Disaster Incubation Theory Configured for Learning

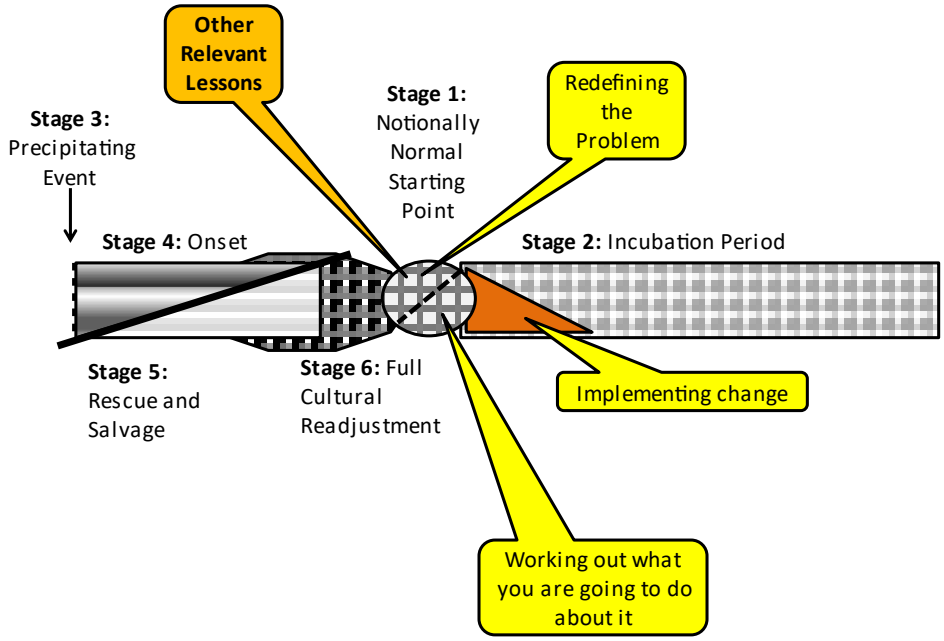
Introduction

To date, I have been using Barry Turner's Disaster Incubation Theory (DIT - see here) to understand the emergence of crises or other unwanted events. In the standard configuration, the unwanted event is placed at the centre of the model. The model starts with discussion of the risks and how to prevent them, it considers how those risks might emerge and, once one manifests, it looks at how the problem is managed. Finally, the model promotes discussion of the organisation's need to learn from the experience.

The aim of this essay is to reconfigure the model so that organisational learning becomes its central focus. I continue to use the standard model's labels to maintain consistency between the two configurations. As the Grenfell fire and its aftermath is a subject of general interest at the time of writing, I will use it to illustrate the model's use.

Figure 1 - Visualizing Disaster Incubation Theory

Organisational Learning



Reconfiguration

The reconfigured model (see Figure 1) starts with the unwanted event (Stage 3): this is labelled the "precipitating event" as this event is the catalyst for all that follows. In this case, the precipitating event is a fire in the Grenfell Tower block in the early hours of the 14 June 2017 that resulted in the death of over 70 people. The fire broke out in a flat on the 4th floor of a 24-storey building. It took the fire brigade 24 hours to bring the fire under control and another 36 hours before it was fully extinguished (Stages 3 & 4). The next day

(15 June 2017), the Government set up a Public Inquiry under the chairmanship of Sir Martin Moore-Bick to examine these events. The Inquiry started to take evidence on 14 September 2017. This resulted in a report being published on 30 October 2019 that considered the London Fire Brigade's (LFB) operational conduct that night (Stage 6). The LFB has subsequently been considering the recommendations made in this report and how to implement them (Stage 1). They are now in the process of establishing their new normal (Stage 2). I will structure this essay to examine each stage.

As far as learning is concerned, Stages 3, 4 and 5 provide the events that sparked the debate as to whether the organisation in question (in this case the LFB) handled the situation as well as could have been expected. In terms of learning, the events provide an unsparing Quality Assurance examination of the organisation that Lagadec called a 'brutal audit'. Typically, this type of examination reveals any weakness previously buried by the bureaucracy. Again typically, the focus of many organisations during a crisis is the management of their reputation and the avoidance of blame and subsequent liability. At the time of this brutal audit, and in this case literally, the organisation had a bigger fire to fight; the focus of the LFB was the preservation of life and control of the blaze. Once the fire was under control, then the formal inquisition began (DIT Stage 6).

The DIT model Stage 6 is defined as a period of "Full cultural readjustment: (where) an inquiry or assessment is carried out, and beliefs and precautionary norms are adjusted to fit the newly gained understanding of the world." Here we see that there is an overlap between Stage 6 and Stage 1. Stage I is described as the Notionally normal starting point that sets out beliefs about the world and its hazards and associated precautionary norms. In this configuration of the DIT model, it is therefore necessary to redefine the purpose of these stages and their link to Stage 2. I see it as follows:

- Stage 6 would encompass any analysis of events in question. It would be used to identify any gaps that existed between the hazards and threats and the associated precautionary norms. It would look to make recommendations as to how these gaps should be closed. This stage provides the passive learning part of the process ('passive learning' refers to the accumulation of knowledge). This analysis is likely to take many forms. It is likely to have formal components (such as the Public Inquiry chaired by Moore-Bick) and informal components (such as will have been held by groups of individuals involved that night, probably over a pint of beer!) Any finding that emanates from these analyses needs to be incorporated into any subsequent reset.

- Stage 1 would establish the reset required. It should be used to redefine the hazards that the organisation must be prepared to face and then it would see the resetting of precautionary norms associated with those hazards based on all the learning available at the time. Once the new norms have been set, they would be implemented and maintained as part of Stage 2.

- Stage 2, the Incubation Period, covers the normal operations of an organisation. This is the period where any changes recommended are made, daily operation take place and, unfortunately, this is where the organisation will tend to 'drift' in a way that creates opportunities for the next crisis to emerge.

It needs to be noted however, the transition points between these stages are never likely to be that clean. The multitude of individual analyses do, in practice, all result in their specific

outputs at different times. This makes for a complex reality. The transition points between stages should therefore be seen more of a conceptual boundary than a practical one.

I will now illustrate the process using the Grenfell case.

The Grenfell Case

No matter what format of analysis is used, the parties to these discussions will all be trying to make sense of what happened in the hope that they and their organisation will learn from the experience and perform better next time. For this discussion, I will use the findings of the public inquiry as the focus of my account. I do this for two reasons. The first is that it provides a clearer narrative to illustrate how I have reconfigured the DIT model and secondly, it seems to be at the heart of the LFB improvement plan. In this section I will outline the action taken by LFB set against the reconfigured DIT model.

Stages 3, 4 and 5 involved the actions on site at Grenfell. These have been analysed by the Moore-Bick Inquiry team; this would constitute Stage 6 of the model. Moore-Bick produced the first part of his report on 30 October 2019 and produced a nominal 29 actionable recommendations. My detailed analysis of the report can be found here (in summary, I found the analysis to be superficial as it addresses symptoms rather than trying to find the root causes of the many issues raised). This passive learning was then passed to the Brigade for consideration (Stage 1) and implementation (Stage 2). The implementation represents the start of active-learning.

Stage 1 provides the opportunity to reset their organisational approach to a particular issue and can be divided into two parts. The first (Stage 1a) looks to identify and redefine the relevant potential sources of harm faced by the organisation; the second (Stage 1b) determines how the organisation plans to mitigate those threats. I will now describe what I might have expected to have occurred during Stage 1.

Grenfell – Stage 1

Stage 1 provides the LFB with the opportunity to conduct a fundamental reset based on all the analyses done in Stage 6. In this case the key analysis is the one done by Moore-Bick's public inquiry. The Stage 1 reset should cover both the threats and hazards and the way the organisation should deal with them. There is no evidence that the LFB have taken the opportunity to conduct a more general Stage 1b reset for themselves. While this approach may be effective if the recommendations offered a way to produce a near perfect system, the HMICFRS report suggests this is not the case. The report indicates that the LFB suffers from some more deeply ingrained problems.

The need for a full reset was clear; the Moore-Bick report provided sufficient evidence to suggest that the LFB process needed much more that some fine adjustments as several fundamental elements were found to be seriously flawed. One example was the LFB apparent failure to successfully implement the recommendations produced after the Lakanal House fire and another is the need to review the protocols for cooperation between the fire, police and ambulance services. As this has been a constant theme in similar reports over the last 30 years (the period that I have examined), it is surprising that it took the Moore-Bick report to make the three organisations take action to ensure this is an efficient operation. Operational communications offered another example. This leaves me wondering what other issues may have been identified by a proper reset within Stage 1.

There is a second benefit to conducting a full reset. It is clear that the system under review is highly complex in the ways its various components interact. Two of the key characteristics of complex systems is that they are replete with non-linear relationships and that small changes to conditions that effect the system can precipitate radically different outcomes. In practice this means that seemingly insignificant changes enable unwanted event to emerge; this might be classified as unintended consequences of seemingly positive changes. If a systematic reset is not conducted, there will have been no process to examine both the existing complexities and the emergent issues that this might create.

Grenfell - Stage 1a

In a perfect world, organisations should (during the identification phase of Stage 1) look to absorb all other relevant learning (both experiential and theoretical) as a way of identifying all the potential threats to the organisation. In the case post Grenfell, the potential threats to operational effectiveness seem primarily to be taken as the deficiencies identified by Moore-Bick's team. These became the overriding catalyst for action. In taking this course of action the LFB does not seem to have taken this occasion as an opportunity to maximise the potential learning on offer to them. In a perfect world, the organisation would have embraced double-loop learning, it would have sought additional learning from other experiential and theoretical sources, and it would have considered the possibility of hazards emerging due to the unintended consequences of their seemingly beneficial actions.

- Stage 1a is the point where the organisation should invoke 'double-loop' learning. In this context, the practice of double-loop learning should stimulate the organisation to reconsider not only the way they do things (their procedures and practices) but also re-evaluate the premise on which the procedures and practices were based. This ie captured in the phrase about "not only doing things right but also doing the right things"! In the case of the LFB and the HMICFRS in its supervisory role, there is no evidence of double-loop learning having taken place. The emphasis in the HMICFRS reports was on the actions taken to remedy the faults identified by Moore-Bick; that is, the emphasis was on "doing things right" rather than ensuring that they were "doing the right things": this points to the need to question the Home Office's tasking of the HMICFRS that required them only to ensure "the brigade w(as) effective at ensuring progress against the action plan for delivering the recommendations".

- There is always an opportunity for organisations to learn from the experience of others with relevant experience. This opportunity was acknowledged by the HMICFRS report that stated "The project review team plans to include findings from the independent public inquiry into the deaths in the 2017 Manchester Arena terror attack" however there must be questions over what other relevant learning had been considered. For example, the Kerslake report of 2018 provided some interesting and relevant lessons after the Manchester attack. From the HMICFRS report it does not appear that the LFB has broadened their source learning beyond the Moore-Bick study.

- There is always an opportunity for organisations to learn from relevant theoretical understanding about potential sources of future failure. It is clear that the use of theoretical knowledge is an anathema to many practitioners (it is worth noting that strength of this characteristic is culturally dependent). While we seem happy to learn how to be an accountant, project manager, marketeer to name but a few disciplines, it is not clear why we think we can effectively practice learning from disasters without

attempting to understand fully the range practices involved. There is a wealth of knowledge which explains why the obvious causes of failure are not the root cause and why treating these symptoms will never be more than a short-term expedient. There is no evidence that the LFB has explored this area of knowledge and therefore there will be gaps through which the next disaster can emerge that could have been closed.

- The HMICFRS reports seems to take the recommendations made by the Moore-Bick report at face value and looks to implement them unquestioningly in accordance with their tasking. Any analysis of inquiry recommendations throws up examples of where the implementation of a previous inquiry's recommendation has been the catalyst that led to some future unwanted event. It should therefore be seen as being a mistake to focus solely on the actions as directed by any one set of recommendations without conducting a review of each for potential unintended adverse consequences. This failure to acknowledge that any change (even apparently simple ones) has the potential to create unintended (adverse) consequences perpetuates an imperfect system that provides the gaps through which the next crisis will emerge.

To make the most of the opportunity presented by any reset, the organisation should re-evaluate its goals in the area of activity in questions and then should seek to perfect its understanding to the level of what is reasonably practicable. In a perfect world an organisation would seek to accumulate perfect knowledge as to the full range of hazards and threats that might, in the future, assail it. However, we do not live in a perfect world. Instead, organisations are up against the pragmatic issue of resource constraints. Eric Hollnagel talks of the efficiency-thoroughness trade-off (ETTO); this is where "good enough" (efficiency of determination) is preferred over the ideal (thoroughly researched). Here we have to acknowledge that every pragmatic compromise leads to an imperfect system that creates the gaps that lead to the next unwanted event. The question for any organisation at this point in the process is to ask themselves whether they are making those compromises (in other words, taking the risks) knowingly or unwittingly. In practical terms, organisations should be encouraged to list the points noted; implicit in this action would be that all others are being ignored and therefore constitute a potential (and acceptable) source of future failure.

Grenfell - Stage 1b

In Stage 1b the organisation determines how they will revise their practices to manage the hazards they now foresee; it concerns what needs to be changed. In the Grenfell case, the LFB revised practices seem to come straight from the Moore-Bick recommendations with no consideration of double-loop learning. Their considerations appear to have been limited to "how do we embed that change in our organisation" rather than considering whether the changes, as directed, were right for their organisation.

For the purpose of examining the reconfigured DIT model, Stage 1b should be seen as an opportunity to justify their future practices based on their likely effectiveness. This should also be seen by the organisation as being an opportunity to examine the "recommendation gap". This is the distance between the action recommended and the outcome desired. This is the gap that must be bridged by the implementation programme. The danger for any organisation is to believe that verbatim implementation of any recommendation will automatically bridge this gap; this belief is often built into the functioning of the perfect world paradigm. For DIT Stage 1b to be effective, it must ensure that the implementation programme makes the required links.

It is acknowledged that there will be considerable pressure on the organisation to be seen to implement the changes previously recommended. Therefore, to counter this pressure, the organisation should have to justify the way it plans to implement change; again, this justification should only be based on operational cost-effectiveness and not on where the recommendation originated. Project management practice suggest that about 10% of the project cost should be allocated to this task. Organisations should resist the temptation to rush this phase of the process; relevant literature warns us of the dangers inherent in "rush to do".

Stage 1b also needs to consider how the changes required will be implemented. Whether the changes involve the purchase of new equipment or the revision of procedures, they will all bring their own issues and impose a training burden on the organisation: relevant literature warns us of the dangers inherent in what is called the "liability of newness". These issues need to be considered in detail if they are not to create unintended consequences.

The Grenfell case illustrates the issues surrounding training. The HMICFRS review makes many references to the need for training. It also notes how much of the training identified still needed to be done four years after the events in question. This makes me think about the training load placed on the organisation especially when, with reference to the implementation of the Moore-Bick required changes, the HMICFRS noted the LFB's weak project management skill. This would suggest that three important ideas have not been considered. These are the viability of multi-skilling, the 'wrong kind of excellence' and LFB's 'dance-card'.

- Studies have shown that a person is only capable of maintaining a limited set of skills, that are frequently rehearsed, to a high standard. Other skills possessed will fade over time and therefore management has to decide whether a higher error rate is acceptable for secondary skills or, if not, whether they need to be rehearsed before they are employed. The availability of skills needs to be carefully managed.

- The danger for any organisation is that it deludes itself over its skill levels or that the organisation focuses on one set of skills when their real priority should have been another. In the case of the LFB, the question needs to be whether they really want their commanders to be focused on increasing their operational skills and expertise or improving their project management skills. A choice has to be made (and I suggest that it does, or the result will have true expertise in neither) if the "wrong kind of excellence" is not to be fostered. As a historical note, the term 'the wrong kind of excellence' was coined following a review of the British Naval performance at the Battle of Jutland (1916). This report found that the Navy had prioritised their vessels being 'ship-shape' rather than on gunnery; the unintended consequence of the repeated polishing meant that the water-tight doors were no longer water-tight! Whether true or not, this provides a warning to us all over our work prioritization.

- The idea of the dance-card comes from a perilous age where, as ladies could dance with only one person at a time, gentlemen had to have their time with that lady allotted. This was done on a dance-card. The point here is to make management determine what can realistically be achieved by a set group within a selected period. Where everything is a priority, nothing is a priority. The concept of a dance-card should make management consider what is truly achievable within the timeframe in question. It is

not clear from the HMICFRS report that this prioritisation has been done when considering all the calls on the LFB's time.

Having established what needs to be done in Stage 1a, and how this will be done in Stage 1b, the implementation would be part of the model's Stage 2 (the Incubation Period). Again, while in theory this division is clear, in practice not so much. Each of the Inquiry's recommendations will be deliberated over separately and then implemented separately. This will create a complex relationship between Stages 1 and 2. Once again, this transition should be seen more as a conceptual boundary rather than practical dividing point.

Grenfell - Stage 2

Stage 2, the Incubation Period, covers the period of normal operations of an organisation. This is the period where changes are made, daily operations take place and the organisation drifts in a way that creates opportunities for the next crisis to emerge. While the HMICFRS report considers how the organisation needs to change, it is not clear how the changes and improvements will be sustained over the long run. I consider this to be an oversight: It should be noted that the purpose of using theoretical models, such as the DIT model, is to help organisations stay alert to the emergence of the next crisis, to spot the early warnings, and then to act in such a way that they guard against the next crisis. If an organisation really wishes to learn from the past so that some event 'never happens again', this gap needs to be filled.

LFB's progress towards the implementation of the Moore-Bick Recommendation has been documented in a report published by the HMICFRS on 12 Feb 2021 (see here). This activity is represented in the reconfigured DIT model with a triangle labelled "Implementing Change". The metaphor of a triangle is used to suggest that the effect to implement change tappers off over time.

It is clear from the HMICFRS report that the LFB is making a concerted effect to improve both their capability and their operational performance. It is also clear that more time is necessary to implement fully all the changes required. The new target date for completion of the changes is March 2021, nearly 4 years after the fire. However, the report also says that the brigade will only start to exercise the new procedures from April 2021. These exercises are scheduled to last for 18 months. I envisage that the purpose of these exercises will be to provide the leadership of the LFB (and their external supervisory bodies) with assurance that the new practices have been embedded within the organisation. It will be some six years after the Grenfell fire that this stage will be reached and this delay might be difficult for the public to appreciate. This raises two issues for the model.

The first is the change timeframe. I do not consider the timeframe to be unreasonable considering the size of the organisation and the amount of the change required. The Grenfell case provides a good illustration of the timescale involved. When project managed across the various stages (Stage 6, Stage 1a, Stage 1b and Stage 2), a period of years is inevitable. If, as the HMICFRS report states, "The public should be able to see a clear improvement in the way the brigade responds to fires" then the public needs to be helped to understand the why this process takes such a long time. This communication is an important part of the crisis communications strategy that needs to support the change implementation programme.

As I have stated elsewhere, if an organisation is not "in crisis", it is in the period of crisis incubation. Therefore, even when an organisation is implementing change following a crisis, it is already in the incubation period of the next crisis. The literature review that I conducted for my doctoral thesis identified over 150 precursors to failure. These include the failure to plan properly and therefore the production of "fantasy documents", "drift" in its many forms (most noticeable are "practical drift" and "safety drift") and the failure of leadership (such as "inattentional blindness", "distancing through differencing" or the "illusion of control"). These are all exacerbated by "organisational churn" and "skill fade". These are all reasons why organisations are never likely to be perfect and why the perfect world paradigm (as a way of seeing the world) is another dangerous illusion. These and many more factors are at play during the incubation period and may lead to the next crisis or disaster. Management has the choice as to whether they identify and manage these issues or just hope they do not emerge. Models such as DIT provide one way of managing these issues.

Discussion:

The use of the Grenfell Tower fire case provides a graphic illustration of what would otherwise be a rather dry theoretical model. The first issue we see is tension between doing what would be ideal (in order to produce a perfect system) and doing what is pragmatic. In my used of the Grenfell fire, I have identified some additional concerns in the way the process can be conducted. I feel that it is important to emphasise that the criticisms offered here are seen as being generic to the processes that surround Public Inquiries and it just happens that the Grenfell case illustrates the points nicely. As I have stated previously, but it is worth repeating, I picked this case for no other reason than it was current at the time of writing. The fact that, by coincidence, it illustrates my wider points should simply be seen as reinforcing the prevalence of these issues.

In the case of the Grenfell fire, the *Overton Window* (the limits of acceptable political discourse) is clear; The acceptable narrative is that blame lay with the LFB and that it was imperative to restore the public trust in this Service. To this end, the authorities must be seen to be implementing Moore-Bick's recommendations whether they are flawed or not: no questioning of the recommendations was acceptable. Here we see that the HMICFRS was faced with a dilemma. Terms of Reference from the Home Office for this specific piece of work tasked the HMICFRS only to ensure "the brigade w(as) effective at ensuring progress against the action plan for delivering the recommendations". It did not require them to assess the validity of the recommendations. However, on their website (see the page "What we do"), it is stated that they use "experienced officers and other subject-matter experts to identify the best practice from which all forces and FRSs can learn to improve their performance". This suggests that they should be aware of the need for double-loop learning and therefore be aware of the need to conduct a re-set as per Stage 1a of DIT. It is clear in this case which direction they followed.

The HMICFRS report reads as a careful navigation between responding to Moore-Bick's criticism and being supportive of the LFB at this difficult time in their history. The report is very pragmatic and can be seen to have given the force a way forward. Another important function of the report is for it to try to win back the public's trust in the LFB. While these two issues are both pragmatic and understandable in the circumstances, I have to question whether this approach is optimal in ensuring that such events "never happen again" either

within the LFB or elsewhere within the country. Some may consider it to be unfair to set the standard at optimal learning: this standard is taken from the HMICFRS report that critiqued the LFB for failing to optimise the project management of their implementation programme where, to me, project management issues are secondary to those of service delivery. If the HMICFRS expects optimisation of project management, they should also expect optimising of the learning of operational lessons.

In my analysis of the Moore-Bick Inquiry I emphasised how the paradigm used (that is the view taken as to how the world works) affects the conclusion reached. In essence the issue is whether the system can be perfected (perfect world paradigm) or whether the system can never be perfected and so needs to be ready and able to adapt dynamically to the circumstances encountered. It can be seen from their report that the Moore-Bick inquiry formulated their recommendations using the perfect world paradigm and this was not questioned by the HMICFRS. I have noted that these actions are representative of managers and executives within the UK and is consistent with advice I received during my doctoral studies. When discussing how to conduct research within industry we were warned of stereotypes. We were told that if we suggested a novel approach to an American, they would be likely to respond positively and seek to see if the idea gave them a commercial advantage: if you offered the same idea to the British, the likely response would be more defensive and your suggestion would be taken as a criticism of what they currently do. I have noted that, since shifting the focus of my research from the Low Countries to the UK over a year ago, I can confirm this stereotype to be true. I have now to question whether this is a significant factor in why the UK fails to learn from the past.

Within the theoretical literature there are pointers to why British practitioners take this approach. To begin with the British pride themselves on being pragmatic problem solvers. As such they have been shown to a have a tendency to "rush to do" as can be seen in the project management world stated above. Linked to "rush to do" is ETTO. The pragmatist trades thoroughness for efficiency. This is consistent with the concept of sufficing (where decisions are only required to be "good enough"). This is then coupled with the concept of '*muddling through'* (this is a technical term rather than just a caustic aside: see my Glossary page for its definition) where the next decision is built on the last one rather than on a fundamental re-evaluation of the issue as should be carried out at DIT Stage 1a. In the pragmatic world of management, it is understandable why managers and executives are too busy to think about how they think. However, in the case of learning from crisis, this approach leaves gaps through which the next crisis will emerge. Therefore, it is an illusion to think that the use of the perfect world will go anywhere to ensuring "such problems will never happen again".

It is clear that Managers and Executives are content to live with the mistaken belief that their current approach, "good enough", is consistent with their use of the perfect world paradigm. While it is clear that many understand that the world is far more complex than the mental model they use to manage it. This approach can immediately be seen to be at odds with Ashby's '*Law of requisite variety'* that suggests that it takes a complex system to manage a complex system. This Approach therefore creates gaps within which future crises can incubate. The question therefore becomes one of why they are prepared to accept this illusion. Is this driven by the temporal nature of the risk (the risk is long-term, while their tenure is short-term) or by some other factors? This is a question for a separate essay.

In his report Moore-Bick criticised the LFB for not planning for the high impact, low probability events. This criticism is consistent with his use of the Perfect World paradigm.

The sacking of the Danny Cotton would seem to put this failure of risk management down to poor leadership. From my point of view however, the LFB failure in this area fits a wider pattern of behaviour. Many of the inquiry reports that I have read state the organisation in question failed to manage some highly unlikely risk. I believe that it represents a more systemic problem. I believe that it is important to understand the reasons at the heart of this problem.

- The first issue is that the standard risk management processes encourage the failure to consider high impact very low probability events. Where this failure occurs it is labelled within the theoretical literature as a '*failure of imagination'*. In the case of the Grenfell inquiry they used the premise of the "Shuttle hitting the Shard". The probability of this happening is infinitesimal and should rightly be discounted as a scenario; if it is not, then we have to think of what other obscure scenarios should also be included. There is therefore a need to think more generically. A more generic idea would be any aircraft approaching a London airport over the city. The number of aircraft that land at Heathrow is around 480,000 per year. The number of aircraft that land at London City is around 80,000 per year. If we say half of these approach and take-off using routing that goes over the city, then this would amount to 280,000 per year. A general standard for a risk being acceptable is Sigma 6. This equates to approximately 1 event in 1 million or equates to 1 crash every 4 years. One would seem to be due! It is therefore fortunate that such failures are in fact far rarer than this, but this takes them far outside those risk considered by the risk management process. While such failures of imagination are easy to see with hindsight, the question for the future is where will the line now be drawn by the LFB? Is it at Sigma 6 or events far rarer than that? This should have been a discussion at Stage 1a. There is nothing in the HMICFRS report to suggest that this debate happened.

- Secondly, and linked, there is the *Problem of Induction (see my Glossary).* In brief, this concept considers how the repeated absence of evidence leads decision-makers to believe that the phenomenon does not exist or, at a minimum, is not worthy of further consideration. As the Shuttle had not crashed into the Shard and considering how rarely a plane has crashed into a built-up area, this may have induced the LFB to think that the risk was not worth further consideration. The specifics of the case are not the issue here. The issue is to prompt all organisations to reconsider which risks they have discounted, to distil them from a specific to a generic (in this case the specific, the shuttle hitting the Shard, become the generic of mass casualty search and rescue in a high threat environment) so that a generic response can be devised.

- The problem of induction then leads to the limitations imposed by the cage of expectations. Prior to the events at Grenfell the leader of the LFB and the members of their funding body would have limited their expectations to what could be achieved within the anticipated resource limits. These, probably sub-conscious, constraints, will have limited the scope of their thinking for what they should be prepared to handle. In this case, the HMICFRS report states £7.7m of additional resources have been allocated to the LFB subsequent to the events at Grenfell.

- The cage of expectations also effected a second failure of imagination. This is where the scope of the scenarios envisaged and the related practices are limited to those with which the organisation thinks it could cope. This seems to be the case with the UK Government limiting its pandemic preparation to flu rather than "Virus X". It may or may not have been a factor at Grenfell but, as this idea was not explored, this remains

unclear. This behaviour is consistent with a human tendency to be *wilfully ignorant (see my Glossary)* for the sake of the psychological comfort of individuals within organisation. This is where the use of a model, such as DIT Stage 1a, can help organisations to see the flaws and gaps within their analytical processes so that they, at a minimum, might ask themselves why they are limiting their analysis in the way that they are.

- Finally, while poor leadership may have been the cause (and whether this occurred is outside the scope of this essay), bureaucratic drift, as an important pressure on decision-making, cannot be ruled out. A common pattern of activity that develops during Stage 2 (the incubation period) is that initial good intentions are systematically undermined by everyday resource pressures. As issues slip from the short-term organisational memory, the issues identified receive lower priority for the allocation of resources (such as time). There is nothing in the HMICFRS report to suggest that debate occurred on how this drift might be avoided in the future.

Within the Perfect World Paradigm, it is common to see all organisational failures as a failure of leadership. I would see the decision to remove the LFB's Chief Fire Officer as being rooted in the "omnipotent leader" component within the Perfect World Paradigm. Changing the leader is a common "go to" fix employed in these circumstances. The fact that Danny Cotton was only confirmed in her post on the day of the Grenfell fire would suggest another serious organisational failure. If she was not fit for role, why was she selected and had so recently been confirmed in the role? This would suggest a major failure in the organisation's selection process, this issue was raised in neither the Moore-Bick nor in the HMICFRS report. Again, the specifics of this case are only illustrative of the point that concerns the '*seat of understanding*' of those conducting these investigation as they did not conduct a multi-level analysis of the issues raised. Here again the proper use of analytical models might have prompted these questions. The need to conduct multi-level analysis is best described by Leveson in her STAMP model: Scott Snook describes the implementation and implication of such analysis in his very readable book "Friendly Fire". Within the Normal Chaos model, the same issue is embraced by the concept of scale. Whatever method the analyst uses to prompt their thinking, it is unlikely that they will get to the root cause of an issue if they do not do so.

So, what was the nature of the crisis? The precipitating event (DIT Stage 3) was the fire at Grenfell Tower. This resulted in a high tempo operation that stretched the organisation to the limits of (and maybe even beyond) its capability (Stages 4 and 5). Within the definition of an organisational crisis (defined as events that threaten the existence of the organisation or the tenure of the executive team), we can see that the Grenfell fire did create an organisational crisis for the London Fire Brigade. While it did not threaten the existence of the organisation, it did lead to the removal of the Chief Fire Officer. In my view, the LFB failed to recognise the true character of the organisational crisis and so failed to manage it effectively; for example, the complete lack of effective crisis communications during Stages 6, 1 and 2. For the HMICFRS, the nature of the crisis appears to have been clearer. Their efforts to reassure the public with both the report and interviews on the day it was published seem to have provided small steps in their crisis communications plan. However, neither seem to have bridged the gap between them and the public perception of the crisis; in terms of the public, the crisis was the fire. The gap between these two worldviews offers an example of why consideration of this issue is import in crisis management.

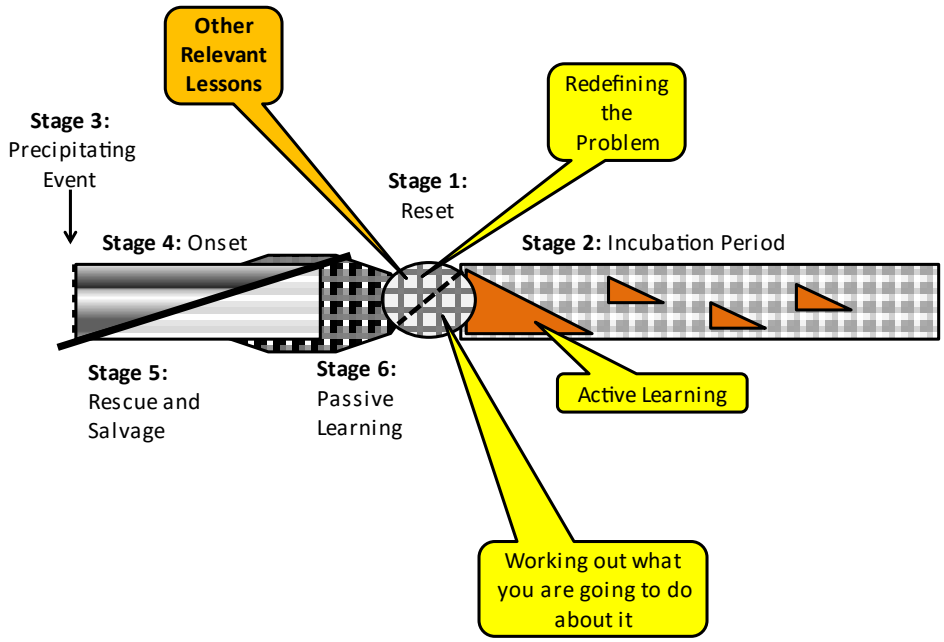
Experience shows that in the immediate aftermath of a crisis, organisations are alert to the issues raised and are active in preventing them. The point highlighted by DIT Stage 2 (the incubation period) is that, over time, the measures taken become diluted and so opportunities for the next crisis emerge. The organisation's guard against this drift are their internal and external quality assurance systems. It is therefore important, if such events are never to happen again, to ensure the appropriate assurance systems are in place, properly focused and heeded. It is not possible to know from these reports whether the LFB is typical of fire services across the UK. If it is not, then the question becomes one of why did the HMICFRS not prevent the LFB operational standards from falling below the expected standard. This case highlights the role of quality assurance during DIT Stage 2. In crisis prevention, the generic question raised for organisations is how they determine where they have gaps in the quality assurance systems that may lead them to future failures. In an imperfect system, the question becomes what efforts are being made to spot these potential points of failure and how to cope should they occur.

Conclusion

To make sense of any situation, we contrast what we see with what we would expect to see. What we expect to see is labelled as being your mental model (more technically, it is also referred to as being a paradigm or lay theory). Whatever it is called, the model used influences what we expect to see and the way we expect things to evolve. As there are alternative models, those involved in any analytical process must be aware of the model they use as it will influence the recommendations produced and the way they are implemented. What they must ensure is that there is a coherence between the way they see the world and the actions they plan to take.

This essay offers a reconfiguration of Turner's DIT as a way of shaping the model we use for how we learn from crises. The reconfigured model places learning at is centre. It now starts with the event that precipitates learning (Stage 3). As before, Stages 4 and 5 cover the forces that perpetuate the crisis and those deployed to regain control. In Stage 6 we look to learn from the event through both formal and informal inquiries. This provides the passive-learning phase and should be relabelled as such. This is followed by Stage 1; this is where this reconfiguration sees the greatest clarification in the model's use. Stage 1 is the time at which the organisation resets both its understanding of the problems it faces and the way it intends to manage them. It would therefore be appropriate now to relabel Stage 1 as "Reset". Stage 1 can be seen to be made up of two parts. Stage 1a is seen as being the time when double-loop learning comes to the fore. It is in Stage 1a that the organisation should collate learning from all the available sources and evaluate these lessons against any changes in the operational environment since any previous review was conducted. It is at this stage that the organisation needs to identify the full range of activity needed to ensure a link is made between proposals offered and the outcome desired. Only once this has been decided should the organisation move on to Stage 1b. Stage 1b is where the organisation decides on the changes to be made and how this will be done. In terms of this reconfigured DIT model, the implementation of the changes (the active-learning) will take place alongside continuing routine operations: this activity is all seen as being part of Stage 2. It should be noted that prior to the next crisis, organisations are likely to implement much change, some of which, no doubt, will contribute to the next crisis. These adjustments to Figure 1 can be found in Figure 2 below.

Figure 2- Visualizing Disaster Incubation Theory *Organisational Learning*



The Grenfell case, selected only because it was current at the time of writing, offers examples of all the issues that, to me, are typical weakness of the process of learning from crises. These are namely:

- The unwitting use of the perfect world paradigm during Stage 6 based on the notion that the system can be perfected so that similar events will never happen again. This is followed by pragmatic sufficing during Stage 1 which implicitly accepts that the system is imperfect thereby creating the conditions through which the next crisis will emerge. This obvious inconsistency in approach not only will lead to incoherence in the problem-solving approach, it will also set up a dangerous expectation in the public.

- The message being sent out during the public inquiry is that, if these recommendations are enacted, then the system can ensure a similar event will never happen again. The public are led to believe that perfect systems are possible. The pragmatic implementation programme however accepts that a perfect system is not possible (due to the complexity of the system) but it does not then manage the public's expectations. Therefore, when the next problem occurs the public has a heightened sense of grievance as they had expectations of lessons being learnt and of the system being perfect. The immediate narrative for the new crisis then becomes one based on incompetence and blame. This failure to manage public expectation is a significant failure in both crisis and risk communications.

- The pragmatic and political imperative placed on organisations to be seen to "get something done" often means they do not take the opportunity to conduct a full reset. This appears to be also true in the Grenfell case. The LFB seems to have skipped over Stage 1a and moved directly to Stage 1b where they considered how to implement the necessary changes. They seem to have taken the Moore-Bick recommendations at face value without considering relevant lessons learnt from elsewhere. This means that

there will be holes in the organisation's knowledge of both the problems they face and in the solutions they devise.

- While the perfect world paradigm offers an alluring illusion, any gap in the organisation's knowledge ensures that their systems will never be perfected. However, the failure to recognise that the underlying mental model is based on this paradigm means that organisations will look to find one-off 'silver bullet' solutions to their problems. They will be tempted to see their problems as something to be solved rather than something requiring constant adjustment and therefore resilience. In turn, such resilient systems need active management and assurance processes. Normal chaos, rather than the perfect world worldview, is more naturally aligned with developing a resilient system.

Therefore, in summary, I offer the reconfigured DIT model as a framework for thinking about learning from crisis as it places the learning component of the model at its heart. Of equal importance to the DIT framework is the way those involved in any such analysis assume that the world works (the paradigm used). While the perfect world paradigm has the advantage of simplicity, it fails to take into account the true complexity that exists in any system; this creates opportunities for the next disasters to emerge.

While we seem to readily accept shortcomings in our equipment and process, we also need to recognise flaws in our mental processes. The way we look at and analyse the world around us affects the way we see and appreciate what is happening around us. Weaknesses in this process are part of the reason organisations drift towards the next crisis during DIT Stage 2 and thereby set the cycle of learning (or in truth, the failure to learn) in train again.