

Statement of L. Rowell Huesmann

Before the Federal Commission on School Safety

“The Ecology of Schools: Fostering a Culture of Human Flourishing & Developing Character”

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I am Rowell Huesmann – the Amos Tversky Collegiate Professor of Communication Studies and Psychology at the University of Michigan and Director of the Aggression Research Program at Michigan’s Institute for Social Research. I have been studying what makes youth and young adults behave violently for 50 years since I was a young professor at Yale in 1968. I have published many articles and a few books on the subject and I have received awards for Outstanding Lifetime Contributions to Aggression Research from the International Society for Research on Aggression and Outstanding Lifetime Contributions to Media Psychology from the American Psychological Association. I tell you these things to establish some credibility, but I must admit to some regret in that all the research that I and others have done has not produced really safe school environments.

In my brief presentation I want to tell you some clear unambiguous facts that we know about what causes violent behavior, but I must start by saying that we are not very good and will probably never be very good at predicting who is going to shoot up a school. We know a lot about what increases the “risk” that a person will behave violently and therefore who is most at risk to do something, but that is a long way from predictions with even a modicum of certainty.

Because I am a psychologist, I want to begin by disagreeing with two other widely held beliefs about school shootings. First there is the belief that we can eliminate shootings by broader screening for mental illness. People who are seriously mentally ill are not at particularly higher risk of behaving violently toward others unless they are exhibiting psychotic symptoms such as delusions or command hallucinations (e.g., God is telling them to do something). Second, there is the belief that low self-esteem youth who are rejected are particularly prone to be violent. This is not true. In fact, the youth who are more likely to behave violently are narcissistic youth who feel threatened.

The fact is that people never commit serious acts of violence, such as school shootings, because of one factor in their lives. There is always a convergence of predisposing personal factors (like growing up exposed to a lot of violence or having physiology that predisposes one to being impulsive) and precipitating environmental factors (like being frustrated, rejected by a girlfriend, ostracized by peers, or even hot weather).

Predisposing personal factors (whether biological or environmental) operate by changing brain cognitions (circuits) over time while precipitating environmental factors operate by activating cognitions (circuits) that have already been encoded in the brain.

We know that there are three particularly important kinds of cognitions influencing social behaviors and therefore influencing violent behavior –1) schemas about what kind of place the world is, 2) scripts for how to solve social problems, and 3) normative beliefs about what scripts are appropriate. Individuals who have a large repertoire of violent scripts for solving social problems are more predisposed to behave violently. Individuals who have schemas that the world is a hostile place are more likely to falsely perceive hostility around them and be predisposed to follow violent social scripts. Finally, individuals who have normative beliefs that it is OK to be violent at least in some situations are more likely to be predisposed to behave violently in many situations.

In a second I will talk about how individuals acquire these predisposing cognitions. But first let me talk about how they are activated in particular situations.

A very fundamental brain process is what we call “priming.” Whatever we see, hear, or otherwise experience produces a spreading activation in the brain that activates (primes) every connected cognition in the brain. Thus, exposure to violence in the family, among peers, in video games, on TV, or in movies immediately activates violent scripts for solving social problems IF they are in the brain. The activation may not last very long, but it makes it more likely that one will behave violently shortly after exposure to violence. The priming event does not even need to be an entire violent act. Anything associated in the brain with violence can serve as a prime of violent scripts. The emotion of anger can prime aggressive scripts as can the sight of a perceived enemy. Perhaps most relevant to school shootings, the mere sight of a weapon will prime aggressive scripts for using weapons.

Of course, if a youth does not already have violent scripts encoded in the brain violent scripts can’t be activated, and if a youth does not have normative beliefs approving of violence, a violent script won’t be used even if activated. So how do such scripts and normative beliefs get encoded in the brain? The answer is through learning. Undoubtedly reinforcement learning plays some role for many, but the consensus among psychologists who have studied aggressive and violent behavior is that the far more important process is imitation or what is better called “observational learning.”

Humans imitate what they see from infancy onward. Children see, and children do. But they don’t simply mimic exact behaviors; the process is much more complex and intelligent. Youth see how someone solves a social problem, and they infer the script the person was following and the beliefs the person must have had, and they encode these in their brains. Thus the more a youth is exposed to violence -- in the family, in the neighborhood, among peers, on television, in movies, or in video games, the more violent scripts they will have encoded in their brains and the

more their normative beliefs will be accepting of violence. The more a youth observes weapons being used to solve social problems in any of these venues, the more likely a youth will be to encode scripts using weapons to solve social problems and the more accepting will be the youth of using weapons to solve problems.

Of course, youth who already have strong normative beliefs that violence is wrong, will be less likely to encode a violent script they observe. On the other hand, if they already tend to think violence is appropriate in some situations, they will be more likely to encode violent scripts they observe.

Another important factor influencing encoding is identification with the person who is observed behaving violently. If the observed person is a person of power, or highly charismatic, or very likable, the script they use and the beliefs they hold are much more likely to be encoded in the observer's brain. Similarly, if the observed person appears to be rewarded for their violent behavior, their scripts and beliefs are more likely to be copied.

In summary, there can be no question that repeatedly observing violence in the family, among peers, in the neighborhood, in TV or movies, or in video games increases the risk of a youth behaving violently because of the violence-promoting cognitions they inevitably encode. Similarly, observing violence with weapons increases the risk of behaving violently with weapons. When a youth with such heightened risk factors comes into a situation that primes these cognitions, disastrously violent behavior may follow.

The availability of weapons for the youth exacerbates this situation in two ways. The mere sight of weapons primes violent scripts using weapons. But a violent script using weapons can only be executed if the youth has a weapon. A comparison of the frequency of types of violence in the United States and the United Kingdom is illuminating in this regard. Contrary to what many think, well done studies have shown that the risk of being violently victimized in the United Kingdom has been higher than in the United States for most years since about 1995. That is true for assault, robbery, rape, and many other violent crimes, but it is not true of homicide, of firearm assault, or school shootings. Obviously, weapon availability makes a difference.

My presentation has focused on the presentation of well-established psychological knowledge that informs us about risk of violence. But one piece of knowledge I have not presented yet is "what is the best predictor of risk for violence?" The simple answer is that it is "behaving violently in the past." Study after study has shown that no predictor is better. More aggressive and violent children grow up to be more aggressive and violent adolescents and young adults.

Can we make any use of this knowledge? The most valid school-based assessments of risk would be anonymous peer-assessments done by high percentages of students. Research has shown that peer-nominations of past aggression are the most valid predictors of future aggression. The question is would the value be worth the potential abuse from misidentification.