

Your physical and emotional preparation

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Jim McLennan

In the rather large number of interviews I did with survivors following major bushfires from 2009 to 2014 what came up were four threats to their life and safety.

They tended, when threatened by a serious fire, to be slow and clumsy in doing things. And when new threats emerged like a new fire starting in the back paddock, they didn't notice them. They were taken by surprise.

Second they found it really hard to focus and concentrate on the things that they kind of knew they had to do, but it was really hard to stick with it. Or in some other cases, they got really fixated on something that wasn't really important, and the danger just kept mounting. They couldn't unfix themselves.

Third they forgot things. A number of people I interviewed had sprinkler systems set up they forgot to turn them on and left. Other people had decided to evacuate to a safe location, they were familiar with the route but suddenly they didn't know whether to turn left or right at the T intersection.

And then many others when danger was really threatening rather than think things through and pick the best option, they tended to act on impulse, the first idea that came into their mind. Now you're indicating that these things can be minimized or mitigated by planning and practise. That would be what the message is?

Danielle Clode

Yes, I know Rob will have a lot to say about this but I just remembered that in the last fire I was in I forgot that we had a farm fire unit that we had just built only a few weeks beforehand, and I completely forgot it existed and so did my husband. Because it wasn't embedded in our knowledge, we hadn't got it out and used it very much. So, I think it must be something to do with that physical practising and getting in new knowledge, and I'm sure Rob can talk more about how that actually works.

Jim McLennan

Have you seen this Rob in your work?

Rob Gordon

Yes I've heard many stories. And there's a wonderful publication by a couple of women from Mitchell Shire where they've gathered up a whole series of interviews with people, and they describe their behaviour. It's very interesting reading. You can see that the people who managed to save their houses were the people who were outside when the fire comes and they saw it approaching. Whereas those people who were inside and were greatly shocked by it exactly had

all that disorganization, and they basically couldn't do effective things, which the people who saw it coming fired up their survival behaviours.

But I think one way to think about these things is going back to that picture of the brain, the outer neocortex, the later formed one, which is our rational conscious brain. It's really the part we need to be in, in order to solve problems and to think things up and develop strategies and to actually process information. This reptile brain that's in behind the eyes operates on patterns and instincts and habits, really. Like animals, behaviours very rigid really. They do the same thing, and so I think your example, Danielle, of the fire system you'd set up, but you'd only just set it up, the knowledge of that is still here, and you go into, not completely, but you're heading down into that deeper instinctive part as the arousal comes up.

That's the term that's used to describe the energy level of the brain. The adrenaline and so on. As the adrenaline climbs, you actually go down in deeper and there's no trace of that, you would have had to every morning, before you went to work, you'd have to get up and run through a routine with that fire system.

I remember once saying on a radio interview that if you want to actually be able to use your fire pump, don't just start it every now and again on a sunny afternoon. But actually put your dirtiest, oldest, most scratched pair of dark glasses on, put your teenage son's iPod in your ears on heavy metal music, full volume, and then get someone to blow a blow dryer in your face, now try and start it. Because that's what it'll be like. So, if you can't manage this state of mind, all your plans are completely wasted. You won't be able to implement them.

Jim McLennan

That reminds me, following the Black Saturday fires of 2009, a number of us conducted interviews individually recorded. We transcribed them. And we subsequently went through and identified about 30 people who were lucky to be alive. Like, they did survive but, they might just as well have died. And we looked for things that they told us about their experiences, and it became clear very quickly that the key to their survival was basically trying to keep their stress and anxiety level within manageable levels. In my psychological world, we call this down regulating negative emotions. Danielle, how would that line up with the material that you've read?

Danielle Clode

I think we're familiar with this phenomenon. If you're in an emergency situation, if you've got somebody who's starting to panic about something, you'll give them a job to do. You'll give them something they're familiar with that they can control and manage. Something that they know what to do, if you've got somebody, say, helping out in the kitchen or something for a major event and they're getting all a bit stressed and hyperactive, you get them to make the sandwiches. You know, just settle them down, give them something manageable that they can do and that's essentially an automatic thing that we would do in those situations. But that's a way of getting that adrenaline level down. Focusing down on a particular task that you're very familiar with, you know what you have to do, it's all under control, you can manage that.

And so, we use strategies like that all the time, and I think we need to be aware of that in the bushfire scenario, about how we can use those calming strategies. I think that's a really good piece of advice, because it's actually quite difficult to do in practise. Because you're thinking you need to get fired up and get on top of things and be really active and actually you really need to chill out, which is kind of the opposite of what you think you should be doing.

Jim McLennan

What we found was the most common thing that people in these life threatening situations did was they talked to themselves, sometimes out loud, sometimes internally, as it were. I remember in particular, he was by himself, was a very dire situation, his pump hadn't worked so he was using

buckets from a fish pond. He kept telling himself, '*Steady, don't run, don't panic. Just take everything steadily,*' in an attempt to just keep his anxiety within manageable limits. Rob, the other thing that these survivors told us was that, as well as trying to manage their anxiety and fear, I think terror, the other thing that they were doing was that they weren't focusing solely on the fire, the flames, the threat. They were scanning around trying to look for places of refuge, things that they might be able to use in their defence, they're actively trying to grapple with ways of getting out of here, as it were. You encountered that in your work?

Rob Gordon

Yes. The problem is that will probably be impulsive and erratic, and they might look in the right direction or they might not. I suppose if they are very systematic, then that's indicating this quality of preparation and training. They mightn't be prepared and trained for fires, but they've managed other crises. It could even be crises at work, any area of experience and a habit will sink down from this outer layer into the deeper layers, and it will still be intact when our arousal goes up, and that's the bit we're functioning from.

And I think the point you made just before, about the man talking to himself, I think this is a really important point because language is in this outer layer, in the left hemisphere, the top left hand corner. And if we don't put things in words, we can't think about them, other than to think in pictures, and that's tied to what we've actually seen. But to actually think strategically and to interpret things and to make plans, we need some kind of language. So as long as people keep talking to themselves, they're keeping this great asset of their human brain active. And in a way what you described is his human brain was talking to his animal brain. His animal brain wanted to bolt. It's like a man on a horse, and that analogy goes right back to Plato. It's this sense of this impulsive part of ourselves we need to bridle and contain. So it was a very good strategy for him.

Jim McLennan

In talking with some fire agency personnel it was put to me that in order to survive in a bushfire threat situation you need to understand how people die in a bushfire situation. I was rather struck by that and I went and did some research and found that the three most common reasons for people dying in a bushfire situation are

Number one, inhaling a superheated air that destroys and damages airways.

Number two, people die from hyperthermia, that is, their core body temperature rises above 40-43°C from the impact of radiant heat and this effect can be quite a distance from the flames.

And after that comes deaths as a result of motor vehicle accidents trying to flee the fire, often through smoke and flames and so on.

Do you have a view on where the more emphasis should be paid to informing people about what actually is the danger or the dangers posed by bushfires? Danielle do you have a view on that? Account of you put to me was, "We don't want to make people too fearful."

Danielle Clode

I guess there is an argument that fear can make people run away from the situation, in terms of what they think about, so that they may not wish to think about that if it's too scary. But on the other hand you also need people to understand how severe the risk is as well. So that's why on that diagram I showed at the start fear is a sideways thing. You've got to manage fear so you have to make people aware of the risks but simultaneously make them aware of the things they can do to mitigate those risks. So you have to maintain the ability to cope and the ability to do something about it as you increase the recognition of the risks and the dangers. So we need to do both. I think

it's a mistake to simply ramp up the fear you have to also increase people's sense of capacity to be able to take on those challenges.

Rob Gordon

Yes I agree exactly. If you're going to use fear as a motivator it's got to activate protective behaviours. But the protective behaviours have to be deeply embedded, because the fear will cause the high arousal and you'll be down in your reptile brain and you won't have any trace of things you've read or thought about.

There's one other point I'd like to comment on and that comes up in your slides also Danielle. That this problem of our familiar world that we form a whole set of assumptions, stable assumptions, based on our repeated experience of the world always being as it is. And we don't know what our assumptions are because once they're formed, they're assumed and we don't pay any attention to them. And so you might talk about fire but unless somebody really applies themselves to what will my environment be like? This idea that I've certainly come across frequently myself did you mention Jim that people couldn't actually find their way out driving out a road they might travel every day?

This disorientation, because for a start the sensory environment, what it looks like is so dramatically changed that your sense of reality is often quite distorted. And I think this is where fear can be harnessed a bit. People think of surviving a fire, but they don't think of superheated air. They think of flames burning their skin that's what they've experienced in the past. You know you hold a match or a candle or you get too close to the fire or something.

S, in some way we've got to help people move beyond their assumptions which I think means it's that sweet spot of giving them enough information, enough imagery if you like to actually say, '*Oh, wow I didn't understand that*'. But not too much to make them go into fear because then I think the risk is people stop following the message and start managing their fear. And one way of managing your fear is Oh no, look, it's never going to happen, they're just exaggerating. We've had Black Saturday, it's not going to occur for another 20 years. And that's defensiveness against the fear. So, I think it's a really sensitive issue. We've had that with some big road safety campaigns, haven't we? And so on.

Jim McLennan

Danielle, you made the point and it's certainly an important one that for most people who are threatened by a bushfire it'll be the first and probably the last time in their lives. So what are the kinds of things from your work that people can do to prepare themselves for something that they've never experienced before?

Danielle Clode

I do think there's a number of aspects to this. I personally find it really useful to watch videos of other people who've been through fires and what they faced and how they dealt with it. I find that a lot of the videos in relation to community fire guard groups for example, simultaneously provide you the information on severity and risk whilst also providing you with examples of how somebody responded to that situation. What they could have done better, what they did do successfully, what didn't work. So it provides both those sides of information very effectively. So I find that particularly useful.

But I also think being aware of the history of fire as it pertains to your particular area is also useful. A lot of people are not aware of the fires that have happened in the past in their area. Where they came from where the risk comes from. They might be aware in a vague way, but not in a detailed way. And I think we could do better in providing that information. It is actually hard to find. I know when I was looking at properties in the Adelaide Hills, I could not find fire maps of past fires. And yet the Adelaide Hills has a venerable history of fires. And yet I had to go and talk to people, and

they said, 'Oh yes, we had a fire in this year and that year and it burnt through this area, in that area'

That information should be publicly available to help people understand the physical nature of the history of fires. I think we could do better on that. But I do think talking to other people who've been through fires is a particularly useful way especially if they had been prepared. It's less useful to talk to people who've been through fires when they weren't prepared because then you just tend to have a lot of fear responses rather than a controlled response as it were.

From your experience, how can householders plan for the unimaginable?

Rob Gordon

Yes I think the safe thing is to look around and imagine the whole place on fire. And we can use our imagination. That's a safe thing to do. And I think, as Danielle mentioned to get that information from fire sessions and fire education sessions. There's quite a lot of stuff on the internet just to see what it's like.

And then I think to really rehearse how you're going to manage yourself and to put that in the foreground. Because it doesn't matter how good the plan is it really depends on how your brain is working as to whether you can implement it.

I want to say one other thing, and that is you mentioned the down regulating. The other thing I wanted to mention was the emotion and arousal are contagious.

We've got various unconscious mechanisms that allow us to be infected by this. And one thing that's been shown again and again to work is pretending to be calm. You don't have to be calm you just need to behave as though you're calm. Which means you walk systematically, you speak in a measured tone, you don't scream, you don't swear, you finish your sentences. You just do everything systematically. Keep telling yourself It'll be faster if I do it this way. If I run I'm going to get tired and I'll only be able to do three passages with the bucket and then I'll fall over. Now I've got to keep this kind of calming rationally. Adults do it with children all the time. And it's a really important protective behaviour for others and for ourselves. So yes, I'd say that's one of the key points.

Jim McLennan

I think we now want to display the results from the second poll, if I'm reading my crib sheet correctly. What strikes me there straight off is the most common reason is more concerned with preparing the physical preparations. Okay anything there Danielle or Rob that you want to comment on?

Rob Gordon

Well I think that's the bias isn't it? That we've got the focus on the physical. But like you said they forgot to turn their sprinklers on.

Jim McLennan

Yes, that's right, and lost the house.

Danielle Clode

I guess a good thing is if your focus is on the physical, assuming that means practising your plan, that is also feeding into your psychological preparation. In that, if you're just focusing on putting new sprinklers up or getting new fire hoses, then that's a good thing to do but it won't help you actually enact your plan. But if you're practising using them, if you're practising getting them going

and making sure you know how to do that. I'm thinking myself about what can I do to use my fire system more regularly on an everyday basis, you know?

Maybe I can consider using my sprinklers on a hot day just to water the garden and cool down the house. Just do that as a thing I do when it's hot because it's nice. Or can I use my fire pump system, my mobile farm unit, to go and water my trees? Whereas I might do that, some other way normally. So, try and embed those in my regular practises, So, in that sense, you're doing the physical and the psychological at the same time. But as Rob's pointed out, there are some aspects of psychological preparation that are very specific and need to be considered on their own merits.

Jim McLennan

Well, anything else that stands out for you?

Rob Gordon

I think the people that say '*Don't really know where to start*' I think it's difficult to try and get to grips with something like this. And my response would be start anywhere. Just start, just start. And things will then work out. You work it out, Oh we're going to have to do this before that and so on. And I think just starting any preparation puts you a long way ahead of not having thought about it.

Jim McLennan

I'm reminded of one of the many accounts of sayings of the Buddha. And one of them was that the longest journey starts with but a single step.

But can I say Danielle and Rob I've known of you both and exchanged the old word in the past but I've really enjoyed hearing your views on these issues. So thank you.

Danielle Clode

Thank you Jim.

Chair

Thank you all, that was really very interesting, and it certainly has served one of our purposes which is to tackle things that people don't generally talk about. And this certainly isn't a topic that many of us will have heard about.

There was one question I wanted to ask that came out of the poll results, and that's 25% of people believe they won't be staying if a fire comes. However the research tells us that often people stay longer than they meant to or the leaving can be dangerous. It would seem that you probably even have to practise your emotional response even if you have that view that you're not going to be around. Danielle?

Danielle Clode

Yes, I would definitely say you have to be emotionally and psychologically prepared to leave too. To successfully leave is not as easy as people think. To make sure you've got what you need to go, that you're ready early enough, that you're actually making that decision safely. It can be impacted by any number of things: family functions that you might have on that day, medical appointments, pets, all sorts of things can interfere and change your plans. Somebody coming to visit, these sorts of things. So, staying is not an easy decision either. Its an actual fact it's a really hard decision to leave and to leave early enough. So, I think that you really need to think through how prepared you are to do that and to practise that as well.

Jim McLennan

The most recent post bushfire interview studies I did was in 2014 the Parkerville fire in the Perth Hills. And one of the things that struck me was a number of people who intended to leave that was their plan they thought they were prepared both mentally and physically. But it took them forever to actually get to the stage of shutting the car door and turning the ignition key. Many of them found subsequently that the route they were going to take had been blocked by the advance of the fire. A lot of them had to actually abandon the vehicle and walk to safety at pretty considerable risk. So, what I got from that was particularly if there are young children in the family it takes a hell of a long time unless you're really on top of it to actually leave.

Rob Gordon

I think this why that leaving strategy really requires you to leave before the fire starts or when you get the first indication before you're under threat. Because we know that perhaps the most dangerous place to be when the fire is going through is on the road, for all those reasons that you described Jim. And therefore I think that the whole idea of having precept triggers that have been sought out calmly and carefully with all the information as to when you will take certain actions not relying on how you interpret it on the day.