Are There Really Foxes: Where Does The Doubt Emerge?

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ABSTRACT:

This paper uses a model of doubting to demonstrate why a long term eradication programme has faced so many complex problems in its implementation. Analysis of a qualitative case study of the Fox Eradication Project in Tasmania identifies aspects of accuracy, source and relevance, demonstrating how the credibility of new triggers is undermined, thereby enabling individuals to maintain their current mental model rather than accepting new knowledge to adapt or amend it. The analysis illustrates how doubt can be managed either through prevention, perturbation or boundary spanning. It is suggested that the process of establishing what is leading to doubt enables a change manager to consider alternative communication and implementation strategies which directly address the alterations of mental models.

Keywords: *Doubting, Boundary spanning, Managing change, Organisational learning, Adaptation, Mental models*

1. Introduction

In 1998 a fox was seen walking off a ferry in Burnie, Tasmania setting off alarm throughout the state. Despite a concerted effort to catch this fox, it was never found (Saunders et al., 2006). In 2001 there were reports of foxes being imported into the state in 1999, 2000 and 2001 (Saunders et al., 2006). There were also numerous fox sightings and, as a result of the apparently increasing evidence that there were foxes in the state, the 'Fox Free Tasmania Taskforce' was set up to find and kill foxes in Tasmania (Saunders et al., 2006; Bryant, 2002; DPIW, 2008). It was set up as a branch within what is currently the Department of Primary Industries, Parks, Water and Environment (DPIPWE) (then the Department of Primary Industries and Water (DPIW)) and has existed in different forms since then, most recently it has become one part of the newly created Invasive Species Branch. The continuing evidence of foxes was of great concern as the fox has caused serious impact upon the native wildlife of Australia, being held responsible for the extinction of many species. Tasmania has several unique species which would be seriously threatened should the fox population grow (Sarre et al., 2007; ISB, 2012). There was, however, an ongoing discussion as to whether there was irrefutable proof that there really were foxes in Tasmania despite regular reports and reviews that found that there were and the problem needed urgent attention (Saunders et al. 2006; PAC, 2009) with several high profile voices raising doubts as to their presence (Marks, 2010; Obendorf, 2010).

In 2006 the renamed Fox Eradication Program (as it will be referred to in this paper), was provided with the clearer remit which was to eradicate foxes in Tasmania. Eradication action under that program took the form of baiting (with the poison 1080) 1080 is the bait used in areas of Tasmania in which high numbers of fox sightings were recorded. 1090 was buried for foxes to find for a limited period of time. However, it causes great concern for many as it was historically used by Forestry and Parks departments in ways that were described by some as indiscriminate and poorly administered to clear areas of local fauna. There are fears for the effects on domestic pets and other indigenous animals. It is largely being phased out from use and its continued use for fox eradication is a concern for many. This approach was later supplemented with baiting around 'hard' evidence of foxes identified through the DNA analysis of fox faeces (Sarre et al., 2013). In 2009 a review by Landcare Research New Zealand recommended that this approach should be changed to establish a major baiting front across Tasmania which would place all foxes at risk of exposure to the poison. It was stated that the program should stop worrying about whether there were foxes (still a matter of significant concern within sections of the community), as the evidence was clear that they were there; rather, the focus should be about eradicating them before it was too late Landcare Research New Zealand, 2009 . However, the program was hampered by ongoing concerns raised within the community regarding both the necessity and the efficacy of their actions, as not all were as convinced by the evidence as the Landcare Research New Zealand review panel:

> *"We suspect a fair part of the effort of the team has gone into the debate with sceptics who doubt the existence of foxes in Tasmania – now surely resolved by the ongoing DNA evidence for all but the most ardent conspiracy theorists."* (Landcare Research New Zealand, 2009: 31).

In this paper, we are not concerned with whether there are foxes in Tasmania or not; rather we are interested in why, despite apparently strong scientific (Sarre et al., 2013; Berry et al., 2007; Saunders et al., 2006) and anecdotal evidence over the last 10 years, there are still high levels of doubt within the Tasmanian community. This doubt matters because the substantial amount of time spent trying to change the belief sets present within the community is slowing the ability of the Fox Eradication Program to achieve their goals. In other words, they cannot get 'Buy In' to the changes and ideas because of the ongoing doubt.
We will firstly outline a model of doubting developed by Blackman and Henderson (2004) explaining the possible triggers for doubting and their potential impact upon community perceptions. This model will then be applied to data collected in a project seeking to determine how similar events could be better managed in the future. We conclude by arguing that using such a model earlier in the program's history might have enabled alternative viewpoints to be more clearly recognised and alternative ways of communicating and managing the program to be considered. We will argue that understanding this case and applied theory will help to explain failures in change implementation and enable alternative strategies to be elaborated.

2. Precursors Of Doubt

The ability of an individual to make informed judgements on any topic is affected by their mental model of the world and how that is developed over time. Mental models are a means by which organisations and individuals create and share meaning, thereby

enabling common understanding and the development of knowledge (Hill and Levenhagen, 1995; Hayes and Allison, 1998; Flood, 1999; Pruzan, 2001). The mental models provide frameworks of value and belief systems which act as the basis for formal analysis, policy and procedure development and cultural development for both individuals and groups (Caldwell et al., 2002; Smith, 2002; Swaaet al., 2002). They can act as a context for the interpretation and understanding of new information (Kim, 1993; Doyle et al., 1994). Such understandings support learning and act as a framework for all new knowledge development. These systems of understanding become the extent of the individual's bounded rationality (Simon, 1991) and actions emerge as a result of the mental models currently held. Consequently, for new learning to occur, individuals need to be aware of any stimulus generating a perception of difference between mental models (Klimecki and Lassleben, 1999). This process is described in Figure 1. Once an individual perceives a difference, he/she will rationalise it and, if accepted, this new stimulus will be internalised and the individual's mental model will be adjusted.

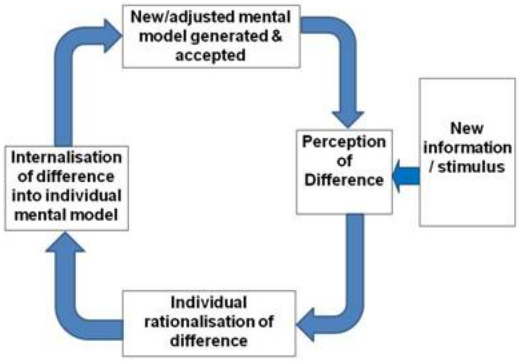

Figure 1: Mental Model Adjustment (Adapted from Blackman and Henderson, 2004, p. 260)

This view of a mental model as a framework for new knowledge development means that it could also act as a closing mechanism. Blackman and Henderson (2004) argued that although the difference may be perceived, the way that it is accommodated may not lead to change. Where a difference is perceived it may be that, instead of rationalising and accepting the new information and considering what can be learnt, the difference may be doubted for some reason, usually the source, the context or the relevance; thus, the veracity of the idea will be undermined and the difference rejected (Blackman and Henderson, 2004; see also Lee-Kelly et al., 2003) as in Figure 2.

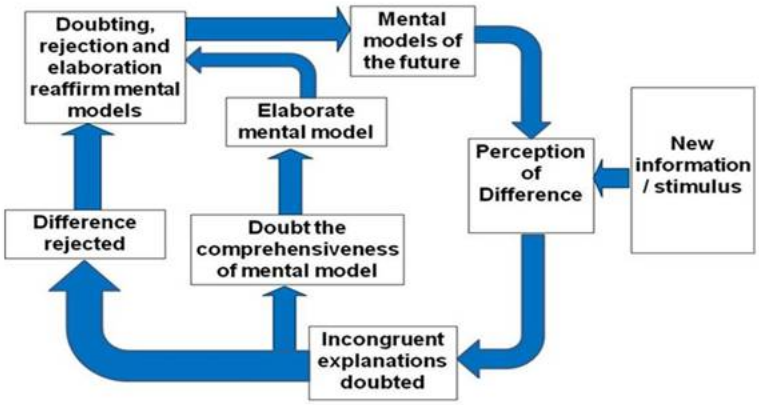

Figure 2: Single Loop Doubting (Blackman and Henderson, 2004, p. 261)

In theory, based upon the process identified in Figure 1, any new stimulus offered to an individual will lead to some form of change. However, this presupposes that the system is 'open' to all new ideas and that any stimulus is automatically assimilated into a mental model which will then be changed. It has been argued (Ackoff, 1971; Blackman and Henderson, 2004; Jones, 2005; Kast and Rosenzwieg; 1972) that in fact many systems are 'Simultaneously Open and Closed'; this is where, in cognitive terms, the brain receives the signals but, rather than simply accepting the new stimulus (and, therefore, being open) it assigns meanings constructed from previous experiences and, consequently, may reject some ideas or reframe them in some way. This leads to the process of doubting as shown in Figure 2 where the stimulus is detected as being incongruent with the current mental models. One of two things will then happen: either the existing mental model will be doubted and the new information used to elaborate or change the model, or the difference will be doubted and a reason found to reject it, thereby preserving the mental model intact. Blackman and Henderson (2004) identify three sources of doubt: accuracy, source and relevance.

2.1. Accuracy

In this case the individual finds evidence within their current mental model which permits them to reject the new evidence. Examples of this can be seen in the climate change debate, where individuals from both sides of the debate continually use their evidence to show how their view is accurate and the alternative explanations are invalid (Boykoff and Boykoff, 2004). Considerable effort can be undertaken to make it permissible to reject the new information rather than to accept or assimilate it.

2.2. Source

Doubt emerges where, for some reason, the person receiving the stimulus has apparent cause to mistrust the source of the new stimulus. There is evidence of this problem within the 'knowledge stickiness' literature where Szulanski (1995, 2000) demonstrates that mistrust of an individual or entity, based upon a previous encounter, leads to the subsequent rejection of any ideas from that source.

2.3. Relevance

An individual may choose to doubt or reject a new stimulus because they consider it to be irrelevant to them in some way. It is not pertinent to their thinking at the time and, consequently, gets ignored. This happens when an individual is scanning their environment for ideas or news and, in certain cases, simply overlooks evidence because it does not seem to be important to them.

What we will show in this paper is how individuals and groups have reacted in these three ways over a long period of time, in ways that enabled them to doubt the veracity of the existence of foxes in Tasmania. All three forms of doubting have been manifested during the life of the program, enabling existing mental models to be elaborated and reaffirmed, rather than the creation of new ones. After demonstrating the existence of these forms of doubting we will then discuss the implications for future projects where acceptance of new ideas into a mental model are an important precursor for effectiveness of applications or change more generally.

3. Methodology

As indicated above the Fox Eradication Program has been in existence, in one form or another, for over 10 years and yet there is still considerable debate in Tasmania as to: (a) whether there are foxes (Marks 2010; Smith, 2011; Sully, 2009), (b) whether money should be spent eradicating foxes (Bungey, 2012), (c) how foxes should be eradicated (Obendorf, 2010; Marks, 2010) and (d) if it is already too late (Landcare Research New Zealand, 2009). During this time the program has regularly been reviewed (Bloomfield, 2003; Kinnear, 2003; Saunders et al., 2006; Landcare Research New Zealand, 2009; PAC, 2009) and each time the findings have shown that there is enough evidence to continue. Despite this, the debates continue. The data used in this paper come, not from a review of the fox program in terms of its efficacy of eradication, but from a project looking at possible lessons that could be learnt in the future management of an invasive animal incursion elsewhere. The objective was not to determine the presence, or otherwise, of foxes but rather to determine if the eradication program could have been better managed and, if so, how.

Such a project required knowledge and appreciation of the different perspectives of a range of stakeholders; this, plus the sensitive nature of the topic in Tasmania led to the development of a qualitative approach to the data collection. The exploratory nature of the study required a qualitative approach (Creswell 2003; Crotty 1998). A case study approach was chosen following Yin (2003a; see also Tellis, 1997) who argues that they are particularly appropriate where the observer has access to a novel, previously unexplained phenomenon. The purpose of the case study was to provide insight into the issue, thereby enabling deeper understandings of the governance issues within the organisation and the way that the various stakeholders perceived them. In this case, it is not the comparison of data with other organisations that gives it meaning (although looking at governance in other situations is useful), but comparison with current theory and the ability to develop novel ideas from the data (Eisenhardt, 1989; Yin, 2003b; Stake, 1995). This fits with the current research purpose, which is not to generalise from this single case but to develop theory which might contribute to better management of pest incursions in the future.

Data collection was twofold: first, an in-depth documentary analysis of all the reports, reviews, media releases, press reports etc. relating to the program over its history in order to (a) develop a clear timeline, (b) determine the decision points during the case history and (c) sensitise the researchers to the range of viewpoints and arguments that have been made during the period. Second, semi-structured interviews were undertaken with a range of stakeholders. 42 interviews took place over a one year period (see Table 1*).

Stakeholder	**Number** *Some people are represented in more than one area.
Members of the Technical Advisory Panel (TAP)	5
Members of the Stakeholder Reference Committee (SRC)	2
Non-FEP Members of the Management Committee	2
Fox Eradication Program (FEP)	24
Fox-Free Taskforce (FFT)	12
Senior DPIPWE staff	2
Members of the Public Accounts Committee (PAC)	2
Key doubters	3
DPIPWE Communications	1
People who conducted a review of the Fox-Free Taskforce program	2
Member of the community who has had no involvement in the issue	1

Table 1: Details Of The Interviews

Although it may appear that the community is less well represented here, analysis of reports included two community surveys and many representations from community to formal reviews such as the PAC and informally via the local newspapers. All the interviews were de-identified, transcribed and entered into NVIVO and the data were analysed both thematically and axially (Pandit, 1996). From this, combined with the documentary evidence, it became clear that a range of doubting behaviours were being demonstrated and the doubting framework was then specifically applied to the data. What is important, and will be seen below, is that many of the stakeholders were in agreement in terms of what led to doubting emerging through the case history. We use quotes below to indicate themes and ideas rather than as indications of the number of times that ideas were cited.

4. Findings

4.1. Accuracy

The fundamental issue in terms of accuracy was whether there are foxes or not and this is still a heavily debated issue within Tasmania. Analysis of the interviews and the documentation indicated that the accuracy of the science and the information provided was doubted in several ways. Some of the issues were the differences between what was initially explained as being the outcome of having foxes and what had then transpired. There had been explanations as to what would happen with chickens being killed and other events but "*We're not seeing chooks getting killed in any great quantity"* (FEP) and so there was a discrepancy allowing room for doubt that foxes exist; *"I've got people I know who live in rural and semi-rural areas who have chickens and such like and nary a sign of the red tail or evidence thereof"* (Community).

Not seeing foxes has continued to spark concern, especially as "*we've had hundreds of cameras out there ... now the good news is they haven't seen anything. That's really good news. But of course we get attacked because they haven't seen anything"* (FEP). However, it enables the media to report the lack of sightings.

Credibility of the evidence has been an issue and there have been reported problems with the robustness of the data. According to some interviewees from both the FEP and the doubters, early on the 'chain of evidence' was not as robust as it could have been and this was widely reported. Consequently, some of the 'proof' has been challenged because of the way it was collected or stored, enabling people to doubt if a carcass was a fox, if it was really killed locally and so on (IACRC, 2006: Marks, 2010). There are still issues currently and one interviewee stated that *"we've got people criticise it* [DNA evidence of populations] *on the grounds that – the word being used now is easily transportable* [i.e. fox scats could easily be planted, even brought into Tasmania] *which is what they are basically saying"* (FEP).

There are also concerns because the science seems to change; it is both developing and new and so the question is raised as to whether it is 'true' or just an unfounded experiment. The scientists find it normal that they will develop ideas over time, but for the lay people the developments of 'faecal' DNA testing and apparent changes in the level of activity they could expect to see, led to enough confusion to create doubt.

Money is another area where there is enough discrepancy to lead doubt: *"So it's a $5 million-ish program. Compared to a species eradication program, that's actually not very much money at all"* (Senior DPIPWE staff) *"It's just that for them to continuously say, 'Well they've spent 30 or 40 or 50 million', when it's to date over a decade been about 21 of combined state and Commonwealth"* (FFT/ FEP). There figures circulated in the Media are continually different from the officially reported figures and, despite the more formal nature of the reported figures, the reality is that most community members assume the higher numbers are nearer the truth. It gives credence to concerns over both the actual governmental spending and the trustworthiness of politicians, thus fuelling the next cause of doubting; the source of the ideas.

4.2. Source

This element of doubting deals with the source of the information. Szulanksi (2000) argued that where the source of new knowledge was not perceived as reliable, perhaps because they are thought to have their own agenda, or to have a history of not being truthful, there is likely to be resistance to accepting ideas from them. In this case it means that because of who is providing the stimulus to change, the individual will not alter their mental model. The first problem in Tasmania is that there is considerable distrust of government in general and so there is generally scepticism about what they say; almost all the interviewees mentioned the lack of trust in government as a matter of fact and an integral part of the Tasmanian context. A recent survey into community attitudes undertaken by the FEP demonstrated extremely low levels of trust in all three levels of government. The FEP itself was assessed on a par with local government and more trustworthy than the wider State Government and the Commonwealth. Moreover, there was concern about the original location and format of the Fox Free Taskforce: "*Now they initially put this project with National Parks – a bad mistake"* (FFT/ FEP); *"There's the fact that the Program was initially run by Parks and a lot of people have had issues with Parks and Wildlife Service or a lot of people just have issues with government employees in general"* (FEP). Concerns were also raised that there was not enough commitment made to the program early on when it was needed: "*... the government dilly dallied about its actions and it did not make any commitment to a program that was likely to be successful*" (FFT).

In the early days the team was seen to be unprofessional and unreliable making it easier to ignore them. There was a view described as "*We're spending lots of money and they've got cars and guns and uniforms and here we are trying to do whatever we're doing as general public and these guys are off gallivanting around and having a good time"* (Senior DPIPWE staff). Hunting is a popular sport in Tasmania and it seemed to some as though the members of the Task Force were being paid to have fun with their new cars: *"they gave these blokes guns and big cars, big black cars"* (TAP). This reduced the credibility of the new information.

Another major issue is the portrayal of the program in the media. It is argued that the message passed on to the community is negative: *"So that's you know ... at worst it's a different scientific opinion and they're accusing us of bad science, is what they should be able to do. But they don't say, "You have bad science. You did that autopsy poorly. You recorded things poorly," whatever. They say, "You fabricated it." And no one comes back to defend us"* (FFT/ FEP). *"We're still, after eight years of the*

program, having to justify the existence it - now, we don't have to justify it to the three parties, or the state and the Commonwealth governments, they're on board. What is it about the media that is still like a dog with a bone … the Stateline started with "Are they here, or aren't they?" (FEP). In a time when most people use TV or newspapers as their sources of news and information, the fact that they almost always contain a negative perspective on the program inevitably leads to doubt. This was amplified by a departmental strategy of not automatically responding, which meant that not all the voices were heard equally. One member of the FEP felt that there needed to be more communication earlier to try to overcome this form of doubt: "*The other thing too is that when we have gone on the front foot with proactive media-like community engagement issues and that I still think it's not done far enough in advance. You're almost giving people this is what we're going to do, without having given them sufficient lead time to understand the problem" (FEP).*

Overall, there were enough dissenting voices and concerns about who was doing what to enable individuals to reject the new ideas and the reality of foxes. Over time ignoring the issue becomes the norm, increasing the likelihood of the third form of doubting, as the debate and the apparent outcomes lose their relevance.

4.3. Relevance

For many the issue of foxes in Tasmania is considered to have little bearing on their real lives and they feel scant connection with the matter at hand. Government responded before a crisis manifested itself, leading to the ongoing ability to assume that the threat may not be real. However, where there are related matters which have a negative history, they then reflect upon the issue imbuing it with more concerns and doubt. A major example of this is the use of 1080 fox bait: "*Some of it's related to 1080 baiting and 1080 creates this extraordinary emotional impact within this community. And again they're sort of forestry related because they now have this history of using huge quantities. Well not all that huge, but believed to be huge quantities of 1080 indiscriminately in Forestry. We get tarred with the fact that the only reason we exist is to ensure that Forestry can actually continue to use 1080"* (FEP); *"They hate 1080 because Forestry has traditionally used 1080 against native wildlife and a lot of people hate Forestry so they hate 1080. 1080 is just a way of bashing up Forestry. And also most of these people who hate 1080 are dog owners, so it's just this package that's intense here – other parts of the country and New Zealand as well, but it's very intense here. And people refuse to be educated about 1080. They refuse to read about it or do anything about it. They just imagine it's a kill-all, deadly… like krypton for Superman type thing. And people just won't hear anything else"* (FFT/ FEP).

Another concern is whether it is still really a problem: the argument is made how it can still be relevant when there is no new evidence: *"…something could be produced that I would see as credible. It doesn't have to be a movie, but certainly something that has a higher level of credibility than has been produced to date. And it's been going on for so long"* (Community); "*an underlying belief in certain sectors of the community that unless we can produce bodies clearly there's nothing here to be finding"* (FEP). So as time goes on the level of interest wanes and the information is often just ignored: "*apart from the occasional media piece it's just not on my radar"* (Community). From time to time the media will rekindle some interest (usually in a form that encourages a different form of doubting) but, for many, unless something new emerges foxes have become irrelevant.

Type of Doubt	What is Doubted	How
Accuracy	Science	The data are challenged because of the way they have been collected or stored
		Credibility of the evidence
		New science so is it 'true' or just an unfounded experiment
	Outcome	The likelihood of eradication is questioned
Source	Fox Free Taskforce	The early team was seen as 'gung ho', unprofessional and unreliable
		Doubters make arguments against the team
		Team is accused of 'making it all up'
	Government	Tasmania has a history of mistrust of government
	Media	Mostly negative press supporting doubters and encouraging doubt
		Always questioning 'are there foxes in Tasmania'
	Scientists	Seen to be pushing the agenda for their own gain
		Not seen to 'prove' the issue
		Lack of response or 'push back' to media stories led to assumption they were accurate
Relevance	1080	The use of 1080 leads to mistrust and a view that this is an excuse to use it
		Causes confusion about its use and concerns over dogs etc.
	Currency	People argue that they cannot see evidence and so not happening now so not interesting

Table 2: Examples Of Forms Of Doubting Applied To The Fox Eradication Case Study

Table 2 summarises the ideas outlined above demonstrating what is doubted and how this was emerging for each of the types of doubting. What we now consider is what we need to learn from this.

5. Discussion

The findings clearly show that there is evidence of all three forms of doubt within the data. The result is that it becomes possible for members of the community to consistently resist adapting their mental models to incorporate an acceptance of the existence of foxes in Tasmania and the need for an eradication program. The importance of this is in considering how to change this behaviour and reduce the levels of doubt developing. The first issue is to be aware of the possibility of doubt and how this prevents the assimilation of new ideas into the mental model. Over time the original model will get stronger and thus the likelihood of doubt emerging increases. We propose three ways to manage such doubt: prevention, perturbation and boundary spanning.

5.1. Prevention

Prevention, whilst optimal will always be difficult to achieve. In the case of fox eradication in Tasmania it would have involved full explanations of the science being understood and accepted by all stakeholders, along with high levels of trust between all the parties. Systems and processes set up at the outset needed to be robust and fully defensible at a later date. At the time of its inception the Fox Free Tasmania Taskforce was expected to be short lived and so it is easily explainable why time was not taken in developing such systems, but it can now be seen that an assumption of longevity when setting up a taskforce, special project or temporary team is critical for the future credibility of such a group.

A lack of trust, as was evident in this case between the community and government, as well as the sceptics and the FEP will always reduce the effectiveness of communication and subsequent knowledge transfer (Goh, 2002; Levin and Cross, 2004; Szulanski, 2000). Whilst it is understandable that the government felt they should not engage in confrontational dialogue with the critics, by not doing so it fuelled suspicions that there was substance to the accusations and claims. As early as 1956 Mellinger demonstrated that a lack of trust would reduce the efficacy of communication. Tway (1994) defined trust as being ready to interact with someone or something and developed a model of trust which included three components: the capacity for trusting by all parties, the perception of competence of all parties, and the perception of mutually serving intentions. This last could be seen to manifest as serving the common good and so, if this can be demonstrated and supported, it might be a way to overcome doubt.

These ideas help explain the doubt in this case as all previous experiences in Tasmania had made the propensity for trust weak. There was a perception of incompetence rather than competence and, although initially there was enthusiasm for the program when it was first identified as a need (Courtney, 2002; Bryant, 2002), a view of the program and those working within it working for themselves rather than the wider community encouraged a break down in trust. In such a situation the potential for doubt was strong.

5.2. Perturbation

A perturbation is a disturbance of some kind which alters the current state and equilibrium. In this case we argue that once doubt has developed, to overcome it there must be a managed perturbation which will enable trust to be re-established and a reopening and elaboration of the mental models. A successful perturbation will need to reflect Simon's (1991) work on Bounded Rationality as, if there is no connection between the new communications and the individuals current mental models, any potential perturbation will simply be ignored.

It is important to consider what form of perturbation could have changed the path of the Fox Eradication Program. Clearly, more dramatic evidence such as the discovery of a credible fox carcass or identifiable pictures in key locations would act as a perturbation but this cannot be predicted; indeed for those involved such evidence is indicative of failure. There will need to be something that enables one, or all of the sources to be reconsidered. Most importantly, it cannot merely be more of the same evidence. Whilst the original scat evidence (Sarre et al., 2007) was able to create a perturbation, particularly within government, and provide greater impetus for the Fox Eradication Program to develop its plan, comments attached to recent reports of two new scats (Naidoo, 2012) demonstrate that all they do is enable the same conversation to be repeated – it does not change the dialogue in any way (Table 3).

Just two sets of scats? Did these foxes just fly into Tasmania for one day or were the scats blown across Bass Strait by the recent strong winds.Or, is somebody cheating? *Posted by:* ***John Williams of Hobart*** *05:08pm Monday 19th March*
If anyone rips off Centrelink, there is big trouble. Now the fox farce force is ripping off Canberra, what is going to happen? Come-on Mr Wilkie, ask a few questions next time you are there. *Posted by:* ***Don Rumney of Acton*** *03:21pm Saturday 17th March*
Forde M at 11.11 am Friday 'small numbers' of DNA-fox containing scats but none linked to actual foxes anbd no to scats from the same fox. Justifying the fox eradication program as a precaution for the release of multiple foxes might have been acceptable for 3, 4, 5, even 6 years but without any authentic proof of foxes established in Tasmania after 11 years? When does DPIPWE and the Commonwealth rethink its 'war on foxes'? *Posted by:* ***DAvid Obendorf of West Hobart*** *11:29pm Friday 16th March*
Better to pay a smaller amount of money now that suffer a huge financial loss if a fox population gets established. That's the difference between here (small numbers) and Melbourne (established population). Look at rabbits, I'm sure in 1793 you could walk around Sydney and barely see one. Risk Management 1A - but of course the luddites can't plan more than 2 weeks ahead so you call for the problem to be ignored! *Posted by:* ***Forde Montgomery of Fitzroy*** *11:11am Friday 16th March*

Table 3: Examples Of Responses To The Two New Scats Reported

This exchange of views demonstrates that more scats will not actually be a perturbation and are unlikely to change the pattern. Possibilities for change might emerge from changing the discussion with the community, altering the way the program is run, finding other sources for trust etc.. The answer is complex but what will not work can be established – merely pushing back in any of the areas in Table 2 will not be enough: for change there must be a new form of conversation delivered by people who are seen as

reliable and credible. The recent change of leadership, baiting strategy, name change and focus of the work may help, but only if different dialogues can be developed. The crucial aspect is to prevent the only conversation being a rerun of those already displayed large in the media.

5.3. Boundary Spanning

The data indicates that the strong set of mental models held by each of the different stakeholders become boundaries around a set of knowledge and the doubting process is reinforcing this. Such boundaries emerge where there are divisions of social structures, differentiating roles, actions or, as is the predominant situation for this case, specialised domains (Aldrich and Herker, 1997; Carlile, 2004; Hazy and Tivnan, 2003; Star and Griesemer, 1989); the boundaries are creating a barrier between the groups who need to work with each other in order to integrate their different fields of knowledge if there is to be effective eradication. Hazy and Tivnan, (2003) argue that the ability to undertake boundary spanning activity directly impacts upon an organisation's ability to effectively deal with change, especially in a dynamic or uncertain environment. The more context specific the knowledge, the greater the need for parties to transfer, translate and transform it across boundaries created within their specific domain by the differing languages, assumptions, goals and objectives.

To overcome the doubt emergent in cases such as the Fox Eradication Project in Tasmania we propose that the boundaries emerging between the differing stakeholders may need to be managed in such a way as to make them permeable to new knowledge and receptive to change. We argue that, once an analysis of any given situation indicates that doubt is a real possibility which will, therefore, lead to string boundary creation, boundary spanning activities will need to be considered.

Boundary spanning is where individuals with specialist skills actively manage actively manage across the boundaries (Aldrich and Herker, 1997); the skills may be technical and allow translation of ideas between groups, or they may be individuals skilled at facilitating between different parties. In either case they will undertake cooperation, collaboration or coordination activities in order to achieve mutual understanding and necessary outcomes (O'Flynn et al., 2010). In the case of the Foxes project community engagement was seen as a cooperative activity at best where information was shared in order to gain support. By recognising the need for boundary spanning earlier, a more collaborative approach might have been adopted actively seeking the help of community rather than mere acceptance of the project and access to property. Such approaches have been used effectively in other pest eradication and management projects and our data explains why this approach has had better outcomes. Utilising a boundary spanning approach might enable the prevention strategy outlined above or it would provide a potentially more effective approach to ongoing project management where there are conflicting stakeholder views.

6. Conclusion

In this paper, we have used a model of doubting to demonstrate why a long term eradication program has faced so many complex problems in its implementation. Issues of accuracy, source and relevance are shown to undermine credibility of new knowledge triggers enabling individuals to maintain their current mental models rather than adapt or amend them. This explanation offers insights as to how to develop strategies which could lead to mental model revision considering the usage of prevention, perturbation or boundary spanning strategies to better manage doubt. We argue that the ideas presented here are equally applicable to other areas of change where there needs to be 'buy in' from individuals if there is to be movement. The process of establishing what is leading to doubt enables a change manager to consider alternative knowledge transfer, communication and implementation strategies which directly address the alterations of mental models. We suggest that this is an under researched area within the change management literature and that by focussing more upon the role of doubting and mental model reinforcement there may be a new way devised to enable knowledge to support adaptation to change.

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