The writing on the screen: A meditation on the Virginia Tech shooting spree: Age-appropriate use of violent first-person computer games

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Abstract

This article uses general semantics and somatics to evaluate the age-appropriate use of violent first-person shooter computer games. The paper argues that the natural development sequence for children and teens is from physiologic language to natural language, and from somatic-emotional patterning to higher level cognitive abstractions. Reversing this natural sequence can create psychotic breaks in which semantics become separated from somatic reality. References are made to Alfred Korzybski's examples of semantic breakdowns in Science and sanity *(1933) and to discussion of the role of mirror neurons in somatic-emotional development (Ramachadran and Oberman 2006). Seung-Hui Cho of the Virginia Tech shooting spree, who compulsively played computer games, is used as a case study.*

Keywords: computer games; shooting spree; Virginia Tech.

On April 16th, 2007, the now infamous Seung-Hui Cho went on a shooting spree at Virginia Tech University killing twenty-seven students and five teachers and wounding fifteen others before shooting himself (Kleinfield 2007). Immediately the chatter began that Cho may have played violent first-person shooter games. The self-made video he mailed to NBC that was subsequently broadcast to the nation certainly suggested a correlation. The video featured Cho dressed as his avatar Ax Ismail, brandishing multiple weapons and posturing to the camera like a violent 3D-game hero. By the end of the week the suspicions were confirmed. *The New York Times* reported that his parents had hoped when he was accepted to Virginia Tech that he would no longer retreat to playing video games alone the way he did at home (Kleinfield 2007).

Clearly, many people play violent first-person shooter games and do not go on a shooting spree in real life, firing 175 rounds in ten minutes,

as Cho did. They may shoot digital avatars on a screen, but not real people in real life. From a semantic and somatic perspective, what is interesting in Cho's case is that he reversed the order; he played out violent, shooter-game imaginings *in reality*.

Three days after Cho's murderous rampage, a struggling student in one of my classes at California State University Channel Islands posted on her Facebook web page a statement that said she was "going on a ... school shooting spree! Watch out kiddies, better hide under that desk!" By afternoon, she was arrested on campus and taken to the county jail where she was charged with making a criminal threat (Abdollah and Mehta 2007). In the case of Cho's shooting spree in which he identifies with his violent avatar Ax Ismail, and in the case of my student's reckless speech act on her web page in which she verbally identifies with Cho's shooting spree, we see a breakdown of semantics that, when expressed through the body in what we might call "real world" space-time (i.e., when somaticized), has devastating effects.

In these two cases, we can recognize what Alfred Korzybski, the founder of General Semantics, called "undesirable human semantic afflictions" (2005: 184). One of these semantic "afflictions," or what we more commonly today call *breakdowns,* is characterized by abstract cognitions that are not grounded in a coherent somatic-emotional body. In the Cartesian paradigm that can be traced back to Aristotelian semantics, knowledge was divided into separate elements — medicine, university, psychiatry, and church — and the bodymind was partitioned accordingly. Korzybski used General Semantics to analyze the psychotic dimensions of this kind of separation of abstract cognition from physiologic language in *Science and sanity*, first published in 1933. In "reality," body, mind, emotions, and spirit cannot be separated, though they can certainly be disintegrated.

Cho's shooting spree reminds us of the real dangers of a kind of semantic breakdown that the neurobiologist Antonio Damasio has described as "Descartes' Error" (1994). The problem occurs when logic becomes disembodied, when it is disconnected from the laws of nature that organize our own biophysiology, including the biophysiology of emotional expression. "*What was he thinking?*" we may have wondered as we watched the news reports on the Virginia Tech shooting spree. Cho's case may be extreme, but it exemplifies a phenomenon that is not uncommon in contemporary mass communication societies: semantics that float off in symbolic ur-space, ungrounded in any somatic reality, until physical reality inevitably comes crashing in. The violent first-person-shooter computer games that Cho played obsessively provided him with a cognitive map painfully inappropriate for the social milieu of the university classroom where he eventually shot others and himself.

Another type of semantic breakdown characteristic of postmodern mass communication societies has to do with the inability to properly evaluate relations that are asymmetrical. We find instead a tendency to make asymmetrical values seem to be symmetrical, and then a propensity to over-identify with the signs of a false symmetry that, in reality, does not exist. It is important to note that in the natural world, the vast majority of relations are asymmetrical. An asymmetrical semantic relation is demonstrated in this classic example given by Korzybski: "If a leaf appears green to me, I certainly do not 'appear green' to the leaf!" (2005: 198). Such a statement shows what is at stake in equating values of signs that cannot be logically equated. On a psychological level, if we identify sign values as symmetrical when they are not, and then identify with those signs in a process known as "identification," we can quickly find ourselves in a dimension of semantics that is false to facts, illogical, and potentially, delusional. Consider, for example, the logic in this thinking: "If students appear as avatars/targets to me, I appear as an avatar/target to them." With his multiple weapons and extra clips of ammo, Cho seemed prepared for a counterattack that never came. In the end, he fired on himself. Was he under the delusion that it was he who was under attack? Or consider his identification with this delusional symmetry: "If I shoot digital avatars on a screen, I win; if I shoot students in a classroom, I win."

Certainly Cho did not appear "a winner" to any of his victims on that fateful day, nor to the few survivors of the ordeal, nor to the families of the victims, nor to Cho's own shocked family. For the most part, people across the country who watched in horror as the story unfolded on the television, in newspapers, and on the internet also did not recognize Cho as a winner. However, some people, like my student who was arrested and numerous others involved in similar incidents across the nation in the week following the event, identified in some way, just as Cho himself identified with Eric Harris and Dylan Klebold who murdered their teachers and classmates at Columbine High School eight years prior (Kleinfield 2007).

It is frighteningly easy for an ungrounded mind, that is a mind that creates cognitions that are disconnected from biophysical reality, to make a mis-cognition on a purely semantic plane without a somatic point of reference. It is as easy as equating a shooting game and a shooting spree. On the somatic plane, however, a human body and a target avatar are not equivalent. In the "real" world, if you shoot someone with a gun, they bleed, and often, die. The potential damage of illogical or even delusional semantic evaluations to our own evolution is so great that we all need to be extremely conscious about what kind of logic we are

teaching to children and young people. We need to pay particular attention to sequence during the development of semantic-somatic integration. Somatic-emotional development comes first in the natural order. If you reverse that order, you can create dysfunction, maladaptation, and possible pathology.

When analyzing the kinds of logic we are teaching and marketing to youth, we must take into consideration the somatic and affective aspects traditionally ignored by science. These include somatic patterning, emotional intelligence, and limbic resonance. Limbic resonance refers to the emotional bonds between individuals in a group that characterize mammalian social evolution. Limbic resonance creates the environment in which mirror neurons can be activated, allowing one individual to learn complex behaviors, tools, and technologies through empathy — the feeling of what it would be like to be another person carrying out a complex task or responding to a particular kind of situation (Ramachandran 2006). Empathy is part of our emotional intelligence. Neurocardiologists are now quite aware that sixty to seventy percent of the cells in the heart are neurons, meaning that the heart, home of the emotional feeling self, is part of our brain (Pearce 2002). A highly developed, rational neocortex without a highly developed emotional limbic-heart connection is only half of an intelligent human being. In addition, somatic patterning comes into play. On the biophysical plane of our all too human reality, what linguists call *structure* (order, sequence, and relation) signifies as much as *content*. In fact, somatically, structure *is* content. While adults in our culture tend to forget that fact, for children before the age of fourteen, nothing could be more obvious.

Structurally, computer gaming has somatic meaning, beyond whatever abstract content fills its surface screens. Because of our biophysiology, one meaning is that the player is sitting alone for long periods of time without human emotional contact, bonding, and touch, engaged in repetitive actions with compulsive attachment, developing a high threshold for visual stimulation and, perhaps, if graphic first-person shooter games are being played, a high threshold for violent images and a deep somatic memory of pulling the trigger as a response to stimuli. Let's face it, repetition is how we learn. Sharon Begley, co-author with Jeffrey Schwartz of *The mind and the brain: Neuroplasticity and the power of mental force*, describes the biophysical imprint of somatic repetition on the bodymind in this way:

The brain is dynamic, and the life we lead leaves its mark in the complex circuitry of the brain: footprints of the experiences we have had, the thoughts we have thought, the actions we have taken. The brain allocates neural real estate depend-

ing on what we use most: the thumb of a video game addict, the index finger of a Braille reader, the analytic ability of a chess player, the language skills of a linguist. (Begley and Schwartz 2002: 67)

Somatic patterning bears immense implications for age-appropriate use of violent first-person shooter games. Graphic shooter games, in particular, need to be placed in the context of appropriate somatic-emotional patterning, given overall development of moral reasoning, emotional maturity, and interpersonal skills.

Video game simulations cannot precede actual experience without repercussions for cognitive development and the risk of semantic breakdowns. Why? Because the natural sequence of cognitive development in human beings is from physiologic language, experienced through the embodied senses, to higher-level cognitive abstractions. *In that order.* Semantics are built on somatics. Physiologic language is the substratum of symbolic languages, as cyberneticist Manfred Clynes (1989) has demonstrated over and over. Reverse that sequence and you risk creating a young man who has the somatic shooting skills of a soldier without the moral development, emotional maturity, or cognitive understanding to act in the world in a meaningful way. Video games are, by definition, higher order abstractions quite distinctly different from the actual experience of, say, shooting students and their teacher in a classroom. By the same token, strategy games of war craft are quite distinctly different from actually occupying a foreign country. Obviously, Cho is not the only one among us who has had difficulty cognizing his relation to the ''real world.''

Our collective evolution depends on our ability to cognize ourselves in a real world that we can actually live in — one that operates not like an abstract game, but according to very real laws of nature — operational principles in the universe that theoretical physicists and neurobiologists and environmentalists spend their time trying to understand and articulate. Two concrete examples may help clarify this point. I have twelve years of martial arts training, and I was delighted one day when my teenage nephew invited me to play the boxing game on his brand new Wii. I had a blast, and within a few minutes had worked up quite a sweat, moving not only my arms and head but truly my entire body in an adept boxing match with my avatar opponent. I excelled, no doubt, I thought, to my many years of experience with actual sparring partners in the dojo. While I was wiping the sweat from my brow, my nephew, who happens to be one of nine million obese teens in the United States, sat down on the edge of his bed with a Wii remote in each hand and proceeded to ''beat'' me, quickly winning more points against his digital opponent, by

moving the remotes with the minimal amount of energy possible, using only his arms from the elbows to his hands, with most of the action taking place in his wrists, his elbows resting on his thighs (Institute of Medicine of the National Academies 2004). He could beat me hands down in Wii boxing without ever breaking a sweat, but what he was doing with his body had very little to do with actual boxing skills, and would translate very poorly to a street brawl the likes of which my friend experienced late one night on a street in Los Angeles where two muggers tried, unsuccessfully I might add, to snatch her portfolio from her. Another example is the classic story of Albert Einstein as a young man skipping graduate physics classes to stand for hours staring at sunlight streaming through tree canopies, or to watch the trains coming and going from the train station. It was his primary somatic experience of being in the physical world that led him to observe natural phenomena that Newtonian physics could not explain, and that later led him to critique classical mechanics and to articulate a new physics. The math for the general and special theory of relativity followed from his physical experience of the world.

An individual who already has a somatic experience with boxing plays the Wii boxing game differently than someone who does not. Likewise, logic tells us that graphically violent first-person shooter games are best introduced to individuals who have already fired a gun and know that the first principle in gunmanship is to never point a gun at any person or creature unless you are prepared to kill them. Why? Because guns kill. We all hope that people with firearms already have thoroughly embodied moral, ethical, and legal codes in place that guide their actions in each case they encounter, and that if their intention is to kill everyone in their path, that they of all people would not be allowed to hold the firearm in the first place. Logic tells us that violent first-person shooter games are best utilized by soldiers and police (for whom they were originally designed as training devices), mature and balanced adults, and only those teens and youth old enough to be properly introduced to firearms and the ethics of their appropriate use. Some type of screening and training program is required for police and soldiers before they handle firearms. Not so for children and teens playing with firearm simulacra? Yet just as adults would naturally be hesitant to put a firearm in the hands of a teen who seemed mentally unbalanced, so should we be hesitant to put a graphic first-person shooter game in his or her hands as well. I think we all hope that community members, teachers, friends, and family would intervene in the case of young people who have lost their semantic bearings in the physical, somatic world, long before the police have to be called. But no one is helping the situation by pretending that abstract computer games can ever stand in the place of an actual embodied experience of

whatever the game symbolically represents, whether that be practicing yoga or shooting at human targets.

Parents should monitor children for age-appropriate use of games, and game designers should be aware of the somatic and emotional patterns their games could encourage, not only in players with undeveloped or dysfunctional emotions, but in all players. The situation in regard to electronic games can be summed up in this way: violent shooter video games do not necessarily cause players to be violent; however, the industry may well be creating and mass marketing games for which some individuals would benefit from a psychiatric evaluation before being allowed to play. Likewise, universities do not necessarily cause students to be alienated; however, they may create social environments that fail to provide many students with adequate safety nets, much less coherent programs, to help them integrate abstract cognitive skills with emotional intelligence in the body.

In the natural world, somatic-emotional experience precedes abstract cognitions, and physiologic language structures symbolic language. Why? Korzybski put it this way, because "for better or worse, we happen to live in a four-dimensional world, where 'space' and 'time' cannot be divided" (2005: 184). We live in that world as whole organisms, whole beings, with nervous systems that ambulate through constantly changing environments, moving through space-time processing ordered chains of signs and meanings produced by the impulses of external stimuli. Sequence, relation, and repetition are fundamental to how we order our experience of ourselves in the world. When the meanings of our somatic behaviors become disconnected from the effects they actually produce in our own biophysiology, we risk psychotic breaks from reality. For this reason, old three-dimensional analogies and elementalist thinking that separate space and time and break the whole being into separate elements defy the facts of actual function in the natural world. Consider the old Cartesian logic embedded in this absurd question: Was it Cho's body or his mind that became a criminal sociopath on the day he longed to be a hero? The question is itself insane. Why do we even bother to ask then, if game designers' responsibility is to the minds, or to the bodies, or to the emotions of young game players? Likewise, we do not need to ask if the university's responsibility is to the minds or to the emotions or to the bodies of its students. Cognition and emotional embodment cannot really be separated. Educators, parents, and electronic game designers need to look at the whole picture, and the whole person, to evaluate what is appropriate use of graphic shooter game technologies and what is an appropriate educational response to a student's speech, writing, and behavior.

If game designers and parents should consider the bigger picture, so educators should see the writing on the screen and take action, before there's more blood on our playgrounds and in our classrooms. It's not enough to educate a mind. Even digital technologies need a body, heart, and soul to make them make sense. A mind without a heart is a danger to our own evolution. Our emotions are part of our intelligence and our consciousness. It is time for educators to embrace the mindbody paradigm that launched the wellness industry. In fact, it's past time. Somatic education courses that balance semantic cognition with sensory awareness and somatic-emotional expression should be a requirement for all freshman at every university and college campus. Seung-Hui Cho needed those courses. All of us do.

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