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see page 34



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TELLING THE TRUTH ABOUT POLICE SHOOTINGS

By Charles Remsberg

In his 23 years with the Los Angeles Sheriff's Office, Homicide Lt. Joe Hartshorne has heard plenty of naïve questions. One that especially troubled him was asked after a deputy shot and killed a suspect who drew on him with what turned out to be an unloaded revolver. A lawyer who served as a civilian reviewer asked the deputy, "Why didn't you just look in the cylinder and see that the gun was empty before you shot?" "And that," Hartshorne notes, "was from someone sitting in judgment of cops' decisions. So many people seem to think that shootings by the police are murders and that in homicide we cover up the murders." Now, thanks to Hartshorne's determination to correct such dangerous thinking, there's less risk that fanciful notions will trump harsh reality when it comes to assessing extreme encounters by the LASO.

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that we see everything
and see it clearly.
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In August 2004, he and Mike Bumcrot, a retired Detective sergeant with similar commitment who consults with the department on criminal investigations, assembled a special audience of 250 in the council chamber of a Los Angeles

suburb to hear some eye-opening revelations about the dynamics of deadly force. Included were lawyers who defend officers in civil litigation, district attorneys, representatives of the county's Office of Independent Review and the Risk Management Bureau, medical examiners, coroner's field investigators, training officers, homicide detectives, IA, major crimes investigators and invited guests from other local and federal law enforcement agencies—a veritable congress of those whose opinions count after officer-involved shootings.

To guide them through the truths of lethal confrontations, Hartshorne and Bumcrot recruited the leading researcher of the practical aspects of police use of force. Dr. Bill Lewinski, a specialist in law enforcement behavioral psychology and a member of *The Police Marksman* national advisory board, has spent more than two decades identifying and scientifically documenting the mental and physical aspects of life-threatening encounters—particularly action/reaction times and movements. For the first time, his work has established precise measurements, to hundredths of a second, of the speed with which suspects can attack and the disturbing extent to which officers are trapped behind the reactionary curve in responding. His surprising discoveries, ranging from why some assailants end up shot in the back to why officers can't immediately stop shooting once they've neutralized a threat, have made him one of the nation's most sought-after expert witnesses in controversial police defense cases.

In June 2004, Dr. Lewinski established the nonprofit Force Science® Research Center at Minnesota State University-Mankato to expand his unique experiments, to attract other researchers to the field and to inform peace officers and civilians alike about little-known and little-understood realities of the street. The latter mission was the focus of his appearance in Los Angeles. Civilians, as well as veteran law enforcement personnel, left the council room acknowledging they'd learned things that impacted upon officer-involved shootings that they'd never known before. In Hartshorne's opinion,

Dr. Lewinski's hours-long presentation, financed from LASO's narcotics forfeiture funds, "...should be duplicated in agencies across the country. Bill explained phenomena that we thought existed but didn't understand and couldn't define. There have been times when an officer would explain what happened in a shooting, but the physical evidence didn't seem to support his story. You knew he was telling the truth but you didn't know how to explain it. Now we understand what could have happened. And we have science to back us up."

To ease the civilians into the world of the police, Dr. Lewinski began his presentation by showing examples of tunnel vision, or what he calls the "funnel of concentration"—a phenomenon with which most officers are sorely familiar. First he screened a compilation of video clips from baseball games in which outfielders were so riveted on catching a ball arcing toward them that they ran into walls, into each other and into spectator railings—oblivious that they were anywhere near such hazards. One, having caught a ball and intending to throw it to a baseman, hurled it into the head of an umpire standing not five feet away—directly in his line of sight but "unseen" until too late. "Is there any doubt these players would have avoided doing what they did, or modified it, if they could have known the outcome?" Dr. Lewinski asked.

A second tape showed a leopard stalking a group of warthogs. Focused upon a vulnerable juvenile, the big cat charged toward it only to be T-boned by an adult pig the leopard didn't see countercharging from the side. Instantly, other warthogs swarm in and repeatedly gore the cat before they angrily pursue it once it manages to leap free. Imitating a lawyer badgering an officer after a surprise attack, Dr. Lewinski asked: "So, Mr. Leopard, how many pigs assaulted you? What was each pig doing just before the alleged attack? Mr. Leopard, please recreate in detail what you did during this encounter." He continued, "There is an illusion that we see everything and see it clearly. Actually we have good vision only within five to seven degrees of the center of the eye. Compli-

cating this, most shootings occur when our vision is poorest—at night or in low-light surroundings. In 70% of shootings, officers were operating in light conditions that equate with them being close to legally blind. With the public, there is a rush to judgment about police shootings. They want to narrow the circumstances down to a few facts that provide easy answers. Actually, these are very complicated situations. I am not a cop apologist. Officers should be held accountable—but only for what they can control.” His research is devoted to understanding and documenting how lethal encounters really do unfold in terms of human psychology and biomechanics.

Immediate vs. Imminent Threat

Attorneys and activists often assert that “cops shoot first and ask questions later.” Dr. Lewinski demonstrated that officers must take preemptive action in order to adequately defend their lives. If they wait until they actually see a suspect’s gun pointing at them, it’s too late. Exhibiting outtakes from scores of studies he has done on action vs. reaction and the lag time between the two, Dr. Lewinski drew sobered responses even from veteran firearms trainers in the crowd. Time-coded video of a slightly built woman who had never before handled a handgun revealed that she could draw from her waistband and fire faster than the average officer could react from a wide variety of ‘ready’ positions. Only .07 seconds elapsed from the time her gun was visible until she shot. Reacting officers were not able to beat her when they had to draw (average time 1.5 seconds) or even when their weapons were out in a low-ready position, a close-ready, a belt tuck, a ‘Hollywood high guard,’ a behind-the-leg ‘bootleg’ position or ‘freed up’ in an unsnapped holster. Indeed, trained officers are even slower responding from a bootleg position or with a holster unsnapped than in drawing a holstered weapon. In some positions, the lag time was mere fractions of a second.

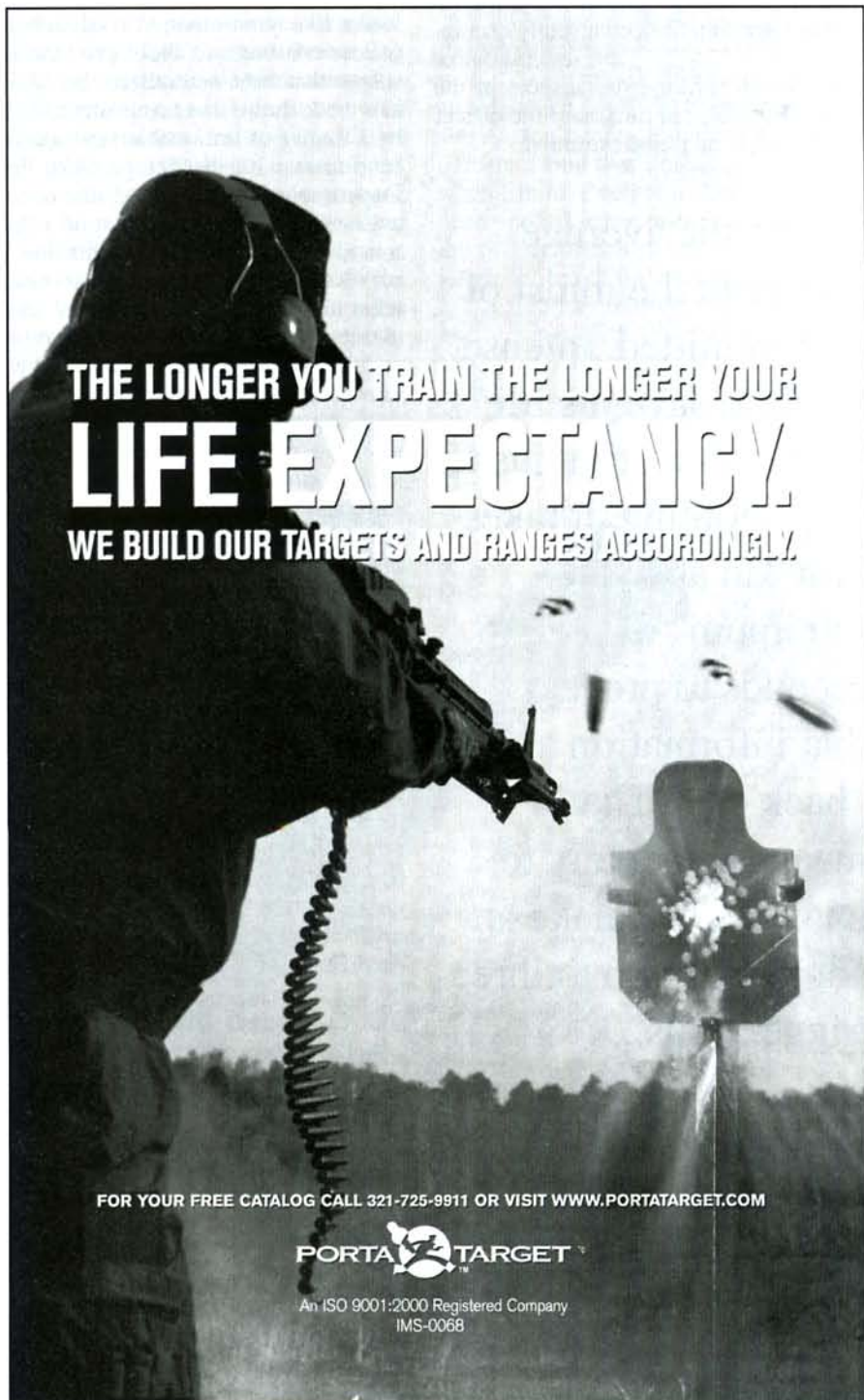
“But if you think this is a mouse turd in the real world, you’re wrong,” Dr. Lewinski stated. From most positions, especially if an officer has to visually confirm a threat, “you’ll have a round coming at you before you can react. Just one second equals four rounds from a Glock.” Still, he recently encountered an opposing expert witness, a lieutenant from a major department, who swore in court that his officers were “held to the standard of not

shooting until they see a gun pointed at them.” In other words, they must face a clear, present and immediate deadly threat or shooting is not justified by department policy. More realistic is what Dr. Lewinski calls the “imminent threat” standard. This involves an officer’s reasonable belief that a potential threat is beginning to unfold that may culminate in his being placed in lethal jeopardy. This would include shooting on the basis of “furtive” movements. Laws in most states accept the imminent threat standard,

Lewinski said. But as evidenced by the lieutenant’s testimony, some departments choose (unrealistically) to set their standards higher than state law.

Shot in The Back

Much can happen between the moment an officer decides to shoot and his bullet actually makes impact. Although the time span may only be measured in microseconds, it’s long enough for what motivated the officer to fire to change radically. A sus-



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pect facing an officer and pointing a gun at him, for instance, can turn and start to run away. That movement—going from a threatening, frontal stance to a running, square back presented to the officer—can take as little as .14 seconds according to Dr. Lewinski's experiments. That is half the time it took for the fastest officer in his studies to react to a simple auditory cue to stop shooting—auditory cues consistently produce faster reaction times than visual cues. "In a real-life situation, the officer is highly unlikely to even realize the change is taking place. If he does, there's not enough time for his brain to process that information and stop him from completing his trigger squeeze." The inevitable result is one or more rounds striking the suspect in the back. That looks, in turn, as if the officer has committed an illegal execution.

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After several time-coded videos confirming the startling speed at which gun-wielding suspects can turn, Dr. Lewinski walked the audience through a much-publicized case from Los Angeles in which an officer fatally shot an actor in the back during a loud-party call. In that case, featured on *48 Hours*, the lawyer for the dead man's family, Johnny Cochran, said it was "ridiculous" for the officer to claim that the suspect turned

away at the critical moment before the bullets hit him. "He couldn't turn around and get his back to the officer in the time it takes to shoot!" Cochran insisted. But Dr. Lewinski, engaged by LAPD, used his research to prove otherwise. Unable to shake his evidence during a six-hour deposition a week before trial was scheduled, Cochran's team backed away from taking their \$5 million lawsuit to court and accepted a nuisance settlement to drop the matter.

Extra Shots

To the media and other civilians, it looks like vindictive overkill when an officer continues to shoot even though a suspect has been neutralized. Dr. Lewinski's work shows that this is more likely to be a matter of immutable reaction time. In studies with the Tempe (AZ) Police Department, he established that once the average officer in the midst of a "committed, intense effort to save his life" perceives a stimulus to stop shooting, it takes him "an absolute minimum" of .3 to .6 seconds to process that information and "back off." That means he's likely to unavoidably make an additional two to three trigger pulls, firing "extra" bullets after he determines that the shooting should stop. In his research, Lewinski said he has encountered only three officers who, once they had made the mental commitment to shoot, were capable of interrupting that action the instant they wanted to. One of these did so in a Minnesota city by jerking his gun off his assailant; he still reflexively continued his trigger pull and sent a bullet flying into nearby rush-hour traffic!

Someone asked about traditional training that taught officers to fire two rounds then stop and assess. In Dr. Lewinski's opinion, this was not acceptable in real-life gunfights. "How many rounds are going to bite you while you're assessing?" Moreover, in the excitement and surprise of a sudden attack, an officer may not even hit his assailant with the first two rounds. He cited one case in which a California officer fired five fast rounds—all at less than five feet—and missed a suspect before finally connecting on the next four. It is safer for an officer to "shoot and assess" while he continues to fire than to "shoot THEN assess."

Shell Casing Placement

One of the latest findings at the Force Science® Research Center relates to where casings ejected from a semiautomatic handgun fall during a gunfight. This can be important in determining

where a shooter was positioned when firing. Traditionally, forensic experts have argued that there is a predictable pattern of shell casing placement related strictly to the type of gun and type of ammunition involved. In other words, it's strictly a matter of mechanics. But when an officer in the Southwest went on trial for murder recently, Dr. Lewinski determined otherwise. The prosecutor argued that the officer was lying about where he was standing relative to a supposedly threatening suspect when the officer fired his single, fatal shot. A firearms examiner agreed, pointing out that a 9mm Glock, like the officer was using, ejects shell casings to the right rear. The casing from the officer's pistol was found to the front left of the position he claimed, which suggested he must have been standing in a spot where the suspect could not have been a threat. Dr. Lewinski suspected that certainty of shell-ejection patterning might be valid in static range shooting but not necessarily so in a dynamic, real-life confrontation. "In real gunfights, officers may shoot while twisting, while falling down, while running and so on." In carefully controlled tests, he and a research team determined that brass placement varied, depending upon how a gun is angled and canted when fired. When the gun was held in the same way the officer testified he held it, 80% of the ejected casings fell, not to the right rear, but in the front left quadrant, confirming that the officer could have been positioned where he claimed. This finding was admitted into evidence and the officer was eventually found not guilty. "If ballistics people do not take into account an officer's grip, angle and movement when shooting, they can put a cop 15 feet away and in a vastly different position from where he actually pulled the trigger by relying on traditional shell casing ejection patterns. How he holds the gun and moves with it turns out to be the most important factors in where ejected casings land," according to Dr. Lewinski.

Memory Problems

After a shooting, an officer is often ordered to "Tell us everything that happened from start to finish and don't leave anything out." If he says he can't remember some things, he's perceived to be lying because "people don't forget really significant, emotional events." Dr. Lewinski explained that "It's true they don't forget, but they will not remember everything. There is memory loss in 100% of shootings. Legitimately, officers may not recall 90% of what happened

and they do not remember an event as continuous action. They tend to remember in chunks—specific, brief memories, fragmentary images.” He cited an Arizona officer he recently defended successfully who shot and killed a woman trying to run him down with her car. The officer remembered only three elements of the entire episode: the determined look on the suspect’s face, an image of her front tire quickly turning toward him and her upper body as a target.” The “current neurophysiological model of how the human brain works is directly opposite to the legal model” which expects full and accurate recall. The more an officer is pressured to remember information missing from his memory, the more likely he is to “fill in the blanks” with what seems logical or right. Supplying connectors between fragmentary recollections serves to answer investigators’ questions and is also a way, psychologically, “to gain control over the situation.” Unfortunately, “it takes only a few repetitions of you telling what you think occurred for it to become so locked in as memory that you could pass a polygraph on it,” Dr. Lewinski explained. This can set an officer up for a perjury charge when documented evidence contradicts his version of events. Dr. Lewinski cited research by Dr. Alexis Artwohl, a former police psychologist from Oregon and a member of the FSRC’s National Advisory Board, identifying perceptual and cognitive distortions officers frequently experience during extreme encounters. These include time distortions (the event seems to occur in fast or slow motion), sound distortions (diminished or intensified), tunnel vision, distorted visual clarity, “automatic pilot” phenomena (the officers firearm “suddenly appeared in his hand and on target” with no conscious memory of how it got there), dissociation (the sense of observing the event as an “out-of-body” experience rather than as a participant), temporary paralysis, even vivid hallucinations—one officer “saw” his partner’s head “blown off” during a confrontation even though the partner was not actually harmed. “Some of these things help us marshal our resources and focus our response to survive while a shooting is taking place. But they can cause problems when we are attempting to explain our actions afterward,” Dr. Lewinski explained.

Interviewing Techniques

As a behavioral scientist, Dr. Lewinski said he is “on the fence” about whether

an officer should be interviewed by investigators immediately after a shooting. The more time passes, the more “people tend to fill in the blanks in their memory and really contaminate their statements. Now we have God knows what.” On the other hand, time to sleep “is very important to memory consolidation. You can remember about 30% more pieces of data after you sleep. As you gain some psychological distance from a traumatic event, your legitimate memories tend to get better and stronger.” He has no doubts about what he terms “the most significant element of an officer’s factual recall” of circumstances surrounding a shooting. That’s a “non-threatening walkthrough at the scene with an understanding attorney and without criminal investigators present.” After all evidence and evidence markers have been removed, the officer “needs to go back and see the setting without being afraid that something he blurts out will come back to haunt him. If you go back to the scene, you can remember a lot more about what happened.” Lewinski recommended that investigators with the proper skills conduct a “cognitive behavioral” interview. This is a sophisticated inter-

view technique based on principles of clinical psychology and requires special training. It involves placing an officer back in his shooting experience mentally and walking him through what he remembers frame-by-frame while encouraging him to use all his senses to stir his recollections. “Traditionally,” Dr. Lewinski explained, “we’ve been regarded as thinking creatures who feel. Really we are feeling creatures who have come to think. That’s why tapping into emotions and senses can greatly enrich the memory bank.” Ideally, an officer’s statement should be videotaped, not written. “It’s important to see the officer’s face—the sorrow, the tragedy, the fear. You won’t have to ask if the officer was afraid, which cops will often deny. You’ll see it. Don’t jump to understanding too quickly. I find that I misunderstand most when I think I’ve got it. Keep your mind open and ask more questions about what the officer means rather than forming a judgment based on what he says initially.” Effective interviewing requires a tricky sensitivity to “get an officer to clarify as much as he can about what he remembers rather than pressing him to fill gaps in areas where his memory is

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Future Expectations

Among future studies, Lewinski said the Force Science® Research Center is planning to investigate an important phenomenon called "inattentive blindness." This involves an officer neglecting to see things in high stress situations that are plainly and directly in his field of view because his concentration is overwhelmingly dominated by other stimuli. Also on tap are leading-edge experiments regarding peripheral vision, complex visual cues, how expectations affect the brain and reaction time, effective distractions for delaying assailants' attacks, how officers read cultural and contextual indicators, how much training is necessary to develop competency, and much more. The FSRC's work will soon be significantly aided by the donation of a finely calibrated, customized, \$100,000 interactive judgmental training simulator by IES Interactive Training of Littleton, CO. For trainers, the big challenge ahead is adjusting tactics instruction to accommodate the realities Dr. Lewinski's research is disclosing. "Up to now," he said, "we have based training on logic and persuasion—what seems to make sense and what articulate instructors have convinced us is right. We need to base it on scientific research because we now know that what's true is not always what seems most logical." Dr. Lewinski ended his presentation with a private session for homicide investigators in which they were invited to ask him questions about current cases. One investigator commented afterward that "I shared details of an incident where an officer told me he was absolutely sure he had shot an armed suspect in the chest—but the suspect was shot in the back. The deputy couldn't figure it out. I know that Dr. Lewinski's explanation of what probably happened will go far in helping to ease that deputy's mind." Reflecting upon Dr. Lewinski's research, an attendee who asked not to be identified said, "We pay out some large sums of money in officer-involved shootings that mirror the kinds of difficult-to-explain situations Lewinski spoke about. After learning about his research, there is absolutely no doubt this will change." The next day, Hartshorne reported that the department was buzzing with discussion of Dr. Lewinski's findings.

"Bill's presentation was the best train-

ing I've seen in 25 years seen in Homicide Bureau," declared Sgt. Bumcrot who is reputed to have investigated more officer-involved shootings than any other detective in the country. "I sat in awe of his findings. We've already begun to change some policies because of them." Dr. Lewinski can be contacted at the Force Science® Research Center's website: www.forcescience.com

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About the Author

Charles Remsberg is author of the popular *Street Survival* series of textbooks on patrol tactics. He is a member of the National Advisory Board of the Force Science® Research Center.