The Mind of the Mass School Shooter

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The mass school shooting at Robb Elementary School in Uvalde, Texas, coming nearly 10 years after the eerily similar massacre at Sandy Hook Elementary School in Newtown, Connecticut, shook America to its roots. Nineteen children and two adults were shot dead by an isolated, grievance-filled former student who shot his grandmother in the face before attacking the school. At Sandy Hook, 20 children and six adults were shot dead by an isolated, grievance-filled former student who also shot his mother in the head before attacking the school. The drumbeat of so many additional school shootings, before, in between, and since these catastrophes, continues unabated. The names are chillingly familiar: Columbine, Virginia Tech, Parkland, Oxford, and so many more. We stand back aghast, unable or unwilling to intervene, staring at the heart of the question of what it is that enables human beings to violate the most central of moral tenets in so gruesome a fashion, to shoot to death children who stand in front of them.

The modern era of mass school shootings dates to 1966 when Charles Whitmore took to the bell tower at the University of Texas, Austin. In all the years since, we have made very little progress in understanding, predicting, and preventing mass shootings of any type. At the center of the conundrum is the shooter (almost always a male) and the limitations of our predictive abilities. The mass school shooter presents a distinct and special challenge. So many other mass shootings are motivated by hatred and bigotry. Hatred of Black, LGBTQ, Asian, Hispanic, and Jewish persons has clearly driven most of the mass shootings of the last decades. But there is no evidence that mass school shootings have been motivated by hatred of school children or of ethnic, racial, cultural, or political groups. In retrospective analyses of mass school shootings, we have been able to piece together a sense of the personal qualities and motivations driving the shooters, but we are left adrift as we ponder the qualities that enable a person to pull the trigger, face to face with the young children he will kill.

We have profiles provided by the Federal Bureau of Investigation (FBI), the Secret Service, and others, but for every potential perpetrator fitting these profiles, a vanishingly small number become shooters. As is the case for all low-base-rate events, even highly accurate predictive tools (which we do not have) would be rendered virtually useless by excessive false positives. We have diagnoses as well, derived from the past histories of shooters and, in some instances, from assessments of surviving shooters. Although profiles help us to categorize the type of person who may become a shooter and diagnoses point to typical psychopathologies we find in shooters, they do not help us to understand who, among all those fitting these profiles and carrying these diagnoses, lacks the protective factors that would prevent them from actually shooting or even what those protective factors are.

A few clarifications are needed before proceeding. The largest number of mass shootings are the result of nonrandom acts of domestic and other forms of community violence. While acknowledging their terrible toll, these shootings, which are generally targeted, are not the subject of the present discussion. Rather, we are discussing those mass shootings which...
appear to be untargeted toward specific individuals. These are sometimes thought of as random mass shootings in the sense that the individual victims are random although the victimized group generally is not. We are further focusing the discussion on the subgroup of mass school shootings.

The second clarification is about the role of guns in mass shootings. Sadly, as a nation, we continue to “debate” the role of guns versus mental illness. Finger-pointing at people with mental illness is a politically motivated distraction from the centrality of guns in mass shootings. It is well established that the United States leads Western developed democracies in gun ownership, overall gun violence, and mass shootings. Although rates of mental illness in the United States are higher in comparison with a number of other wealthy nations, they are comparable with those in Canada and Sweden, countries with much less gun violence of all types. Simply put, rates of gun deaths are not associated with rates of mental illness, whereas gun deaths by suicide, homicide, and mass murder are associated with per-capita gun ownership. Great Britain, Japan, Australia, and New Zealand, countries with strict gun regulation, do not have this debate. At the same time, the Supreme Court, which enshrined so-called Second Amendment gun rights in District of Columbia v. Heller, has struck down gun control legislation, while we have struggled to achieve even universal background checks and states have been increasingly passing open carry and permitless concealed carry laws, all while political polarization fuels gun-infused threats of violence. We are a gun-obsessed nation with a contagion that threatens all of us and, especially, our children. At the same time, it is worth noting that whereas other countries with greater access to guns may have high levels of overall gun violence, no other country has an epidemic of mass school shootings.

Taking the role of guns out of the equation, we are left pondering the mass shooters themselves, their developmental histories, the environmental influences that have shaped them, their mental states, the culture that surrounds them, the immediate triggers to their actions and, yes, the presence of mental illness. The profiles provided by the FBI and Secret Service overlap, painting a behavioral portrait of the shooter as an isolated, angry, grievance-collecting loner who has failed in school, work, and home settings and is obsessed with violence and mass murder. Such profiles are useful for risk assessment, which is to say that school- and workplace-based teams, tasked with responding to threats, can use them to categorize individuals at risk but, in the face of low base rates, have little predictive value.

Any consideration of the mental state of the mass school shooter is complicated by the fact that so many die in the shooting incident. For the deceased shooter we are left with the examination of records which are often inadequate: social media posts, texts, e-mails, and occasional manifestos left behind by the shooter. Some shooters may have had no contact with mental health professionals which, of course, cannot be taken to mean the absence of mental illness. The problem is further compounded by our inclination to equate such extremely aberrant behavior, ipso facto, with the presence of mental illness and the loosely defined distinction between mental illness and severe mental illness. Here, the public and the media are confused but, regarding the question of mental illness in mass shooters, mental health professionals have contributed to that confusion.

Virtually all school shooters can be given some psychiatric diagnosis and thus be thought of as having mental illness(es). Adam Lanza, the shooter at Sandy Hook Elementary School, was given diagnoses of anxiety, depression, obsessive–compulsive disorder (OCD), autism spectrum disorder (ASD), and anorexia nervosa at different times. But when we speak of mental illness in the context of school shootings, it is fair to say that the public and the media assume that we are talking about severe mental illness, which, in these cases, stands for psychosis. Having co-written the investigative report of the Connecticut Child Advocate and served on the Governor’s Sandy Hook Advisory Commission, I can say that it is not at all certain that Mr. Lanza was psychotic. He certainly did not experience a formal thought disorder, and his beliefs, although disturbing and highly overvalued, were not obviously delusional. Yet, clearly, he was so disturbed that it is difficult to hold that he was not severely mentally ill. This confusion flows from conceptual difficulties in distinguishing highly overvalued ideas from delusions and the loose equation between severe mental illness and psychosis. We can draw a straight line from the psychiatric literature through the media’s presentation of that literature to the public’s confusion with the following example. In November 2022, ScienceDaily, reporting on data from the Columbia University Mass Murder Database, proclaimed in a headline
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that “Mass School Shootings are not caused by mental illness, study finds.”16 They were reporting on an article published in the Journal of Forensic Sciences17 which stated that “Severe mental illness (i.e., psychosis) was absent” (Ref. 17, p 207) in the majority of perpetrators of mass school shootings in their database. The media followed by dropping “severe,” reporting, instead, that mental illness does not cause school shootings and heightening the confusion through the careless but common substitution of causation for the association reported in the Columbia study.

Other sources have validated a smaller role for psychosis in school shootings than we might have expected. In 2019, the United States Secret Service published a report on school shootings that occurred between 2008 and 2017.2 Their database differs from that of the FBI and the Columbia group in that it includes any school shooting in which a student or former student caused injury or death to at least one student or school employee (as opposed to four or more injuries required in other mass shooter databases). The Secret Service reported on 41 incidents, finding that most perpetrators had experienced some psychological, behavioral, or developmental symptoms but only seven displayed signs of psychosis.

It does not require a mental health professional to conclude that mass school shooters are seriously disturbed and virtually all would undoubtedly qualify for some psychiatric diagnosis. One exception to the conclusion that these diagnoses do not help us understand the shooter is suggested by the high percentage of shooters carrying a diagnosis or suggestions of developmental difficulties consistent with autism spectrum disorder (ASD). In a review of the Mother Jones database of all types of mass murders, Allely and colleagues18 found strong evidence of ASD in eight percent, an order of magnitude higher than the prevalence in the U.S. population (.8%). In an additional 21 percent of the sample there were some indications of ASD traits. Although the relationship of ASD and targeted violence remains persistently controversial, it is impossible to ignore the relationship between high-functioning ASD or ASD traits and mass shootings. White et al. write: “It is especially important to understand how ASD may be mistaken for psychopathy but also how these two conditions may combine—fortunately very rarely—but with deadly outcomes” (Ref. 19, p 146).

But neither the profiles nor the diagnoses can explain what leads a shooter to shoot, or more precisely, what motivates and enables the shooter to shoot. We know that virtually all mass school shooters return to a school they attended to wreak their havoc. For most, these schools were places of failure and, for many, of isolation, bullying, rejection, or ostracism. The shootings may well reflect a vindication of the shooters’ sense of injustice and victimization and an assertion, through overwhelming force, of dominance over their victimizers. And certainly, for the shooters who felt “unseen” in their school settings, they insure their place in the minds of the community that paid them little mind as students.

We must also consider the suicidality of the mass school shooter. Most shooters die during the incident, either by their own hand or through “suicide by cop.”20 This mindset is best illustrated by the Virginia Tech shooter, Seung-Hui Cho,21 who posted a photo of himself online pointing a gun at the camera and another pointing the gun to his own head. The self- or police-inflicted death of the mass shooter is a unique suicide in the sense that the death is elevated to a very public stage and occurs in the context of terrible harm inflicted on the community. It is as if to say, “I want you to see the terrible harm you have done to me. I want you to feel my pain through the pain that you will suffer.”

The motivation of the shooter, however illogically shaped and imperfectly understood, does seem within our grasp. We remain bedeviled, however, by the questions of what enables the shooter to murder in this way and what moral absence allows an individual to shoot groups of children at close range, even in the absence of racial, ethnic, or cultural hatred. We cannot fathom what it is about the shooter’s perception and experience of the humanity of others, combined with lack of conscience and intensity of grievance, that allows for this.

We know that in wartime soldiers come to see the enemy as “other,” as “Jerry” in World War II, “Charlie” in Vietnam, “Gooks,” “Slope Heads,” and “towel heads” (i.e., not people but things), impossible to empathize with and, if not human, easy to kill. I borrow here from Fugitive Pieces, a holocaust novel by Ann Michaels:

Nazi policy was beyond racism, it was anti-matter, for Jews were not considered human. An old trick of language, used often in the course of history. Non-Aryans were never to be referred to as human but as “figuren,” “stucke” – “dolls,” “wood,” “merchandise,” “rags.” Humans were not being gassed, only “figuren,” so ethics weren’t being violated. No one could be faulted for burning debris, for burning rags and clutter in the dirty basement of society.
In fact, they’re a fire hazard. What choice but to burn them before they harm you. (Ref. 22, p 165)

Perhaps this process of distancing the other from the universe of our moral concerns, of the diminution of social engagement and empathic connectedness to a group (which allows for a loss of a sense of the humanity of that group and enables their killing), can tell us something about how mass school shooters are able to murder the children in front of them. This concept leads us to consider the ways that we come to experience others as human, as like us, and as worthy of our concern and empathy, and the critical developmental interactions that are central to the process and that may go so very wrong. The severe deficits in empathy and social connectedness that result may be the common denominator enabling this type of mass murder.

Central to understanding how we socially connect and empathize are the aligned concepts of theory of mind (ToM) and mentalization. Through ToM we are able to imagine that others have their own thoughts and feelings, and we have the capacity to appreciate the mental states of others. To employ ToM is to mentalize, to consider actively what the other might be thinking and feeling. ToM and mentalization are what allow us to experience others as real human beings with passions and sorrows, dreams and disappointments, and to empathize. These capacities shape our attachments, forge our connectedness, and bind us together. They are the glue of the group, the building blocks of community. Without them, we experience the other as less real and, absent other constraints, easier to kill. ToM is characteristically deficient in ASD, but it is also deficient in psychosis and other clinical conditions (e.g., personality disorders). Lerner and colleagues hypothesize that deficits in select elements of ToM may combine with deficits in emotion regulation and moral reasoning to create a heightened risk of violence in some individuals with high-functioning ASD. One would not need to qualify for an ASD diagnosis to manifest these characteristics and be at risk, as ToM is variable in neurotypical populations as well.

Extreme deficiencies in ToM can be characterized as a form of solipsism, a condition in which we experience our own thoughts and feelings as the only things that are real. Others are merely cardboard props that support our needs. The solipsist has difficulty appreciating the thoughts, experiences, and emotions of others as real. Newborns are complete solipsists. They do not yet know that the other is separate from them. Then, through a continuous process of communicative feedback, by touch, sound, and smell, skin to skin, and eyeball to eyeball, the infant comes to appreciate others and their separateness and to give and take in a mutuality that forms the foundation of connectedness: separate, but connected. We all begin life as solipsists. We all must separate and individuate, and stay connected at the same time. It is this process, likely influenced by our genetic inheritance and by epigenetic developments, that continues throughout life as we are shaped by our experiences. It is a process that goes sadly awry for some, beginning with the earliest stages of attachment.

There are many influences that further shape the disconnected school shooter. The Secret Service lists untreated mental illness, trauma and loss, family member arrests and incarceration, neglect, physical and sexual abuse, bullying, school disciplinary actions, Internet chat groups, family discord, violent video games and social media, substance abuse, and financial difficulties. A ubiquitous condition experienced by almost all mass school shooters, however, is the social isolation produced by dysfunctional families; withdrawal, suspension, or expulsion from school; failed relationships; and the diminution of face-to-face time in an Internet- and social media–driven world.

Adam Lanza exemplified the compounding impact of social isolation on comorbidities. In a psychiatric evaluation at age 16, the clinical team warned of the risk of his growing isolation:

[W]e believe there is a significant risk to AL in creating, even with the best of intentions, a prosthetic environment which spares him having to encounter other students or to work to overcome his social difficulties. Having the emphasis on adapting the world to AL, rather than helping him to adapt to the world, is a recipe for him to become a homebound recluse, unable to attend college or work productively into his twenties and thirties and beyond. (Ref. 10, p 50)

The team’s note is prescient. At the time of the Sandy Hook murders, Mr. Lanza was living in a locked bedroom in his mother’s home, communicating with her only by e-mail. The windows in his bedroom were covered by black plastic bags, while his only other connection to people was in chat groups with other mass murder enthusiasts.

A few underlying neurobiological concepts help us to understand how social isolation compounds ToM deficits and how face-to-face contact enhances these capabilities and, hence, social connectedness and
empathic capacity. The first is the presence of mirror neurons which are thought to influence our motor neurons to respond to the affective responses of others. My mirror neurons are activated by the perception of your facial physiognomy. They detect your smile or your expression of sadness and influence me to smile or look sad and, in the process, to feel your pain or share your joy.

It has been said about polyvagal theory, still another explanation for the importance of face-to-face contact, that “you wear your heart on your face.” Facial muscles are linked by the vagal nerve to the heart and lungs. How we make eye contact, use our faces, and modulate our voices affects our social engagement but also our own physiologic state. Through face-to-face engagement and mirroring, we connect with the minds and, literally, the hearts of others. When you catch another’s smile and smile yourself, you feel better, as the vagally mediated connection between facial physiognomy and our autonomic system slows heart rate and respiration. Barbara Fredrickson wrote in the New York Times:

When you share a smile or laugh with someone face to face, a discernible synchrony emerges between you as your gestures and biochemistries, even your respective neural firings, come to mirror each other. It’s micro-moments such as these, in which a wave of good feeling rolls through two brains and bodies at once, that build your capacity to empathize.

The absence of such moments in the socially isolated and aggrieved is self-perpetuating. It is a very plausible conclusion about the lives of the mass school shooters that they have had very few such moments.

Finally, there is neuroplasticity which allows us to learn throughout life. These experiences imprint our neural pathways and, with repeated neural firing, pathways become highways, and patterns of emotional and behavioral responses shape who we become, for better or worse. If our experience is of positive face-to-face engagement with others, our ability to experience and even enjoy each other grows along with our social connectedness and empathic capacity. And, of course, to the extent we live in isolation, our disconnection grows, perhaps leading to catastrophe.

There is another essential element of human nature, nestling in the most primitive aspects of the human brain, that must be considered. This element is the very significant capacity for hatred, brutality, and savage murder that is a ubiquitous part of being human. This capacity is constrained by the development of positive identifications and healthy attachments, the development of conscience and moral code, and the experiences and acculturation throughout life that support the development of empathy and prosocial behavior, leading us away from our early infantile solipsistic roots to full-fledged membership in the connected human community. When that acculturation thins, as it did for the genocidal Nazis, it becomes no more effective than a tin foil hat against the harangue of hatred. It is not hard to argue that positive acculturation is thinning in America. Social cohesiveness is failing, driven by political polarization, the unmasking of bigotry and hatred, and a constant drumbeat of disinformation, threats, and violence, all serving to disinhibit the unhinged, who are further unhinged by contagion.

In sum, the sense of connectedness born of ToM and the capacity to mentalize is central to our valuation of the lives of others. Empathy and prosocial behavior flourish in face-to-face interaction and stagnate in isolation. The generation of young people perpetrating mass school shootings has grown up under the isolating influence of an explosive growth of screen time accompanied by rapidly climbing rates of mental illness. Deficits in ToM and mentalization, compounded by comorbid conditions, failures in relationships and school and work, psychopathy, and isolation in a society providing diminishing positive acculturation, may be the enabling common denominator that distinguishes those who cannot shoot from those who do.

Although our inability to enact significant gun regulation undercuts our efforts to eliminate mass school shootings, there are a few tenuous rays of hope for mental health professionals. First, we know that social-emotional learning (SEL) programs in schools seem to enhance empathic capacity and improve prosocial behavior in school children. We need to advocate for such programs and imagine every way in which they can be scaled through society at large. Second, although a focus on mental illness is a deflection from the role of guns, we know that virtually all shooters have some comorbid mental illness. We also know that our mental health systems are unable to keep up with rising rates of comorbid conditions in young people. Our advocacy is more necessary than ever. Finally, there is exciting research pointing to the potential for neuromodulation techniques, such as repetitive transcranial magnetic stimulation (rTMS), to have a positive effect on prosocial
behavior. This possibility will require a long-term research effort before there is clinical application, but it is hopeful nevertheless. I’m sure there are other reasons to be hopeful, but I can’t quite think of them right now, distracted as I am by the constant sound of gunfire.

References


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