

## Investigating the Role of Screen Violence in Specific Homicide Cases\*

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**ABSTRACT:** Despite a substantial body of research indicating a significant and causal empirical relationship between viewing what the authors label “screen violence” and behaving violently, little attention has been paid to the forensic psychological and psychiatric investigation of these phenomena in specific homicide cases. Through the analysis of seven cases of homicide, mostly committed by adolescents, the authors introduce five concepts—aggression immersion, theme consistency, scene specificity, repetitive viewing, and self-editing—for advancing such investigations.

**KEYWORDS:** forensic science, media violence, homicide, adolescent

A substantial body of work, going back to the classic “Bobo doll” experiments of Bandura et al. (1) nearly 40 years ago, has demonstrated a significant relationship between television/movie violence and violent behavior in the viewer (2). Although the *effect size* may be small, the relationship is both significant and causal. Such studies have included laboratory models (3), longitudinal experimental designs (4), field surveys (5), a naturalistic study (6), and two meta-analyses (7,8).

Although most studies have not focused upon video or television violence and its effect on “at risk” samples, such as young offenders, some recent work is promising. Bailey (9) found that his samples of both adolescent murderers and sex offenders were significantly influenced by repeated exposure to video violence, and in some cases actually imitated the actors’ behaviors in their crimes. Huesmann and Eron (10) found that aggressive behavior at age 8 did not predict violent TV consumption a decade later, but violent TV consumption did predict aggressive behavior.

In an excellent review of the topic, Pennell & Browne (2) discussed the various reasons for this association, including disinhibition, desensitization, modeling, “cognitive neo-association,” social cognitive theory, and “cue-triggered aggression.” They noted that individual differences play an important role, including a predisposition to being aggressive, which may have biological, psychological, and social components (11). They concluded that further research should use a multimethod approach, combining direct

observation, indirect reports, and self-reports over time on the way people watch violent film, how they watch it, and what they understand and conclude from it. The availability of video and DVD at home, and interactive formats on video (e.g., CD-ROM games, video arcades), make further research even more critical.

The forensic case investigation of the relationship between screen violence and violent criminality, moreover, has received little scientific attention. (We selected the term “screen violence” to define our work, because the common denominator in the proliferation of visual media, whether it be television, movies, laptop or desk computers, or hand held devices, is a screen that presents visual images to the viewer.) The purpose of our study is to help rectify this situation by defining and operationalizing terms and methods through which such a case investigation can be undertaken. We focus in particular on the forensic investigation of homicide cases in which there is evidence that the perpetrator(s) personally viewed certain screen violence prior to the commission of the crime(s). We also introduce five terms—aggression immersion, theme consistency, scene specificity, repetitive viewing, and self-editing, which we think will help facilitate such a forensic investigative analysis. We begin with seven case vignettes.

### Case Studies

#### Case 1

Lucas Salmon and George Woldt were best friends, or so Lucas believed. They had met in high school when Lucas moved back to Colorado Springs from California, and stayed in close contact over the next four years. Unbeknownst to Lucas, who was diagnosed at his murder trial with dependent personality disorder (DSM-IV) and pervasive developmental disorder NOS (DSM-IV), George had been attempting to recruit another male, and failed twice, to commit a rape and a murder with him. George’s history and personality were very consistent with primary psychopathy (12) and sexual sadism. Lucas was his third, and only successful recruiting attempt.

In February 1997, Lucas, age 21, moved in with George, age 20. They spent virtually all their time together, angering George’s wife Bonnie; they worked the same jobs and were engrossed by the same entertainment. Although fascinated by the movie *Blood In, Blood Out*, which they watched at least 10 times together (repetitive viewing), strongly identifying with the bond between the two Hispanic gang members (theme consistency), the movie that aroused George the most was *Clockwork Orange*. Directed by Stanley Kubrick and first released in 1971, this film starring Malcolm MacDowell portrays the sexual violence of a British gang and society’s failed attempt to extinguish the psychopathic leader’s criminality through aversive conditioning. There are four temporal and proximal pairings of sex and violence in this film: the at-

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tempted gang rape of a woman by five men; the rape of a woman; Jesus being whipped and three naked women eating grapes; and a gang rape.

George and Lucas watched this movie together at least once in the month preceding their abduction, rape, and murder of a stranger female. They communicated with each other during this period by using the phrase, “the ole in and out,” which in the movie meant rape (scene specificity). George adopted the role of MacDowell and Lucas became his compliant partner whom he would tease, humiliate, and urge onward, desensitizing him to the idea of a sex murder.

On April 29, 1997, after a month of cruising and surveilling local bars for a suitable victim, they happened upon a 20-year-old blonde woman jogging in the “Garden of the Gods,” a public park in Colorado Springs. They exchanged the phrase, “the ole in and out,” and George hit her with their car, knocking her to the ground and bruising her. They feigned surprise and fear at the staged accident, but she refused their offers of help to take her to a hospital. Frustrated but excited, they left the park, went home, spent several hours eating and watching TV, and eventually left for the evening to seek another victim.

Shortly after midnight, they pulled up next to another young blonde, a 22-year-old-female college student alone in a red car. Quickly identifying her as another candidate for “the ole in and out,” they followed her to her boyfriend’s apartment complex. As she approached the door to his apartment, George grabbed her from behind, and with Lucas’ help forced her into the back seat of their car while a half dozen onlookers yelled at them. They drove to a nearby school parking lot, took turns vaginally raping her on the back seat, and then after ordering her to back out of the car on her hands and knees, stabbed, cut, smothered, and stomped the young woman to death as she lay naked on the pavement. They drove home, cleaned up, turned on the TV, and were arrested within the hour. Lucas Salmon wrote in his confession a few hours later, “The roots of this incident date back to approximately one month ago. My friend, George Woldt, and I viewed a film called *Clockwork Orange*. This film depicted graphic scenes of violence, betrayal and rape. It was then that we first became interested in the act of sexual assault (theme consistency). We had only joked about it first, but as time went by, we both agreed it was something we would like to do” (Handwritten confession, April 30, 1997, *People v. Lucas Salmon*, El Paso County District Court, CR 97-1551-1).

#### Case 2

On May 1, 1992, 20-year-old former student Eric Houston walked onto the campus of Lyndhurst High School in Yuba County, California, and shot and killed four people, including three students and his former high school civics teacher who had flunked him. After the murders, he took 86 students hostage before surrendering to the police several hours later. During the negotiations, one of Houston’s friends called the police and said he knew who the gunman was. Houston had talked about his plans and fantasies before, but his friends never thought he would actually act them out.

Houston had recently been laid off from his contractual employment at Hewlett Packard as they were converting all part-time and temporary contract employees to full-time regular employees provided they met certain requirements, including a high school diploma. He blamed his employment failure on his civics teacher whom he believed had prevented him from graduating. He also sought revenge against an institution that he perceived favored the athletes.

The morning of the mass murder, Houston took his mother to her dental appointment but told her he wouldn’t pick her up. He went home, waited for the mailman to bring his unemployment check, which he then cashed for ammunition.

When Houston arrived on campus to begin his assault, he was wearing his blonde hair spiked, dark sunglasses, an NRA baseball cap, a logo shirt, and a camouflage hunting vest. He was armed with a sawed off Maverick 12-gauge double barreled shotgun with sling, and he reportedly was able to “rack a round” and fire the weapon with one hand. He also had a .22 caliber rifle. The pockets of his vest were loaded with various caliber ammunition in a manner consistent with his written plan which was later found in his room.

James Cameron’s 1991 Academy Award winning film, *Terminator Two: Judgment Day*, was Houston’s favorite movie. He had his own copy, purchased the soundtrack, and watched the movie “all the time” (repetitive viewing; Sheriff V. Black, personal communication, October, 1999). The film was in Houston’s VCR and his parents heard it being played the evening prior to the mass murder/hostage incident. When investigators responded to his house with a search warrant, they found the soundtrack loaded into his stereo at a level best described as “blasting” (aggression immersion and theme consistency).

The futuristic action film features a cyborg killing entity called a “terminator,” played by Arnold Schwarzenegger. He is sent from the future to protect a young boy, the predestined leader of a rebel faction, who is being targeted for assassination by another, more sophisticated cyborg from the future. In the movie, the “terminator” is armed with a sawed-off 12-gauge shotgun, keeps his ammunition in the pockets of his leather vest, wears dark sunglasses and his hair spiked, and is able to rack and fire the weapon with one hand (scene specificity).

#### Case 3

On December 1, 1997, 14-year-old student Michael Carneal shot to death three female students and injured five additional students attending a prayer meeting held at Heath High School in West Paducah, Kentucky. He was armed with a .22 caliber Luger Mark II handgun, two .22 caliber semi-automatic rifles, one double barreled shotgun, and one single barreled shotgun. Each of the weapons was fully loaded, and he brought extra clips for his handgun and an estimated 600 rounds of ammunition.

He had reportedly written angry essays about wanting to strike out at others, feeling weak and picked upon, and evidencing suicidal ideation. Witnesses reported that he “had a crush on” one of the girls in the prayer group and felt his advances had been rebuffed. He was described as physically small and immature, and had warned another boy not to come to the prayer meeting. When he finished shooting, he begged another student to shoot him.

After he surrendered to authorities, Carneal disclosed that he had seen the 1995 movie, *Basketball Diaries*, starring Leonardo DiCaprio, the autobiographical account of the life of writer/poet/musician Jim Carroll. During questioning he acknowledged that he had seen the movie “over and over” (repetitive viewing).

The central character portrayed by DiCaprio is described as a “high school basketball hero headed for trouble” who “finds solace in all the wrong places, and the dark streets of New York tear him up.” DiCaprio is a student in a Catholic high school at war with the secular and religious authorities at the school, his mother, and rival students. During one sequence in the movie, he lapses into a dream-fantasy-wish—the ambiguity is important—

prefaced by the following narrative, “dreams move in crazy pieces, anyway they want to, and suddenly you’re capable of anything.” The scene transitions to the “hero” dressed in a black leather trenchcoat and boots, walking in a purposeful fashion down the school hallway, looking omnipotent as a slight breeze blows through his hair. He kicks down the door to the classroom, and the picture of the Virgin Mary hung on the classroom side of the door disappears from view as the door collapses. DiCaprio trounces upon the door as he enters the room, produces a sawed-off shotgun from under his trench coat, and begins shooting his classmates who are dressed in Catholic school uniforms. His friends are cheering him on and “high fiving” while the targets are screaming in terror. DiCaprio yells unintelligibly as he approaches the terrified Christian Brother teacher cowering in the corner. DiCaprio turns the desk over, and as he points the shotgun and pulls the trigger, he awakens from this fantasy to find himself in the classroom being told to “wake up” by this same man.

#### Case 4

When Robert Berdella was 17 years old, he watched a movie that had a profound impact on his post-pubescent psychosexual fantasies. *The Collector*, directed by Billy Wilder, was first released in 1963. It told the story of a young man who collected butterflies, but then eventually turned his attention to collecting women. The story centers on the abduction and lengthy captivity of a young woman who is neither sexually assaulted nor tortured, but completely controlled. She eventually dies of unknown causes while held by the young man, and the movie ends as we look through his eyes while he stalks a second victim.

Berdella incubated his captivity fantasies for almost two decades (theme consistency), which had transformed into abduction, bondage, and torture fantasies of young men. At the age of 35, Berdella secured his first victim on July 6, 1984 from the gay neighborhoods of Kansas City by soliciting a 20-year-old male prostitute for “drugs and sex.” He subsequently held this subject in captivity for hours, torturing him, drugging him with major tranquilizers and ketamine, an animal anesthetic, and anally raping him until he died. He successfully captured five more men over the course of three years; the longest captivity, bondage, and torture lasted over a month. Berdella kept detailed clinical notes of his torturing, which at first glance appeared to be clinical nursing notes. In the meantime he was a successful retailer, owning a store called “Bob’s Bizarre Bazaar,” an excellent chef, and a member of his “block watch” committee. He was also becoming an accomplished sexual sadist. His seventh victim escaped while he was at work and was found naked in a dog collar by a meter man on April 2, 1988. Chris Bryson was alive, and gave a detailed account of his torture and captivity. One of the methods by which he would completely control his victim worked as follows: if the subject wanted to speak, he was directed to touch his own lips; then Berdella would touch his subject’s hand if he consented. If he did not consent, and the subject spoke, Berdella would punish him with further torture.

Berdella had concealed his activities with a variety of methods, including burying some of the body parts in his yard and dismembering others, carefully wrapping the parts in many layers of newspaper and plastic, and depositing them in garbage bags for the weekly trash collection which he would joyfully watch with a certain irony. Following his arrest he plea bargained the details of all his crimes to avoid a death sentence. He subsequently died in Missouri State Penitentiary of a myocardial infarction.

#### Case 5

On February 28, 1997 two heavily armed and vested gunmen engaged in a lengthy shootout with police during a bank robbery gone awry at a Bank of America branch in North Hollywood, California. The firefight, which was broadcast live on television, ended with nine police officers and three citizens wounded, and nearly 2000 rounds of ammunition fired. One of the suspects, 26-year-old Lawrence Phillips, committed suicide when his assault weapon became inoperative, and the second suspect, 29-year-old Emil Matasaraneu, was shot to death by SWAT team members. During the exchange of gunfire, Phillips shot at police and media helicopters. The perpetrators fired more than 1500 rounds, calmly pausing to reload and change weapons as necessary.

Phillips and Matasaraneu had engaged in previous violent crimes, utilized automatic weapons and armor piercing ammunition, and trained extensively. While Phillips took his own life, Matasaraneu continued to exchange fire with the police when it was clear he could not escape. After he was incapacitated and safely in custody, he told the officers, “why don’t you just put a bullet in my head” and “why don’t you just kill me, I’m not telling you a fucking thing” prior to dying (personal communication, Officer R. Massa, January, 1999). It is probable that these suspects decided they would never be taken alive and would kill as many law enforcement officers and civilians as possible, one of the antisocial motivations for “suicide by cop” (13). The father of one of the deceased suspects stated proudly, “Everything my son did, he did all the homework . . . any crime that you could put out there, he could show you a better way to do it . . . all the way up to bank robbery.” He added, “Larry told me that if it ever came down to him getting busted—going to jail for the rest of his life—he’d rather die.” In fact, Phillips’ cell phone had a special message on its display: “Today I have a rendezvous with death.”

Their crime series began on July 20, 1993 with the takeover robbery of an armored car driver in Denver, Colorado, and the theft of \$20,000. The remainder of the crimes were in Los Angeles. During the course of an armored truck robbery in June, 1995, they killed the driver with automatic weapons fire before fleeing with more than \$200,000. In March 1996, they failed in an attempted robbery of another armored vehicle, firing automatic weapons and throwing incendiary devices at the truck. On May 2, 1996 they conducted their first takeover robbery at Bank of America. Dressed in black body armor from head to toe, welder’s glasses, and communicating via boom/ear microphones, they fled with \$700,000. On May 21, 1996, they committed their last successful takeover robbery of the same Bank of America when they killed the armored truck driver and fled with \$724,000.

A postmortem investigation was conducted to determine the presence of co-conspirators and locate the missing money. A search warrant yielded the movies “Heat” and “Navy Seals,” as well as numerous books about close quarter combat, police tactics, weapons, and explosives in one of their safe houses. Police scanners, additional weapons, ammunition, and body armor were also found.

The 1995 movie *Heat*, directed by Michael Mann and starring Robert DeNiro, Val Kilmer, Al Pacino, and Tom Sizemore, traces the criminal exploits of a “crew” of sophisticated robbers and high stakes thieves who live by a manifesto of loyalty, violence, and group honor. The first scene consists of a well staged robbery of an armored truck in which distractions are used to render the vehicle vulnerable, and then automatic weapons fire and explosives are employed to breach the vehicle (theme consistency and scene

specificity). The armored truck personnel are executed during the robbery. Police response to the scene is monitored by the robbers via police radio scanners, and they track their time at the scene before making their successful escape (theme consistency).

In the final major scene of *Heat*, DeNiro and his crew of robbers armed with automatic weapons and extra clips, are committing a takeover robbery of a bank in downtown Los Angeles. Detectives respond to the location based upon an informant tip, arriving just as the robbers are departing the bank. Kilmer, walking to the waiting getaway car, notices the officers approaching and without hesitation produces his automatic weapon and begins to fire relentlessly upon the officers. During this particular scene there is a substantial gun battle between the robbers and responding police, and it is clear the officers are overpowered by the automatic weapons fire of the robbers. Police officers are killed and police cars destroyed with armor piercing ammunition. They pause calmly to reload, re-engage, and advance on the officers before two of the four robbers successfully escape. The other two are killed in the gun battle. All of these events take place in downtown Los Angeles, and were filmed on location (scene specificity).

At the end of the movie, DeNiro, who physically resembles Phillips, is killed by Pacino, while Kilmer escapes. Pacino, the tenacious robbery-homicide lieutenant, interacts with the dying DeNiro, who says, "I told you I'm never going back," referring to an earlier scene in a restaurant when they confronted each other over coffee. Although Phillips' and Matasaraneu's crime spree began prior to the release of this movie, behavioral evidence indicated that their criminal behavior during robberies subsequent to the release of the movie was influenced by it.

The first scene of the 1990 film *Navy Seals* starring Charlie Sheen features terrorists downing an unarmed Navy rescue helicopter with automatic weapons fire (scene specificity). In the second combat scene, middle eastern terrorists in the process of executing American hostages are descended upon by Navy Seals clad in black tactical outfits, body armor, stocking masks (balakavas), boom/ear mikes for communication, and armed with high power automatic weapons. They swiftly kill their enemy targets in a barrage of automatic weapons fire. Subsequent scenes in the movie are similar.

#### Case 6

Adrian Hernandez was immersed in the popular culture of his time. Although only 13, he was well versed in the novels of Robert Heinlein, such as *Stranger in a Strange Land*, and the music of Pink Floyd, Stone Temple Pilots, Nirvana, Duran Duran, Nine Inch Nails, Alice in Chains, Black Crowes, Metallica, and Slayer. But the visual imagery that influenced him the most was film. He watched *The Lost Boys*, a horror movie about juvenile delinquent vampires, fifty times (repetitive viewing). He strongly identified with their psychopathic leader, played by Keiffer Sutherland. He was thrilled when the forensic psychologist—evaluating him following his sexual killing of a 14-year-old female friend and neighbor on September 17, 1994—had also seen a little known film, *The Hitcher*, starring Rutger Hauer as an on-the-road psychopath. The film that brought specificity to his crime, however, was *Demolition Man*. He viewed it twice, the second time within an hour of the murder.

Although he consciously devalued its significance, this futuristic crime film, starring Sylvester Stallone and Wesley Snipes, had two scenes in it which were unusually graphic and involved eye stabbing, or assaultive enucleation (14). The scenes occur at 19:54 and 25:19 in the film. Rarely evident in homicide cases—it was the ex-

aminer's (JRM) first in fifteen years of homicide evaluations—the victim was stabbed 74 times, both eyes were enucleated with a knife, and the distal end of the knife penetrated the skull of the victim and was broken off by the killer (scene specificity).

The DSM-IV diagnoses in this particular case were conduct disorder, child onset, mild; obsessive-compulsive disorder, with poor insight; dysthymic disorder, early onset; and developing psychopathic and sadistic personality traits. Additionally, this young perpetrator with a very superior IQ had two causative traumagenic paths in his life: repeated exposure to pornography with his father, beginning at age six, and the deaths of his significant male figures, including his father, in the several years leading up to the sexual homicide.

His sexually sadistic fantasies and compensatory identifications with psychopaths appear to have begun around the time of puberty as he became more isolative, angry, depressed, and increasingly argumentative with his mother. He had no prior romantic or sexual involvement with the victim. She and her family had been life long friends of the young perpetrator, but she had socially distanced herself from him in high school, which Adrian angrily experienced as a humiliation. The night of the killing, his mother and her parents went out for a drink. Adrian attempted to fondle the victim while she slept, and her surprise, physical resistance, and disgust culminated in the explosive murder.

Adrian fled home, but turned himself in to the police within several hours. The disposition of this case in juvenile court involved an extensive evaluation of the perpetrator. Although causative factors in this sexual homicide were multiple and complex, it was the forensic psychologist's opinion that the eye stabbing scenes in *Demolition Man* strongly influenced the goal direction of the knife wounds for three reasons: (a) the close temporal proximity between viewing the film and committing the murder; (b) the *scene specificity* of the knife wounds in the eyes and the film's depictions of assaultive enucleation; and (c) the rarity of such behavior (low base rate) in homicide (14).

#### Case 7

On February 2, 1996 at 1:50 p.m., 14-year-old Barry Loukaitis entered his eighth grade algebra classroom and calmly shot and killed two male classmates and his teacher, critically wounded another female classmate, and took the remaining students hostage. The first student killed was Hispanic, who had reportedly called Barry a "faggot" approximately six months earlier (personal communication, Sgt. D. Ruffen, November, 1999). While attempting to force his gun into the mouth of another teacher who tried to intervene, Loukaitis was overpowered and taken into custody.

Loukaitis arrived at the classroom dressed in black, from his Stetson hat to his newly purchased Drover's outback coat, jeans, and cowboy boots. Prior to the murders the honor student would typically dress in jeans and a pullover shirt. He was armed with a western style Winchester 94 lever action 30/30 rifle, a .25 caliber semi-automatic pistol, a .22 caliber revolver, and 81 rounds of ammunition.

Six months prior to the crimes, other students noticed a marked change in his behavior. He became more withdrawn and "darker," his poetry and personality reflecting a preoccupation with themes of death, and he was overheard to mutter under his breath, "I wonder what I'd do if I had a gun right now" and, "Do you treasure your life?" His home was in turmoil: his father was having an affair, and his depressed mother was confiding her suicidal plans to her son, Barry, who took responsibility for her.

Described as an odd, immature loner, Loukaitis had a closet filled with the complete Stephen King book collection. One well-worn, obviously read book in this collection was *Rage*, which was written early in King's career (1977) under the pseudonym Richard Bachman, about a high school student who goes into his algebra class, killing two teachers before taking the students hostage and mocking the school authorities. The student in the book considers suicide during the ordeal, is shot by officers when he pretends to be reaching for a weapon during the surrender, and is ultimately found not guilty by reason of insanity and committed to a hospital.

Loukaitis' favorite movies were *Natural Born Killers*, *Tombstone*, Clint Eastwood's so-called spaghetti western series, especially *Fistful of Dollars*, and the rock group Pearl Jam's music video called *Jeremy*. *Natural Born Killers*, a 1994 movie starring Woody Harrelson and Juliette Lewis, is a sensationalized modern day Bonnie and Clyde story about a couple of traveling serial killers on a murderous spree across the United States. Their exploits are chronicled by a tagalong sleazy newscaster portrayed by Robert Downey, Jr. It presents serial/spree murder as sport. The 1993 movie western, *Tombstone*, starring Kurt Russell and Val Kilmer as Wyatt Earp and Doc Holiday, presents the story of the OK Corral shootout in Tombstone, Arizona. It glorifies the American macho cultural stereotype of gunslingers shooting each other in the 19th century western U.S., with primary characters wearing Western outfits (especially Stetson hats and Drover coats) and armed with lever action rifles and handguns (scene specificity). *Fistful of Dollars* and the other spaghetti westerns directed by Sergio Leone similarly glorify the lone stranger-assassin-gunslinger who strolls into the lawless town, is persecuted by the evil powers-that-be, and eventually dominates his enemies with his violent skills. In *Fistful of Dollars*, a bartender tells Eastwood, "Here you can only get respect by killing other men . . . so nobody works. . . ." The 1991 music video *Jeremy* is about a lonely and isolated high school boy who eventually succumbs to his rageful fantasies against other people: a song loosely based upon the 1990 suicide of student Jeremy Wade Delle, who killed himself in front of 30 students at Richardson High School in Texas.

At the time of Loukaitis' arrest, a compilation of Eastwood movies titled *Fistful of Dollars* was cued up in his VCR to a scene where Eastwood was standing over some people he had just killed with a rifle. Loukaitis was subsequently able to quote numerous lines from *Natural Born Killers* to investigators, and had been overheard speaking to his school acquaintances, "Killing is natural, it's a basic animal instinct, and people are just like animals . . . it would be neat to go across the country on a killing spree . . . I would like to do something like that before I die" (personal communication, Sgt. D. Ruffen, November, 1999).

## Discussion

These seven cases illustrate the terms that we think are critical to forensic case analysis of the relationship, if any, between screen violence and a subsequent homicide. *Theme consistency* is a pattern of thought, feeling, or behavior in the perpetrator which closely parallels the violent actor and his performance in the film. Case 4 is an example in which Berdella engaged in captivity of his victims as in *The Collector*, but *scene specificity* is absent. The latter term refers to the perpetrator displaying evidence of imitation of certain words, gestures, dress, or exact behavior of the actor before or during the commission of the crime. Cases 1, 2, 5, 6, and 7 illustrate scene specificity. *Repetitive viewing* of the screen violence was done by a number of these perpetrators, often escalating to >10 times, and sometimes exceeding 50 times; Case 6 illustrates both

theme consistency (his identification with psychopaths) and scene specificity (the enucleation of the victim). Research suggests that cumulative viewing increases the impact of screen violence on behavior (10); we think that the closer the temporal proximity of the viewing is to the actual violence, the greater the strength of the relationship—but this hypothesis needs to be empirically tested.

*Self-editing* is commonly seen in these cases. Perpetrators, when questioned as to *how* they watched the screen violence when videos are involved, will report "freeze-framing" or slowing down the violence, repeating just the violent scenes, and skipping the rest of the film, including the story. Stopping screen violence, or turning it into a ballet, first advanced in the film industry by Sam Peckinpah in his movie, *The Wild Bunch*, and now imitated at home by some video viewers, takes the violence out of its narrative context. This strips the violence of its emotional sequelae, and renders the violent scene both gratuitous and amoral, perhaps disinhibiting the excitement of the viewer.

All of these terms describe a process we call *aggression immersion*, which includes a cumulative and therefore heightened intensity of exposure to screen violence, and the substitution of action fantasy for perhaps the more mundane reality of the viewer. The subject will typically identify with the aggressor. It also represents a chosen exposure to stimulation, purposefully initiated to alter and facilitate mood states consistent with or conducive to extreme aggression. In some of these cases, such as Adrian Hernandez (Case 6), such immersion created a compensatory feeling of grandiosity and entitlement, often defensively muting more painful realities in his life, such as loneliness, depression, and social failure. In other cases, such as Salmon-Woldt (Case 1) and Berdella (Case 4), the screen violence facilitated the development of a psychosexual signature (15) which was then eventually acted out weeks or years later. Research indicates, moreover, that sexually sadistic fantasies usually develop in adolescence (16).

We offer these concepts to facilitate professionals assessing for violence risk, or conducting psychological autopsies, or forensically reviewing of past violent behavior. The subject should be specifically asked about the behaviors we have defined, collateral data should be used to confirm or disconfirm self-reports, and the professional should view the screen violence if at all possible to directly verify theme consistency and scene specificity.

We would be remiss in closing, however, if we did not reiterate the fact that screen violence may increase risk of subsequent violence, especially among adolescents—five of our seven cases, although anecdotal, are teenagers—but the *effect size* in nomothetic studies is small (2). In other words, screen violence appears to only account for a small proportion of the explainable variance in violence risk. Screen violence alone should never be used to predict risk, but is one of a number of static (historical and dispositional) and dynamic (clinical and situational) variables that contribute to violent behavior (17,18).

There are a number of limitations to this study. Most importantly, the retrospective analysis of contributory factors to a homicide is always prone to Type I error: finding a significant relationship where none exists. Secondly, even if a *causal* relationship exists, too much weight may be attached to screen violence in a simplistic, rush-to-judgment mentality that ignores the complex, overdetermined nature of most homicides. Finally, this study is composed of nonrandom, anecdotal cases that we chose to illustrate the five concepts we think will help organize case investigations. We offer no new empirical evidence that such a relationship between screen violence and actual violence exists—although the existing research is compelling.

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