



### by Carolyn Spring

# AWFUL AND AWESOME: AN INTRODUCTION

Life would be okay, if it were not for the flashbacks ...

How true. How many times have I heard people say that? And for so many years, my life too would have been bearable. but for the flashbacks. These are not polite house guests who turn up on cue, with flowers and chocolates. They wake you in the middle of the night; they intrude upon you at moments of intimacy, in public, at work, at the most inconvenient times and in the most unexpected places. It's hard not to feel totally out-of-control when flashbacks are dominating your life, because at the point at which they strike, you are outof-control. And they become a vicious cycle - you end up fearing the flashbacks, fearing the loss of control, the emotional upsurge, the physical reaction, and in that stressed-out state you are more liable to experience flashbacks ...

Coming to terms with flashbacks understanding what they are, learning how to manage them, and eventually figuring out how to reduce them - has been a cornerstone of my recovery. When things are really tough and the flashbacks are unremitting, recovery often feels impossible and life itself hopeless. And yet, in a kind of paradox, flashbacks are a good sign. I believe that flashbacks are a sign of your brain trying to heal. Flashbacks contain unprocessed fragments of traumatic memory, and they burst into consciousness partly because your brain is trying to process these fragments and to see where they 'fit'. Flashbacks are horrendous - yes. But it can help if we reframe them as





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signs of our sanity, that our brains know that something is not right, and at least when they happen we can take some tiny crumbs of comfort from the fact that our brain wants to heal. Flashbacks, and the triggers that cause them, can be guides on our therapeutic recovery journey.

### HOW DO WE DESCRIBE FLASHBACKS?

A flashback is a sudden, involuntary reexperiencing of a past traumatic event as if it is happening in the present.

To a certain extent, I've always been slightly confused about what flashbacks are. I've seen many representations in films of people having flashbacks, and none of them ring true for me. For a long time, I thought that it was me that was the problem - that I wasn't really having flashbacks, that I was a fraud, or just making it up for the attention. Of course, I hated the attention, and desperately wished that it was all 'made up', but nonetheless the doubts remained. How does anyone know what a flashback feels like - especially when you feel so 'derealised' when it's happening? How do we know that we all mean the same thing by the term 'flashback'?

A scene in the film *Catching Fire* depicts one. The main protagonist, Katniss, has survived the annual 'Hunger Games' in which two children from each of the twelve districts must fight each other to the death as entertainment for the ruling classes. During this, to protect an ally, she kills a boy called Marvel with an arrow. (If ever there was an allegorical representation of ritual abuse, the Hunger Games series captures it.) At the beginning of the second film, as Katniss is trying to readjust to life after her trauma, she is out in the woods, hunting. She shoots an arrow at a turkey, but instead, in a flashback, sees Marvel's body collapsing to the floor. Her immediate physical and emotional reaction is clear. And part of me wants to jump up and down and say, 'Yes, that's it! That's a flashback!' while most of me actually feels a little guilty, because I know that most of the time it's not as clear-cut as that for me.

It's hard to describe a flashback, because while it's happening, key parts of the brain required to recall and articulate our experience shut down. As bloodflow is reduced to the word-generating part of our brain, Broca's area, we find it difficult to vocalise our experience. We may recognise flashbacks when we see them in others, but the selfobserving part of our brain isn't engaged when we're actually experiencing one ourselves.

And so many people are confused about whether what they're experiencing can truly be called a 'flashback'. I believe that the flashback experience exists on a spectrum, everything from a





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brief fleeting thought accompanied by an instant pounding heart or sinking stomach, right through to an experience lasting several minutes in which we are really, truly back in the experience of past trauma. At this end of the spectrum, it can be frightening for others to observe too – we seem to have lost touch with reality as we think that 'it's still happening now' and we mistake people in the here-and-now with people from the there-and-then.

Our behaviour make a lot more sense if we understand a little of what goes on in the brain during trauma, and how this is replicated (to a greater or lesser degree) during a flashback. Our reactions may seem bizarre to an outsider, but there really is method in our madness.

### WHAT GOES ON IN THE BRAIN DURING TRAUMA?

We are primed instinctively to respond to threat, as can be seen in the nine stages of the defensive response cycle (see below). What therefore goes on in our bodies and brains during trauma - and its subsequent flashbacks - is entirely out of our control. Too often we feel ashamed of our reactions, both at the time of the original trauma, and when experiencing repeated flashbacks, but it's essential that we realise that these are survival processes at work, and nothing to do with attention-seeking, manipulating or being 'weak'. But that doesn't mean to say that we can't learn to handle flashbacks better, and the key to that is understanding what is actually going on in the brain.

A really simple way of understanding the brain during trauma is that our front brains turn off and our back brains turn on. When the amygdala, our brain's 'smoke alarm' detects a threat, it sends a split-second signal to the hypothalamus to sound the siren. The hypothalamus then initiates a cascade of chemical responses in the brain and the body. For example:

- noradrenaline is released in the brain to help it focus and react quickly
- adrenaline speeds up the heartrate to increase the availability of oxygen and nutrients to the long muscles of the arms and legs, ready to fight or flee
- there is an increase in blood pressure, so that essential blood supplies reach their destination as quickly as possible
- blood supply is diverted away from non-urgent activities such as digestion and reproduction
- the immune system is temporarily boosted, in order to respond quickly to a potential injury
- fuel supplies are maximised in the bloodstream.

By doing this, and entering the 'amber alert' phase, the body is geared up





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to defend itself, all of which happens outside of conscious thought, before we have even had a chance to consciously notice and think about the threat. This is a really important part of survival. We cannot risk, at the moment of threat, any kind of 'paralysis of analysis': we have to act in a split second. And so the thinking, rational, analytical, planning 'front brain', which is the seat of our conscious thoughts, is placed in neutral, while the automatic, instinctive, emotional 'back brain' is placed firmly in gear. Back brain on – front brain off.

This allows us to react quickly to the threat without too much deliberation – to react automatically and instinctively, which gives us the best chance of survival. However, this turning down of the front brain has its disadvantages for us too – blood flow is reduced to several key areas, most significantly:

The 'timekeeper', the dorsolateral prefrontal cortex. This part of the brain, along with many other functions, keeps our sense of ourselves in time and space. That's why time seems to slow down or our life 'flashes' before our eyes during a traumatic moment. It is also why we can't tell the difference between past and present (a core element of a flashback) and why it feels as if flashbacks will go on forever.

*The 'dictionary', Broca's area.* This is the language and speech area of the brain. That's why, at the moment of trauma, we



often can't speak – 'speechless terror'. It's also why when we're very stressed, it's hard to find our words. It's difficult to describe a flashback when your 'dictionary' is offline!

The 'watchtower', the medial prefrontal cortex. This is the planning, overseeing, decision-making, wise part of our brain. With this offline, we struggle to plan and make decisions, and as it talks to the body through our 'internal CCTV', the insula, we can also have difficulty feeling connected to our body (an 'out of body experience').

The 'librarian' or 'context stamp', the hippocampus. Technically part of the limbic system rather than the front brain, the hippocampus plays a leading role in memory encoding and retrieval and acts as a kind of special adviser to the watchtower. With the hippocampus offline, memories are often not stored coherently and so traumatic memories are often disjointed, lacking context, or incomplete.





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The 'cook', the thalamus. Although again technically not part of the front brain, the thalamus may switch off during trauma: incoming data from our environment and senses, which is normally mixed together by the 'cook' at the point of entry before being sent to other parts of the brain, remain as raw ingredients rather than a complete autobiographical 'soup'. This is the precursor to dissociation – information entering the brain not being 'associated' in the first place.

### FLASHBACKS – A REPLICATION OF THE TRAUMA RESPONSE

A flashback is the result of this 'brain mush' that happens at the moment of trauma. A flashback comprises all the fragments of memory of that event that were not integrated by the thalamus in the first place, or were not encoded or stored properly by the under-performing hippocampus. The brain shuts down to protect us: during trauma we experience a sense of 'depersonalisation' and 'derealisation' which is the outward manifestation of all these brain areas being shut down - the 'timekeeper', 'dictionary', 'cook' and 'librarian'. The good news is that during trauma our attention and focus is narrowed and we feel outside ourselves - this helps to reduce the psychological distress we are exposed to at the time. But afterwards, it is difficult for our brain to fully process what happened to us given that so much of it was offline while it was happening.



The brain can struggle to move through to the recovery and integration phase when memory systems were not properly functioning at the time.

### AVOIDANCE AS A SURVIVAL RESPONSE

Having been faced with a traumatic incident in which we were overwhelmed, and with an inadequate recovery and integration phase, often the brain unconsciously decides that the only course of action in future is to ensure that we avoid any such similar event. The thalamus ('cook'), which directs our attention, focuses on threat-related cues. Similarly the amygdala ('smoke alarm') is sensitised, and more likely to be activated at the merest whiff of smoke in the future. Without the complexity of the front brain, especially the 'watchtower', to mediate the process, the back brain makes broad generalisations about what might again in the future constitute 'smoke'. We became averse to a number of triggers, many of them in reality not accurate markers of 'smokiness': red as the colour of the top our attacker was wearing; the time of the day (for





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example night time); the contextual location (for example, a bed). Avoidance is both behavioural and mental – we avoid anything that might trigger us, and we avoid consciously thinking about anything that might remind us of the original trauma: it is pushed out of mind and becomes well and truly dissociated.

### THE PATTERN-MATCHING BRAIN

In this state of heightened awareness of potential risk, with the thalamus and amygdala both contributing to a 'react first, think later' policy, the brain becomes 'trigger-happy'. The brain is predominantly а pattern-matching machine: it is looking for the same patterns everywhere. And so, upon seeing the colour red, or a bed, the amygdala sounds the alarm, having matched the pattern from previously. At this point, memory stored in or processed by the amygdala is fed into the conscious mind, albeit in its fragmentary, incomplete, and sensory format, and a 'flashback' occurs. This is the back brain's best attempt to warn us of potential danger by reminding us of what happened previously. Sometimes the memory that is activated is sufficiently complete to be 'seen' in the mind's eye (like Katniss shooting Marvel) but on many occasions the memory is too fragmented to make much sense to the conscious mind, the front brain. In that case, the body's alarm systems are activated and the defensive cycle

is initiated, usually with a flight, fight or freeze response, whilst the conscious mind isn't fully aware of what is going on.

At this moment of flashback, the same responses take place in the brain and the body as they did at the moment of the original trauma. Stress hormones are released, with the resultant bodily response:

- in the flight or fight response (the 'amber' alert): increased heart rate and blood pressure, redirection of bloodflow, increase of breathing, release of energy into the bloodstream and muscles primed for action;
- or in the freeze/collapse response (the 'red' alert): slowing of the heartrate, loss of muscle tone, decreased breathing, lowering of blood pressure (sometimes involving 'syncope' – fainting) and immobilisation of muscles.

The flashback is a reliving and reexperiencing of the original trauma: the body and brain react exactly as they did at the time, and the memory of that event is reactivated primarily at an implicit level, in the body and back brain. This is why flashbacks play such a significant role in the lives of survivors with an unresolved traumatic history. They have the power, within a split second, to affect all the major organs of our body and to switch gears within our brain, taking us





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out of our thinking front brains and into our survival-based back brains. They make our hearts pound with terror, or our heartrate drop, causing a faint – and all of it outside our control.

Avoidance is a clever strategy and has helped us cope with life for many years. But it also has its limitations, because it increasingly restricts our life: there are more and more things that we need to avoid in order to eliminate the risk of being triggered into a flashback, and as many of us suffered relational trauma – abuse at the hands of people – then of course people are the most triggering thing in our world, and our world is full of them. We can end up increasingly isolated as we avoid all men or (for those of us who were abused by both genders) all men *and* women. Our quality of life degrades and it is little wonder that so many survivors end up depressed and suicidal. It is therefore imperative that we find another way of managing flashbacks.

### THE DEFENSIVE RESPONSE CYCLE

All animals, including us as humans, have predetermined, instinctive patterns of response to defend ourselves from threat – this isn't something that is left to chance, or to our decision-making at the moment of danger, but something that is deeply ingrained in the way that our brains and bodies operate at an automatic, unconscious level. These patterns of response can be summarised into nine stages:



# WHAT HAPPENS AT THE MOMENT OF TRAUMA?





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#### **1. SOCIAL ENGAGEMENT**

Our first level of defence is in our attachment systems – it's the inborn instincts we have to be social, to clan together, right from the infant crying to be fed, through to our long-term monogamous relationships and the societies that we create. Sticking together enhances our chances of survival, and so social engagement is the first step – a preemptive step in many ways – in protecting ourselves from threat.

#### **2. DETECTION**

To survive a hostile environment, we need to scan for threat and be able to detect it should it arise. Think of a herd of gazelles grazing, with their ears twitching and their head lifting from the grass to check out a distant sound. If they detect a predator, their arousal levels will immediately increase, becoming physically and mentally alert.

#### **3. ORIENTING**

Having detected a potential threat, the animal (or human) will 'orient' towards it, to try to locate it. The attention will be focused on it, via all the senses, for example by directing the eyes and channelling the hearing.

#### **4. STILLING**

Alongside orienting, or very shortly afterwards, there is a kind of 'stilling' of the body, an alert phase with the muscles tensed ready for action, the attention directed exclusively towards the threat, blocking out everything else. It is the rabbit caught in the headlights. Some people refer to this phase as 'freezing', but I prefer to retain that term for a later stage. It may happen only for a split second but is the precursor to the defensive response of the next three stages: flight, fight or freeze.

#### 5. FLIGHT

The default primary option, in most scenarios, is flight: run as fast as you can away from the threat. The sooner you do this, and the faster you run, the greater your chance for escape. The gazelles fleeing from the cheetah may not be able to outrun it, but they will at least try, rather than facing certain death. We see the flight response also in the evasion of confrontation – doing whatever is required to avoid escalating conflict to a fight.

#### 6. FIGHT

Some animals – some humans! – are not adept at running; they may have detected the threat too late; there may be no physical escape. A fight response then kicks in as the next automatic stage of the defensive cycle. For those strong enough, big enough and well-equipped enough (for example claws or weapons), this may be a successful strategy, although it does risk injury, which is why flight is usually preferred.





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#### 7. FREEZE

There are a number of reasons why flight or fight may not work: being too young, sick, weak, or illequipped, as in the classic example of the possum. In these cases, the next stage is to freeze, what some people refer to as collapse. This is a strategy based on submission and feigned death. If you can't flee and you can't fight, perhaps you can trick your predator into leaving you alone. Many victims of interpersonal

violence, such as child sexual abuse, adult rape, domestic violence or acts of terrorism, report playing dead to evade attention or to minimise further harm. This is not a conscious choice, but is the brain and body's best way, at an instinctive level, of surviving.

It is also important to note that freezing, or submitting, is in no way the same as consent: it is simply a way of responding which, faced with significant harm or death, maximises the chances of survival by not actively resisting. This freeze response can be seen as the flight/fight response put on hold, as a crossover between active survival responses and passive ones. This then manifests in one of two ways: the first is 'tonic immobility' – the muscles are taut and tense, ready for action should



the opportunity arise, but the body is otherwise paralysed. Numerous animals, including rabbits and sharks, manifest tonic immobility when trapped – search for it on YouTube to see some amazing clips! It is a very effective survival mechanism at feigning death to trick the predator.

The alternative version of the freeze response is 'collapsed immobility', where the muscles become floppy, like a ragdoll, and without tone. Sometimes it is accompanied by fainting ('vasovagal syncope'). This is the swoon of Victorian literature, passing out at the sight of blood, and other familiar experiences.

#### 8. RECOVERY

If these active and reactive strategies of flight, fight or freeze are successful, then at some point the threat will pass, and





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we can move into the recovery stage. This is often characterised by what has been termed 'collapsed quiescence': it is a stage of 'licking the wounds', often accompanied by a prolonged period of rest and recuperation. It may also be characterised by trembling and shaking, which Peter Levine, in observing animals, suggests is a way of 'shaking out' the trapped energy of the freeze response, and returning to a mobilised state from the immobilisation of freeze.

#### 9. INTEGRATION

With successful recovery, finally we can enter a period of 'integration', a way of mentally, physically and emotionally joining up and resolving the experience of threat we have just experienced, learning from it, consolidating memories of it, and developing strategies (often at an unconscious level) to survive a similar event in the future. This then takes us back, following recovery and integration, into social engagement and attachment. It is this cycle of defence and recovery that has been truncated or halted during trauma, and trauma recovery seeks to complete the cycle at whatever point it has been interrupted.

### HOW CAN WE HANDLE FLASHBACKS?

Flashbacks take us from the 'here-andnow' to the 'there-and-then'. They turn off our front brain and activate our back brain. They make us feel disconnected from our bodies, while our bodies are gearing up to respond to threat. In handling them, therefore, we need to get 'grounded' in the here-and-now, in our bodies, and calm down our nervous systems again. In my experience, flashbacks pass more quickly if:

- I ground myself back in my body
- I bring my front brain online by thinking, and talking myself through it
- I don't beat myself up, but am soothing and compassionate towards myself.

### GETTING BACK INTO THE BODY

At the moment of trauma, there is a disconnect - a 'dissociation' - from the body. Many survivors, particularly of sexual abuse, talk about their experience during the trauma of detaching, perhaps floating up to the ceiling and having an 'out of body experience'. The technical reason for this seems to lie in reduced bloodflow to what Bessel van der Kolk refers to as the 'mohawk of self-awareness' and in particular two structures called the anterior cingulate cortex and the insula. The insula operates as a kind of 'internal CCTV' and relays information from the body up to the brain. There is growing evidence that this area in particular shuts down during trauma. In recovering from trauma, and handling flashbacks in particular, it can be very helpful to try to reverse this process, and to get the 'internal CCTV' back online again. Suggestions and



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encouragements from therapists to feel your feet on the floor is not – as many clients suspect – a distraction technique and the only thing that the therapist can think of to say! It is based in good brain science, about directing the brain's attention (and therefore directing blood flow) to the sensations of the body as relayed by the insula.

#### Mindfulness

Research shows that mindfulness meditation is very effective in strengthening the insula, and that is why it is so often recommended, both as a standalone activity, as well as being incorporated into the therapy itself, for example via Pat Ogden's Sensorimotor Psychotherapy approach to treating trauma. Breathing practices are strongly associated with both mindfulness meditation and yoga, and for good reason: breathing is one of the principal ways that we can calm our body down when stressed, for example during the automatic physiological reaction of a flashback. When we breathe in, we activate our sympathetic nervous system, responsible for the 'fight and flight' response, but when we breathe out, we activate our parasympathetic nervous system, which lowers our heart rate and is often referred to as the 'feed and breed' or 'rest and digest' system. Therefore slow, steady breathing from the diaphragm, preferably while directing our attention to the bodily sensations of our lungs filling with and emptying air (to engage the insula), is a

very primitive but highly effective way of beginning to calm our reactions during a flashback.

#### **Movement**

Movement is also key. Whenever we are overwhelmed and in a freeze/ collapse response, our bodies become immobilised. They do this to survive, but while we remain motionless, an internal feedback loop is set in motion, informing our brains that we are in danger because we are immobilised! It's therefore really important to get moving. This can be something as simple as tossing a bean bag from one hand to another, standing up, or walking around. Changing our posture has an immediate and massive impact on the level of stress hormones in our body. Just by standing up and adopting a 'power pose' for two minutes - straight spine, chin lifted up, shoulders back, perhaps arms stretched wide and held strongly - can reduce the levels of the stress hormone cortisol in our bloodstream by 25%. Who would have thought that our physical posture could have such an impact on our physiology? This is really reassuring to know, especially when we feel so helpless in the face of flashbacks which have such a dramatic and immediate impact on our bodies. It means that we can use our bodies to counteract the effects on our bodies!

#### **Activating the senses**

We can also help to ground ourselves in our bodies by activating our senses. We





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can look around and focus our attention on what we can see - where we are, how many circular objects we can see, or shades of green. Looking at a 'vista' a long-distance view - such as through the window (or better still outside, in a park or across a lake) also has an impact on our physiology, lowering our blood pressure. We can focus our attention on what we can hear - sounds far away, sounds close - as well as on what we can smell, perhaps using smells with positive associations such as certain handwashes or creams to give us a sense of safety again. In years gone by, smelling salts would be used to rouse someone in the collapse of a faint: smell is very powerful as it bypasses the thalamus and goes direct to the amygdala. We could also try tasting something pleasant or piquant, and use our sense of touch to stroke something soft and comforting. The aim is to focus the attention on the here-andnow and on the body. It is the body that is dysregulated in a flashback, so it is highly effective to cope with the flashback by calming and grounding the body, and our main perception channel to the body is our senses.

### BRING YOUR FRONT BRAIN ONLINE

The front brain is our conscious, 'thinking' brain and it is switched off – or at the very least muted – during the trauma itself and then again during flashbacks. It is the front brain that helps us to assess situations, make decisions, and plan. That's why it can be so difficult, when you are being constantly dysregulated with flashbacks, to work your way out of it: you literally cannot think. As we've also seen, Broca's area also has reduced blood flow, making it difficult to speak and form word-thoughts. The very things that are difficult to do – thinking and speaking – are the very things we need to focus on doing, in order to break the power of flashbacks.

There are many ways of doing this, but one simple way that can be prepared in advance of flashbacks is to have a series of 'thought cards'. These are designed to remind you of what is happening during a flashback, and to get your front brain back online as you talk yourself through it. For example:

'This is a flashback. It won't kill me – even though my body is reacting as if it will.'

'It's a sign of my sanity – my brain is trying to protect me.'

'This is a memory – even though it feels like it's happening now.'

It can be helpful to produce a number of these statements and carry them around with you, or display them in a prominent place where live. The aim is to get your front brain working again – nothing else. For some people, puzzles such as wordsearches or crosswords are effective. For others, doing menial,





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low-energy jobs such as filing, tidying or sorting can help – something that engages enough brain power to get the front brain online but isn't so demanding that it becomes stressful in and of itself.

### DON'T BEAT YOURSELF UP

It can be really frustrating to be afflicted by flashbacks, especially when they happen frequently and come out of the blue. The immediate effects, in terms of the emotional and physical reactions, can be embarrassing and debilitating. For many of us, our immediate instinct is to express that frustration at ourselves - 'I'm so stupid! I hate myself! Why am I like this? Why can't I just pull myself together?' Accepting that flashbacks are the logical consequence of trauma, and that we didn't choose to be traumatised, is an important step towards recovery. But it's also important because, when we beat ourselves up, we are in fact triggering ourselves all over again!

Logically, this makes perfect sense: our brains – in particular our amygdala, the 'smoke alarm', and the thalamus, the 'cook' – have become sensitised to threat in order to try to keep us safe in the future. As I often say, we were in a lot of fires as children, so it is little wonder that our smoke alarm has become overreactive – it's working on the basis of 'better safe than sorry'. That is not a defect in our character or personality – it is simply a survival strategy as a direct consequence of the number of



childhood 'fires' that we endured. And so our brains are geared towards scanning for, and responding to, threat. As the amygdala is based in our back brain, it is not complex or clever, and tends towards generalisation.

Therefore it cannot tell the difference between anger and abuse directed at us from another person – or from ourselves. When we beat ourselves up, we trigger the smoke alarm, and we react automatically to that. If we then beat ourselves up for having been triggered, we again trigger the smoke alarm, and so a vicious cycle is born.

The most helpful thing we can do, therefore, to handle flashbacks and recover from them quickly, is to show ourselves kindness and compassion, thus soothing ourselves rather than retriggering ourselves. Admittedly, it is easier said than done, but it is absolutely vital if we are to recover from trauma.