TRAUMA RESILIENCE FOR POLICING BRAIN

TITEN

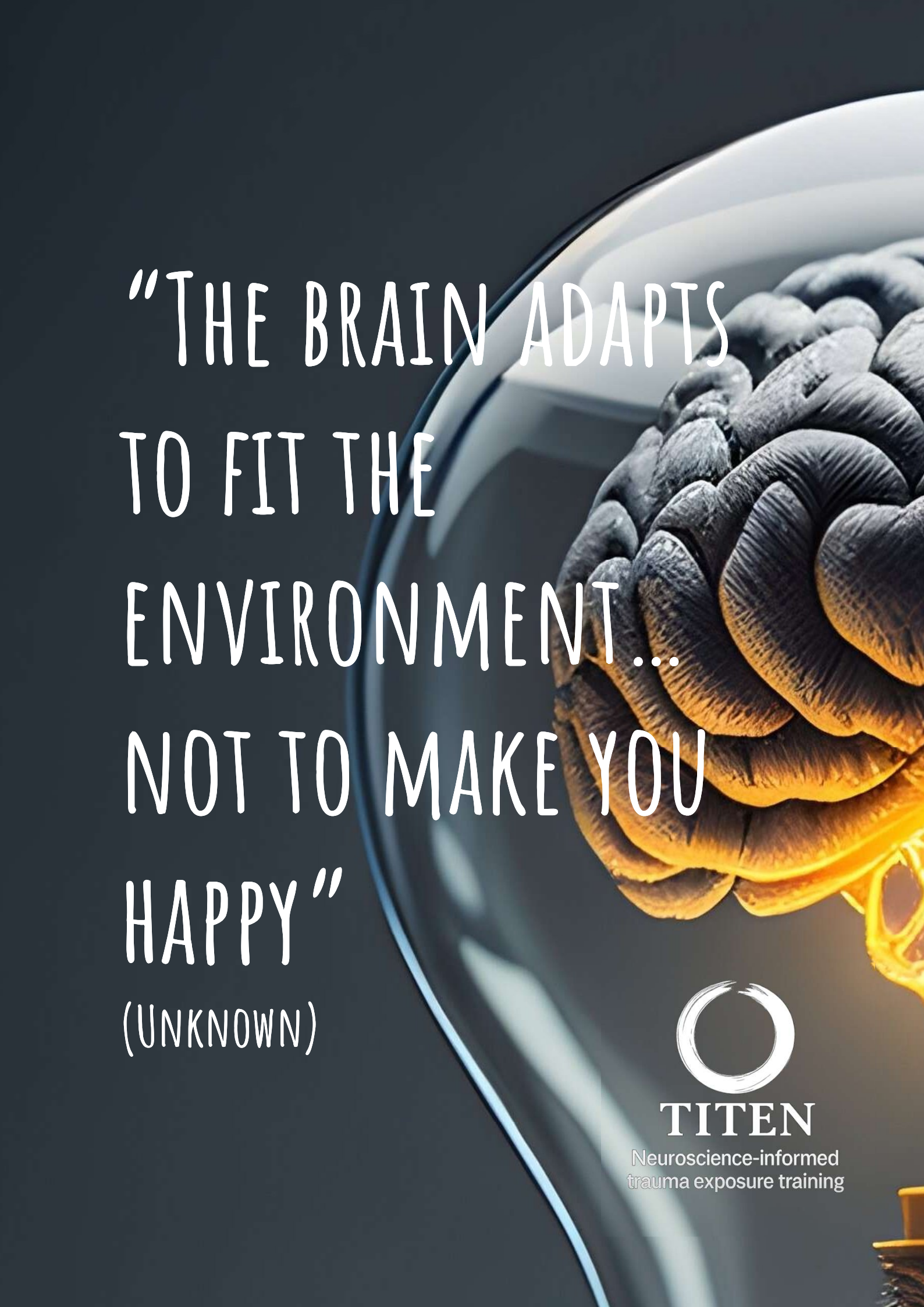
Neuroscience-informed trauma exposure training

TRAUMA RESILIENCE AND THE POLICING BRAIN:

All You Need to Know

The essential fact about Policing is that it changes the way we think. We know this to be the case as we watch ourselves adapt to a job that is unlike any other. Policing has all the components of Emergency Response and public service, (some may say social service) with it, however, comes wavering PUBLIC SYMPATHY and ONGOING EXPOSURE to those who cause extreme suffering - as well as the suffering of victims. As we navigate this terrain, the brain learns all sorts of short cuts and cheats, areas to ignore and places to avoid, and seeks satisfaction and reward in things some people outside of policing won't understand. This guidance provides an overview of how policing can feel from the inside and may offer some insight into what it's like to be part of all of this (which can help those who care about us). Here, we offer some FRESH THINKING.

For more detail, try The Policing Mind: Developing Trauma Resilience for a New Era:
https://policy.bristoluniversitypress.co.uk/the-policing-mind
((available from pretty much anywhere you can buy a book!)


"The brain adapts to fit the environment... not to make you happy"
(Unknown)
TITEN
Neuroscience-informed
trauma exposure training

As brutal as this sounds, evolution just is what it is - and it unfolds for us in Policing just as much as it does in any other walk of life: it shapes how we think.

In Policing, some ways of thinking develop because they become 'necessary'.

HYPERVIGILANCE is one way - going to sit down in a café or pub when in a group and finding yourself subtly jostling for the seat which has the best visibility of exits and entrances?

HYPERAROUSAL is another - ever found yourself outside of work, horizon-scanning and scrutinising faces and crowds for any sense of tension, with an overactive startle response when you're supposed to be having a relaxing time, off-duty?

RE-EXPERIENCING is another- those moments where an incident pops up in your mind for no apparent reason... and then lingers there?

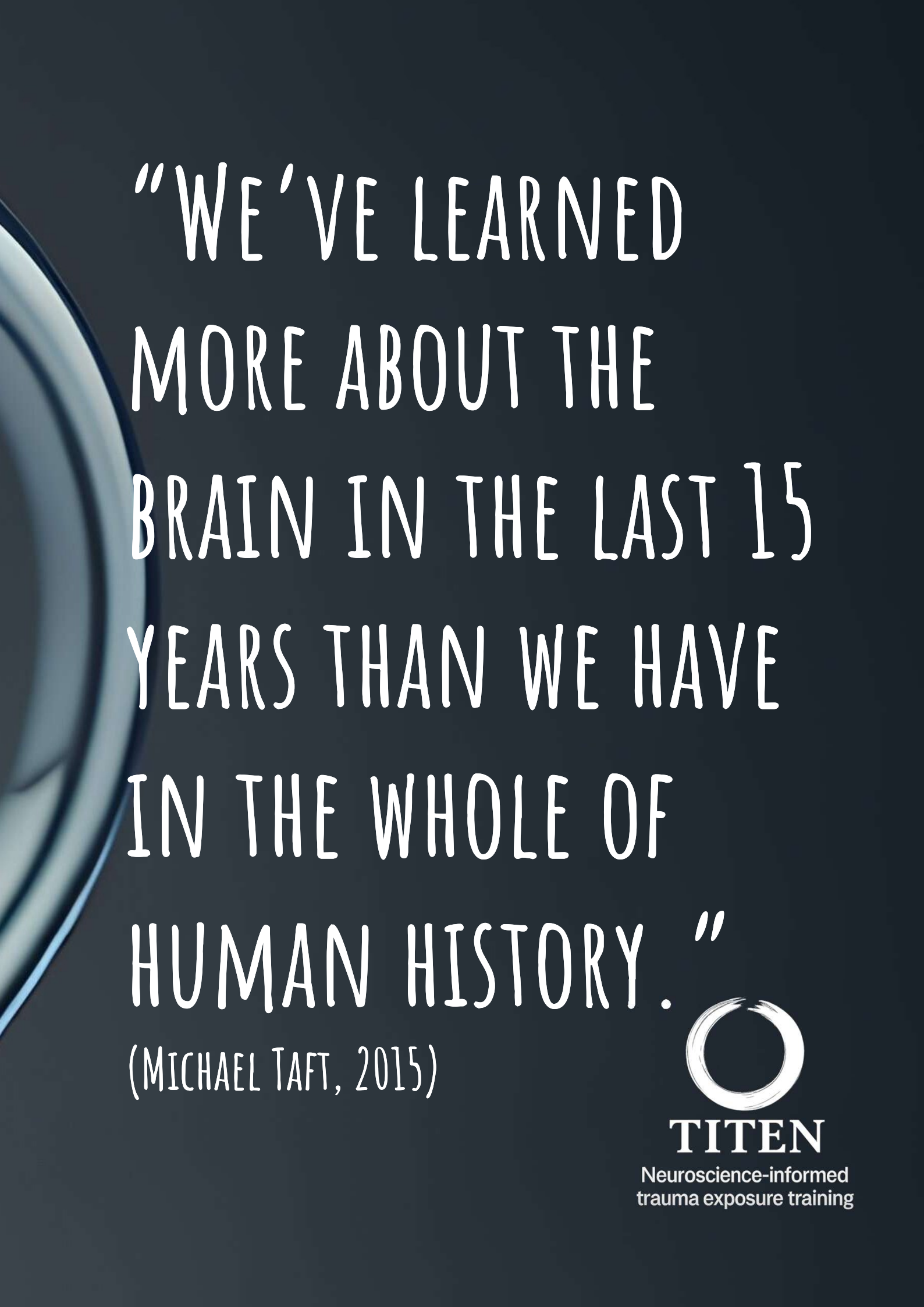
These THREE THINKING TRAITS are experienced to uncomfortable levels in over one third of all healthy, serving UK officers and staff, according to research conducted in 2019 (by The University of Cambridge and sponsored by the then Police Dependants' Trust, now Police Care UK). What's worrying is that these thinking traits are also three key symptoms of Post-Traumatic Stress Disorder: diagnosable in 1 in 5 serving UK officers and staff in the same study.

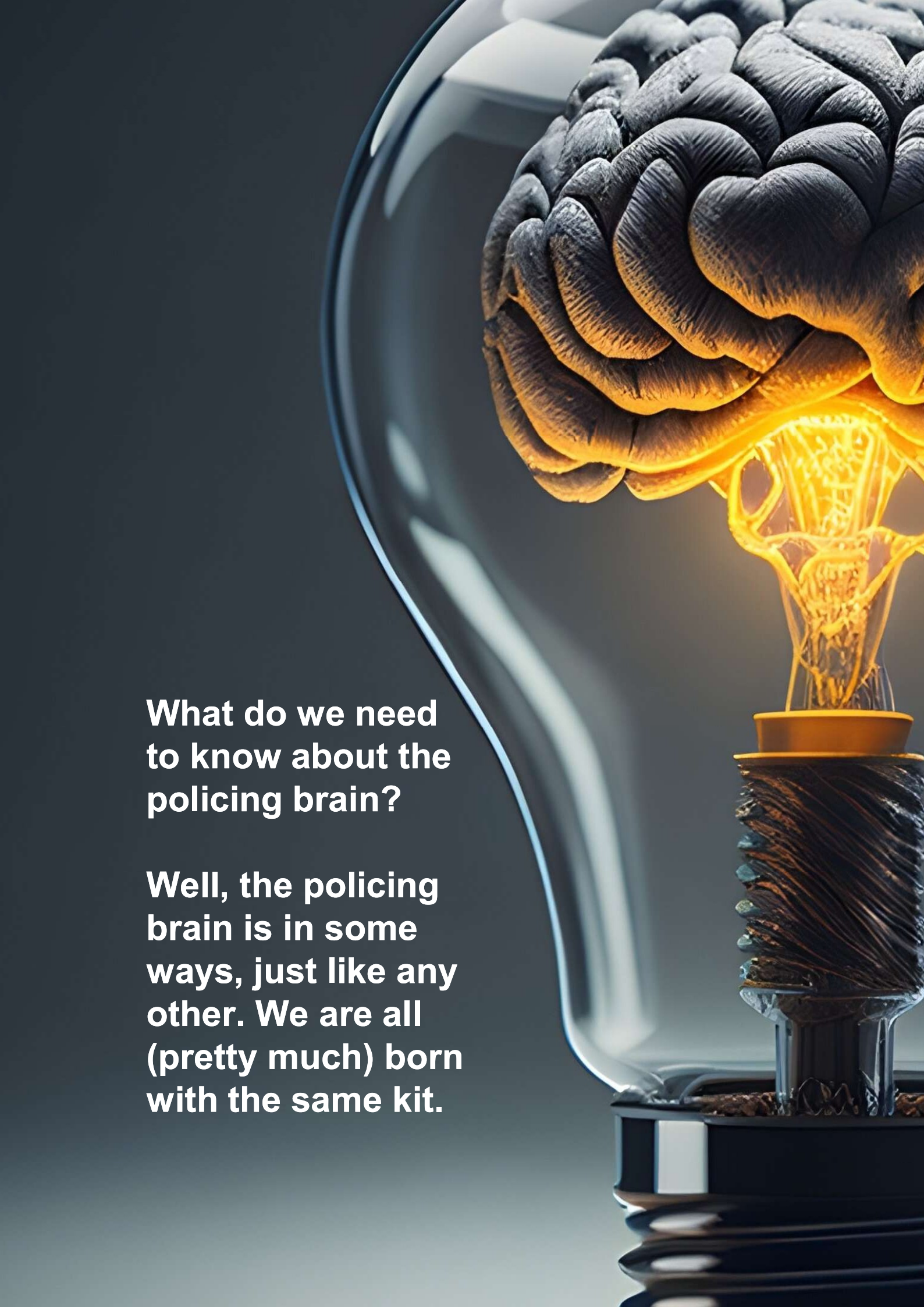
As time spent in policing goes on, it is typical to feel unaffected by some things and quite avoidant of others. The media encourages society to accept that a long time in policing will render many cops **burned out**, bitter, heated and irritable, with unfulfilling relationships, distracted by discrete addictions and just waiting for it all to be over when the pension kicks in.

The sad reality is: a sense of worthlessness and failure, irritability and emotional dysregulation are actually all symptoms of Complex PTSD: the most common form of PTSD in UK policing -with **12% of serving police and staff likely to have CPTSD** at any one time (see The Job & The Life Survey 2019 or visit : Police workforce: almost one in five suffer with a form of PTSD).

So, how do we adapt to the job without losing ourselves or becoming unhealthy inside our minds?

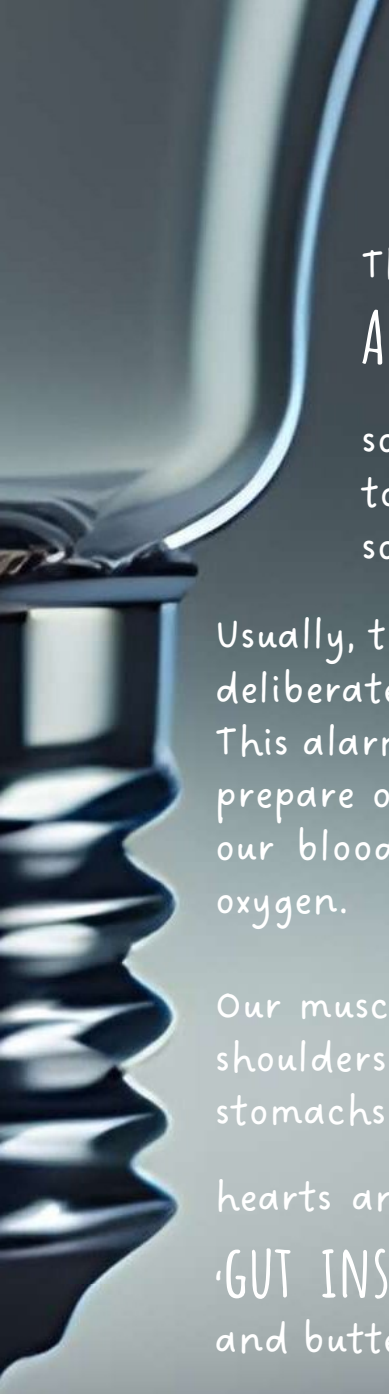
We get observant of our thoughts. That's it: it's as simple and as complicated as that. A few generations back, we'd have no clue where to start, but the world is a very different place thanks to neuroscience, technology and some open minds.


"We've learned more about the brain in the last 15 years than we have in the whole of human history."
(Michael Taft, 2015)
TITEN
Neuroscience-informed trauma exposure training



What do we need to know about the policing brain?

Well, the policing brain is in some ways, just like any other. We are all (pretty much) born with the same kit.



This is our brain. The alarm system, called the AMYGDALA (amigg-da-la) tells us when there is something THREATENING us that we need to respond to. It gives us basic information about these threats, so we remember them.

Usually, this information is the SHOCK ELEMENTS - which are deliberately uncomfortable as a warning to us for the future. This alarm system has a direct link to our body so that it can prepare our body, ready to respond to the threat. This raises our blood pressure and heart rate to supply our body with oxygen.

Our muscles brace for action and this is often sensed in the shoulders first. A network of neurons in our hearts and stomachs (yes, you read that right- we have neurons in our hearts and stomachs, hence the phrases 'HEART FELT' and 'GUT INSTINCT') will fire up and may cause rapid heart rates and butterflies.

When all these messages are firing, we are holding a lot of tension in our bodies.

This can have a negative effect on our body over time unless, we deliberately learn to release the tension once it is not needed. It can lead to high blood pressure, heart arrythmias, irritable bowel syndrome, slow digestion, shoulder impingements and neck and back pain. We also have language centres in the brain, also called BROCA (Broak-er) and WERNICKE'S (Ver-nickers) - areas for communication.

In some policing roles, we are trained to communicate under pressure, but instinctively, these areas can go very quiet when under stress, as our brains direct our focus on to any IMMEDIATE AND PHYSICAL THREAT. We do need communication to be able to share our understanding of the experience.

It is through this CONTEXTUALISING that we can put things in perspective and build meaningful and supportive connections with others at the same time. The HIPPOCAMPUS (hippo-cam-pus) is our CENTRAL FILING SYSTEM, contextualising our experiences for FUTURE REFERENCE - so we can learn from them as we go through life. Each piece of information must be understood, tagged with when it happened and where, before it can be filed appropriately, ready to be recalled when we need it.

Our PRE-FRONTAL CORTEX is the most advanced part of the human brain which separates us from the animal kingdom because it gives us the ability to MAKE DECISIONS based on insight. It also allows us to choose how we think and look at our thoughts rather than just being led by them.

So how do all these things play out in policing?

When the ALARM goes off, if the PREFRONTAL CORTEX is online, it will reach for the filing cabinet and see if we have experienced this threat before and gain information FROM EXPERIENCE to inform what we do next.

Once we have made sense of a once-alarming experience, the prefrontal cortex will work with the HIPPOCAMPUS to FILE THE EXPERIENCE AWAY.

However, if an experience is particularly alarming, and we have yet to make sense of it, the hippocampus is not going to be able file it. It will need more information than what happened, where and when for the alarm to go off.

This is when we may need some extra help to file something very alarming or distressing. If we don't get that assistance to make sense of it and file it, THE ALARM WILL KEEP SOUNDING AND THE HIPPOCAMPUS WILL STOP FILING. What is more, the prefrontal cortex WILL NOT GET NATURALLY ACTIVATED AS WE WILL BE STUCK IN THREAT MODE (this mode is where POST TRAUMATIC STRESS DISORDER can develop). This is where our thinking and behaviour becomes effected, and our bodies' response becomes more uncomfortable. We can try to dissociate from this by numbing out and keeping an emotional distance from people. After a while our lives can change drastically, sometimes without us even noticing (and this is where we may develop tell-tale signs of Complex PTSD).

So, even though our brains have evolved with the same basic kit, we can see that being in policing and Emergency Response means that some bits of kit are over-used, some under-used. This means that some brain areas ACTIVATE DIFFERENTLY, differ in density and volume, connect to other areas in different ways... We can see this happen on brain imaging and behavioural studies in decades of neuroscience but also (if we are honest enough to admit it), we know WE KIND OF SEE OURSELVES THE CHANGES IN OUR THINKING AND BEHAVIOUR THAT COME AS A RESULT OF WHAT WE DO FOR A LIVING. Many of us already have a felt sense of how we think differently because of the job and - quite frankly- we don't necessarily need neuroscience to point this out to us. *

But this science does mean that we don't have to take things so personally and we can BE PRAGMATIC about the whole thing. We don't have to take deep dives into the whys and wherefores of how we think, we can just crack on with the practical stuff that it gives us.

TITEN

Neuroscience-informed
trauma exposure training

*If you ARE interested in the neuroscience behind policing, look at these studies ...

- Police have smaller hippocampi after trauma (Lindnaur 2007)
- Police need more Pfc and less amygdala -using fMRI (Peres et al., 2011)
- Neuroscience of police compassion management (Mercadillo et al., 2014)
- Healthy police can't navigate well after trauma (Miller et al., 2016,17)
- Activating brain reward centres in special ops' (Vythiligam et al., 2009)
- Brain activation in police after trauma (Henig-Fast et al., 2009)
- Police trying not to think about traumatic incidents (Green, 2004)
- Secondary trauma from disturbing images in policing (Perez et al., 2010)
- Mental preparedness for police resilience on duty (Andersen et al., 2015)
- Police call handlers' psychological health (Golding et al., 2017)
- Training police trainees in trauma management (Manzella & Papzpglou, 2014)
- Timeline techniques for police to process incidents (Hope et al., 2013)
- Cognitive Interview: sketch maps in police interviews (Milne et al., 2003)

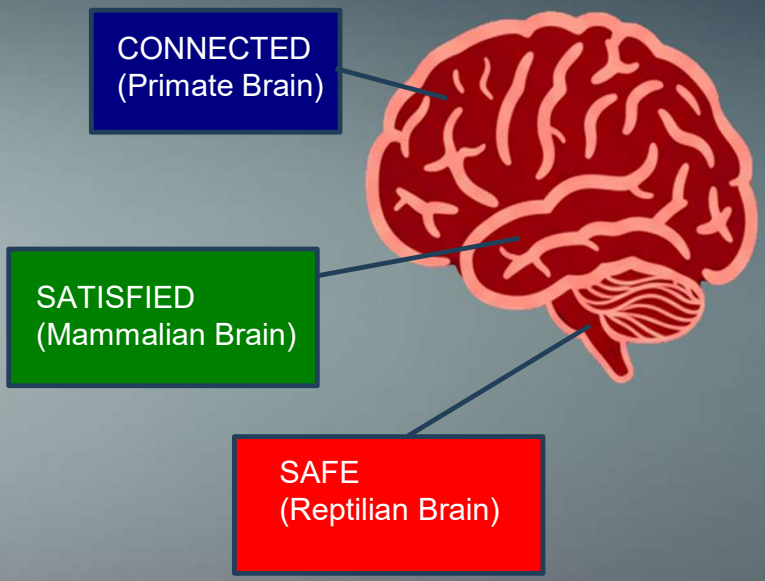
KEEP IT SIMPLE:
Safe. Satisfied. Connected.

However the job changes how we think, thankfully, we know that universally, every single human brain will always benefit from THREE THINGS, based on the way we have evolved as a species.

We need our REPTILIAN BRAIN (the oldest bit, based right down in the brain stem) to know that we are as SAFE as we reasonably can be.

We need our MAMMALIAN BRAIN (right in the middle) to know that we are aligned with what we want, that we feel OK ENOUGH about things.

We need our PRIMATE BRAIN (the newest bit at the front) to sense that we are CONNECTED to other things, people around us, our bodies, and the bigger picture (all things that we can use to have insight and make good decisions).



The brain is in its best state when:
The alarm is not sounding (safe)
There's a sense Of being OK enough (satisfied)
We can share our experiences With Others (connected)

Keep it easy to keep it real

To bring all these evolutionary systems and to BE ON OUR TOP GAME, we just need to check-in with ourselves every so often. When we may feel 'A BIT OFF' with things (but we're not 100% sure why), we can just take 30 seconds to ask ourselves straight up:

Am I as SAFE as I reasonably can be? Is there a GENUINE IMMEDIATE THREAT to my physical or psychological safety or is this a bit of HABITUAL HYPERVIGILANCE that can come with the job? Your answer should determine your response (in this job, particularly: if you need to get more safe, do it. If you are safe enough, reassure yourself).

Is everything OK ENOUGH right now? Are things diverting along a road to DISAPPOINTMENT AND TROUBLE, or do you pretty much have you want and need out of life to be going about your day OK?
Your answer would usually influence your attitude to things.

What CONNECTION do I feel? Is there a sense of feeling A BIT OUT-ON-A-LIMB, a bit detached? Or can I feel more 'together': a sense of my body right here and now, and a sense of those around me who I kinda 'get' and understand?
Your answer might just subtly shift how you steady yourself and how much 'A PART OF THINGS' you feel.

FAQs:

Here are some really common questions that deserve answering, so that we can become more comfortable and confident in our policing brains.

What if I don't have time to think about "EMOTIONS" and how I feel?

EMOTIONAL RESPONSES are the feeling tones that are generated from neurotransmitters. Neurotransmitters are chemical messengers that tell us about how we are in relation to what is going on around us in the external environment. They also influence how our bodies respond and what physical action is available to us. So, they are pretty vital as instructions for policing and are in no way to be ignored.

If we learn to tune into what feelings we are sensing, we are more likely to be able to scrutinize what is going on around us, assess a level of threat and understand others' motivations: because we are being alerted to the DYNAMICS AT PLAY and we can become objective. We don't need to be led by our feelings, or even 'like' our feelings, but by seeing them more clearly we can act with more DISCERNMENT AND AUTHENTICITY. Here is an example of some of them taken from the book The Policing Mind: Developing Trauma Resilience for a New Era (Miller, 2022).

Chemical	Feeling	Brain system	Stimulus	Policing…
Dopamine	Reward, satisfaction	Approach Mammalian *Feed the mouse!*	Completing a task, self-care, eating food, celebrating little wins	Sense of getting nowhere in a domestic violence job
Oxytocin	Connection, bonding	Attach Primate *Hug the human!!*	Sharing a secret*, playing with the dog, giving a compliment	Avoiding new people out of suspicion+
Serotonin	Mood stabilizer	Approach Mammalian *Feed the mouse!*	Sunshine, walking in nature, running, swimming, meditating	Sense of un-ease, irritability, up and down at work and at home
Endorphin	Pain killer, soother	Avoid Reptilian *Pet the lizard!*	Laughter, dark chocolate, essential oils, having a good cry	Body aches, stiffness, tightness around a really bad job, upset, loss

Isn't it a bit selfish to sit there naval-gazing while others are getting on with stuff?

Policing attracts people who want to get on and make a difference. The institution DOESN'T ALWAYS ENCOURAGE US TO THINK CREATIVELY OR REFLECTIVELY, and the job gives us so much to get on with that we are often already so full of things to attend to that we don't think there's any room to think! This means that we will sacrifice time to ourselves and time to think about our thinking and are therefore more likely to get caught up in the LESS HELPFUL MENTAL SHORT CUTS AND AVOIDANCES that can leave us less resilient and more vulnerable during the more tough times. The less we look after how we are doing, the less well we can look out for our peers properly and the less likely we are able to GAGE OTHER PEOPLE'S BEHAVIOUR. Again, this (ironically) leaves us more vulnerable and less productive -for a job that needs us to support each other and needs us to understand (sometimes some very odd) human behaviour that calls for the attention of police in the first place.

Tuning into how we are responding to things can be very practical - it's not a 'wishy-washy', self-indulgent exercise at all. We can GO TO OUR BODY FIRST. It may be as simple as using an app to CHECK ON OUR PHYSICAL STRESS RESPONSES (such as smart watch) or APPLYING BASIC POLYVAGAL TECHNIQUES that can be done in seconds and are effective. There is so much available online, it's just a question of spending a few minutes choosing how to check-in with ourselves in a way that suits us.

How do I know if I have "trauma" to make sense of?

There is no getting away with the fact that policing deals with other peoples' worst days daily. NO ONE CALLS 999 TO SAY THEY ARE HAVING A GOOD DAY. Much of the demand we navigate competently and without issue, but it's important to spot the times when we could do with a bit more perspective and support on incidents that have been heavy.

Signs something still isn't sitting right with us after a few weeks include...

AVOIDING REMINDERS of the incident (people, places, conversations)

IMAGES OR SOUNDS related to the incident popping up when we least expect it

BEING ON EDGE AND HYPERVIGILANT when we know we probably don't need to be

FEELING IRRITABLE and taking longer to reset after something has upset or unnerved us

MISSING BITS of what happened in our memory or something not making sense

If PTSD is such an issue, why isn't it in sickness data? (One for the sceptics...)

UNPROCESSED TRAUMA LURKS within sickness data recorded as stress and anxiety and all the physical symptoms that come with it, such as:

CARDIOVASCULAR CONDITIONS (high blood pressure, heart arrhythmias),

MUSKO-SKELETAL ISSUES (back pain, shoulder impingements, joint pain),

AUTOIMMUNE CONDITIONS (such as arthritis)

GASTRIC AND DIGESTIVE ISSUES (such as Irritable Bowel) ...to name but a few.

TRAUMA RESILIENCE AND THE POLICING BRAIN:

All You Need to Know (cont)

The organisation doesn't join the dots and GPs and the NHS may not always understand how careers in EMERGENCY RESPONSE PLAY OUT IN THE BODY AND BRAIN.

For those of us who know we need to take some time off to get their heads round something traumatic, we have no way of noting it. It's tempting to then try and mask it and get on - which just leads to more problems.

IT'S IMPORTANT TO BE ABLE TO WORK THROUGH TRAUMA IMPACT AND COME OUT THE OTHER SIDE SO WE CAN RETURN TO WHAT WE LOVE DOING. We all know that sometimes jobs can affect us and that just because there's no box to tick when we take time out, doesn't invalidate the fact that we may need to get our head around something.

There is a CULTURAL LEGACY in policing whereby the institution is still a little wary of acknowledging trauma impact systemically because it may feel unmanageable. The irony is that the more we pretend that trauma is a huge untameable monster we need to hide from, the more it will play out that way.

Trauma impact is natural, human and manageable.

TRAUMA RESILIENCE AND WHAT KIND OF JOBS DO MOST PEOPLE FIND TOUGH IN UK POLICING?

Thanks to over 18000 UK officers and staff who engaged in the Policing: The Job & The Life survey in 2019, there were 7000 descriptions of officers' worst ever experiences (that resulted in PTSD), which meant that researchers were able to identify the **common ground of trauma exposure** that over 75% of our 43 forces deal with everyday:

•The type of incidents or jobs that are most reported as being "the worst" and
•The conditions which can make those jobs harder on some days more than others.

This resulted in a vital tool for all our UK forces; the Police Traumatic Events Checklist.

https://www.policecare.org.uk/help/ptec/

By using this tool, we can see laid out in front of us the inevitability of trauma on the job, and also the factors that maybe managers and teams can do something about!

Here is what it looks like: does this resonate with your time with the police?
(Thanks to Police Care UK for sponsorship, the PFEW for collaboration and analysis and The University of Cambridge for software and steer).

POLICE TRAUMATIC EVENTS CHECKLIST This matrix shows the most common 'worst' experiences described in UK policing. It also offers situational factors at the time that can exacerbate any event.		A Gruesome scenes (eg disrupted bodies, gory injuries)	B Organisation pressure (eg resources, bullying, being investigated)	C Cumulative exposure (eg a build up of smaller traumas)	D Being a first person on scene	E Personal resonance (eg victim was known, it was a birthday, etc)	COVID19 Victim vulnerability (eg elderly, deprivation)
1	**Incidents involving children** (eg fatalities, abuse or exploitation)						
2	**Sudden or unnatural death** (eg murder, suicide or hanging)						
3	**Road traffic collision** or rail incident						
4	**Dead bodies** (seeing or working with one or several)						
5	**Serious injury / physical assault to yourself**						
6	**Major incident** (eg terrorism or transport disasters)						
7	**Supporting families** (eg death messages, family liaison)						
8	**Incidents involving weapons** (eg knives, firearms, taser)						
9	**Vicarious or secondary trauma** (eg calls, files, images, audio, BWV)						
10	**Incidents involving fire** or explosions						

Simple advice on how individuals, teams and whole forces can use this to support the policing brain is available online through Police Care UK and The University of Cambridge.
There is advice for individuals, leaders, supervisors, trainers, wellbeing teams, all sorts.
The most important one is the How To Use PTEC https://www.policecare.org.uk/wp-content/uploads/2023/09/HOW-TO-USE-PTEC.pdf

....so you can begin your own exploration of the terrain you quietly already know- in your own way. You might not be surprised by the kind of jobs that are tough, but you may be surprised at your resilience compared to others and what conditions can make things better or worse.
For those of us who haven't had time to think about this kind of stuff, PTEC (and the thousands of officers' stories within it) does it for us.

ACKNOWLEDGEMENTS

Thanks to the sponsorship of POLICE CARE UK for the development of the research with The University of Cambridge and the support of the NATIONAL WELLBEING SERVICE and the POLICE FEDERATION OF ENGLAND AND WALES over many years.

Big thanks to the creativity and passion of Adam Maullin in his development of these products. The greatest acknowledgement goes to all those officers and staff in policing, here in the UK and globally, who have given researchers their time, trust and energy to contribute to our understanding of what it means inside to do a job like no other.

FURTHER INFORMATION AND REFERENCES

Association between job quality and the incidence of PTSD amongst police personnel, Policing: A Journal of Policy and Practice | Oxford Academic: https://academic.oup.com/policing/article/doi/10.1093/police/paac054/6717934

Police workforce: almost one in five suffer with a form of PTSD: https://www.cam.ac.uk/stories/police-ptsd

Police Traumatic Events Checklist (PTEC) - Police Care UK https://www.policecare.org.uk/help/ptec/