

# NEUROPSYCHOLOGY Deadly Conflict, Deadly Force & Deadly Situations



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### Why Do Humans Kill Humans?

A study of 1,024 mammal species has determined which animals are the most vicious killers of their own kind. Killer whales perhaps? Pit bulls maybe? For the answer just look in the mirror. "Step back and view our species objectively from the outside, the way a zoologist would carefully observe any other animal or see us the way every other creature perceives human beings. The brutal reality could not be more evident or more horrifying. We are the most relentless yet oblivious killers on Earth.

"Our violence operates far outside the bounds of any other species. Human beings kill anything. Slaughter is a defining behavior of our species. We kill all other creatures, and we kill our own. Read today's paper. Read yesterday's or read tomorrows. The enormous industry of print and broadcast journalism serves predominantly to document our killing.

Violence exists in the animal world, of course, but on a far different scale. Carnivores kill for food; we kill our family members, our children, our parents, our spouses, our brothers and sisters, our cousins, and in-laws. We kill strangers. We kill people who are different from us, in appearance, beliefs, race, and social status. We kill ourselves in suicide. We kill for advantage and for revenge, we kill for entertainment: the Roman Coliseum, drive-by shootings, bullfights, hunting and fishing, animal roadkill in an instantaneous reflex for sport. We kill friends, rivals, coworkers, and classmates. Children kill children, in school and on the playground. Grandparents, parents, fathers, mothers--all kill and all of them are the targets of killing..."—R. Douglas Fields, Why We Snap, p. 286, 2016.



#### **Author Notes**

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### **Abstract**

The purpose of this document is to help educate and generate interest in the facts concerning use of force in deadly situations. This document is about our judicial system and training.

Why do police officers, peacekeepers and warfighters aka (protectors) do what they do during deadly conflict? How does training affect the brains of our protectors.

This document explains what happens during deadly situations discovered utilizing the Troysgate Transporters.

It is known that every human is prewired to survive. During a deadly encounter The Will To Live over-rides logical thought, when that occurs the survival brain activates. Once it activates can it be controlled?

Some of the material that is in this article is my hypothesis, I am trying to explain what I perceive to be the truth.



This document is based upon my observations and past experiences.

Human behavior in deadly force situations can now be studied in real time utilizing Troysgate. This in turn has led to new discoveries and answers.

The research I have done so far has taught me more than I could ever imagined and the excitement I have for this work is unexplainable.

Troysgate Transporters to the best of my knowledge is the only system that activates the survival brain in a safe controlled environment.



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"Neural Substrates Underlying Fear-Evoked Freezing: The Periaqueductal Grey—Cerebellar Link" was published in the Journal of Physiology - released April 23, 2014

Psychologist Daniel Goleman first used the term "amygdala hijacking" in his 1995 book Emotional Intelligence: Why It Can Matter More Than IQ.



### **PSYCHOLOGY & NEUROPSYCHOLOY**

**Psychology:** The scientific study of mind and behavior. Psychology includes the study of conscious and unconscious phenomena, including feelings and thoughts. It is an academic discipline of immense scope, crossing the boundaries between natural and social sciences. Psychologists seek an understanding of the emergent properties of brains, linking the discipline to neuroscience. Social scientists, psychologists aim to understand the behavior of individuals and groups.

**Neuropsychology:** A branch of psychology concerned with how a person's cognition and behavior are related to the brain and the rest of the nervous system. It is an experimental clinical field of psychology, aiming to understand how behavior and cognition are influenced by normal brain function.

### **Purpose of This Document**

Troysgate Human Performance Systems, LLC. Is searching for neuropsychologists to help with research and assist in finding funding for research at our facility located in North Carolina. Researchers will be allowed to use our patented buildings and methods which involves observation, experimentation, testing, and analysis exploring biological, cognitive, emotional, personal, and social processes or stimuli underlying human behavior in deadly conflict.



### **Neuropsychology and Deadly Force Encounters**

In life-and-death situations, the body's stress response distorts cognition, perception, and memory. For protectors, this can lead to a phenomenon referred to as "The Deadly Mindset," the protectors mind and body is flooded with chemicals and hormones that ensure survival of the moment, in most cases when the protector is face to face with dangerous situations they will respond without logical thought, the survival brain takes over and stops what it feels is a danger to its survival. **Kill or be Killed.** 

### In the Courtroom

The use of neuropsychologists in courtrooms is nothing new, defense attorneys and prosecutors alike have long relied on expert testimony to help explain the complex soup of chemical hormones and electrical impulses that drive human behavior. The use of psychology in the defense of protector involved shootings is not common. Experts suggest it is likely to become more common with the proliferation of cameras documenting deadly situations.

Some psychologists argue that while the biology of stress is well established, but its connection to deadly force is far less clear. While the protector can experience cognitive and perceptual impairments, like tunnel vision and dissociation, researchers ultimately know very little about what role they play in the decision to use deadly force.

In the absence of rigorous science, psychologists are dubious of using the neurobiology of stress in defense of protectors who kill.

Until the invention of Troysgate there has been no way to observe and collect the information needed for the understanding of what actually happens during deadly force situations. Troysgate is able to provide actual data.



### **Threats Protectors Face**

Protectors deal with serious threats every single day in America and around the world. They are human like the rest of us but have to deal with the issues that the general public knows very little about. To give you an example of the difference, "If your car is skidding off the road you correct it; if someone is chasing you, you try to elude them. However, there is a twist for protectors: "Even though their brains are telling them, 'Run! Get away, save yourself,' their job is exactly to do the opposite. They have to run *toward* the danger," that action alone is against instinct. When running toward danger to stop it the biological imperatives of survival heightens the feelings of danger and increases the perception of a threat.

Protectors are trained to resist the urge to flee the scene, and experts suggest proper training with experience can give protectors the ability to suppress some effects of stress during threatening encounters. How do they get the experience of using real deadly force?

Research has also found that clear and strict departmental policies on when to use force can help eliminate errors in officer discretion. <u>I Disagree with this statement and can prove this utilizing the Troysgate Transporter. It is not applicable in "Life and Death Situations."</u>

It is impossible for researchers to know what humans are thinking during threatening encounters, the factors that influence their decision to use force are not clearly understood. Researchers are not at the scene of real-world, deadly encounters, they try to create high-stress, naturalistic role-play scenarios that are nothing more than just a game. This is not valid research, Troysgate places protectors in real situations that show what happens in real situations.

The most powerful predictor of protectors using force is not the different levels of stress, but rather the "noncompliant" behavior, such as physical aggression, failing to obey commands or having a dangerous weapon.



### **Expert Witness**

To determine whether an expert witness's scientific testimony is based on sound scientific reasoning, judges often use what's become known as the Daubert Standard —named for a 1993 Supreme Court case in which a family sued a pharmaceutical company for birth defects they believed attributable to a prescribed medication. For scientific testimony to meet the Daubert criteria, it typically must be based on peer-reviewed research that is widely accepted by the scientific community.

Experts have argued that research used in defense of shootings fails to meet this threshold.

Before Troysgate "We simply didn't have enough evidence related to decisions made during the use of lethal force to meet the Daubert criteria for science in the area". With Troysgate we can now utilize neuropsychologists to do research in safe environments to research and study human behavior in deadly situations

Scientists know a lot about the human body's stress response. However, they do not know much about how the stress of a deadly encounter that affects our protectors, they are trained to perform their duties under highly stressful scenarios, and what impact it has on their decision to shoot or not. Special Note "TRAINING IS NOT REALITY"

A 1994 research report from the National Institute of Justice raises concerns about psychologists addressing excessive force only during stress management training. "Does treating it this way encourage the perception that stress is an excuse for excessive force?" Some have said "It's morally egregious to advance a theory of science that argues because of the job protectors have, and the way that we train them, that stress should now be exculpatory for anyone." How fine is the line between excuse and explanation? "Stress or anything else is not an excuse for any kind of misconduct. I agree with this statement but when you place humans in dangerous situations, they will respond without thinking because they are human.



The use of deadly force cases ultimately boils down to what the protector may perceived. Now that cameras are everywhere and body cameras are worn, juries can weigh an officer's word against the video evidence. Video recordings are a mixed blessing, they are good for an investigation in complaints against officer's improper use of force or language etc. However, when the situation goes deadly there are lot of issues involved that cannot be displayed by video even though you can show the video footage is repeatedly and slow it down and play for the jury to view. This doesn't accurately portray what is really happening and/or what the officers involved are perceiving.

FACT "Video Distorts the Truth"

Scientific Studies of Stress Related to Deadly Situations, the response behaviors are far more complicated. There are a lot of gaps in the real world and training, and it's important to identify those and have better understandings of the causes of the behaviors in deadly conflict.

We at Troysgate have the responsibility to help judges, juries, and attorneys understand the truth.



### **Troysgate Human Performance Systems, LLC**

U.S. Patent 9,453,711, Issued September 27, 2016.

Weapons Firing Range System & Apparatus Employing Reflected Imagery

**Close Encounter Transporter #9 -** A multiple use facility. TG-9 is used for close quarter combat, domestic violence, suicide, armed assailants, or any other situation requested by the client.





### **Vehicle Transporter #TG-45**

This transporter is a structure designed for vehicles, moving or stationary. The use of this transporter is unlimited.



**Sniper Transporter #TG-54** 





### The Effects of Troysgate

Transporters provides mental preparation and conditioning for deadly situations and engagements. This is critical and essential for the protector because it conditions their brain to effectively manage deadly conflict situations by controlling the human tendency of initiating undesirable emotional survival responses. With the Troysgate experience, the protector will be more effective, predictable and have a more conditioned response.

The experience of Troysgate and being conditioned to real situations the protector can learn to control his/her emotional responses and learn to access other critical parts of the brain to exercise cognitive abilities, knowledge, and procedural memory (training and skills). With proper exposures to deadly situations, protectors learn to control fear. The exposure allows them to have more understand of what happens during real situations. With the new understanding of deadly force, they learn how to maintain self-control that helps with optimizing human performance including lethality, survivability, and resiliency.

(Special Note) Troysgate Exposures should occur before the protectors ever experience real deadly situations.

The advantages and benefits of Troysgate is to provide conditioning programs that is applicable for pre-deployment, deployment, and post-deployment issues.

<u>Pre-deployment</u> – mental preparation and conditioning for deadly situations.

<u>Deployment</u> – mental conditioning to "reset" the individual after deadly force engagements and to minimize battlefield stress, fatigue, sleep deprivation.

<u>Post-deployment</u> – mental conditioning for combat duty decompression and sending them home with a normal way of life. We believe that Troysgate will reduce PTSD related issues and hopefully reduce incidents.



### Research Utilizing Troysgate Transporter

There are several studies that the Transporter can be used for:

- 1. Exposure to real deadly situations.
- 2. Deadly Force and the After-Effects. (PTSD)
- 3. Military, the use of deadly force during combat, being able to observe human behavior in a controlled environment.
- 4. Real Experiences of Deadly Conflict
- 5. The reset, resetting the protector after deadly conflict.
- 6. Exposure to the Realities of Deadly Engagements.
- 7. Preparing the brain for what it does not understand.
- 8. Training, validation in a controlled environment.
- 9. Knowledge of how the brain and body function during real deadly conflict.

### Observations Utilizing Troysgate Transporters

Observed responses have included every aspect of the human survival response – fight, flight, and freeze mode. The effects during exposures have included elevated heart rates and respirations, visual and auditory occlusion, diminished or heightened sense of smell and perception. Participators have experienced disorientation with respect to time and distance, including confusion. Many indicated the experience seemed surreal and in slow motion. A few of the participants experienced loss of bladder and bowel control. All participators have reported to us that everything feels real.

Troysgate affects all humans both physiological and psychological. The effects on the participants may include the inability to:

- Respond (no action taken)
- Utilize Cognitive Abilities
- Follow the Rules of Engagement
- Identify the threat or threats



- See the true dangers and/ or incorrectly identify a non-threat object as a weapon.
- Handle/manage their firearms
- Limit the number of rounds fired
- Remember specific details of the deadly situation.

What was of particular interest that 100% of the participants were unable to see or recognize bright multi-colored lights and flashing lights directly in front of their eyes.

### Goals and Objectives

To save the lives of our protectors including soldiers, federal agents, law enforcement officers and other humans placed in harm's way, and to help minimize the consequences of deadly situational engagements that include the damaging mental trauma and emotional scarring.

To help reduce PTSD and related issues, deployment, and postdeployment suicide rates, including collateral damages and civilian casualties.

Troysgate Transporters provide capabilities related to Performance, Lethality, Survivability, Accountability, Predictability, and Resiliency.

### Use of Deadly Force

The experience of fighting for your life or being around other people fighting for their life is different to say the least.

Why do the protectors' respond to deadly situations by actions that are considered criminal acts?

Why do they see things that do not exist?



Our protectors put their life on the line to keep all of us safe and they do it every day. When they appear to make unreasonable actions the people who judge them are looking at their actions sitting in a safe environment. "Let's Put Them in Jail and Charge Them with Murder" seems to be the normal response. I have taken these same people and put them in the exact situation, and they have responded exactly like the protector place on trial for murder.

If humans cannot do what they are telling others, then the rules need to change.

I cannot sleep at night knowing that some of these good protectors who put their lives on the line don't even know why they responded the way they did. To them it appears that the whole world stands against them.

Troysgate Transporters allow humans to observe protectors' behaviors in life and death situations, and they can experience the situation themselves. When humans are exposed to experiencing and observing actions of humans in this controlled environment, they will find that most of the issues surrounding deadly force is more understandable. I personally know that the use of deadly force and taking human life is different from any other task that humans do. The decision to take human life and acting upon that decision is very complicated.

I would like to share with you a couple of incidents that I have experienced personally. In all my years I only have been involved in two situations where I had to fire my duty weapon. In both situations, I did not intend to shoot but when others started shooting, I started shooting. In one of the situations one person was killed. In this situation I learnt that shooting a person is a very private action with tremendous intensity. After my internal investigation was over and I was cleared of any wrongdoing I was relieved. I still had questions about the shooting.

The questions I had no one could answer so I just stopped talking about them. I thought, it was just me.



Why did I shoot? Why did I see something that was not there? Why did everything slow down? Am I supposed to feel the way I do?

Another incident, some things occurred that I did not understand. While I was working as an officer, I was involved with situation that involved a five-year-old hostage. The hostage taker was a white male that was not related to the hostage. The hostage taker was holding me at gun point using a 12-gauge shotgun. I grabbed the shotgun, and it went off narrowly missing my face. At that moment I turned my head and saw an officer falling face down to the ground with his hat flying backwards in the air. I thought he had been shot in the face. I remember thinking I had to kill the shooter. After thinking that, I do not remember anything. I do not remember hitting the suspect in the face. I do remember someone grabbing me by my shoulder saying they were ok. It was the officer that I thought had been shot. I remember looking down at the suspect who was under me, his face was so bloody. I jumped up and threw my ballistic helmet as hard as I could and started walking away as fast as I could. I had so much energy, I didn't know how to get rid of it. After about ten minutes I started calming down.

Questions I had about this incident. Why did I think I had to kill him, but I couldn't remember to pull my gun? Why do I not remember hitting in him the face? Why did I not hear the shotgun go off? Why did the muzzle flash look so big? Why did everything slow down? Why did I see the face of a dead officer in the muzzle flash?

Another story, I had a friend that I had known my whole life. He wanted to be a policeman but never went to basic training. He would sometimes ride with me on weekends. His family and my family would go to church, camping and we spent a lot of time together. He started having some problems and got hooked on drugs. On the night of his death, he drove to a neighborhood known for selling drugs and tried to purchase a crack rock. The police were doing a sting that night and he paid an undercover officer \$20 for a crack rock. I was told that he tasted the crack rock and knew it was fake. He asked the undercover officer for his money back. The officer ignored him and kept walking away. My friend reached into his car and pulled out a short shotgun and fired one round into the air. The officer walking away from him was startled and stumbled. Other officers apparently thought he was shot and opened fire on my best friend shooting him fourteen times killing him. When



I received the call from his brother stating what happened I was in shock. My friend would have never done anything against the police, and I was angry. The officers involved had been personally trained by me. I could not understand why they shot him so many times.

His brother asked if I would come and look at the body after the autopsy had been performed, to look at all the bullet wounds. While I was looking over his body, his wife came in. I watched her as she broke down and cried. I was in emotional shock.

This is just one of several incidents that I have observed. I asked myself why did this happen? What could I have done differently in training that would have had a different outcome? Why did they shoot him so many times? Why did so many officers have to shoot him? Searching for the answers to my questions, I was able to find the information that had eluded me. The unknown became known to me.

### Flashbacks and PTSD

Participants with prior deadly conflict experience have indicated that they flashbacked to a previous event during their exposure. Most indicated their flashback was a brief memory of the event. Other participants with PTSD and PTSD related issues re-visited the event during their exposure in every detail as if it were real. In several instances participant exposure triggered an immediate, moderate to severe episodic PTSD event. For those participant's, subsequent exposures helped reduce the severity of the PTSD event episodes. The participants' that experienced a flashback, triggered them to recall full details of their incident. These individuals did not see or hear the role player; they saw and heard the real humans that were in their experience.

### Post-Troysgate Exposures

After being exposed to Troysgate, some officers have had to use deadly force. Most of them have contacted me and thanked us for the



conditioning they had received. Most of them stated that the actual event was nearly identical to the exposures in the Troysgate Transporter.

### Fear Conditioning

During my career I have taught about the dangers that our protectors face. I have trained them how to use hand to hand combat, how to shoot other humans and how dangerous it really is. Some of these protectors were the best of the best. But when exposed to deadly situations in the Troysgate Transporter most of their responses were not expected. I could not understand why they were making so many mistakes. For years I just told everyone it was above my pay grade.

As I observed thousands of people from different walks of life being exposed to Troysgate I kept seeing the same mistakes. Watching the same mistakes over and over made me curious to what was really the cause. After taking a considerable amount of time thinking about all of this, I concluded that the cause is the training. Training is critical and we need it but we need to make some changes.

Some of the discoveries during my research; the untrained do better than the trained during the decision-making process before using deadly force. Non-trained people made fewer mistakes dealing with deadly situations and it appears they make better decisions. However, most of them were shot multiple times before they would return fire.

Observing the protectors with ten (10) years or more of service being exposed to deadly situations, the ones with the most experience were more sensitive to the deadly situations. Ten percent of them were very quick in the use of deadly force. However, most of them made critical mistakes as the criminal investigators & judicial professionals see it.

During deadly situations involving a study of 100 officers' 90 percent were shot before they returned fire. We observed them getting mentally stuck in a "I'm not sure what to do moment.



### Our Protectors Are Being Destroyed by Society Because Society Does Not Hear or Know the Truth

### The Truth Is Not Known Even by Those Who Protect Us



Our protectors do not understand some of their own responses. They have not been exposed to the realities of deadly force before their first time and have not been told the truth about deadly situations. The training is not where you find the truth. The truth is discovered during real deadly situations.

Protectors cannot learn the truth by playing war or playing cops and robbers. Protectors cannot find the truth by staging active shooter training or other made-up dangerous situations playing with empty guns and fake ammo. Protectors must experience real deadly situations for themselves, to have a true understanding.



### **Dangerous Situations**

Humans that the protectors deal with do not understand why it is so important to follow the commands given by the protector. Our protectors are human and preprogrammed at birth to survive just like other humans. The actions of the humans they are dealing with starts a chain of events that may lead to a bad outcome.

#### The Chain of Events

Any action that could be perceived as dangerous. If actions are perceived to be real, whether real of fake, it is possible that the brain may not know the difference. This is when the decision making is not clear and often the amygdala hijack occurs. The body chemicals are released. That is when the human enters the **Third Realm aka The Killzone**. (Explained later in this document)

Through observation of the behaviors, a new world of understanding opened for me. The only true way to understand how difficult deadly force situations are, you must experience them yourself.

### Observation of Veterans

The first person I observed was a veteran who became a police officer after Desert Storm. During his exposure to Troysgate he shot one of our actor suspect after pulling the trigger he collapsed and had uncontrollable crying and started speaking about the war. I didn't know how to react, so I sat down beside him and listened to what he had to say, he was so emotional and crying, I could not help myself, I cried with him while he was telling me his story.

Everyone that I shared the video with could not explain to me what happened. As I continued on exposing other protectors and I observed similar behaviors in others. I couldn't not sleep at night thinking that maybe I was messing people up by exposing them to Troysgate. I was not sure if I



should continue messing with the human mind, I knew for sure that I had found a way to open Pandora's Box and explore its contents.

Through research on my own, I tried to find what was causing these issues. At first, I couldn't understand what was causing the strange reactions from the police officers and warfighters. When I questioned them, it seemed as if they were telling me a lie about what they had just experienced.

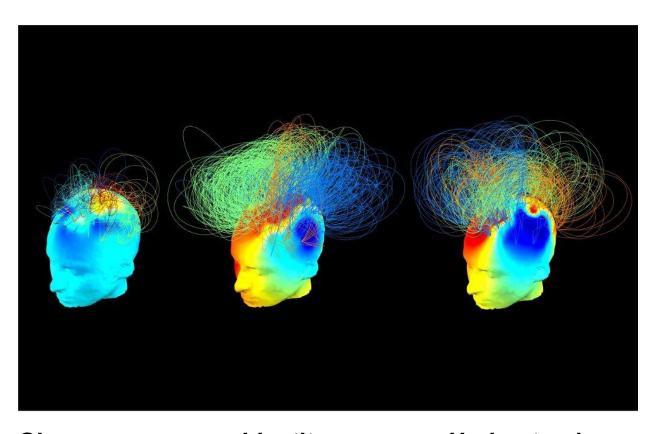
Why did they see things that are not there?

Why can they not stop shooting at someone who is apparently dead?

Why are they shooting unarmed people?

Why are they shooting innocent people?

We are able to observe protectors involved with deadly situation in real time which allows more understanding of why humans do what they do when faced with sudden danger.



Observe Identity Understand



### Examples of Police Actions and Reactions to Deadly Situations

### Situation #1

Police officers are attempting to serve a warrant for sexual assault. Two officers go to the door of the offender and knock on the door. The suspect tells the officers to come in. The officers enter the house and observe the suspect standing in his living room with a female. The female starts yelling at the officers telling them to leave. The suspect then starts yelling at them to leave and stating that he is not going to jail.

The suspect pushes his girlfriend and starts walking towards a shotgun. Everyone is yelling and things are getting out of control. One officer shoots him in the back emptying his gun with 12 rounds. The female runs over to the suspect and starts crying, then slowly picks up the shotgun telling the officers she is going to kill them. Both officers have reloaded their handguns and shoot her with a total of 30 rounds entering her body killing her.

Why did the first officer shoot until his gun was empty with the suspect walking away from him? Why did both officers shoot the female until their guns were empty? This situation is a decision-making arrest played out in the Troysgate Transporter.

This is a normal response for officers experiencing Troysgate for the first time and is normal behavior in the Transporter. 100% Kill Rate. This situation is a "Decision Making Response"



#### Situation #2

The police received a call stating a man is acting strange in a drug store and threatening people with bodily harm. When the officer arrives, the suspect has his hands in his pocket. The officer asks him to slowly remove his hands from his pocket. The suspect tells the officer he is going to kill him. The suspect quickly removes his hands from his pocket with a cellphone in one of his hands. The officer shoots him 15 times. While the suspect is being shot, he falls to the ground holding up the cellphone telling the officer he is calling his mom. The man dies on the scene. Why did the officer shoot him with a cellphone? Why did the officer shoot him 15 times and reload? In the interview officers swear it was a gun and describes the gun in detail. This situation is a "Startled Response".

Normal behavior in the Transporter, 100% of the officers responded in a similar manner.

### Situation #3

An officer checks out at a friend's house. Dispatch tried contacting him on his walkie talkie several times. He does not respond. Dispatch receives a call from his friend asking for another officer to come by. Dispatch sends another officer to check on him. Officer #2 arrives. The friend of officer #1 meets officer #2 at the door. The friend tells officer #2 that he is concerned about his friend officer #1. Officer #2 follows the friend of officer #1 into his living room. Officer #1 pulls out his gun and points it at his own head while he is telling officer #2, he wants to die. Officer #2 pulls out his gun and pleads with officer #1 to put down his gun. Officer #1 points his gun at officer #2. Officer #2 shoots officer #1 in the head. The friend panics, the friend reaches over and tries to pick up officer #1 handgun by the barrel. Officers #2 shoots him 5 times. Both officer #1 and the friend die on the scene. This situation is an "Emotional Response."

Normal Behavior. 99% of the officers involved responded this way.



# Deadly Close Encounters (DCE)

- 1. **The Situation** Real or Perceived Danger
- 2. Mirror Neurons Copying the Actions
- 3. **Fear-Evoked Freezing** I'm Not Sure What to Do Moment
- 4. Chemical Release Chemicals Released (Adrenochrome = Good & Bad)
- 5. **The Void** Deciding the response, the logical brain is searching for past experiences. During these moments the brain is Toggling like a Toggle Switch from Logic to Survival. The amygdalae decide if the survival brain needs to activate.
- 6. Logical Brain- Decides to Act
- 7. **Situation Resolved R**esolved by the logical brain. The protector who remains in the logical thinking mode shoots a couple of times or until the threat stops.
- 8. **Amygdala Hijack** Detects immediate danger (Real or Perceived). Activates if no immediate decision is made. The switch that activates the survival brain. Once activated over-rides the logical brain.
- 9. **Survival Brain Activated** Protector has no Control of their Actions. The protector will empty his/her gun into the threat, even if the threat turns their back to them, runs or complies. Will do things that are not considered normal.



### Mirror Neurons



You see someone cut their finger and you immediately flinch in sympathy, or you notice a friend wrinkle up his face in disgust while tasting some food and suddenly your own stomach recoils at the thought of eating the same food. This ability to instinctively and immediately understand what other people are experiencing has long baffled neuroscientists, but recent research now suggests a fascinating explanation: brain cells called mirror neurons.

Observing the same action, such as grasping a cup, in different contexts elicits different levels of mirror neuron activity in one area of the brain that belongs to the mirror neuron system (right posterior inferior frontal gyrus). This finding shows that the mirror neuron system does more than code the observed action ("that's a grasp"). It also codes the intention behind the action ("that's a grasp to drink" or "that's a grasp to clear the table").



Before the discovery of mirror neurons, scientists generally believed that our brains use logical thought processes to interpret and predict other people's actions. Now, however, many have come to believe that we understand others not by thinking, but by feeling. Mirror neurons appear to let us "simulate" not just other people's actions, but the intentions and emotions behind those actions. When you see someone smile, for example, your mirror neurons for smiling fire up, too, creating a sensation in your own mind of the feeling associated with smiling. You don't have to think about what the other person intends by smiling. You experience the meaning immediately and effortlessly.

Researching mirror neurons, during deadly encounters will help society along with scientists to reinterpret the neurological underpinning interactions of humans during deadly situations. These studies will lead to:

- 1. New insight into how and why we develop empathy for others and if it is applicable in deadly situations.
- 2. New theories about deadly conflict and deadly situations for law enforcement and the warfighter.
- 3. Learn new techniques to train and condition protectors.

Direct evidence of individual mirror neurons continues to come from research involving macaque monkeys implanted with electrodes. Building on research in animals, researchers have conducted brain imaging studies that reveal a possible mirror neuron "system" in humans, as well.

Several key findings have been made. One is that mirror neurons appear to allow us to determine other people's intentions as well as their actions. For example, one area of the mirror neuron system exhibits greater activation in our brains when we observe someone picking up a cup to have a drink than when we watch the same person picking it up to clear it from a table.



The mirror neuron system also appears to allow us to decode (receive and interpret) facial expressions. Whether we are observing a specific expression or making it ourselves (a frown of disgust, for example) the same regions of our brain become activated. The better we are at interpreting facial expressions, the more active our mirror neuron system. This is critical to know because of the activation of the survival brain during deadly conflict.

These findings suggest that the mirror neuron system plays a key role in our ability to empathize and socialize with others, as humans we communicate our emotions mostly through facial expressions.

During my research I discovered just by the facial expression of my actors activated the survival brain in some protectors. When that happened, the protector unconsciously used deadly force without any understanding of his/her actions. Most of the protectors used deadly force just by someone pointing a finger at them. Some of the protectors shot the actors in the back when they turned away from them. Very interesting behaviors.



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# Fear-Evoked Freezing



The cerebellum causes the body to freeze in place when we're frightened. When you feel fear, it is normal to freeze, flee, or fight. All three of these responses have a neurobiological foundation that is necessary for survival. Humans need these instinctive responses for survival. The actions that we observe in deadly situations are because these instinctive reactions. Humans react to real and perceived deadly situations the exact same way.

The Fight-or-flight mode has been studied by researchers for years. However, there is some exciting new research from the UK looking into the neurobiology of the freeze response (The Void). Before deciding to flee or fight, most humans freeze for a few milliseconds to assess the situation before making the next move. In the Troysgate Transporter this is a normal response, however during this freeze mode most of the protector are shot. People have asked me can we control the freeze mode? The answer is yes. With the right mixture of controlled deadly exposures, the brain is educated and has more knowledge to pull from based on past experiences.



For any of us staying frozen in place is not going to work or is it the best defense. The problem with the freeze response is the deadly actions of others. It is simple during a life and death situation you must respond to stay alive. If you cannot remember what to do during this time, you are prewired to do whatever it takes to stay alive.

If we can control the freeze response, then our chances of staying alive rises and we make less mistakes. Neuroscientists at the University of Bristol have identified a brain pathway that may be the root of the universal response to freeze in place when we are afraid. The revolutionary study—released on April 23, 2014—discovered a chain of neural connections stemming from the cerebellum. When activated by a real or imagined threatening stimuli, these neural connections can cause the body to automatically freeze.

The new study titled "Neural Substrates Underlying Fear-Evoked Freezing: The Periaqueductal Grey—Cerebellar Link" was published in the Journal of Physiology. Troysgate researchers believe that understanding how these central neural pathways actually work will bring us closer to the real understanding of human behavior during deadly conflict.

# What Brain Regions Are Involved in the Fear-Evoked Freezing Response?

The periaqueductal grey (PAG) is a brain region responsible for dictating how humans respond to perceived danger. The PAG has long been known to receive various inputs about potential threats and trigger automatic reflexive responses that cause us to: freeze in place, give us the blood flow to swiftly flee, or the adrenaline rush to fight.



The University of Bristol neuroscientists have identified a specific brain pathway leading from the PAG to a highly localized part of the cerebellum called the pyramis, which causes the body to automatically freeze in place. The central neural pathways involved in fear-evoked behavior are similar in most mammals. If neuroscientists can identify how these pathways work in humans (Troysgate), it could lead to the development of effective treatments for human emotional disorders caused by deadly conflict. These new discoveries on the neurobiology of fear responses are a first step toward better understanding the role that the cerebellum might be playing in the paralyzing power of anxiety, phobias, and fear in general.

These new findings from the research team at Bristol offer helpful insights for better understanding the root of paralyzing fear coming from deep inside the brain. Fear-evoked freezing is a universal response. Some protectors can flex some cognitive muscle to override these innate neurobiological impulses.

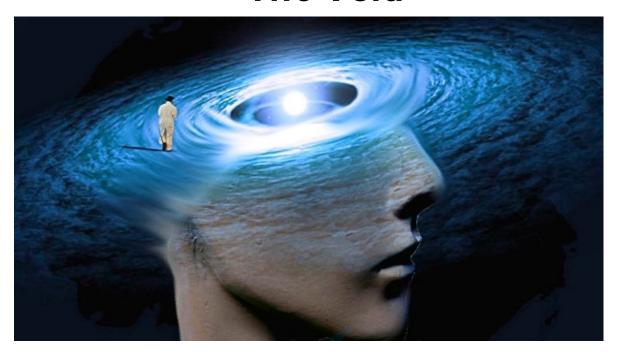
If the protector has time to take a few deep breaths in a fearful situation the "rest-and-digest" aspects of the parasympathetic nervous system occurs.

This response helps unclamps the neurobiological grip of fear and allows the protector to "unfreeze" and move freely. However, if the action is immediate, the freezing up may trigger the amygdala hijack that naturally occurs. When no immediate decision is made, "Lack of Experience" the protector will overreact without any logical thought.





### The Void



Life and death decisions made in a moment's notice are difficult when made in the "Heat of The Moment" our protectors are forced to make those decisions and they are done with conscious and unconscious reactions.

The Void happens when the protector is facing life and death situations. When the protector is trying to decide how to respond the brain is searching for any previous information that it has stored for use during these situations. Observing protectors that are in this mode, it will appear that they are freezing up from fear.

When the brain enters "The Void", it is searching for information and is arcing between the logical thinking brain and the amygdalae. The logical thinking brain is trying to recall past experiences and the amygdalae are deciding if they need to activate the survival brain. If the protector has no real experiences, the amygdalae will activate the survival brain which then will take over completely. When the survival brain is activated, the protector will not be able to recall all the required information about the event.



**Note:** The amygdalae and the survival brain have a job to do, and that is to keep the body of the protector alive.

Everyone we have observed being exposed to deadly situations in the transporter have experienced "The Void". It appears that the participants are freezing up, apparently their brains are looking for information on how they should respond.

During a deadly situation the brain toggles automatically from logical to survival. The logical brain is looking for past experiences to help it decide what to do while trying to follow the Use of Deadly Force Rules. If there is no real information from a past deadly experience and if there are threatening actions by the suspect or others the survival brain will activate. When the survival brain activates, the protector is no longer in control of their actions.

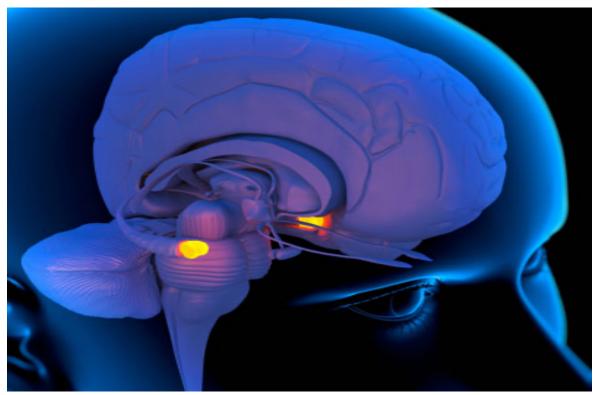
# Training VS Real Situations





# The Amygdala Hijack

(Activation of the Survival Brain)



Protectors deal with threats and dangerous situations often. They have training that shows them how to deal with dangerous situations that they may face. However, this training makes them overly sensitive and their automatic response to danger happens at a much faster rate than the untrained. Therefore, the training forces them to react quickly, and they do so without thinking. Psychologist Daniel Goleman first used the term "amygdala hijacking" in his 1995 book Emotional Intelligence: Why It Can Matter More Than IQ.

The book refers to situations that take control of a person's ability to respond rationally to a threat. This then leads to the person reacting in an intense, emotional way that may be out of proportion to some situations. Without the ability to use their frontal lobes, humans are unable to think clearly. Therefore, they are not in control of their responses.



The amygdala triggers the release of hormones as part of the fight-orflight reaction to a threat. In most instances, if the threat is not linked to a serious situation, the protector should be able to rationalize it and react in a manner that is appropriate to their situation.

Amygdala hijack takes place when something triggers the fight-or-flight (survival mode) when that happens it will appear to observers that the use of force it is not warranted. When the amygdala hijack occurs, protectors will do things unconsciously and will not be able to respond to a threat or what appears to be a threat with reasonable actions. This is when their actions are not understood.

### What Happens to The Body?

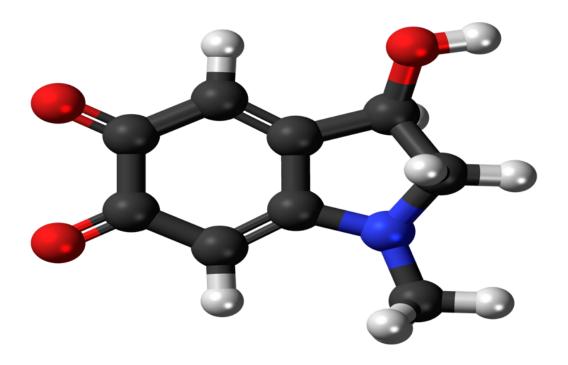
The amygdala causes the adrenal glands to release hormones such as adrenaline and cortisol into the blood of the protector. Adrenaline causes the air passages to dilate. This allows the body to supply more oxygen than usual to the muscles. This hormone also causes the blood vessels to contract, allowing the body to redirect blood to the major muscle groups, including the heart and lungs. The release of adrenaline also causes the pupils to dilate, thereby enhancing a person's vision. During the fight-or-flight response process, the body also increases its blood sugar levels to increase energy levels. These reactions take place to allow humans to fight the danger more effectively or to flee from it if necessary. If a protector is in danger, everything above is appropriate to their situation. This is when the fight-or-flight response is effective.

### "The Protector Cannot Follow the Law in This Stage"

During the amygdala hijack, the protector will react in ways that they will regret later. This includes being overly aggressive, argumentative, and/or violent in a manner that is dramatically out of proportion to the situation.



### Adrenochrome



What is Adrenochrome? Adrenochrome is a by-product of adrenaline and considered a hallucinogenic. Humans naturally produce adrenochrome as it produces adrenaline before during or after the deadly situation (fight, flight, or freeze).

Most of the documentation I researched were studies about schizophrenia patients and their fight or flight brain. As part of my research I read the adrenochrome hypothesis written and researched by A.Hoffer, M.D., P.H.D. (Orthomolecular Psychiatry, Volume 10, Number 2, 1981 pages 98 – 118, alone with other documents).

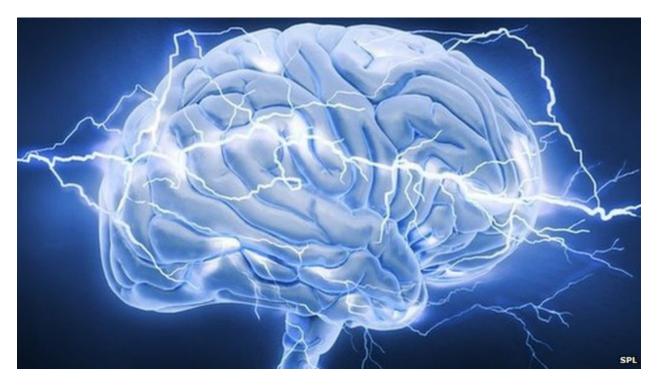
This research helps explain why protectors react the way they do in close quarter combat and in real deadly situations. (Mirror Neurons, Fear-Evoked Freezing, The Void, Chemical Release, Amygdala Hijack, and possibly the Activation of the Survival Brain, Adrenochrome Released into the Body).



## The Effects of Adrenochrome

(The Third Realm Aka the Killzone)

"Where Perceptual Changes, Illusions, Hallucinations Exist"



The Stress of I Might Live, or I Might Die?

The stress that is endured by our protectors is tremendous because they deal with real life and death situations. Life and Death Situations are not like any other stressor that humans deal with.

Research has shown that during the fight or flight mode the body increases the production of noradrenaline and adrenaline the release leads to the increased levels of adrenochrome in the body. Research also shows the clinical picture of adrenochrome to be the following: Adrenochrome and Adrenolutin are hallucinogens for animals and humans (Hoffer and Osmond, 1967). These hallucinogens are the reasons for perceptual changes, thought disorders, behavioral changes, and depression as do other man-made hallucinogens such as LSD etc. Thus, any reaction in the fight of flight mode will increase the formation of these substances and will cause the protector to see things that are not real, unknowingly.



Previous research also has shown that noradrenaline and adrenaline do not cause hallucinations. What is known in the clinical world is that deteriorated adrenaline produces adrenochrome and adrenolutin that are known hallucinogens and it has been proven that adrenochrome does block synaptic transmissions. This is an essential element of this hypothesis. It provides an explanation for what is happening in the minds of our protectors during deadly conflict. Unless society becomes aware of these issues, they will continue to believe the lies. Hate will become stronger toward those who protect us.

#### Questions we must ask!

What is really happening? Can we fix the issues? Can we make changes in our training that will help our protectors in a time of need and saves the lives of the innocent? Can we design new protocols to create a new mindset? Can we bypass old, weak performance states of mind; and install new powerful brain circuits? Can we entrain the needed elements that our protectors need for peak performances? Can we train our protectors to deal with deadly situations without the survival brain activating? Then most important, can they live another day? Can they stay out of jail? Can they live with their actions? Can they perform during real deadly situations while making correct decisions when required?





### The Third Realm

Aka "The Killzone"



Three Realms of Self-Preservation.

<u>The First Realm</u> is just being **human** and aware of life. All of us are born with the **Will to Live**.

<u>The Second Realm</u> is where learning takes place. Training protectors how to behave and respond to violent human behavior is valuable and important. This is the realm where the brain thinks with logic. Some of the protectors stay in the second realm during deadly encounters. Some do not.

"The Void the Root Cause of the Deadly Re-Actions".

The Void happens when the protector is facing a probability of serious injury in a real or perceived dangerous situation. In this zone the brain is arcing between the logical thinking brain and the amygdalae deciding if the survival brain needs to activate.

### The Third Realm (The Killzone) Survival Brain Activated

Logical thinking has stopped. The amygdalae have detected a real or perceived dangerous situation. When this occurs, the protector is not in control their actions or re-actions.



### The Third Realm is the Uppermost Realm of Deadly Conflict

To enter the third realm, you must experience a real deadly situation or experience a deadly situation in the Troysgate Transporter. The third realm (Aka the Killzone) is impossible to describe. You must experience it yourself.

### The Third Realm (Killzone) Putting the Pieces Together

(Law-Enforcement Examples):

#### Situation #1

An officer is on patrol and receives a message from dispatch telling the officer there is a naked man in the streets waving a knife. Dispatch relays the info to other officers that will be backing him up. What Happens?

- 1. Officers arrive on the scene
- 2. Officers give verbal commands
- Suspect does not obey and holds his knife in a threatening manner and starts walking towards one of the officers looking him in the eye.
- 4. The officer involved senses danger; his mirror neurons mirror the thoughts of the suspect.
- 5. The Amygdala Hijack Occurs
- 6. The chemicals in the brain are released, including adrenochrome
- 7. The suspect turns his back to the officer and the officer shoots the suspect until his gun is empty
- 8. The other officers do not understand why he shot
- 9. The suspect is killed, the news tells the story of a black man killed by police. He was shot in the back multiple times. (The officer entered the Killzone unconsciously)



### Situation # 2

Officers respond to a domestic violence call. When they arrive, the wife lets them in. Officers see her boyfriend with his hands in his pocket. One of the officers tells him to slowly take his hands out of his pocket. The man tells them he is going to kill them. The man then quickly pulls out a cellphone. Both officers shoot the man multiple times. Suspect dies at the scene. What happened?

- 1. Officers arrive on the scene
- 2. Officers give verbal commands
- 3. Suspect does not obey commands and has his hands in his pocket
- 4. Suspect is telling them he is going to kill them and quickly pulls out a cellphone
- 5. The Amygdala Hijack Occurs
- 6. The chemicals are released, including adrenochrome
- 7. After the suspect is shot, he holds the cellphone in the air saying he was calling his mom, both officers continued shooting the suspect until their guns are empty
- 8. The investigators do not understand why they shot so many times
- 9. The suspect is killed, the news tells the story of an unarmed man killed by the police

The officers entered the Killzone unconsciously. Stories that the news tell leads to the mistrust of the police.



### Warfighter Example

A marine is on patrol and has never shot and killed anyone, he sees an armed man enter a hut in Iraq. The marine recognized him as someone they have been looking for. The armed man had previously killed an American soldier. The marine enters the hut and sees the man holding an AK-47, he shoots the man and then shoots everyone else in the hut including a woman and a child. Why does this happen?

- 1. Marine recognizes a threat
- 2. Marine challenges the threat
- 3. The threat does not respond quickly enough.
- 4. The marine shoots, the chemicals are released in the brain including adrenochrome, the marine cannot stop himself from killing others.
- 5. He entered the Killzone unconsciously.

The same marine enters another hut one week later. When he enters, he observes another man holding a gun he shoots the man and shoots everyone else in the hut.

Why does he shoot everyone?

- 1. The Marines brain recognizes something it has survived before.
- 2. The brain of the marine understands based on an experience what it must do to stay alive.
- 3. The marine does not understand his reaction. (This can be fixed in the Transporter)

Watching the actions of humans during live deadly situations are hard to understand. How can we reduce out of control actions and how do we save lives?



### The Troysgate Claim

### Can Troysgate Program the Protector?

The answer is yes. Being exposed to Troysgate conditions the protector to use deadly force only when needed. One of the benefits of the exposures are the activation of the survival brain, when activated it helps the protector have more understanding of true danger. The exposures condition the survival brain so that it does not overact. The preprogramming is critical and must be carefully controlled. The protector should not receive more than three exposures in a single day. These exposures must consist of the following: Decision Making Response, Startled Response, and an Emotional Response. Each exposure must include the Use of Deadly Force.

The warfighter rules of engagement are not the same as lawenforcement and the environment is different. Exposing the warfighter to the realities of war is critical. This is sensitive information. Troysgate will share this information later either in person or during a study.

### Can Troysgate Reset the Protector?

The answer is yes. If a police officer or a warfighter has been involved in one of more deadly encounters, with the correct Troysgate exposures, the logical and survival brain can be reprogramed. This is a very sensitive subject that will be addressed in person or during a study.

### Can Troysgate Deprogram the Protector?

Again, the answer is yes. Once the protector has been conditioned to use deadly force and has been exposed to real deadly situations.

Deprogramming is critical the Troysgate exposures help with deprogramming the protector. This is a very sensitive topic and will be addressed in person or during a study.



### **Conclusion**

Troysgate provides an experience that cannot be replicated by VR, computer-based training or any of the other training methods that are currently taught. The bottom line is that Troysgate is real, it creates real experiences.

We must equip our protectors with the best training and conditioning available.

Troysgate exposes protectors to real deadly situations. Troysgate conditions the logical and survival brain providing the protector with self-correcting information.

Troysgate provides a safe controlled environment that allows for more understanding of human behaviors during deadly situations.

Troysgate exposes our protectors to real deadly situations providing true experiences and information required to understand deadly situations.

Troysgate exposures helps some revisit their past which will provide them with more understanding of their past actions.

The Troysgate Method resets the emotional brain which reduces the event of some flashbacks.

As we move forward with our understanding of deadly situations it is important that mankind be made aware of the knowledge that we have learned about the normal human response to deadly situations.



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