

Officer Involved Shootings: Implications for the Officer's Involved and the Investigators

Craig E. Geis, M.B.A., Management; M.S. Psychology

1831 Quail Court
Saint Helena, CA 94574
Phone: 707-968-5109
cegeis@aol.com

Abstract

This is an in-depth article on the threats we face in an officer involved shooting and the implication for investigators. Much of this article is beyond the scope of the Human Factors: Threat & Error Management Course but is provided for those interested in understanding more of the psychological and physiological mechanisms involved.

In researching material for this article I used material from the Human Factors: Threat & Error Management Course, the FBI Law Enforcement Bulletin, and law enforcement professional working in the field.

I have used many sources and have tried to quote the source where applicable. I am sorry if I have missed any sources.

Officer Involved Shootings: Implications for the Officer's Involved and the Investigators

INTRODUCTION

“If it hadn’t been for the recoil, I would not have known my gun was working. Not only didn’t I hear the shots but afterward my ears weren’t even ringing.”

“I saw the suspect suddenly point his gun at my partner. As I shot him, I saw my partner go down in a spray of blood. I ran over to help my partner, and he was standing there unharmed. The suspect never even got off a shot.”

“When I got home after the shooting, my wife told me that I had called her on my cell phone during the pursuit of the violent suspect just prior to the shooting. I have no memory of making that phone call.”

“I told the SWAT team that the suspect was firing at me from down a long dark hallway about 40 feet long. When I went back to the scene the next day, I was shocked to discover that he had actually been only about 5 feet in front of me in an open room. There was no dark hallway.”

“During a violent shoot-out I looked over, drawn to the sudden mayhem, and was puzzled to see beer cans slowly floating through the air past my face. What was even more puzzling was that they had the word *Federal* printed on the bottom. They turned out to be the shell casings ejected by the officer who was firing next to me.”

These representative samples, taken from actual officer-involved shootings were published in the October 2002 FBI Law Enforcement Bulletin by Alexis Artwohl. The article was titled: Perceptual and Memory Distortion During Officer-Involved Shootings.

The examples exemplify the quirky nature of perception and memory. Law enforcement officers fully realize that their superiors, legal authorities, and the public they serve will hold them completely accountable for their every action during an officer-involved shooting. These same individuals will also scrutinize the accuracy and truthfulness of statements made by officers taking part in such incidents. Therefore, it becomes important to understand that expecting officers to have perfect recall of any event is not realistic.

Indeed, the body of research on perception and memory supports the fact that people rarely are capable of total and perfect recall of events. Although the underlying physical processes of perception and memory continue as a matter of research and debate, empirical observation of human behavior can shed some light on the behavioral consequences of these processes.

BACKGROUND

The CTI Human Factors: Threat & Error Management Course points out that there are two modes of thinking. The rational-thinking mode happens during low emotional arousal states, whereas the experiential-thinking mode, occurs during states of high stress and emotional arousal, such as would occur during an officer-involved shooting.

- **Rational-Thinking Mode:** When people are not under high levels of stress, they have the ability to calmly engage in the conscious, deliberative, and analytical cognitive processing that characterizes rational thinking.
- **Experiential Thinking Mode:** However, when a perceived emergency requires quick action, they cannot afford this luxury. Instead, their cognitive processing system automatically switches over to experiential thinking. People are angry, sad, or frightened not as a direct result of what objectively occurs but because of how they interpret what happens. The automatic, preconscious processes that are the effective instigators of such emotions are made so automatically and rapidly as to preclude the deliberative, sequential, analytical thinking that is characteristic of the rational system.

The differences in experiential thinking include:

- Fragmented memory instead of an integrated narrative;
- Decisions are based on past experiences instead of a conscious appraisal of events;

- Intuitive and holistic instead of analytic and logical;
- Oriented toward immediate action instead of reflection and delayed action;
- Highly efficient and rapid cognitive processing instead of slow, deliberative thinking;
- “Seized by emotions” instead of in control of our thoughts;
- Experiencing is believing, instead of requiring justification via logic and evidence.

In most situations, the automatic processing of the experiential system is dominant over the rational system because it requires less effort and is therefore more efficient. Accordingly, it's the brain's default option. People frequently engage in experiential thinking during everyday events simply because it is more efficient, but emotional arousal and relevant experience are considered to shift the balance of influence in the direction of the experiential system. This clearly applies to officers involved in shootings and other high-stress situations.

PREVIOUS RESEARCH

Mr. Alexis Artwohl in his article looks more thoroughly at the research relative to officer-involved shootings and their implications. In 1986, two researchers were among the first to publish data specific to officer-involved shootings. In their study of 86 officers involved in shootings, they found:

- 67 percent of the officers saw the incident in slow motion, while 15 percent observed it as faster than normal.
- Fifty-one percent heard sounds during the event in a diminished manner, whereas 18 percent of the officers said that the sounds were intensified.
- Thirty-seven percent had tunnel vision, while 18 percent experienced greater visual detail.

In 1998, two other researchers studied a variety of reactions in 348 officers involved in shootings. They administered their surveys within 3 to 5 days after the incident, just prior to each officer's participation in a mandatory debriefing. They found:

- 41 percent of the officers thought that time slowed down; while 20 percent perceived that it sped up.
- Fifty-one percent said that sounds seemed quieter, whereas 23 percent reported sounds as being louder.
- Forty-five percent of the officers had tunnel vision, while 41 percent experienced an increased attention to detail.
- In addition, 22 percent of the officers reported memory loss for part of the incident.

A recent researcher did a comprehensive survey of officer-involved shootings that consisted of detailed interviews with 80 municipal and county law enforcement officers who reported on 113 separate cases where they shot citizens during their careers in law enforcement. While his report contained a wealth of information, it also set out specific data relative to perceptual and memory distortions. He found that:

- 56 percent of the officers saw the incident in slow motion, while 23 percent thought that it happened quicker than normal.
- Eighty-two percent reported that sounds diminished, whereas 20 percent thought sounds intensified.
- Fifty-six percent experienced heightened visual detail, while 51 percent had tunnel vision.
- In addition, 13 percent of the officers reported other types of distortion during the event.

PRESENT RESEARCH

Research from 1994 to 1999 revealed that:

- Sixty-two percent of the officers viewed the incident in slow motion; while 17 percent said that time appeared to speed up.
- Eighty-four percent of the officers noted that sounds seemed diminished, whereas 16 percent thought that sounds were intensified.
- Seventy-nine percent had tunnel vision, while 71 percent experienced heightened visual clarity.
- Seventy-Four percent of the officers stated that they responded on “automatic pilot,” with little or no conscious thought.
- Fifty-two percent reported memory loss for part of the event, and 46 percent noted memory loss for some of their own behavior.
- Thirty-nine percent recalled experiencing dissociation (i.e., the sense of detachment or unreality).
- Twenty-six percent had intrusive distracting thoughts.
- Twenty-one percent noted memory distortion (i.e., saw, heard, or experienced something that did not really happen or it happened very differently than they remembered).
- 7 percent reported having temporary paralysis.

DISCUSSION

Past and Present Survey Results

Diminished sound refers to the inability to hear very loud sounds that a person ordinarily obviously would hear, such as gunshots. It ranges from not hearing these sounds at all to hearing them in an odd muffled, distant manner. This may contribute to the findings of previous researchers, as well as the author, indicating that officers often do not know exactly how many rounds they fired, especially as the number of shots increases.

Tunnel vision denotes the loss of peripheral vision. This, combined with *heightened visual clarity*, can result in the odd combination of officers seeing with unusual detail some stimuli within their narrowed field of vision, but remaining visually oblivious to the surroundings that they ordinarily would see with their peripheral vision.

Although 7 percent of the officers reported *temporary paralysis*, such a reaction is unlikely to represent “freezing” to the point of dysfunction during the event. In cases where officers were angry at themselves for “freezing,” it was found that, in fact, this was simply the normal “action-reaction” gap that occurs because the officers can shoot only after the suspect has engaged in behavior that represents a threat. Although this gap occurs in a very brief span of time, because of the common perceptual distortion of slow-motion time, it can seem to the officers as if they stood there forever after perceiving the threat and before responding. While it remains possible that some of the respondents did, in fact, totally “freeze,” it is unlikely that as many as 7 percent did. Perhaps, none did.

Intrusive distracting thoughts are those not immediately relevant to the tactical situation, often including thoughts about loved ones or other personal matters.

Implications for Investigators

These researchers accurately pointed out that memory is not a flawless “videotape” that can play back exactly the same way each time a person tries to remember a past event. Rather, memory is a creative and not entirely understood process. If an officer’s recollection of an event is not a totally accurate representation of reality, it does not necessarily mean that the officer is lying or trying to engage in a cover-up. Likewise, it is normal for memories to change somewhat over time, and the changed or new memories may or may not represent reality more accurately. The same concept applies to other eyewitnesses and the suspects as well. No one should accuse an individual of lying simply due to inaccurate,

inconsistent, or missing memories. While some individuals will choose to be untruthful, investigators should reserve this accusation for those cases where additional evidence exists to indicate that the person deliberately lied. Research found that 21 percent of the officers “saw, heard, or experienced something during the event that I later found out had not really happened or happened very differently than how I remembered it.”

All participants in an event, including the suspect, eyewitnesses, and officers, have the potential to see, hear, feel, or experience things that did not actually happen. A wide variety of factors, including perceptual distortions, biases, beliefs, expectations, and prior experiences, influence people’s perceptions. An interesting aspect to these memory distortions is that they can “feel” more real to the witness than what actually happened. This remains consistent with the observation that experiential thinking is “self-evidently valid: “seeing is believing,”” as opposed to rational thinking, which “requires justification via logic and evidence.”

When confronted with a videotape that conclusively proved that he saw things that did not happen, a veteran SWAT officer told the author, “Doc, I now intellectually know that what I thought I saw didn’t really happen, but it still *feels* more real to me than what I saw on the tape.” Some witnesses sincerely and vehemently will insist that their perceptions and memories are accurate when, in fact, they may not be accurate at all.

The differences between rational and experiential modes of thinking also have implications in the post shooting aftermath. Clearly, officers need to be held accountable for all of their on-duty behavior, especially if they must use deadly force. However, those who conduct post shooting analyses should keep two things in mind:

- First, while officers usually have only seconds (or less) to decide about using force, all of those doing post shooting analyses will have hours, weeks, months, or even years to contemplate all of the evidence and decide what the officers really should have done. Although post incident analysis can

prove very helpful as a learning exercise, it was not an option available to the involved officers at the time of the shooting.

- Second, research indicates that officers will be in the experiential-thinking mode because it is the default option, especially in emotionally laden situations. On the other hand, all of those engaged in post shooting analyses have the ability to analyze the officers' behaviors in rational-mode thinking, a different cognitive process altogether and a luxury that the officers did not have during the shootings.

This does not suggest that officers be given carte blanche to behave in any way they want during a high-stress situation. It does imply, however, that the law enforcement profession must remain rigorous in its training, realistic in its expectations, and cognizant of the demands of emergency situations.

Research indicates that “traumatic situations will inevitably result in memory impairment.” Officers may make more thorough and accurate statements if they wait at least 24 hours, during which time they should get some sleep, before participating in their formal interview with investigators. Research evidence suggests that REM (rapid eye movement) sleep; in particular, helps integrate memories and facilitate learning and memory retrieval. Some officers might appear unusually calm shortly after an incident and may prefer to give an immediate full statement. Often, however, it is best for officers to sleep first and give their statements later. This does not preclude their providing enough brief information during an immediate on-scene “walk-through” to get the investigation started. But, investigators must conduct these initial sessions in a sensitive manner that does not compromise the officers' legal rights.

Given that perceptual and memory distortions are an integral part of traumatic events, investigators may find research on the cognitive interview technique helpful. The developers of this method found that how investigators interview individuals can significantly impact the ability of the witnesses to remember and

report the details of an event. Their research indicated the cognitive interview as the most effective technique for facilitating memory retrieval with cooperative witnesses.

COGNITIVE INTERVIEWING

INTRODUCTION

Cognitive interviewing is explained in detail by Margo Bennett and John E. Hess. They are special agents and instructors at the FBI Academy in Quantico, Virginia.

When interviewing crime victims, few investigators begin with questions such as: How tall was the subject? What color was his hair? Did he have any scars? Common sense, experience, and fundamental training lead investigators to the conclusion that such specific questions give witnesses little opportunity to tell what they know. Instead, open-ended questions tend to produce the best results. A question like, "What did he look like?" eliminates the need for investigators to anticipate every detail of description victims may have noted. Investigators can always follow up the witness' statements with specific, direct questions to fill in gaps. At least, that is what many interview textbooks suggest. But what happens when even these direct questions fail to produce the details needed from witnesses? The cognitive interview method is a proven technique, effective because it provides interviewers with a structured approach to help retrieve such details from the memories of witnesses.

Consider the following scenario: At a robbery scene, a uniformed officer briefs the investigating detective. Hoping to obtain additional information, the detective approaches the clerk, introduces himself, and sensing her anxiety, takes some time to assure her that she has nothing to worry about. He tells her he understands the trauma she has just undergone, gets her a cup of coffee, and delays asking any questions until she has regained her composure. He then tells her that he needs her help and asks that she start at the beginning and tell him exactly what happened. She replies:

"I was behind the counter when all of a sudden, I heard a voice telling me to give him all the money, and I would not get hurt. I looked up and saw a man wearing a ski mask pointing a gun right

at me. I just froze and stared at the gun. He told me to get a move on or there would be trouble. I opened the cash register and handed him all of the bills. There was just under a hundred dollars in the register. He then told me to lie on the floor and not move. I did as he told me and waited until I was sure he was gone. I yelled to Joe, the manager, who was in the office, who asked me if I was okay. He then ran to the phone and called the police. The next thing I knew, the police officer arrived, and I told him the same thing I just told you. I don't know what the guy looked like, where he came from, or how he got away. I'm sorry I can't be more help."

The detective tells her that she has been very helpful and that now he would like to go over the story again, and this time, if she doesn't mind, he will interrupt her with questions as she goes along. As she retells her story, he constantly probes for additional details, such as the possibility of additional witnesses, more descriptive data regarding the subject and his weapon, words he may have used, noticeable accent, and the means of his escape. However, except for a bit more descriptive data, the victim was correct; she had told the responding officer everything she could remember.

THE PROBLEM: INABILITY TO REMEMBER

The above scenario illustrates a problem encountered by many investigators. That problem results not from investigators being unable to ask good questions but simply from witnesses who are unable to provide the answers. Responses such as, "I don't remember," "That's all I saw," or "I can't recall" frustrate many interviewers on a regular basis. In the past, this led investigators to try hypnosis as a means of enhancing witness recall. Improved results verified what many investigators suspected--an inability of witnesses to remember, not a lack of observations, was the main problem. Although investigators achieved some success through hypnosis, those successes did not last long. Courts, on a regular basis, began ruling in favor of defense attorneys who alleged that hypnotically elicited information may contain flaws and that hypnosis as a means of refreshing recall lacks scientific

acceptance. Therefore, investigators now primarily reserve hypnosis for situations where the need for lead information supersedes all other considerations. They know full well that using hypnosis will probably disqualify a witness from testifying.

SOLVING THE PROBLEM: THE COGNITIVE INTERVIEW

To enhance witness recall without the stigma attached to hypnosis, Ronald P. Fisher and Edward Geiselman, professors at Florida International University and UCLA respectively, have developed a system they call the cognitive interview. Although their process contains few, if any, new ideas, they have systematized some techniques which have, for the most part, been used by investigators only in a sporadic, piecemeal fashion. Research indicates that the cognitive approach to interviewing witnesses increases the quantity of information obtained and does not jeopardize the witness' credibility in court, as hypnosis does.

This article compares the traditional interview with the cognitive interview. Specifically, this article deals with the cognitive interview technique as it assists witness memory retrieval by:

1. Reinstating the context of the event
2. Recalling the event in a different sequence, and
3. Looking at the event from different perspectives.

It also deals with specific retrieval techniques and time factors that affect the interview.

Reinstate the Context

Traditional interviews of victims and witnesses, similar to the one described above, usually begin with interviewers first taking the time to make introductions and putting witnesses at ease before asking, "What happened?" or "What can you tell me about...?" Then, specific questions follow that are geared to fill in the gaps inadvertently left by witnesses. Proponents of the cognitive interview suggest this will not usually produce optimum results.

Asking people to isolate an event in their minds and then to verbalize that event requires them to operate in a vacuum. Even without the trauma that often results from involvement in a crime, common sense says that human memory functions better in context. The cognitive interview process takes this into account.

What is meant by context and how do interviewers establish it? Simply put, interviewers make efforts to reestablish the environment, mood, setting, and experiences by asking witnesses to relive mentally the events prior to, during, and after the crime.

Let's return to the robbery scene described above with the detective who had already introduced himself to the victim and asked for her help. Instead of asking her what happened during the crime, using the cognitive interview approach, he proceeds as follows: "It's only about 10:00, and it's already been a pretty full day for you. How about telling me how your day started. Tell me what time you got up, the chores you did, the errands you ran and anything else that happened before you came to work."

As she recounts her activities, he joins the conversation, discussing events with her, including the problems of a working mother, what she fixed for breakfast, and any other details that she mentions. Only when they have developed a clear picture of those events does the detective next suggest that the victim describe her travel to work. He handles this portion of the conversation in the same way. He does not ask perfunctory questions geared to getting her quickly to the crime scene, but rather, he discusses her commute to work in depth. They discuss the route she took, weather and traffic conditions she encountered, events she may have noticed, and finally, where she parked her car and what she noticed at that time. He wants her not only to just describe her day in general but also to relive it.

He uses the same interview technique regarding her arrival at work. By the time they finally get to the discussion of the robbery, they have put the event into context. In many instances, this process enhances measurably a person's retrieval of stored information. Thus, witnesses can see details of the robbery in

their proper sequence and context. Concentration is more focused than during any previous interviews, which may have only consisted of isolated questions and answers. The response, "I can't remember," will occur less frequently.

Change the Sequence

To continue the interview and further develop the witness' recall, another phase of the cognitive interview follows next in sequence. Initially, retrieving information from witnesses occurs in a normal, chronological flow of events. However, when recounting from memory, people tend to edit as memory playback occurs. This results in a summary based upon what witnesses regard as important. Therefore, interviewers should address this problem by prompting witnesses not to hold back even the most insignificant detail. Even so, most interviewers can cite experiences where valuable information went unmentioned because witnesses chose to omit it.

By changing the sequence of recall, witnesses can look at each stage of the event as a separate entity much akin to looking at individual frames from a film. Reverse or out-of-order recall also encourages an overly zealous witness to stick to the facts. Witnesses find it more difficult to embellish the event when they separate themselves from the natural flow of events and independently deal with each activity.

Returning to the eye-witness interview in the opening scenario, the detective might continue using the cognitive interview technique. Accordingly, he would discuss the conversation the victim had with the responding officer and ask where she was when the officer arrived. He wants to know exactly what she was doing at that time. What did she do immediately before that? Through this line of questioning, he gradually arrives back at the time of the robbery and before hand. Thus, he leads her through a second recounting of the crime, only in reverse sequence. This time, her information is a collection of pieces, each viewed independently. Just as looking at a portion of the landscape may reveal details missed while taking in the panoramic view, looking

at stages of an event may enable witnesses to "see" previously unnoticed items.

Change the Perspective

To further stimulate witness memory recovery, Fisher and Geiselman also suggest changing the perspective. Witnesses experience an event one time; however, they may perceive it from various views. During initial recollection, witnesses articulate from their personal perspectives and rarely vary from their point of view. By prompting witnesses to physically change the positioning in their memories, interviewers give them the opportunity to recall more of their experiences. Interviewers can change perspective by asking witnesses to consider the view of another witness, victim, or an invisible eye on the wall.

Using the technique of changing the perspective of witnesses, the detective in the opening scenario might say: "You know those surveillance cameras they have in banks and some stores? Too bad there wasn't one on the wall over there. I wonder just what it would have recorded; it certainly would have had a different vantage point than you did." Through this opening statement, he can draw the victim into a discussion of what might have been recorded on the nonexistent camera. This technique not only provides her with an opportunity to "replay" the event from a different perspective but it also serves to further de-traumatize the situation. Reviewing a film is much less traumatic than reliving an armed robbery.

SPECIFIC RETRIEVAL

Interviewers can use additional techniques to promote memory retrieval, depending on the facts of the crime and witness information. After witnesses have recounted an event in its natural sequence, reverse sequence, and from different perspectives, the interviewer can induce specific retrieval by asking direct questions. One technique of specific retrieval

includes associating witness recollection of physical appearance, clothing, and sound with something or someone familiar to them. Other areas of recall, such as remembering names and numbers, may be enhanced by dealing with individual components of the item, such as the first letter or number. Once established, interviewers direct concentration to the next letter or number and build the response.

Using this technique, the detective in the robbery scenario might have first reviewed the details obtained thus far. At certain points, he might have stopped to ask questions such as: "You say he had a scary voice. How so? Does it remind you of anybody you know, or perhaps somebody you've seen in a movie?" "The coveralls he was wearing--ever seen that type before? Where? Were they like a pilot's suit, or more like a carpenter's?"

This context-enhancing technique stems from realizing that the victim did not experience this event as a clean slate. She had a lifetime of experiences that preceded this activity. Therefore, when getting a description of the subject, a detective's questions, "Does this person remind you of anyone you know? In what way?" likewise provide a context from which the victim can make comparisons. This removes her need to create, thus enabling her to draw on information with which she is comfortable.

TIME FACTORS

The cognitive interview encourages a witness' in-depth retrieval of memory. Success with this technique, although a time-consuming process, forces interviewers to avoid some traps normally associated with police interviews, specifically, rushing the recall of witnesses and interrupting their narratives.

Witnesses must feel confident that they have time to think, speak, reflect, and speak again as often as they need. Interviewers can instill this confidence by allowing sufficient time for the interview and by refraining from interrupting witnesses. (6) All too often, interviewers say, "Tell me what happened," but before witnesses speak for 30 seconds, interviewers begin interrupting with specific

questions. Those specific questions should be asked after witnesses have had the opportunity to recount the event fully. Allowing time to respond also applies when witnesses answer specific retrieval questions. Rushing witnesses sends a message to them that their information is trivial. This results in witness retrieval shutdown. If interviewers don't give them the time, witnesses cannot concentrate or remember.

The cognitive interview technique not only enhances witness recall but also addresses another common problem among interviewers--their inability to sustain the interview. Interviewers, particularly inexperienced ones, are often reduced to saying, "I can't think of anything else to ask. Is there anything you're leaving out?" If a witness responds in the negative, the interview is over. Using the cognitive technique can help interviewers avoid prematurely reaching this point. Experience demonstrates that the cognitive interview technique allows interviewers to continue discussing events without sounding redundant. Indeed, continued conversation in a constructive, helpful direction often prompts additional information.

CONCLUSION

Despite significant advances in various forensic fields, most crimes are solved by information furnished by people. The interview remains the foremost investigative tool for gaining information.

Although most victims and witnesses try to cooperate, their inability to recall vital details can be discouraging, and they need help in remembering. This help must come from investigators. Merely asking the right questions does not suffice; enhancing someone's memory requires active involvement. The cognitive approach to interviewing has proven more effective than the traditional one by increasing the quality and quantity of information obtained from witnesses and victims.

Using proper interview techniques is particularly important for high-stress situations because during experiential thinking, the

individual is more likely to be dissociative and “encodes reality in concrete images, metaphors, and narratives,” whereas, in rational thinking, the individual is more logical and “encodes reality in abstract symbols, words, and numbers.” This means that the survivors of traumatic experiences will find it challenging to translate the dissociated concrete images and metaphors they experienced during the high-stress event into the sequential, verbal, abstract, and logical narrative required by an investigative interview and courtroom testimony. Skilled investigators can help witnesses with this difficult task.

IMPLICATIONS FOR TRAINING

Seventy-four percent of the officers surveyed reported, “I responded automatically to the perceived threat giving little or no conscious thought to my actions.” This finding coincides with the experiential- thinking mode, described as an “automatic, intuitive mode of information processing that operates by different rules from that of the rational mode” that “occurs automatically and effortlessly outside of awareness because that is its natural mode of operation, a mode that is far more efficient than conscious, deliberative thinking.”

This has profound implications for training because experiential thinking is based on *past experiences*. Therefore, under sudden, life-threatening stress, individuals likely will exhibit behavior based on past experiences that they automatically will produce without conscious thought. This means not only training officers in appropriate tactics but also providing sufficient repetition *under stress* so that the new behaviors *automatically* will take precedent over any previously learned, potentially inappropriate, behaviors that they possessed before becoming an officer.

Another implication of the study, as well as other research, is that it supports the concept of reality-based training that all tactically minded officers and trainers know represents the foundation for reliable performance in high-stress situations.

Information obtained from textbooks and lectures is of a different quality from information acquired from experience. Experientially derived knowledge often is more compelling and more likely to influence behavior than is abstract knowledge. This is especially critical in sudden, high-stress situations requiring instant physical performance. Abstract knowledge obtained in lectures and books can be very useful in rational-thinking mode situations, such as formulating policies and analyzing situations. However, when officers face sudden, life threatening incidents, their reality-based training *experiences* most likely surface.

Reality-based instruction that subjects the participants to high levels of stress during training also will help officers develop coping mechanisms to compensate for perceptual and memory distortions. For instance, to compensate for tunnel vision, many officers have learned to practice visually scanning the tactical environment during high stress situations, such as pursuits and high-risk entries. Training under stress also will help officers learn to control their arousal level. As their physiological agitation escalates, so might their susceptibility to perceptual and memory distortions. Thus, learning to control arousal level can help reduce distortions. Therefore, officers should receive training in and regularly practice ways to control arousal levels in high-stress situations. One process, the combat breathing technique, has proven highly effective in this area.

COMBAT BREATHING

INTRODUCTION

In reviewing the article: Lowering Pursuit Induced Adrenaline Overloads written by Sgt. Charles E. Humes, Jr. I found some interesting points that pertain directly to this article.

An officer's worst enemy in a code three run, pursuit, or officer involved shooting is an adrenaline overload. The speed, the sound of the siren blaring, the desire for apprehension, or the threat of

death can cause an officer's adrenaline level to soar. Once the huge adrenaline dump occurs, things can go from bad to worse. Tunnel vision and/or target fixation can set in. Fine and complex motor skills diminish, and short term memory (the creative/reasoning part of the brain) can be severely hindered, leaving an officer with nothing more than long term memory and primal, emotional instincts to operate with.

The potential for an adrenaline overload during a pursuit or shooting is tremendous, particularly for younger, inexperienced officers. One study quoted on the Discovery Channel's "High-Speed Pursuit" proclaimed that officers involved in extended pursuits have adrenaline levels that exceed those of soldiers engaged in combat.

Most of you can confirm that study's statement from personal experience. You had an extremely tough time trying to keep your adrenaline under check during pursuits during your early years on the job. Your voice would go up several octaves, your radio communications would become unintelligible, tunnel vision would take over; and your reasoning and common sense would go right out the window.

The breathing technique, known as Chi breathing, Sanshin breathing, Autogenic breathing and probably a dozen more "also-known-as" names, has also been called "Combat Breathing" in police training circles.

The breathing is done in cycles. Breathe in through your nose for a count of four; hold your breath for a count of four; exhale through your mouth for a count of four; hold your breath for a count of four, and then restart the cycle. Breathe deeply and methodically – completely filling and emptying your lungs during each cycle. This simple technique will lower your blood pressure and arousal/stress level, and minimize the overwhelming side effects of an adrenaline dump.

Many progressive police training classes now teach this breathing exercise, but most will not take it to the proper training level necessary to make it functional. In most cases, this technique is taught in the completely tranquil, sterile environment of a quiet classroom. This fails to give the officer a proper mental cue to trigger the breathing pattern subconsciously. An officer is going to need this technique the most when his adrenaline and the events of the moment are overloading his short-term memory with information vital to his survival.

We now know that learning this technique will benefit our officers. The big question is how to teach it so they will remember to do it when they need it the most. It's not likely that you can teach them to "remember" to do it. To expect officers to consciously "remember" to utilize the breathing technique while under tremendous stress is not realistic, nor dependable.

You can, however, make it a **CONDITIONED** response to a specific stimulus. Bruce Lee liked to advise "Learn it until you forget it." What I believe he meant by this is to learn techniques so that you could perform them without conscious thought. While teaching a young apprentice in the movie "Enter the Dragon", he said, "Don't think; feel."

You want to make Combat Breathing a subconscious part of the officer's tactical/survival arsenal. They will learn it until they forget about it. However under the right stimulus, they will perform it to their advantage without even thinking about it. This is the ultimate level of performance training – the ability to perform without conscious thought. While this sounds very complex, the training methodology is not. All you need to do is make sure is that your officers are at least as smart as your dumbest K-9.

Think back to your basic science class and the example of Pavlov's dog. Pavlov, a scientist in old Russia, conducted experiments with what he called "Conditioned Response." He would ring a bell right before feeding his dog. The dog learned to associate the bell with

food, and would salivate at its sound, even when no food was around. The scientist had programmed an involuntary, subconscious, physical response to a specific stimulus into the brain of a dog.

The modern day version of a conditioned response, used widely in police and other training circles, is called STIMULUS-RESPONSE. "Sit, Rover." Rover sits. The command "Sit" is the stimulus, Rover sitting is the response. Call it what you want, but it all boils down to the concept that is credited to Pavlov. The most effective way for police officers to utilize the technique for stress control during a pursuit, is to pre-introduce a stressful stimulus, and have them repeatedly PRACTICE the desired response.

While some will vehemently disagree, you can be pretty sure that you are as smart as Pavlov's dog. If the dog could learn to salivate subconsciously to the sound of the bell, why can't you learn to subconsciously induce combat breathing when you heard the sound of the siren? Thus, turning a mental "cue," that normally raises your adrenaline, into one that would actually lower it.

The methodology of this training is quite simple. You take a tape recording of a siren and play it for your cadets for five or ten minutes a day, EVERY day, at the end of the academy training day. While the siren plays, the cadets practice the combat breathing exercises we detailed earlier. To enhance this, have them watch videos of pursuits from in-car tapes as you do this. If you do this for the duration of your academy, when your cadets are on the street, they will start combat breathing subconsciously to the sound of a siren helping them to greatly control their adrenaline surges before they occur.

"During my twenty years as a practicing clinical and police psychologist, I worked with many individuals who had survived traumatic events – combat veterans, civilians, and many police officers involved in shootings, pursuits, and other sudden, high stress, and potentially traumatic situations," says Alexis Artwohl, PhD., one of America's most respected police psychologists.

“I have studied the fascinating question of what allows some people to perform well in these life-threatening situations while others do not. There are a variety of factors, but based on my study of the scientific literature and working with numerous actual survivors, it became clear to me that one of the most important factors is THE INDIVIDUAL'S ABILITY TO CONTROL PHYSIOLOGICAL AND EMOTIONAL AROUSAL LEVELS WHEN FACED WITH HIGH STRESS SITUATIONS.”

Artwohl adds, “This ability should not be taken for granted when training police officers. Controlled breathing is an age-old technique that warriors, athletes, and others have used for centuries to control arousal levels and achieve peak performance. Psychologists often call it ‘autogenic’ breathing and have been using it for years to teach people relaxation skills so they can control anxiety levels. Police officers should be taught controlled breathing from DAY ONE in training to the point where it becomes so automatic they do it without thinking.”

Lt. Col. Dave Grossman, a former army Ranger and paratrooper, who taught psychology at West Point; is the Author of the Pulitzer Prize nominated book "On Killing" and the highly acclaimed police training tape "The Bullet-Proof Mind." Col. Grossman has been teaching the breathing exercise and its positive impact on performance during high-speed pursuits for years and he says he has been teaching it to military special ops pilots for the same reason.

“All of these organizations have given me tremendous positive feedback. The idea of making it a conditioned reflex is brilliant,” Grossman says. “This is a true revolution in training, which addresses a major performance problem and brings us up to a new level of professionalism.”

Every Police Chief, Police Commissioner, and Police Trainer should have one item hanging from their desk – a copy of the old military poster that reads, "Your mind is your primary weapon."

Your officers' minds ARE their primary source of every positive and negative action they make. It's such a simple concept that we tend to overlook it. An officer's brain is the little voice in his head that makes his body accomplish tremendous acts of bravery under unthinkable situations. However, it can also be the primal, instinctive voice commanding the use of excessive force under circumstances of extreme stress, adrenaline overload and emotional arousal, even from officers that would not think of such an act under normal conditions. We owe it our officers to give them every tool possible, to enhance their performance and to help them keep their adrenaline demons under control. Here is the tool; the rest is up to you.

CONCLUSION

The observations of the officers at the beginning of this article effectively portray how perception and memory can influence an individual's understanding of a particular incident. One officer did not hear the sound of his gun discharging. Another did not remember calling his wife just prior to being involved in a shooting. Three others observed things happening in ways that did not actually occur. All of the officers were involved in the highly stressful and emotionally laden process of using deadly force and, therefore, subject to later scrutiny by their agencies and the citizens they serve for their actions.

Although highly trained in accurately describing events and uncovering facts pertinent to criminal investigations, law enforcement officers face the same difficulties that all people do when trying to recall what happened in high-stress situations. Research has revealed that people rarely can remember such events with total accuracy. Research has demonstrated that this finding holds true for officers involved in shootings. With this in mind, the law enforcement profession must realize the implications this has for officers and those who analyze their actions.

Because critical incidents demand split-second decisions, officers must receive the best training that will help them react appropriately in high-stress situations. Likewise, those who analyze these events must understand the demands placed on officers during such incidents and maintain realistic expectations concerning what officers perceived during the events and what they can recall accurately afterwards. In the end, recognizing the perceptual and memory distortions that officers can have during a shooting can go a long way toward helping officers deal with such difficult situations and, perhaps, reduce their occurrence.

The Human Factors: Threat & Error Management course offered by CTI explains many of the points covered in this article. I hope you have the opportunity to send your people to this valuable training.