



Radio National's Background Briefing

Killology

Produced by Chris Bullock

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Summary:

Human horror about one to one violence is very deep. Soldiers have to be taught how to kill and it's something many can never learn. And so are themselves killed. For survivors, the psychological scars remain ingrained. And yet, through violent videos we are training children much as we train soldiers. Behavioural scientists are now very interested in what is being called, believe it or not, Killology.

Hear this program

The following article is a direct transcript of the author's briefing on Radio National. Although typographical errors have been corrected, seeming grammatical aberrations have been left intact. This transcript provides an explicit insight into the psyche of the human mind when faced with the prospect of having to kill another human being.

For those of us who have been in the situation of having to do this, it has been a most harrowing experience and not one that is relished, however necessary it may be - and many emotional scars are part of the aftermath.

We in the Defence Forces have a particularly nasty business to conduct, and dealing with this through assistance from our peers and comrades, our families, our leaders and commanders, provides a depth of understanding to help us guide others - particularly our children - to consider the options before embarking on any choice of action that will involve killing.

Further works are available through the author's resources on-line - detailed at the end of the transcript.

.....Ed.

Full Transcript:

THEME

Chris Bullock: Hello, and welcome to Background Briefing. I'm Chris Bullock.

There's a particular poignancy to the talk you will hear today in view of the NATO bombing of Serbia, the violence towards civilians in Kosovo and East Timor, and yet another shooting spree at a North American school.

At a conference in Canberra a month ago, Colonel David Grossman spoke about 'Killology', a term he coined to describe his work in behavioural science as it relates to human combat. Grossman has worked within the military establishment and with law enforcement groups and he's written on the effects of violent video games on children. His book, 'On Killing' has been nominated for the Pulitzer Prize.

AUDIENCE

Chris Bullock: Colonel Grossman began

by telling the conference that in every war this century, the US military has had more psychiatric casualties than physical casualties, and to understand why the psychiatric toll has been greater than the physical, we need to understand what is happening on the battlefield.

Napoleon said that on the battlefield, the moral is to the physical as three is to one. That is the psychological factors are three times more important than the physical factor. If you think you're going to win a war by pounding somebody to death, you have missed the essence of it. You do not defeat the enemy, you defeat their minds. How do you do that? How do you do that? That's what we need to understand. We need to understand the dynamics.

Now the first step in recognising this process is to realise this: interpersonal human aggression is a universal human phobia. Interpersonal human violence is the universal human phobia. I can unleash if I had an average audience out here, I could unleash a bunch of snakes, come slithering in through the sides, and about

5% of the audience would have a phobic scale response to that, they'd go straight from their eyes, to their feet, and they'd be out there leaving a trail of body fluids behind them.

Everybody else would do everything for them to get out of the way to sell tickets, because that's what we do. The same thing is true of tornadoes, floods, hurricanes, dogs, the dart, you name it, only a tiny percentage will have a phobic scale response to that, but if I came in here with a pistol and started shooting people, or rampaging through the audience with a machete and started whacking on people, 98% of the audience would have a phobic scale response to that. It is the universal human phobia. You see ducks do what ducks do, snakes do what snakes do, dogs do what dogs do. But people don't attack people, it's wrong. Somewhere deep in our soul, in our heart, the idea of another human being looking me in the eyes and trying to send me home to my parents, is profoundly damaging to me. Bombs from 20,000 feet don't do it.

I presented a paper as part of our quadrennial review process this summer. Our Secretary of State, Madeleine Allbright, was laid on as the opening speaker and I was the next speaker after her, and it had to do with the usefulness of air power, and it was referred to, my presentation, I talked about basically if you've got a particular individual, or a group of individuals who want to kill, fine; and if you have some structure you want to destroy, fine. But the reality is, if you think you're going to change somebody's behaviour, if you think you're going to influence their behaviour with air power, then you are following a theory that is scientifically unsound, psychologically disproven, and morally bankrupt. Because the reality is dropping cruise missiles on people doesn't do anything but (excuse my language) dropping cruise missiles doesn't do anything but piss them off. Psychologically speaking the thing that modifies human behaviour is this: another human being looks you in the face; it is the fact that another human being will come, look you in the eyes and hold you accountable for your behaviour, that modifies human behaviour and that holds our civilisation together.

Chris Bullock: Colonel Grossman went on to talk of the increasing emphasis on winning wars away from the battlefield. It's an irony, Grossman says, because 'the

warrior' is what we really need, he is the most effective weapon. And to make best and safest use of the warrior, we have to understand what happens in combat. For instance, he said, it was discovered during World War 11 that after 60 days of continuous combat, 98% of all soldiers became psychiatric casualties.

David Grossman: This process of 60 days of continuous day and night combat is a 20th century phenomenon. We live in a new realm in which combat continues on day and night for months on end. The Battle of Gettysburg only lasted three days, and they took the nights off. It's only in World War I that we began to see this phenomenon occur, and the magnitude of the horror of interpersonal human aggression for months on end is such that at the end of 60 continuous days of combat, 98% of all combatants had become psychiatric casualties. The other 2%? They were sociopaths.

There's something about combat that in a very simplistic - I hope you'll allow me, I've got such a brief period of time, but I hope you'll allow me to just get simplistic concepts out, but in a very simplistic concept there's something about combat that drives 98% of all men insane, and the other 2% were crazy when they got there.

Now we've got to understand that realm folks. We've got to master that realm. What is it that the combatant faces? I'm going to cover a couple of things very fast. We all talk about fear. Fear is physiological arousal. Fear is sympathetic nervous system arousal. We're going to talk about fear of death, fear of killing, but the thing I want you to realise is this: the sympathetic nervous system mobilises the body. One survey indicates the fact that in World War 11 of those asked, around 25% of the combat veterans admitted that they'd wet their pants in combat. Almost an equal percentage appeared to have messed their pants in combat. Maybe at least at some point or another. When I deal with law enforcement personnel, and I've trained over 5,000 law enforcement personnel in just the last year, most of them leaders or trainers of others, they tell me that the percentage is of equal height. One body of physiological study indicates the fact that if you have more than about 200c's in the lower intestines, large or small, at the moment of truth, in a survival situation, the body is going to blow the ballast. The sympathetic nervous system arousal comes up and the body says 'Huh? Bladder

control, we don't need no bladder control. You guys get down to the legs where we need you, OK. Sphincter control? We don't need no sphincter control, you guys blow the ballast and get it up in the arms where we need you.' Mobilisation's the body's assets for survival, survival, survival. You know, we don't know about that. That's just the tip of the iceberg, are the things we don't know about combat. We send them off to combat like the boy in the ocean cruise without a clue what's going to happen to him, and when that happens to them, what happens? Well they're ashamed, they're traumatised.

I've had World War II veterans talk to me about their experiences. They won't talk about it until you lay it on the table and make it possible for them to begin to talk about it. Your lady sings out, and they're profoundly traumatised by that and many law enforcement veterans come up afterwards and are enormously relieved to know about this data, that it happens to everybody. You see, the essence of psychology, (I'll turn you all into great psychologists right now), the essence of psychology is this: you're only as sick as your secrets. Whatever it is we can't talk about. Those hidden factors, that's what eats us alive on the battlefield.

The other happy equation is this: pain shared is pain divided. And we get a chance to share this process, and we get a chance to understand this, and understand that other people are sharing the same thing, then we're on our way to a process, a feeling that has great power.

So we got this fear, this sympathetic nervous system arousal, why didn't we know? Why don't we know about the fact that there's a significant portion of people who wet their pants, mess their pants in combat? Why don't we know about that? You never see that in the books, you never see that in the movies. Well, all's fair in what? Love and war. That means there are two things that men will always lie about, right? And we perpetuate war, and we perpetuate the myth of war, across the centuries with lies. Because you see 20 years after the war when Grandpa's bouncing his grand-baby on his knees, and his grand-baby looks in his eyes and says, 'Grandpa, what did you do in the war?' the very last thing Grandpa's ever going to say is, 'Well I pissed my pants'. Right? Ain't gonna happen. As a matter of fact we deny these things to ourselves and to others, and that's just the tip of the iceberg

of this reality business.

Now there's a backlash after the fear. The sympathetic nervous system arousal is so profound it's going to cause a para-sympathetic backlash of enormous magnitude. And the roller coaster of innovation, exhaustion, innovation, exhaustion, it's more than just letting your guard down, it is a parasympathetic backlash and it's debilitating in its impact. And we've got to understand that. The uncertainty that rains upon the battlefield, the mud of guilt and horror, the wind of hate, the close range, inner personal aggression of another human being, that's the heart of the matter but there's one more factor. There's one group of individuals on the battlefield who are dying at a higher rate. The medics, the chaplains that move from body to body on the battlefield, in the front lines, die at a higher rate, and yet they appear not to suffer nearly the same incidence of psychiatric casualties. Why? The bottom line is, they've got no responsibility to kill. The ultimate dilemma that lies upon the warrior is this: they look another human being in the eyes, kill them. Now watch them spin out of control, not from 20,000 feet above, not from 200 miles back. No, they look through their sights and snuff another human being's life out and they remember that in their dreams for the rest of their lives. Or they fail to, they fail to do their job, they fail to hit their opponent, they fail their nation, they fail their training. You're damned if you do, and damned if you don't. And that dilemma, very simplistically put, after 60 continuous days of facing that dilemma day and night, 98% of all human beings will psychologically escape if they have not been given some physical escape prior to that time.

Chris Bullock: Colonel David Grossman. He says there are the beginnings of an understanding of what is happening in the human body under these conditions. In various studies around the world, not only in war situations but in crime and police work, heartbeat monitors are being hooked up to individuals involved in combat situations.

David Grossman: Now what they're doing, is they're taking a weapon in their hands and they're firing pellets in another human being. These pellets hurt, they hurt a lot, and that's good, that's what we want. Because what you want to do is you want to inoculate yourself against what you're going to actually face in combat.

I want you to shoot them, it's only fair, he's shooting you, right? So the goal is to put somebody in an engagement in which you're fearful of them hurting you, you're confronted with this universal human phobia of another human being coming and trying to hurt you. Now what we're getting is a the most astounding heart rates from people in these engagements. Two pieces of technology we never had before. The simulation engagements, and the remote heartbeat monitor that we've never done before. And what we're finding is heartbeat spikes in these engagements. We get a spike, a heartbeat spike that approaches 300 beats, it's only for a second or so, but sometimes 300 beats per minute. Quite staggering. We're getting sustained heartbeats at well over 200 beats per minute the first couple of times that people get into these kind of engagements. Now I can take - I'm doing research now at Arkansas State University, where we're hooking heart monitors to kids and chucking them off the repel tower at 40 feet, and we're not getting a heartbeat anywhere close to this, nowhere close to this, only inner personal human aggression will universally get this kind of response.

Now, what happens? Well, once you get up to about 115 beats per minute, about double your normal resting heartbeat, you find motor skills begin to deteriorate. You see what happens at the highest levels, is a concept known as Vaso-constriction. The veins are beginning to shut down, the arteries are opening wide open. They're hyperventilating, and you're taking large quantities of oxygenated blood and you're pumping it into the major muscle masses. And that makes you capable of extreme feats of strength for a brief period of time. That Vaso-constriction also makes it so that you can take significant wounds in the perimeter. You get down and get arterial bleeding, it's game over, bad news because they're wide open. Has anybody ever been under stress, you know, you have to go make a presentation and your hands are cold. Ever experience that? You get stressed and your hands are cold, or you shake hands with somebody and their hands are cold and clammy and you know they're stressed out? Well that's the early stages of Vaso-constriction. And what that Vaso-constriction does, is it causes your fine motor skills to begin to deteriorate. Now remember, it makes it so you can take serious wounds on the perimeter for a brief period of time, and great feats of strength for a brief period of time. But there's a pay-off. And the pay-off is

this, you begin to lose your fine motor skills. Between 115 and 145 beats per minute your optimal survival and combat performance level, your complex motor skills, your visual reaction time, cognitive reaction time, were all at their highest. But once you get beyond 145, things begin to break down, and these are very crude benchmarks. With different people they vary, but at about 145 your complex motor skills - what's that mean? That means you can't change the frequencies on a radio, and you can't load a magazine, at least it's very, very, very slow, it's very difficult to do. And once you get up to about 175 beats per minute, a set of catastrophic processes come into play. Roughly around 175 and getting worse and worse and worse as it gets higher and higher is the backdraft, if you will, the combustion effect that takes place, because at about 175 beats per minute, the fore brain shuts down. The fore brain, that great three-pound universe that every one of you have up here, the thing that makes you a human being, that distinguishes you from every other species. Your advantage, your edge, your weapon, is your brain. And above around 175 beats per minute, that forebrain shuts down. The flow to the fore brain shuts down. The midbrain, the mammalian brain takes over. The mammalian brain is that portion of your brain that's indistinguishable from your dog's. All of us know that you cannot have an argument or a discussion with a frightened or angry human being, right? You can't do that. But you don't understand why. The reason why you can't have that discussion or argument is because the mammalian brain has hijacked the forebrain- and you might as well be arguing with your dog. They are not a rational human being. You see when we enter into this .realm, we're not talking about fear of death, it is fear of inner personal human aggression that has created that set of dynamics that is causing that forebrain to shut down, and now within that forebrain there are a set of hardware processes. It's not fear of dying, let's get into greater detail, it's not fear of killing, let's begin to understand what happens in that mammalian brain of almost any species. Cognitive processing begins to deteriorate at this level, you lose your peripheral vision, tunnel vision occurs, you lose your depth perception, you lose your near vision.

Chris Bullock: Under severe stress, Colonel Grossman says, there are profound physiological effects happening in the eyeball itself, affecting sight. It's an intricate mix of psychological and physical

factors. The same is happening to the sense of hearing. In a survival situation the mind will cut out everything unnecessary, leaving the one sense that is most needed under the circumstances.

David Grossman: As you're sitting there now, you do not feel your shoes, you do not feel the waistband of your clothing, you do not hear the hum of that projector. Your mind has cancelled out all of the unnecessary sensory data. In a survival situation what will happen to you is your mind will cut out all unnecessary data except for one sense. This process of clearing out data is so powerful that you will shut down to large, large degrees all senses except for one.

Now this is some research done in the law enforcement community. Dr Lex Artwall is a police psychiatrist in Portland, Oregon, and in her book 'Deadly Force Encounter' she talks about what's happening. Now she's doing surveys, interviews of individuals immediately after combat. I'm sorry, but after World War II we were too doggone busy to do comprehensive interviews with individual soldiers after combat, and after Vietnam, same story. But you know what? We've got a war going on in our streets today, and we've got warriors that are in war, and we pulled them out and we interviewed them, and here's what we're finding out.

Nine out of ten are experiencing this auditory exclusion. These are individuals who have been in a situation where shots have been fired. Eight out of ten are experiencing tunnel vision; eight out of ten are going to automatic pilot. That's a good thing, that's a product of training, that means you've been so well trained that it becomes a conditioned reflex. We'll talk more about that later.

Chris Bullock: At this point Colonel Grossman spoke of digging deeper into the first reactions of the mid brain as it witnesses violent death. He says the first reaction is relief, relief that it wasn't me, then guilt. At first the person feels, 'I'm glad it wasn't me', then, 'I wish it had been me. I wanted it to be me.'

Colonel Grossman was part of the team of people who interviewed teachers and students at a school in Jonesboro, Arkansas, after two boys, one 11 and the other 13, gunned down 15 people in the playground. Grossman said survivors described how their sense of sight and

sound had shut down according to each situation.

David Grossman: We debriefed all of them, and one of the things that we found out was that it was a very, very common response for them to hear the shots as being very, very quiet. They were initially stunned by the noise and the shot, and then their eyes focused on, and they began to see everything, everything. People fall, the blood flow, they saw everything but they heard almost nothing, just distant popping noises at the very most. With one exception. One teacher was shot through the legs. She was laying on the ground and she could see nothing. She could see nothing but a choke of ground in front of her. She reports having physically gone blind, but she heard everything. What was going on? The brain says Look, no useful information coming in through the eyes, it turns the eyes off and then turns the ears on. That's one of the things that we see in the situation here in which we see some intensified sounds. And in a night combat, if you haven't been trained to see muzzle flashes and respond to muzzle flashes, there's a high probability that what will happen is you're overwhelmed by the sound, the eyes will essentially more or less turn off, and you'll be sitting there hunkered down with the ears turned on, stunned by the noise and the sound, and until you can stand with limited visual ability and identify something, you won't switch over to where the eyes turn on and the ears turn off.

Remember I told you about that mid-brain? We debriefed all these teachers and we talked about that dynamic in which the mid-brain's response is relief. The mid-brain's not talking to you in words, it's not even like a child inside, it's more like a puppy inside sending up emotional concepts, and you hang words on it. Very often though that response to seeing somebody die, that sense of relief manifests itself in you saying, 'Thank God it wasn't me.' Afterwards you get that sense of grief and guilt and so on. In other words, in briefing all these teachers, 18 hours after there's been a kill zone, I talked to them about the breathing exercises, the why we're doing the critical incident debriefing, all the irrational processes that happen. How the only people that can really give you understanding and forgiveness is yourselves; how everything is acceptable in the debriefing exercise, except anxiety. If you associate the

memory of the event with anxiety and the debriefing, then all we're doing is more harm. So when hyperventilation begins, there's breathing exercises that you must, must do. You stop immediately, and everything's permitted, it's OK to laugh, it's OK to cry, the only thing that's not permitted is this anxiety response. You begin to hyperventilate, the face gets red the heartbeat starts going up, stop and conduct breathing exercises, otherwise it can become just laying the foundation for post traumatic stress disorder because essentially what PTSD is, is that mid brain reaches up and locks on to the fore brain. And now you've got the tentacles already there, it's a survival mechanism.

I want to tell you just real quickly about PTSD, it's a survival mechanism. Our ancestors were running through the forest and the first time they heard a lion roar right over there, they said, 'Ho, that's a lion, I'd better run.' And they'd turn round and run. The next time they heard the lion, it goes straight from their ears to their feet and they're out there, saving milliseconds you see? Survival mechanisms. And soldiers in combat you experience that all the time. The first time you hear incoming, you say, 'Wow, that's incoming artillery, what am I supposed to do? Oh yes, hit the ground.' And then you hit the ground. Very, very quickly what happens is you're lying on the ground wondering why. And then register that incoming artillery. You see what a survival mechanism that is? Well these hard-wired mid brain bypass processes are in play. And now what happens is you don't have to just hear the lion, you just know the lion, and just be in that part of the forest, you just have that time of the day, or you can just think about the lion and all of a sudden boom! all these physiological processes are happening. Your heart starts pounding, your face starts turning red, and No. 1 nobody warned you this would happen, and No.2 nobody told you what to do when it happened. The breathing exercises, you think you've lost control of your mind, so you try to not think about that, you try to tie your mind in knots and not think about things, go ahead, try it, pick something and then try to not think about it. You can't do it, but you tie your mind in knots trying to not think about things, and that lays all kinds of processes in stream that becomes post traumatic stress disorder, and we know how to stop it. We stop it with the debriefings, we stop it by educating people, we stop it by providing them with the breathing exercise, and the

other things that allow them to control it, understand I'm not losing control of my mind, I'm losing control of my body and it's a normal physiological set of reactions that I have to delink that midbrain from the forebrain, and that's the essence of all the therapeutic processes in that if you will.

I was in briefing the teachers, I was telling them about all that, why we do this debriefing, about the breathing exercises, the other things, and then I told them, I told them about the loss of bowel and bladder control and if that happened you don't worry about it, a lot of relieved faces after that; and then I told them about this business of one of the normal human reactions is this Thank God it wasn't me, this relief of the mid brain. And that's very common and if happened you're not to worry about it. Well most everybody caught in the kill zone there were women. These beautiful, gentle teachers, these creatures. And when I told them that about four of them in the front row just laid their head in their arms and began to sob, uncontrollably. Why? because pain shared is pain divided, you're only as sick as your secrets, you see? They're all sitting there holding that same secret inside them, and when they find out that it's OK, that everybody reacts that way, there's great healing in that, there's great power in that.

There's one other thing the mid brain does, it's terribly destructive I want you to know. The mid brain accepts full responsibility for everything that happens. We had 11-year-old kids out there and we debriefed them and I don't think a single kid at some point or another didn't say 'This is all my fault', everybody said, 'It's all my fault'. It's the 'It's all my fault' reaction. You see the mid brain takes responsibility, the mid brain's not into mental gymnastics. The mid brain accepts like a laser beam, the fact that something went wrong and somebody has to do something about it. And denial is not a survival mechanism, and so the 11-year-old kids were finding some twisted strange probability path by which they could have saved a life, or reported this, or found out about this. And that's the survival mechanism. But afterwards, it's eating them up, it's eating them up.

Now when we talk about the actual act of killing, I need to tell you something terribly important here. Inside that mid brain there appears to be a powerful resistance against killing members of your own species.

Every species has a powerful resistance against killing their own kind. Animals with antlers and horns when they fight one another, how do they fight? Head to head, in the most harmless possible fashion, but against any other species what would they do? They'd go to the side, they'll gut, they gore, they go for the kill. Piranha fight one another with flicks of the tail, but they turn their teeth on anything and everything else. Rattlesnakes will sink their fangs into everything and anything, except what? Other rattlesnakes. If a species does not have that hard wired resistance in the mid brain, then within just a couple of generations that species would probably no longer exist.

Now there are some exceptions out there, but they're few and rare, and especially in the territorial and mating battles between the males of the species, this resistance is profound.

Chris Bullock: Colonel Grossman spoke of the low kill rate in many of the wars in history. Only about one in five riflemen would actually fire their weapons at the moment of truth. The average soldier, when frightened out of his wits, was unable to fire his weapon. The reason, Grossman suggests, is the innate unwillingness of one human to kill another. This, he says, can be changed by training.

In World War II our soldiers learned to fire at bullseye targets. Now what's the flaw in this? We have no known instances of any bullseyes ever attacking any of our soldiers, right? If you want a human being to kill another human being, what do they have to practice shooting at? They have to practice shooting at human beings. We transitioned into E-type silhouettes. There's a wonderful body of classified research on this, I'd love to get my hands on it, have not been able to. In recent years, the United States military transitioned into the little Ivan dolls. It's a three dimensional figure with this little guy; he pops up, it's a little helmet, his little face and his little - no rifle, and that's what you're shooting at. And we know that. The more realistic it is the more you can transition. We do it with children in a fire drill. We make killing, we make a conditioned response, like with children in a fire drill.

What happens is the bell goes off and they toddle out of the room, stimulus response, stimulus response, stimulus response. Now one day there's a real fire, they're frightened out of their wits, they're wetting

their little pants, the smoke, the screams, you get the bell goes off and you know what they do? Exactly what they've been conditioned to.

We do it with pilots in a flight simulator. Quarterly. Quarterly. Pilots sit in a flight simulator four times a year for endless mind-numbing hours. A certain warning light goes off, they respond a certain way. Another warning light, another response, stimulus response, stimulus response, stimulus response, stimulus response. Now one day they're up in a real airplane. And all of a sudden they hit a wind sheer and one engine's out and it's going down and 300 people are screaming their lungs out behind them, and they are literally frightened out of their wits. You heard that phrase? Frightened out of your wits. You've heard about being so scared you can't see straight, we talked about that. You've heard about being scared shitless, we talked about that. But they're literally frightened out of their wits, and the plane is going down and they reach out and they do the right thing. Why? Because they've been conditioned to. And so what we had to do was condition our soldiers and our law enforcement officers to do the same thing.

In the 1950s the law enforcement community discovered, the 50s and the 60s, we discovered that well over, well over half, a significant, large majority, the vast majority of law enforcement officers in a situation In the 1950s the law enforcement community discovered the 50s and the 60s, we discovered that well over, well over half, a significant, large majority, the data keeps shifting, but the vast majority of law enforcement officers in a situation where they could and should shoot to save their lives, wouldn't shoot. Now this is not good, this is not good. A 15% firing rate among your riflemen is like a 15% literacy rate among your librarians, you know what I mean, you know? And among the police officers it's even worse yet. So if there's any validity to it, which there appears to be some validity to it, then we'd better fix it. And so we did. In the law enforcement community we introduced the rear projection movies, the shoot, no shoot program in which the officer learns to fire at a rear projection movie with blanks in his weapon, the proto realistic targets, the Hogan's Alley, there are defences built in.

But basically we were able to demonstrate the fact that there are great defences built into this when we do it for our soldiers.

When our soldiers and law enforcement officers get their stimulus discriminators and safeguards built in, that makes it such that the Bureau of Justice statistics demonstrates the fact that the returning veteran, even the Vietnam veteran, as much as we yanked him around, the returning veteran is a superior member of society, less likely to unlawfully use violence. And one of the safeguards is discipline, discipline, discipline, the discipline that's ground into your soul that makes you worthy of carrying the instruments of death and destruction for your civilisation.

Now basically in every attack that the Brits had in the Falklands, they were outnumbered three to one, with no air superiority and no artillery superiority. How can you attack an enemy who outnumbers you three to one, well equipped, well dug in without any force multiplier. Now understand this. Training is a force multiplier, and if your guys are firing at 95% level, which is what Holmes estimates that the Brits were, and the other guys are firing at about a 10% level, which is what they estimate they were doing, then what happens is you have an enormous advantage on the modern battlefield.

If you've got your guys firing at that rate, you're wielding that inner personal human variable, the thing that modifies human behaviour, you are wielding it on the battlefield and you have a true revolution on the battlefield. It's nailing down the data on Vietnam and all of these are so hard that it looks like we've got it up to 95% in Vietnam, maybe 55% in Korea, and the law enforcement community still, in the law enforcement community which have a lot of other variables involved, but the FBI says that a third of all law enforcement officers who die in the line of duty, die never doing a thing to defend themselves. The fact that another human being is attacking them and trying to send them home to their parents in a box, is so overwhelming that even trained law enforcement officers with the modern mechanisms that we have in gear, a third of them are still freezing up and doing nothing.

So we've come a long way, as we can identify this resistance. It appears to exist in the minds of a healthy human being, maybe it's fear, maybe you're just frozen up, maybe it's a slow motion time being misrepresented, it's probably a wide variety of different variables, one of which I think is that mid brain resistance, we all have it, all of us have been enraged. Every

person in this room has been red, red, red with rage and yet at the moment of truth, he did not kill, he did not cave in the throat, he did not gouge out the eyes, he did not do those things. Why? Because he slammed head on into that mid-brain, to that resistance to killing your own species. I think that we can validate that it's there somehow and nailing that down becomes vital.

Now I want to address one last aspect of this. If we acknowledge that there is a resistance to killing, and if we acknowledge the fact that it's being done to our soldiers and our law enforcement officers with great safeguards, then there's one last thing we need to realise, and that is to recognise the fact that it is being done indiscriminately to our children. We have something we can contribute to the civilian world, and that's one of the areas I'm working on a great deal, and that has to do with how the point and shoot video games are making killing a conditioned response. The kids are playing the games. I served as a consultant in the Paducah school shootings; a 14-year-old boy named Michael Curneil had never fired a pistol before in his life before stealing that gun, had fired a .2-calibre rifle one time in camp. Michael Curneil in Paduka, Kentucky, brings a 22-calibre pistol to school and opens fire. Now the FBI says that the average law enforcement officer in the average engagement at an average distance of 7 yards hits with less than one bullet in five, less than 20% hit ratios. You know, and the real dynamics, moving targets are so hard to hit, the people just don't stand still for it. Moving targets are hard to hit, the physiology, and when you begin to use your lose your fine motor control and this whole dynamic is happening to you, and oh, by the way, they're shooting back at you, OK, all these dynamics can come together to make it so that it is extraordinarily hard to hit a target, just firing is a significant achievement. Hitting is another whole thing. And the only way you're going to be capable of hitting is through practice, practice, practice, practice.

Well see the thing about Michael Curneil is he had played the video games, he had played and played and played these video games. He picked this gun up and he held it up in a two-handed stance. He got this blank look on his face and he opened fire, there's a prayer group that's meeting out in the foyer of the High School and they begin to break up. Now they were moving

when he opened fire and they were all moving, milling, scrambling targets when he began to fire. He fired eight shots at eight different milling, scrambling screaming children. How many hits does he get? Eight shots, eight hits, five of them are head shots, the other three are upper torso. And he had never fired a pistol before in his life. He stole the gun, he fired some practice shots the night before, that's it. But he had played the video games. He stood up there and he held the gun up in a two-handed stance. Throughout the crime he never moved his feet. He held the gun up, he never fired far to the left, he never fired far to the right, never fired up, never fired down, he just put one bullet in every target that popped up on his screen. What was he doing? He was playing a video game. Do you see what I'm saying?

If we understand about enabling killing, the traumatisation and brutalisation that's happening to the young kids, and I've got an article that has now been picked up for reprinting in seven different periodicals. It started in 'Christianity Today', 'Rolling Stone' gave it a full page, 'Hinduism Today' is reprinting it, the Catholic Church's National, what have we got here? Well we've got here the Rolling Stone and Hinduism Today and Christianity Today are all reprinting it, you know, and it's been translated now into six different languages, and it explains the military violence enabling and how it's happening to our children including role models and operate conditioning.

My point is twofold: No. 1, if we understand the realities of combat then we have something to give to the civilian community to help understand how to turn off killing, how to heal killing, and then yes, God forbid, those who have to kill in the line of duty are able to perform their job that much better and they have their force multiplier that is vital at the moment of truth on the battlefield. And No.2, I tell you this because you must understand that the world you go out into is a world in which individuals more and more increasingly have played the video games. They have seen the movies, they have had the role models, they have been conditioned, operatively conditioned, classically conditioned, they have enabled themselves to kill in a way that's never happened before. The explosion of violent crime, not just in America but around the world, in America since '57 per capita assaults. Now you have to ignore murder across any period of time. Medical capita assaults. Now you have to ignore

murder across any period of time. Medical technology saves ever more lives. See a wound that would have killed you nine out of ten times in Vietnam, you know from one perspective, nine out of ten times you would have survived that same wound. A correction, a wound that would have killed you nine out of ten times in World War II, in Vietnam you would have survived that same wound nine out of ten times.

We all know about the leaps and bounds of medical technology that's saving lives, just understand that it's happening in our streets. The ratio of those who have died in hospital emergency rooms has been cut in half in just the last ten years. That's one of the major reasons why the murder rate's going down, but you've got to look at the assault rate. The rate at which the citizens of our civilisation have tried to kill one another per capita, has gone up sevenfold in the US since '57; in Canada it's gone up fivefold since '64. I got the Interpol data, very hard data to get a hold of, but basically what Interpol says isn't there. So in the last 15 years the ratio at which the citizens of these nations are trying to kill one another off has gone up fivefold in Norway and Greece, 15 years per capita serious assault rate up fivefold in Norway and Greece. Fourfold in Australia and New Zealand, tripled in Sweden and doubled in a half a dozen other nations. And we know that this violence enabling and some of these other dynamics are part of the equation. Well that's the world we face, that's where we're headed. We must be equipped and prepared. We need to understand it in a way that we never have before. We define an adult as an individual who has a degree of experience in two fields: sexuality and aggression. Experience and self control. As a civilisation we will probably never become an adult civilisation until we have a degree of self control mastery in these two fields: aggression and sexuality, and we are now doing that, and what you're seeing today is the peak of a whole body of science and study in that field.

APPLAUSE

Chris Bullock: Colonel Grossman was brought to Australia by the Land Warfare Studies Centre in Canberra. His speech, at their 1999 conference, drew a strong response.

The first question from the audience: Is it possible to select people on their ability to kill, on their physiological response?

David Grossman: When I train law enforcement officers, I do an eight-hour block of instruction, and one of the things I talk about is selecting individuals. And one of the things we do is simply ask the question. There's a scenario we give the people in the screening ward for law enforcement officers. The scenario says you're a law enforcement officer, you are on duty, you have your weapon and equipment, you've come around the corner, there's a chain link fence; on the other side of the chain link fence is a law enforcement officer laying on the ground and somebody's kicking him repeatedly in the head. What do you do?

Well, the answer is, tell him to stop, he doesn't stop, you shoot him. And that's really kind of the essence of it. But what happens is essentially, just in this initial screening, two out of ten will tell you, will never, never, never say they're going to pull the trigger. Now they don't know what the right answer is, and so they'll try to work their way round it. 'I'll climb over the fence'. You can't, it's barbed wire. 'I'll dig under the fence'. You can't, it's concrete. 'I'll go round the fence'. You can't, it goes all the way round. 'I'll call the helicopter'. The helicopter's busy. You keep coaxing and coaxing and coaxing these people and still, two out of ten will not say that they will fire their weapon. Now these are lovely people, these are wonderful citizens, they're great to have out there, but as law enforcement officers, the technical term to use for them is 'disqualified'.

Chris Bullock: Colonel Grossman said after that initial disqualification, the rest can be trained. They can be 'inoculated' against their own inhibitions about killing.

Another question: Does the stress of combat affect the team commander in the same way it affects the individual soldier?

David Grossman: There is a leader's guilt that I have not been able to get a handle on. I can get the individual killers to talk about, when I debrief, very seldom can you get the leaders to move into that realm. I'm increasingly convinced that the reality lies on the individual who has to kill. Afterwards, the leader will have guilt, will have pangs, will have passions. Often we see suicides among leaders in dramatic situations when it was their will that kept the battle going. Just their sheer will kept it going, and we see them paying the price. I've got a whole section in the

book in which I talk about leader's guilt, but I'm increasingly convinced that when we talk about this mid-brain dynamics, it is the individual who has to physically look another human being in the eyes and make the decision, who truly bears the brunt of this process. Never to downplay anybody else, but if you ask me to try to calibrate it, I'll tell you that it appears to be greater among the trigger puller than it does among those who give the orders. There is a powerful diffusion of responsibility that becomes available. If we can make it so that the leader has part of the responsibility and the shooter only does it because the leader said so, now there's a diffusion of responsibility that makes it better.

Chris Bullock: Another person pointed out that while there is fear in combat, there is also excitement, when the adrenalin is running.

David Grossman: I'll tell you one of the secrets of the battlefield. When you have killed, the immediate response, now again, let's say the mid-brain's in charge, even if it's not, you've killed somebody, they fall, you're alive, they're dead. How do you feel about that? Now stop and think for a minute. You've survived, you've hit your target, you've done your job, you've saved your life, you've saved your friend's life, how's that going to feel? I want to tell you that in essence it has potential to feel very, very good. And then what happens is that adrenalin is flowing, the dynamics are there, but then there is a process that happens in which you relax afterwards. There is a backlash, there is a backlash in which the adrenalin and the hormones and the Vaso dilators begin to happen, and the neuro transmitters in the brain 'have gone boom!' under this prompt and then there's this backlash. There is a backlash of remorse and nausea to a certain degree, that will physically happen after any high, but it's exaggerated in this instance, and it has potential to be exaggerated, in which you see another human being and say 'My God I just killed that man. What's wrong with me, I must be sick.' And this backlash of this high that comes along on the other hand with this backlash of remorse and nausea, is a powerful process, especially if we hadn't warned people that this may happen to them. I will tell you that the adrenalin is real, the excitement is real, and is a valuable and useful thing. And one of the things I try to tell people is there's no need to be ashamed of it. It is a normal human reaction, it is a survival

reaction especially immediately afterwards when you are alive. Afterwards people, and it goes in greater detail in other areas, people take guilt, people are ashamed of the fact that they took pleasure in that, and they don't realise the fact that it is a normal human physiological response to having survived a survival situation and indeed the remorse afterwards is almost a physiological response to the backlash.

Chris Bullock: At this point, Colonel Grossman wrapped up his speech with what he calls his 'fix' on land warfare.

David Grossman: The whole of human history up to and including World War 1, I submit to you, was the same story over and over and over again. It was empire rises, empire expands, empire clashes into another empire, empire falls. World War 1, from one perspective, was the Kaiser versus the Czar versus the King, and of course we get all the historians out there that can tell you the word 'Kaiser' and 'Czar' are simply derivatives of the word 'Caesar'. Two thousand years later, all we've got are Caesars smacking heads.

Now they were smart people, good people, who honestly believed that World War I was going to be the war to end wars. And one of the reasons why they believed that was this. If Great Britain had won the war, which they did at a tragic price, then what would happen is they would own the world. They would have the world power, they would have a pax Britannia that could now sweep across the world and we'd have an end to imperial wars as we knew it, and no-one else would dare to face them. The only problem was from one powerful perspective, Great Britain owned the world just about the time that the world didn't want to be owned. Because the virus of democracy, egalitarianism, had spread far and wide around the world, and now you had a new world population, throughout human history who ever came and took control, then the individuals who were there just rolled over and exposed their belly and said, 'You're in charge?' The Divine Right of Kings, oh who am I to confront this lawful authority?

But now what happened is there's a new idea, loose in humanity. The idea that every human being is equal to any other human being, and in this new era, in this post World War I era, if you want to have an empire, it has to be an exceptionally brutal empire. Either give up on empire, as Great Britain did, much to their credit, give up on

empire sort of semi-peacefully, relinquish your empire, or become an exceptionally brutal empire.

George Wells says that the 20th century, what we saw was the war against totalitarianism. We saw imperial Japan, we saw the Soviet Union, we saw Nazi Germany, all of whom manifested a degree of brutality that we had to go back quite a few centuries to find their equivalent, more or less.

So the point is that the totalitarianism has now been defeated to a certain degree. The world is now safe for democracy. Perhaps, depending on how you want to measure it, for the first time in human history the majority of the world's population elects their national leaders. There's something interesting about democracy. Another fun one, historians like to pick around the edges of it, but it's a useful heuristic to say that for all practical purposes, democracies don't go to war with other democracies. So what does that mean? That means that in the post-Cold War era, guess what our national interest is? Our national interest is to foster democracy around the world. Not with cruise missiles because that ain't going to do it. Not with frigates, because they ain't going to do it. But with peacekeepers, and peace-making forces. We've got a lot of people that I think that maybe to a certain degree are still trapped in the Cold War mentality. They're waiting for a real fight, 'the manly men can fight, they want this combined arms process, we want a real enemy, we just wish we had one!' But he's not there. They're gone. The great Godless hordes have gone away and they ain't probably coming back, at least not for a while. And so we can accept risk, maybe we can accept risk, you always accept risk. Our Air Force is building a new body of aircraft, there's nobody in the world who's ever shot down the F 15 Eagle and nobody building anything in the world that can, and yet we're spending umpteen billion dollars to build the next generation of aircraft when the reality may be what we need is to be able to stabilise nations around the world and foster democracy around the world and to continue along that line. And you know what we need? We need individuals on the street that will look another human being in the eye and hold them accountable for their behaviour. In Sydney and in New York, what holds a civilisation together is human beings willing to look someone in the eyes and hold them accountable for their behaviour. That is the warrior.

I would submit to you that from one angle, it's not a whole answer to your question by any stretch, but from one angle what's happening is in the law enforcement community, the weapons, their tactics, their organisation and structure, are becoming much more like the military. In the military realm, our weapons, our tactics, our organisation, our structure and especially our missions in places like Bosnia and Haiti and Somalia and much as we may hate it, and many of us do, are becoming much more like the law enforcement community. And I would say to you to a certain degree, those are building together. I would say to you that the population of a democracy across time, will not tolerate a large standing army unless you're out there using it for something. And that means peacekeeping ops, because that's the only show in town.

And oh, by the way, it might just be the right thing to do, to foster democracy around the world. You want to justify an armed forces No. 1, No.2 you want to do the right thing around the world maybe, maybe, maybe, this is what we're talking about, and that is that we have the new centurion, you know, the warriors that are willing to man the ramparts of civilisation inside and out, and that means ground warfare, that means ground warriors, and I have one example that I want to make this come together.

Chris Bullock: Colonel Grossman concluded with a story from World War II, when Americans were retreating in terror through a forest, pursued by Nazi SS. Reserve troops and paratroopers were called in to stop the Nazi advance under very difficult conditions.

David Grossman: And this is a true story. There was a photographer there, and a reporter there, and what happened was this. There's one American tank, 30 tons of death, fleeing down the road, and this one lonely paratrooper walks out in the middle of the road. And he's got hollow, sunken eyes, three days growth of beard; an M 1 dangling from his hand and a bazooka on his shoulder and he walks up and he stops the tank and looks at the tank commander and he says, 'Buddy, are you looking for a safe place?' The guy says, 'Yes.' He says, 'Then get behind me because I'm the 82nd Airborne Division and this is as far as the bastards are going to get.'

Now you understand how that applies

to you all? When we talk land warfare, do you understand how that applies to you all? For the rest of your lives, you're going to be faced with individuals who are fleeing. They're fleeing drugs and crime and poverty and violence and oppression, and the fear that lurks in the hearts of every man and woman and you have the authority and the responsibility and the mission to stand up and say 'Friend, neighbour, brother, sister, are you looking for a safe place?' and they'll tell you, 'Yes' and then you tell them, you tell them, 'Then get behind me, because I'm a soldier and this is as far as the bastards are going to get.' And as you do that for the rest of your lives, may God bless you and your families in every endeavour. Thank you.

APPLAUSE

Chris Bullock: You've been listening to a lecture by Colonel David Grossman, author of the book 'On Killing'. Background Briefing's Co-ordinating Producer is Linda McGinness; Technical Production, Tom Hall; Research, Jim Mellor; the Executive Producer is Kirsten Garrett, and I'm Chris Bullock.

THEME

Killology Defined (by D. Grossman): 'The study of methods by which humans learn to overcome their innate aversion to killing other humans, in order to be more effective on the battlefield; including the results of applying these methods in modern combat preparation and afterward returning these soldiers to civilian life. Also, how these methods for facilitating effective killing are applied in other contexts and how they effect everyday life in America.'