms D	1 day	Day 9		Process 3 task 2	Security components fixes
2	Prepare cost/benefit proposal	Ms D	1 days	Day 10		Process 4 task 1	Cost/benefit case
3	Present conclusions to Lord Todd	Both	1 day	Day 11	Lord Todd	Lord Todd availability Process 2 task 2 Process 3 task 2 Process 4 task 2	

“So,” I said, when I had finished, “no need to speak German just yet?”

Analysis Products (I)

Days passed. We (Ms Dixon and I) followed the plan. I wouldn't say Ms Dixon was happy about it, but follow it she did. We began as per plan with Process 1 – Define Crime Chronology: while she was reviewing any electronic monitoring material, writing up, reviewing and resolving discrepancies, I was talking to all involved parties, writing up, reviewing and resolving discrepancies. In addition to my Process 1 tasks I had also been working on Process 2 – Find Motive task at the same time as I talked to different people about their movements on the crime night.

By the start of day 3 we were ready to collate the involved parties' personal accounts of their movements with the electronic monitoring material.

Ms Dixon and I were back together in our "war room"...well, the room with the flip-charts and stuff: I don't have much time for macho characterisation of analysis: talk of "war rooms" and "battle plans" all comes over as rather sad don't you think? The only thing worse is "brown paper exercises" and "Lean Kaizen" activities. Or, more generally, the latest "methods" and "approaches" that promise like the mid-western medicine men of old to cure all with a little snake-oil and a lot of bamboozling.

Basically, you have to do analysis to do analysis and that means engaging the brain and thinking problems through. There are no short-cuts you haven't worked out yourself, no "trust me, it just works" golden bullets that kill the need to think, to analyse.

Blindly following rituals like the Agile "morning huddles" where only pigs can speak (not chickens!) without understanding at a nuts and bolts level just **how** (if!) this ritual aids analysis is opening yourself up the modern medicine men and their bottles of coloured water. And make no mistake, roughly 5 to 10 years after the arrival of a new Method that promises to mysteriously cut project effort and budgets in half while delivering more success than any other Method, it will fade away to be replaced by a brand new Method with a new shaped bottle containing liquid that (curiously) has the same colour as the old method...face it: if you want to understand how components can be put together to solve problems you will have to analyse – and that means think! – what the problem is, what the components are and the best way to put them together to solve the problem.

Here endeth today's rant.

Where was I? Oh yes, me and Ms D putting the products of our investigative analysis together...so process 1 was all about who was doing what where and when. That is

Problem: I need to know who is doing what, where and when.

Components: People, tasks, location, time.

Remember how I said in Scope Analysis (I) blog entry that "Analysis means decomposing a subject to its fundamental components and defining the relationship between those components"? Given that, I figured I should produce something that answered those questions for those components and the best way to me seemed to be a map of the building, showing who was in each room, when, what they were doing and where they went next. I was not following a method, see? Instead, I just thought about what needed to be done to do the analysis and then did it in order to do the analysis. I suppose some pedant will point out that is a method, but it does not rely on anyone telling anyone else what has to be done, using obtuse terms like "Kaizen", paying licence fees, getting certified by some money-making institution or *trusting* that it will turn out all right in the end.

Anyway, I had drawn up my analysis and it looked like this:

Ms Dixon spotted it and held it up. She twisted it around, squinted, brought it close to her face and held it arms' length. Finally, she put it back down.

"Not the most readable of documents," she said. "In fact, probably the most unreadable of documents." She dropped it back on the table.

Analysis Products (II)

Ms Dixon was correct of course. But then that diagram had a specific job to do: help me sort out the analysis. Once done, I had summarised the results in to a set of readable and re-useable (i.e. electronic) documents.

In my experience, people seem to get hung up on every document at every stage being beautifully presented and understandable by anyone who picks it up whether they know about the subject material or not. I take a different view: every analysis document should have specific purpose and an intended audience.

If it does not satisfy the purpose or is not useable by the intended audience then it is quite literally a waste of time.

For example, the purpose of my diagram was to sort out who was where doing what when. The intended audience was me. The diagram had done its job. Tick in the box.

Given the understanding the diagram had helped me gain, I needed to summarise and reformat the findings in to other documents whose purpose was to communicate the findings of the analysis to Ms Dixon (to progress our processes) and Lord Todd (who wanted to know this information and was paying for it).

It seemed to me that the logical way to do that was to define the core components (people and rooms) in a table and building plan, then have another table to show which people were in which rooms at what times doing what. I could then use these documents to talk through the analysis products with their intended audiences.

Anyone else who picked up the room plan or tables and didn't understand them could go whistle: they should not have been reading the documents anyway and so can hardly complain they don't understand them. Not every analysis document is for everyone as every analysis document should be tailored for purpose and intended audience.

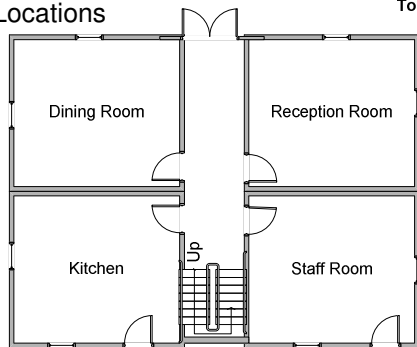
"Have a look at these instead," I said to Ms Dixon showing her the tables. "They summarises the information, but we can always go back to the diagram if needs be."

People

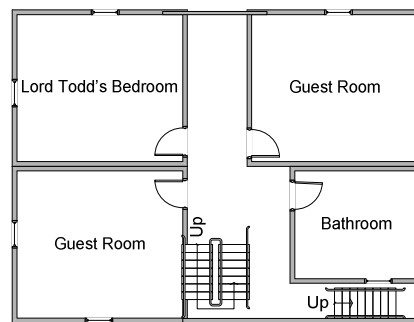
Name	Initials	Role
Lord Todd	LT	Rock God, Lord of the Manor and employer
Arthur Court	AC	Butler to Lord Todd
Brian Bates	BB	Gate and grounds guard
Connor Chambers	CC	Gate and grounds guard
Danny D'Eath	DD	Bodyguard for Lord Todd
Erica Echoes	EE	Housekeeper
Frank Flowers	FF	General handyman and Gardner
Gareth Garfield	GG	Cook

Locations

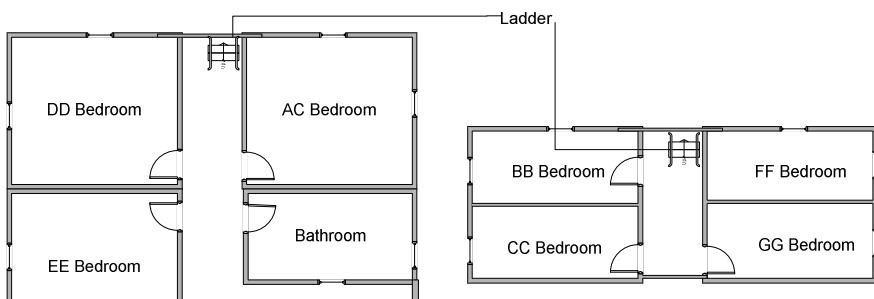
Todd Towers



Ground Floor



First Floor



Who was doing what, where and when between 31/12 18:00 and 01/01 09:00

All times approximate to nearest quarter hour except where indicated by exact times.

All parties had an evening meal, but for some it was before 18:00.

Initials	Location	From	To	Doing what
LT	Dining Room	18:00	19:00	Having evening meal
LT	Reception Room	19:00	23:15	Watching TV, some admin work and reading
LT	Lord Todd's bedroom	23:15	00:59	Getting ready for bed, reading in bed. Hears scream from upstairs, rushes to investigate.
LT	AC bedroom	01:01	01:35	Investigating attack on AC, waiting for police
LT	Reception Room	01:40	03:30	Helping police with their enquiries
LT	LT Bedroom	03:35	-	Sleeping
AC	Dining room and Kitchen	18:00	19:00	Serving Lord Todd's evening meal
AC	Kitchen	19:00	19:25	Assisting GG clear up and prepare for tomorrow's breakfast.
AC	Staff room	19:25	22:00	Watching TV, socialising.
AC	AC bedroom	22:00	00:59	Getting ready for bed, in bed (asleep?), being attacked, screaming.
BB	Gate house and grounds	18:00	21:00	Guarding
BB	Staff room	21:00	22:30	Watching TV, socialising.
BB	BB bedroom	22:30	00:59	Getting ready for bed, sleeping. Woken when hears scream from downstairs, rushes to investigate.
BB	AC bedroom	01:02	01:35	Investigating attack on AC, waiting for police
BB	Reception Room	01:40	03:30	Helping police with their enquiries
BB	BB Bedroom	03:35	-	Sleeping
CC	Gate house and grounds	18:00	21:00	Guarding
CC	Staff room	21:00	22:30	Watching TV, socialising.
CC	CC bedroom	22:30	00:59	Getting ready for bed, sleeping. Woken when hears scream from downstairs, rushes to investigate.
CC	AC bedroom	01:02	01:35	Investigating attack on AC, waiting for police
CC	Reception Room	01:40	03:30	Helping police with their enquiries
CC	CC Bedroom	03:35	-	Sleeping
DD	Dining room	18:00	19:00	Tasting LT's evening meal, protecting LT.
DD	Reception room	19:00	23:15	Protecting LT.
DD	LT's bedroom	23:15	23:20	Inspection of LT's bedroom
DD	DD bedroom	23:20	00:59	Getting ready for bed, sleeping, Woken when hears scream from across corridor, rushes to investigate.
DD	AC bedroom	01:01	01:35	Investigating attack on AC, waiting for police
DD	Reception Room	01:40	03:30	Helping police with their enquiries
DD	DD Bedroom	03:35	-	Sleeping
EE	Staff room	18:00	22:00	Eating evening meal, watching TV and socialising.
EE	EE bedroom	22:00	00:59	Getting ready for bed, sleeping, Woken when hears scream from across corridor, rushes to investigate.
EE	AC bedroom	01:00	01:35	Investigating attack on AC, waiting for police
EE	Reception Room	01:40	03:30	Helping police with their enquiries
EE	EE Bedroom	03:35	-	Sleeping
FF	Staff room	18:00	22:00	Eating evening meal, watching TV and socialising.
FF	FF bedroom	22:00	00:59	Getting ready for bed, sleeping, Woken when she hears scream from across the corridor, rushes to investigate.
FF	AC bedroom	01:02	01:35	Investigating attack on AC, waiting for police
FF	Reception Room	01:40	03:30	Helping police with their enquiries
FF	FF Bedroom	03:35	-	Sleeping
GG	Kitchen	18:00	19:25	Preparing LT evening meal, clearing up and preparing for breakfast.
GG	Staff room	19:25	21:30	Watching TV and socialising.
GG	GG bedroom	21:30	00:59	Getting ready for bed, sleeping, Woken when

				hears scream from across the corridor, rushes to investigate.
GG	AC bedroom	01:02	01:35	Investigating attack on AC, waiting for police
GG	Reception Room	01:40	03:30	Helping police with their enquiries
GG	GG Bedroom	03:35	-	Sleeping

“Well,” Ms Dixon said happily. “Case solved, don’t you think?”

Case Solved (II)

“Great!” I said. “Who dunnit?”

“Erica.” Ms D looked smug. “Surprised you haven’t already spotted it.”

“Spotted what?”

“That she got to Arthur’s room before Danny! Look, everyone rushed to Arthur’s room when they heard him scream and arrived in order of distance from his room apart from Erica. Therefore she’s lying, therefore she has something to hide – such as attacking Arthur. QED.”

“QED? I don’t think you are demonstrating anything other than faulty logic.” Tact is alien to me just when I need it most... it’s why I have my own business and work with no-one, it’s not through choice...

“Really?” She dropped my documents back on the table, folded her arms and turned to face me square on. How’s that for non-verbal body language? “So why did Erica get there before Danny?”

“Sorry,” I began. “I know I can come across as arrogant, but that doesn’t mean I am. Usually it’s because I am thinking as I am speaking and things come out of my mouth that really need to be reformatted!” I smiled. No smile back. “Look, the problem is like my seeming arrogantness. Just because I seem arrogant it doesn’t follow that I am. Just because Erica didn’t arrive in the “correct” order doesn’t mean she is lying.”

“Why not?”

“Well, alright, she *could* be lying. Or everyone else *could* be lying and she could be the only one telling the truth: they all arrived early and she arrived after them. Or she *could* have already been in the room – perhaps her and Arthur were an item. Or she *could* be a faster runner, or wake up quicker. Or – well, you get the idea. The facts you have (Erica arrived quicker) do not result in only one possible outcome (that she is the attacker).”

We analysts need to know a lot about logic. Ms D had suggested that there was a line of *deductive* reasoning which runs as “given this, then that must be true.” For example, “Given Tinkerbelle is a fairy and that fairies can fly, it must be true that Tinkerbelle can fly.” This only holds if all fairies can always fly. Suppose it is possible that while normally fairies can fly sometimes a wicked witch can put a spell on them and they can’t. Assuming they are still fairies (that is, that losing the ability to fly does not stop them being classed as a fairy) then the example “Given Tinkerbelle is a fairy and that fairies can fly, it must be true that Tinkerbelle can fly.” Is no longer correct. We analysts need to test the assumption (that a fairy who can’t fly is still a fairy) and turn the assumption in to a fact (or recognise the risk we are running the assumption is false and mitigate it). We also treasure and value deductive reasoning as that discovers new facts (if our assumptions are correct) such as the deduced fact that Tinkerbelle can fly.

There is another major class of reasoning called *inductive* reasoning. Take one fact and generalise it out. For example, “Tinkerbelle is a fairy and Tinkerbelle can fly. Therefore all fairies can fly.” Hopefully you can see that there are many scenarios where the *premises* would still be true (the premises in this case are “Tinkerbelle is a fairy and Tinkerbelle can fly”) but the *conclusion* may not be true (“all fairies can fly”). Inductive reasoning results in much weaker conclusions than deductive reasoning, that is they have a much higher risk of being wrong. Trouble is the vast majority of reasoning is inductive – it’s how we humans work.

Worse still – it is horrendously common (especially for analysts!) to confuse inductive reasoning with deductive reasoning and think that you have much stronger case than you do. Analysts need to spot faulty reasoning, turn assumptions in to facts (where they can) and build a strong a case as possible for whatever conclusions they come to.

Ms D had *inductively* reasoned “Erica arrived out of order of distance from the room” (specific fact) “therefore she is lying about everything” (inductive conclusion) “therefore she is the attacker” (inductive conclusion built on a “fact” arrived at inductively! Worse still, Ms D thought this was an inevitable conclusion following on from her “facts! But it does not necessarily follow that *because* Erica arrived out of order she is lying. Even if it was true she was lying it does not necessarily follow that she is the attacker.

Ms D went on the offensive: “So who did dunnit then?”

“Ah, well, glad you asked that.”

Ego-less analysis

"I have also been working on motives (Process 2). Have a look at this."

I showed her the products of my analysis of motives based on the conversations I had conducted with everyone as part of Process 1.

Name	Motives	Other factors
Lord Todd	None identified so far.	Doesn't care about his staff. Has as little to do with them as possible.
Arthur Court	None identified so far.	Not well liked by other staff, but not hated.
Brian Bates	Lost c£1,500 to Arthur playing cards. Disliked Arthur.	Ex-army. Knows how to fight and has experience of it.
Connor Chambers	Lost c£2,000 to Arthur playing cards.	Ex-army. Knows how to fight and has experience of it.
Danny D'Eath	Wants a relationship with Erica...Arthur knew about this and could have told Lord Todd. It is against the rules of employment for staff to have romantic relationships. Arthur had never said or hinted he would though. May have known (from Erica) that Arthur may have liked Erica as well.	Ex-army. Knows how to fight and has experience of it.
Erica Echoes	Wants a relationship with Danny...Arthur knew about this (see Danny). Erica thinks that Arthur liked her as well.	Erica knew that Arthur was sneaking out some evenings (breaking his employment contract). Hasn't told anyone including Danny.
Frank Flowers	Grows and sells fruit and veg on Lord Todd's land but sells some for personal profit. Arthur knew and could have told Lord Todd and threatened to. Arthur teased Frank about his employment position (Arthur thought Frank has the lowest status job of the employees). Arthur had "landed" Frank in trouble a couple of times with Lord Todd.	
Gareth Garfield	None identified so far.	Kept from Lord Todd that he has a spent conviction for mugging (15 years ago). Unknown if Arthur knew but could have done...

"You've left a motive out," said Ms D.

"Have I?"

"Yes: Lord Todd is – to an extent – paranoid...I should know...TripleA gets good business from Lord Todd because of it."

"Fair enough. Could go under 'other factors' I suppose...."

"No: the fact that he is paranoid means his reasoning will be suspect and that leads to possible motive, doesn't it? And, even if he is not paranoid but has good reason for such tight security, well...he has not told you about that, and that in itself is worrying from a motives perspective."

Wham! She had me there, She was right, no doubt of that. Now that she had said it I could see that I had been suppressing it: you don't really want to include in your deliverables documents information that could be taken the wrong way by the very person who is paying your invoice. "Could be taken the wrong way"? Who am I kidding? Lord Todd would go stratospheric if he read that in my analysis.

I was (to coin a phrase) caught between a rock and a hard place...Rock: Ms D's reasoning was correct – Lord Todd was paranoid (or under real threat of some sort he was keeping to himself) and so could have a motive. Hard place: putting it in the report would result in *at the very least* an "interesting" chat with Lord Todd.

So I had two problems – Ms D had definitely found a legitimate flaw in my analysis and what do you do when the products of your analysis may be unpalatable to your employer?

Strangely they are 2 sides of the same coin: ego. I was embarrassed that Ms D had "caught me out" and I

was worried that Lord Todd would be angry with me. Both of these relied on my feelings, feelings that damaged my ego.

If I was more concerned with finding out the truth rather than looking good, the fact that Ms D had “caught me out” would not be relevant and I would not be bothered. Indeed, I would be grateful that the flaw had been exposed and so could be fixed: Ms D had done me a favour!

If I was more concerned with finding out the truth rather than looking good, the fact Lord Todd *might* be angry with me (his decision of course) would not be relevant. It literally would not matter to me.

Ideally all analysis is ego-less, but I am human and we humans are ego-full creatures (therefore I am ego-full! ☺). Maybe I can't change that but I can acknowledge it and deal with it when it arises.

“That's true,” I said. “and I will add that motive to Lord Todd's entry. Thank-you.”

Yeah, well, acknowledging my ego and dealing with it rationally doesn't mean I don't feel stupid sometimes and – thinking of my next review meeting Lord Todd – scared at others.

Joined up analysis?

“So,” I said brightly. “Moving on: what about your analysis of the electronic monitoring records? What have you discovered?”

“Well not much I suppose,” said Ms D with unusual coyness. “Trouble is I organised my data by time, not person. That is, all the camera sitings are presented in time order rather than being grouped up by person and then time. I guess I could restructure the data but it will take a bit of time to do.”

Seems my ego was to take another battering: I had committed one of the most basic errors by not agreeing analysis output deliverable formats *up front* with Ms D. Of *course* she was going to come up with a different way of presenting her analysis findings – there must be a gazzilion+1 ways to present the same information and if you don’t agree which one to use up front you will end up trying to join up marmite with jam. It can be done of course, but it does not taste good and a little forethought would have removed this unnecessary hurdle (or should that be hurl?).

It was time (again!) to eat humble pie (jam and marmite!) as I had been directing this little fiasco. “No problem, I should have agreed with you at the start how we should present this stuff. Let’s have a look anyway and see if we can join it up.”

Camera locations

1. External
 - a. Gatehouse
 - i. pointing out to road
 - ii. pointing up drive
 - b. Main house front main entrance
 - i. pointing to gatehouse
 - ii. pointing along dining room wall
 - iii. Main house front pointing along reception room wall
 - c. Main house back
 - i. pointing along kitchen wall
 - ii. pointing along staff room wall
 - d. Main house side
 - i. pointing back to front along kitchen wall
 - ii. pointing back to front along staff room wall
2. Internal
 - a. Ground floor
 - i. Main hall way pointing from stairs to front door
 - ii. Main hall way pointing from front door to stairs
 - b. Dining room
 - i. door way pointing to far corner
 - ii. far corner pointing to doorway
 - c. Reception room
 - i. door way pointing to far corner
 - ii. far corner pointing to doorway
 - d. Kitchen
 - i. door way pointing to far corner
 - ii. far corner pointing to doorway
 - e. Staff room
 - i. door way pointing to far corner
 - ii. far corner pointing to doorway
 - f. First floor
 - i. landing pointing from stairs to far wall
 - ii. landing pointing from far wall to stairs
 - g. Second floor
 - i. landing corner next to Erica’s bedroom pointing stairs from first floor
 - ii. landing corner next to Erica’s bedroom pointing ladder to attic
 - h. Attic
 - i. landing pointing from ladder to far wall
 - ii. landing pointing from far wall to ladder

Time	Who	Doing what	Seen by (location)
18:02	Lord Todd and Danny D’Eath and	Enter dining room	2.a.i and 2.a.ii

	Arthur Court		
18:02 – 18:51	Lord Todd and Danny D'Eath	Evening meal	2.b.i and 2.b.ii
18:06	Arthur Court	Goes from dining room to kitchen, picks up starters course tray and returns to dining room	2.b.i 2.b.ii 2.a.i 2.a.ii 2.d.i 2.d.ii
Etc...			

This was a **big** table and needed to be to record the interactions of 8 people, 16 rooms, 4 corridors and 25 cameras over 15 hours!

How could this be sensibly joined to what I had produced?

An answer that seemed to fit with what we were trying to achieve (identification of attacker) and where we were (mis-matched data) was validation of the witness statements I had got.

"This is great detail," I said. "Fantastic, objective detail. Trouble is there is too much for my brain to process. Could we – well, could *you* – join it to the witness statements I got?"

The process would be something like

1. for each witness statement line (which has a rough time against it so you can go to the right part of your data)
 - a. identify 1 or more entries in your table that corroborated it with evidence from cameras.
 - b. Highlight any that don't have a corroborating camera siting (unless it is inside a bedroom).
2. Ideally, check for any camera sitings that could not be reasonably (in your judgement) be accounted for by witness statements

The join between my table and yours must be on the witness name. Luckily our lists DO use the same set of witness names!"

"That's great," she replied looking like she thought it was anything but. She didn't add "it would have saved a shed-load of time if you had asked for that up front" – but then she didn't need to.

An aside: The devil lives in the assumptions

We analysts have one devil we can never fully defeat but we can fight it with some success every day of our working lives: assumptions. I had assumed Ms D would document her analysis in a particular way and look what that had cost me. Lord Todd had made all kinds of assumptions when he first met me... For that matter, even before he met me, I suspect he probably assumed I was a man! Then again, you may have now assumed that (because I pointed out Lord Todd's possible assumption) that I am a woman...but what objective *evidence* do you have to indicate if I am a man or a woman?

That's the trouble with assumptions: they adopt excellent camouflage and become part of your scenery without you even noticing them. You may even happily assume you have identified and resolved all of them and all the while they are tricking you in to thoughts and actions that are just a waste of time and energy. They may cause you to waste so much that in the end your endeavour – whatever it is – becomes futile...and they have won.

The first battle in the unending war against assumptions is to see them. Lose this battle and the war is lost – you never even engage with the enemy as they remain unseen. So, how to see them?

In summary:

1. *Trust* no-one.
2. *Believe* nothing.

In more detail:

1. Trust no-one – not even yourself. Especially not yourself. Most people may well not be trying to hinder you (most are doing just the opposite – being as helpful as they can and they are often the most dangerous!). But what people do (you included) is hide assumptions in the guises of “in my experience [*insert any assumption here*]” and “as far as I am aware...”, “it seems to me...” and that killer “look, it's obvious, isn't it, that...”. So, when someone starts coming out with these kind of statements first off document the statement and immediately name and shame it as an assumption. *Now* you can start to plan to resolve the assumption (this is analyst speak for kill it).
2. Believe nothing – especially that a method or approach will identify and deal with all assumptions! So what exactly do I mean by “believe”? Well, it's so obvious that you probably don't really need to be told: everyone knows what a belief is. The previous statement is exactly what I mean by “belief”: it could have been rephrased as “I have no objective evidence to support this but I choose to believe that you know what belief is and don't need to be told.” It is at its most dangerous when you are being told to believe something by someone higher up the pecking order, and they make an outlandish claim we don't dare challenge and then draw conclusions from it! For example “Given that magical things are performed by small winged people then we know there are fairies – fact!” or “Look, we need to follow industry best practice and that means classifying people as pigs or chickens”. The best real life (probably apocryphal) story I have heard of is one quoted by Matt Ridley (see his book “The Red Queen: Sex and the Evolution of Human Nature”). During an early meeting of the Royal Academy of Science attended by the king there was an earnest discussion about why a bowl of water weighs the same with a goldfish in as without. The debate got heated until the king said “I doubt your premise” – the same as “I don't *believe* you”. So a bowl of water and goldfish was found, the experiment was done and guess what? Yes, shock, horror: the weight of the bowl increased by one goldfish when one was added! End of heated debate. Start of embarrassment for some....

The next battle, once you have seen assumptions, is how do you kill them? Annoyingly, they cannot be completely killed but they can be incapacitated to the point where they are mostly harmless.

In summary:

1. *Prove* everything to your satisfaction.
2. *Proceed* at risk.

In more detail:

1. Prove everything – and the key here is “to your satisfaction”. It is not possible to establish absolute proof of anything so don't get lost in semantic shenanigans: do what you need to do to prove whatever you need to prove to your satisfaction. Personally, I would want to get the bowl of water and the goldfish, but if you want to trust all those eminent members of the Royal Academy of Science then that is – ultimately – up to you. It is your professional judgement call.

2. Proceed at risk. Frankly, this is all we can ever do. The trick is to minimise the risk (can't remove as we can't ultimately prove anything 100%). So how do we do that?
 - Step 1. What is the implication of the assumption being false? Do not *assume* that a false assumption is always catastrophic – it may have little or no material impact on what you are doing (for example, does it actually *matter* if I am a man or a woman for the purposes of the investigation?). You see how devious assumptions can be? They get in everywhere, infect everything.
 - Step 2. If you need to make sure the assumption is not false you need to prove it one way or the other – to your satisfaction. So do that and kill the assumption by turning it in to a fact (as far as possible).
 - Step 3. If you can't prove (or disprove) it to your satisfaction, assess the likelihood and impact of the assumption being false, plan what you would do should that situation occur and proceed...at risk.

Doing analysis

The day came (sooner than anyone –especially Ms D – thought) that all the main components had been discovered. It was now a case of doing the analysis. So far we had completed stage 1 of analysis (breaking a problem down in to its component parts). It was now time for stage 2 (defining the relationships between those components). In this case the relationship of particular interest were

1. Between Mr Arthur Court and his assailant (that is, who was the assailant?).
2. Between the assailant and the security measures (that is, how the assailant committed the crime undetected)

The challenge for you now, dear reader, is perform stage 2 of the analysis. Below you will find the products of Ms D's work and some other miscellaneous information. Put that together with the previous posts and you have all the relevant facts (and a whole load of irrelevant facts).

Now solve the problems listed above:

1. Who is the assailant?
2. How was the crime committed undetected?

If you can suggest the motive, even better!

Better still if you can also suggest changes to security measures that would prevent such an attack being repeated.

It would be most excellent to see how you worked out your conclusions and your assessment of whether they have been arrived at deductively and/or inductively (and how confident you are in the conclusions). If you need to make any assumptions (and you will whether you know it or not), just document them.

In a month or so I shall post the solution, but any solutions received in the meantime (via "comments" link at end of each post) will be posted beforehand for admiration, review and comment.

The game – as Sherlock Holmes (an analyst if ever there was one) would say – is afoot!

Ms D's data.

Note: There are no cameras in bedrooms!

Who	Location	From	To	Doing what	Seen by camera?
LT	Dining Room	18:00	19:00	Having evening meal	Y
LT	Reception Room	19:00	23:15	Watching TV, some admin work and reading	Y
LT	Lord Todd's bedroom	23:15	00:59	Getting ready for bed, reading in bed. Hears scream from upstairs, rushes to investigate.	N/A
GG	Corridors	00:59	01:01	Rushes through house to investigate.	Y
LT	AC bedroom	01:01	01:35	Investigating attack on AC, waiting for police	N/A
LT	Reception Room	01:40	03:30	Helping police with their enquiries	Y
LT	LT Bedroom	03:35	-	Sleeping	N/A
AC	Dining room and Kitchen	18:00	19:00	Serving Lord Todd's evening meal	Y
AC	Kitchen	19:00	19:25	Assisting GG clear up and prepare for tomorrow's breakfast.	Y
AC	Staff room	19:25	22:00	Watching TV, socialising.	Y
AC	AC bedroom	22:00	00:59	Getting ready for bed, in bed (asleep?), being attacked, screaming.	N/A
BB	Gate house and grounds	18:00	21:00	Guarding	Y
BB	Staff room	21:00	22:30	Watching TV, socialising.	Y
BB	BB bedroom	22:30	00:59	Getting ready for bed, sleeping. Woken when hears scream from downstairs.	N/A
BB	Corridors	00:59	01:02	Rushes through house to investigate.	Y
BB	AC bedroom	01:02	01:35	Investigating attack on AC, waiting for police	N/A
BB	Reception Room	01:40	03:30	Helping police with their enquiries	Y
BB	BB Bedroom	03:35	-	Sleeping	N/A
CC	Gate house and	18:00	21:00	Guarding	Y

	grounds				
CC	Staff room	21:00	22:30	Watching TV, socialising.	Y
CC	CC bedroom	22:30	00:59	Getting ready for bed, sleeping. Woken when hears scream from downstairs..	N/A
CC	Corridors	00:59	01:02	Rushes through house to investigate.	Y
CC	AC bedroom	01:02	01:35	Investigating attack on AC, waiting for police	N/A
CC	Reception Room	01:40	03:30	Helping police with their enquiries	Y
CC	CC Bedroom	03:35	-	Sleeping	N/A
DD	Dining room	18:00	19:00	Tasting LT's evening meal, protecting LT.	Y
DD	Reception room	19:00	23:15	Protecting LT.	Y
DD	LT's bedroom	23:15	23:20	Inspection of LT's bedroom	Y
DD	DD bedroom	23:20	00:59	Getting ready for bed, sleeping, Woken when hears scream from across corridor.	N/A
DD	Corridors	00:59	01:01	Rushes through house to investigate.	Y
DD	AC bedroom	01:01	01:35	Investigating attack on AC, waiting for police	N/A
DD	Reception Room	01:40	03:30	Helping police with their enquiries	Y
DD	DD Bedroom	03:35	-	Sleeping	N/A
EE	Staff room	18:00	22:00	Eating evening meal, watching TV and socialising.	Y
EE	EE bedroom	22:00	00:59	Getting ready for bed, sleeping, Woken when hears scream from across corridor..	N/A
EE	Corridors	00:59	01:00	Rushes through house to investigate.	Y
EE	AC bedroom	01:00	01:35	Investigating attack on AC, waiting for police	N/A
EE	Reception Room	01:40	03:30	Helping police with their enquiries	Y
EE	EE Bedroom	03:35	-	Sleeping	N/A
FF	Staff room	18:00	22:00	Eating evening meal, watching TV and socialising.	Y
FF	FF bedroom	22:00	00:59	Getting ready for bed, sleeping, Woken when she hears scream from across the corridor.	N/A
FF	Corridors	00:59	01:02	Rushes through house to investigate.	Y
FF	AC bedroom	01:02	01:35	Investigating attack on AC, waiting for police	N/A
FF	Reception Room	01:40	03:30	Helping police with their enquiries	Y
FF	FF Bedroom	03:35	-	Sleeping	N/A
GG	Kitchen	18:00	19:25	Preparing LT evening meal, clearing up and preparing for breakfast.	Y
GG	Staff room	19:25	21:30	Watching TV and socialising.	Y
GG	GG bedroom	21:30	00:59	Getting ready for bed, sleeping, Woken when hears scream from across the corridor.	N/A
GG	Corridors	00:59	01:02	Rushes through house to investigate.	Y
GG	AC bedroom	01:02	01:35	Investigating attack on AC, waiting for police	N/A
GG	Reception Room	01:40	03:30	Helping police with their enquiries	Y
GG	GG Bedroom	03:35	-	Sleeping	N/A

Camera sitings that could not be reasonably (in Ms D's judgement) be accounted for by witness statements:

1. Couple of sitings of various staff members going from their bedrooms to bathroom and back again. Not considered significant.
2. 11:20-11:22: Camera 1.b.iii Dark shadows (assumed to be person) moving along fire escape easterly direction. Unable to determine which route taken exactly – unable to conclusively state it was a person either. As the camera is pointed from the roof at the ground along the wall of the house it is difficult to be precise about details of movement on the fire escape.
3. 11:26-11:28: Camera 1.d.i Dark shadows (assumed to be person) moving along fire escape southerly direction. Unable to determine which route taken exactly – unable to conclusively state it was a person either. As the camera is pointed from the roof at the ground along the wall of the house it is difficult to be precise about details of movement on the fire escape.
4. 11:51-11:53: Camera 1.d.i Dark shadows (assumed to be person) moving along fire escape northerly direction. Unable to determine which route taken exactly – unable to conclusively state it was a person either. As the camera is pointed from the roof at the ground along the wall of the house it is difficult to be precise about details of movement on the fire escape.
5. 11:33-11:37: Camera 1.b.iii Dark shadows (assumed to be person) moving along fire escape westerly direction. Unable to determine which route taken exactly – unable to conclusively state it was a person either. As the camera is pointed from the roof at the ground along the wall of the house it is difficult to be precise about details of movement on the fire escape.

Miscellaneous information

1. Arthur Court's bedroom contained
 - a. single bed
 - b. wardrobe
 - c. desk with laptop computer (and wireless internet), radio/cd player, desk light. Drawers contained personal correspondence and general stationery
 - d. desk chair
 - e. arm chair
 - f. small table with plasma TV on it

Note: the knife used in the attack was not found in the room and has not been found.
2. External house security lights motion activated – motion sensors point out from house towards grounds.
3. Medical opinion obtained from the hospital that Arthur Court was taken to is that having been stabbed and the blade having grazed his heart, Arthur would not (and could not) scream: his mind and body would have gone straight in to shock explaining the look on his face when found.
4. There are fire escapes criss-crossing the front, sides and rear of the house connecting every first, second and attic room with the ground via weight driven drop down extensions from first floor (so they cannot be used to break in to the property!). Lord T's concerns about risks extend far and wide! All employees are instructed that fire escapes can only be used in event of fire and there is a heavy fine or even dismissal for improper use.
5. There was no evidence that any of the fire escapes had been extended down to ground level. Nor was there any evidence of unexplained footprints around the base of Todd Towers.
6. A deposit of £3,500 was paid in to Arthur Court's bank account the day he was attacked. The payee was a company solely owned by Lord Todd. It was BACS payment that had been initiated 3 days earlier. Lord Todd has declined to explain the reason for the payment saying it was an unconnected personal matter.
7. External cameras are general purpose security cameras not equipped with infra-red or other night time viewing technology.
8. Erica Echoes thinks she saw Lord Todd "doing something" by Arthur Court's desk during the period everyone was in the room waiting for the police. She cannot be sure what (or even if) Lord Todd was doing.

Case Solved (Finally: third time lucky!)

“Good evening Lord Todd.”

He was, as usual, sat in his favourite chair in the reception room with a large glass of whiskey.

“Oh, is it that time already? Alright, proceed with your report.”

“Not just a progress report this time Lord Todd. I have a good theory of who attacked Arthur Court and how they got away with it...until now.”

“Have you indeed! Well...?”

“Let me first outline what I see as the relevant facts and the conclusions I have drawn from them.” I got out my notepad with all the material I needed so carefully prepared.

“There are some facts and some conclusions I have either induced or deduced from them.

1. Arthur Court was stabbed once. There were no signs of a struggle. Whoever attacked him did not make sure he was dead by stabbing him again for example. My induction from these facts is that this was not a frenzied attack.
2. Arthur Court could not – according to the medical people – have screamed when attacked. Everyone heard a scream though: it was what made them all rush to Arthur’s room. My deduction from this is that the scream everyone heard was not made by Arthur when he was attacked. My induction from this is that everyone heard someone else’s scream or a recording of Arthur’s scream.
3. There are cameras covering all the hallways, stairs and rooms apart from bedrooms. Analysis of the camera recordings against witness evidence yields no material discrepancies. My deduction from this is that the attacker did not access Arthur’s room via the hallways and stairs. My induction is that the attacker used another route, and the only other route is outside the building.
4. There are motion activated security lights mounted on Todd Towers pointing out. There were no unexplained activations during the evening and night. There were no signs of unexplained activity around the outside of Todd Towers. The induction from this is that no-one approached Todd Towers by foot or in cars etc. And of course there were no unexplained helicopters hovering over Todd Towers either! As far as we know there are no unexplained tunnels. Given this, it is reasonable to assume that the attacker was already on the premises that night and did not need to gain access. If I’m wrong in this assumption then the whole theory is at significant risk of being wrong.
5. There are fire escapes outside the building that connect every room directly or indirectly with every other room. There are 4 unexplained camera observations of movement along these structures around the time of the attack for the night in question. These 4 observations can be broken down in to 2 sets: 1 of an assumed figure moving along the side of the house and one of an assumed figure moving across the front of the house. The movement along the side of the house is of no interest because it was the wrong side of the house to Arthur’s room and there are no unexplained camera observations in the halls and stairs of the house (as there would need to be if someone did move along the side of the house outside, then came in and made their way to Arthur’s room). My induction is that the movement at the front of the house was the movement of the attacker as they crossed the front of the house and entered Arthur’s room through the window at the front of the house in Arthur’s room. Furthermore, given that there were no unexplained internal movements in the house, find where this movement outside the house originated from and we will know from who was in that room who the attacker was.
6. The room that the unexplained movement originated from is located at the front of the house. The rooms with windows at the front of the house are Brian’s, Danny’s, Frank’s...and yours.
7. Brian Bates lost c£1,500 to Arthur playing cards and disliked Arthur. Brian had a motive but not a very strong one. Also, Brian is ex-army. Knows how to fight and has experience of it. You’d think and I have assumed that he’d know how to stab someone properly.
8. Danny D’Eath wants a relationship with Erica...Arthur knew about this and could have told you. It is against the rules of employment for staff to have romantic relationships. Arthur had never said or hinted he would though. However, Danny may have known (from Erica) that Arthur may have liked Erica as well. Danny is also is ex-army. Knows how to fight and has experience of it. You’d think and I have assumed that he’d know how to stab someone properly.
9. Frank Flowers grows and sells fruit and veg on your land but sells some for personal profit. Arthur knew and could have told you and threatened to. Also, Arthur teased Frank about his employment position (Arthur thought Frank has the lowest status job of the employees). In addition Arthur had (according to Frank) “landed” Frank in trouble a couple of times with you. Even putting these factors together hardly gives the strongest of motives.
10. You, Lord Todd – well I thought you had no motive. But Ms D proved me wrong about that.”

“Really?”

“Yes, really.”

"And what possible motive could I have for trying to kill my own butler?"

"Ah – well, you see, that's the point. We have all – me included – been *assuming* that the intention *was* to kill Arthur."

"Silly me. Here I am thinking that sticking a knife in someone is an attempt to kill them."

"This attack was planned. It was not a crime of passion with a fight, no-one came rushing from Arthur's room covered in blood, and so on. On the contrary. Someone planned it. They put a lot of thought in about how to get in to Arthur's room, attack him and escape unseen with the knife. And after all that thought and planning, they decided that a knife was the *best* weapon and that one strike would be enough. If it was me, and even if I chose to use a knife, I would make sure I had killed whoever it was. But, supposing the *assumption* is false: supposing that the intention was not to kill Arthur – quite the reverse in fact. Suppose the intention *was to not kill* Arthur?"

"If the intention was *to not* kill Arthur, best *to not* stick a knife in him?"

"Or best do it where you think it will look convincing as a serious attack but do no harm. Maybe a single strike to the sternum – the breast bone? But then what happens if in the heat of the moment the strike is a couple of centimeters too low? Well, the knife might go in just below the sternum...and might graze the heart."

"So someone carefully planned and executed an attack with a knife on my butler to try and not kill him? That is your theory?"

"Yes."

There was a long pause.

"And you know why?"

"I *think* I do...you had paid him £3,500 to let you attack him."

There was another pause. A shorter one. "Actually I paid him to stab himself which he did in the end but I take your point – as he did mine, ha ha! But he was a clumsy idiot ...and he was a greedy man."

"And you are – as Ms D pointed out – paranoid."

"Paranoid...or just careful?"

"Paranoid. Unless there is someone specifically out to get you that you have not told me about?"

"Just because you are paranoid doesn't mean they *aren't* out to get you."

"So, you attacked Arthur – well, got him to attack himself! – and got me in **not** (as I had *assumed*, dammit!) to solve the case, but to do a thorough, objective review of your security and plug the gaps! You didn't want me to solve the case, you wanted me to do a detailed analysis your security motivated by a crime to solve. Of course, you were interested in the security gaps you **didn't already** know about, not the ones you exploited in this debacle. Good grief, you even spelt it out for me the first time we met. You told me:" I glanced at my notepad and found the relevant quote. " *'I couldn't give a flying shit about the butler. What I "care" about is that someone got in to this house, put my butler in to a coma and got out without being detected despite the (as you have already observed and experienced) stringent security I have. That puts me at risk. I cannot and will not tolerate that. Yes find the bastard who did it and hang him/her/it out to dry with the pigs but what I want to know is how they did it - what holes in my security are there? How do I fix them? Are there any others?'*" I shut the notebook. "You laid the motive out for me."

"And what about the scream?"

"I don't know...no evidence at all...but my theory (little more than a guess really) is that after the attack, the plan was to have Arthur scream at a point when you were in your room hiding the knife so that you had an alibi. To ensure a loud enough scream it was amplified – using the cd player. So you had recorded a scream on CD – maybe with Arthur's help or just using a scream taken from the internet. After the stabbing, you set the CD player playing the CD and left the room with the knife. You had recorded silence for a few minutes before the scream to give you time to get back to your room, hide the knife, then you rushed with everyone else to Arthur's room and – in the confusion – retrieved the CD. As it happens, Erica thinks she saw you doing that although she doesn't realise that is what you were doing."

"And what about the unexplained movement on the fire escapes at the side of the house?"

"I didn't say 'unexplained' – I said of no interest. I strongly suspect we would find that Danny and Erica have been using that route for some time to keep their relationship secret...which we could verify if we questioned them, but I won't as it is not relevant."

Lord Todd smiled. "Very good. Better than I had planned for, obviously." He paused, then looked up.

"Although it seems to me you might have failed in achieving all of our agreed objectives as you called them." I referred to my notepad again.

"I don't think so. Our agreed objectives, Lord Todd, were

1. increase knowledge on

1.1. How Mr Court's assailant gained entry to his room – done that! The assailant was always in Arthur's room (it was his room after all) and his accomplice and employer used the bedroom windows and fire escapes.

2.1. How Mr Court's assailant left the premises – done that! Ditto 1.1.

2. Increase knowledge on

2.1. Who carried out the attack – done that! The answer is (I am embarrassed to say) the butler did it! But – indirectly – it was you.

2.2. Are they a threat to Lord Todd based on why they carried out the attack – done that! The answer is no.

3. increase knowledge about security issues/faults – done that! Your fire escapes are not adequately covered by cameras and your cameras should have night vision. Seems to me all objectives achieved.”

Lord Todd sighed and raised his eyes to the ceiling. I had been missing that reaction. “What an annoying person you are.” He sighed again. “So what now – call the police?”

It was my turn to sigh. “No. I will hand over all my information to them but I doubt they will be able to do much with it – it’s all circumstantial and the key points inductive, not deductive. Ultimately, your crime was to not call an ambulance as soon as Arthur stabbed himself but your no doubt highly expensive and highly efficient lawyers would be able to get you off that. But at least it will all be on record. Any more strange occurrences at Todd Towers will attract a LOT of attention.”

“Thank-you.”

For once I allowed my anger to show: “Don’t thank me. If I could have shopped you I would. Plus, you will pay double my fee and you will find the contract binding you to TripleA at triple the rate on your desk in the morning. Plus you will be making substantial payments to Arthur’s family and all your staff and tripling their salaries. Plus I will be watching you Lord Todd. You were instrumental in killing a man and you got away with it. I don’t like that.”

Lord Todd shrugged as if ... as if he didn’t care ... and there was probably a simple explanation for that!

“And what if I don’t do as you say?”

I shrugged back. He didn’t have the monopoly on not caring: “It’s a good story for the newspapers. ‘Paranoid Recluse Rock God Pays Butler to Kill Himself’ – something like that.”

“I’d call that blackmail.”

“I’d agree.”

Epilogue.

Things rarely turn out as I expect. Too many variables, too little deduction. And the assumptions! Oh how they had lead me astray: I had assumed that someone had tried to kill Arthur. Wrong. I had assumed that Lord Todd had wanted me to solve the case. Wrong. I had even assumed that there was a rational motive for the attack. Wrong, wrong, wrong!

There are no guarantees in life and there are no certainties in analysis. Analysis is hard, it can be a slog, and it can be deadly boring...but then look at the alternatives to analysis...try stumbling towards a solution by using trial and error, by blind guessing and blind, dumb luck, or by following some gobbledygook blarney method that relies on you trusting (assuming!) that it will work...now that *would* be murder!

... and finally...

If you have enjoyed this story and want to know more about business analysis, pick up free articles and training materials, maybe even contribute your own stuff, then head over to the author’s website at www.smart-BA.com – everything is free (including a pdf of this blog in book format) and no need to register.