

Aberrant Decoding: Dementia and the Collision of Television with Reality

By Catherine Jenkins

For those of us who grew up with television, the way we encounter and interpret the medium seems obvious. We forget that our interactions with, and understanding of, the conventions of any medium are learned. Over time, as memory functions decline, our ability to understand media we learned to interpret later in life may fail. For instance, most people now over eighty did not encounter television until they were adults. If dementia is present, this later learning of the medium may alter viewers' continued understanding of television.

What we take for granted in our TV viewing is the complexity of our reading of the medium. Television is not reality, yet it mimics reality in a reduced, simplified, and clichéd form to entertain, inform, or educate through storytelling and narrative conventions. A simplified semiotic reading of how we encounter TV indicates that this medium creates a “constructed equivalence” of reality to communicate messages through a system of signs encoded by the producer, then decoded by the viewing audience (Fiske & Hartley 32). These signs consist of a series of rhetorical devices—some borrowed from film, others unique to television—including intercutting, flashbacks, montages, speed changes, lighting, camera angles, musical score, sound effects, structured time allotments, opening and closing credits, and the regular insertion of advertisements. Successful television viewing requires the audience to be conversant with these media conventions. As has been pointed out, however, “Our perception is not so much an inherited mechanism as a learnt one...” (Fiske & Hartley 50).

One of the complicating features of the television medium is that the sender and receiver are strangers; they may hold radically different cultural assumptions, and so they may not share a common code to translate television's rhetoric. The intention of the sender, the television producer encoding the message, may be interpreted in a wholly unexpected manner by the viewer decoding that message. “Aberrant decoding” occurs when the viewer fails to decode the producer's intended message, however, according to Umberto Eco, rather than being an exception, “aberrant decoding...is the rule in the mass media” (Eco 4-5)

The notion of encoding has also been used in Richard Atkinson and Richard Shiffrin's “modal model” of memory functioning. Information perceived by our senses enters the immediate sense memory; if attention is devoted to the input, this sensory data enters short-term memory—also known as working memory or consciousness—for immediate recall or action. Selected information may also be encoded for long-term memory storage (Sutton, Harris & Barnier 211-213). The retrieval of this information from long-term memory requires a decoding process to return the information to short-term memory; this is the process of remembering. The sorting of sensory data is only one function of memory, however, as it also helps us retain our sense of self, as well as our relationships to other people and the world.

The brain is comprised of about 100-billion neurons that interconnect through electrochemical impulses through some 100-trillion synapses to form thoughts, memories, and

emotions (Alzheimer Society of Canada). A myelin sheath covers and insulates each nerve cell, optimizing information transfer and enabling the storage of new layers of information over most of our lives. Research by Dr. George Bartzokis at UCLA's Memory Disorder and Alzheimer's Disease Clinic, has shown that this myelin sheath begins thinning after about age fifty. One hypothesis is that this gradual breakdown in myelin decreases neuron processing speed and releases memories in the reverse order from which they were encoded, causing individuals to suddenly remember long-forgotten incidents from their past. As myelin continues to break down, neuron pathways disconnect; memory and cognition begin to fail, starting with the most recently collected information. Bartzokis and his colleagues hypothesize that this normal, age-related biological breakdown may increase our vulnerability to Alzheimer's disease (Science Daily; Bartzokis et al. S348).

If Alzheimer's disease is present, brain deterioration continues with two apparent features: plaques and tangles. Plaques are hard protein clusters that form between neurons, effectively blocking signal transmission; tangles are the frayed debris of dying neurons. Between these two factors, the brain's ability to function normally progressively declines. Over time, the brain's mass actually shrinks and cognitive problems become increasingly apparent. While dementia is *not* a normal part of the aging process, it does affect nearly ten percent of individuals over age sixty-five, with increasing prevalence as the population ages. Alzheimer's disease is the most common form of dementia, accounting for 63% of all dementias. The area of the brain controlling learning and memory (both verbal and visual) are the first affected, but over time this progressive disease can cause a myriad of effects, including mood and behavioural changes; loss of decision-making ability and judgement; loss of spatial control including changes in balance and gait, as well as the understanding of one's location in place and time; withdrawal; obsessive repetitive behaviours; and even reduced ability to perceive coherent colour, shape and movement patterns (Alzheimer Society of Canada). Even tasks repeated over many years, such as decoding television, may become impossible. Alzheimer's disease can be conceived of as another type of aberrant decoding, one which affects only the individual, but alters the manner in which they decode not only their own long-term memories, but all sensory data, including television input.

Television was invented, but not commonplace, until the "Golden Age" of the 1950s (Medhurst 117-120). Although the Canadian Broadcasting Corporation (CBC) began broadcasting radio news in the 1920s, its television division did not become active until 1952; by 1955, the CBC was broadcasting to 66% of the country, with colour television broadcasts becoming available in 1966 (Canadian Broadcasting Corporation). The growth in television is similar in other developed nations. Given this history, it seems unlikely that my mother encountered television until she was in her thirties. Her generation grew up with radio; for decades my parents listened to the CBC's *World News at Six* on the radio before dinner. She rarely watched TV and often disapproved of family viewing choices; however, later in life, the television news replaced the radio news. Research has shown that TV viewing gradually increases among the elderly. A British study in 1996 showed that adults over age 65 watch 36 hours of television per week, over five hours per day, and 40% more than the national average (Gauntlett & Hill 186, 173). Similarly, my mother's television viewing increased to encompass news during the day, nature programming, and documentaries.

Throughout most of my life, my mother was a very stable, unimaginative person; someone relied upon to be grounded during times of crisis. In her final years, however, my mother's memory and cognitive abilities were in increasing tatters as dementia overcame her.

One evening when I visited, I found her in bed with the blankets up to her chin, wide-eyed, and still fully clothed. She was terrified for no apparent reason. When I asked why she was still dressed (her habit was to change into her nightie immediately after supper), she responded, "They might need to evacuate me in the night." This made no sense, so I pressed her for further details. After saying, "Oh, you know," several times, she finally conceded that maybe I did not know and gave me the full story. She informed me that, "The money we're paying to the retirement home is being siphoned off for the war effort in Italy." What war in Italy? Why was she so anxious that she might be evacuated? Where was this coming from?

It was not until I had shaken off my own confusion and assured myself that there was nothing amiss in the world that most of the rest of us occupy, that I was able to understand the logic of my mother's misapprehension and subsequent terror. This delusional event coincided with the emergency evacuation of Canadian (and other) citizens from Lebanon, as war in that country grew increasingly violent during the summer of 2006. The CBC television news carried reports of Canadian casualties and images of the evacuation; newscasters and evacuees described the crisis, some castigating the government for not reacting more quickly or with greater resources.

My mother had no personal connection to Lebanon; however, she was a young adult working in Toronto during World War II. Many of the boys she had gone to high school with volunteered for military service and never came home. She had a treasured memory of the sound of all Toronto's church bells chiming the armistice as she drove back into the city from visiting her parents. During WW II, Italy was an Axis power with allegiance to Nazi Germany; the retirement home she lived in was owned and operated by an Italian couple. Even in her delusional state, she assured me that they were fine people, but clearly their Italian heritage had triggered something. The confluence of aberrant decoding from her memory, with aberrant decoding of the television news, created a believable, but frightening, misinterpretation of events.

A few months later, another, less dramatic, event occurred. By this time, we had ensured that either one of us children or a hired caregiver were with my mother throughout the day. Shortly after I arrived for a late-afternoon visit, my mother asked the caregiver, "Who were all those people you invited into my room this afternoon?" I recognized the tone of accusation she directed at the caregiver, and also knew that she had made an effort to remember this event to ensure that I would set things right. The caregiver and I exchanged a puzzled look. By this time, I had learned to have limited faith in things my mother said; there was usually some grain of truth in her perceptions, but her interpretations were often unique. I asked questions for clarification. Other than the caregiver, and someone visiting at tea time, no one else had been in the room all afternoon. What crowd of people was my mother talking about? When I asked the caregiver how they had passed the time, she responded that they had watched TV. The caregiver had turned to her preferred fare: live game shows. My mother, who would have found game shows a waste of time, and to the best of my knowledge had never watched one, had no frame of reference, either learned or remembered, to decode what she was seeing. The television image intruded into her room as a reality and suddenly she was confronted with an audience of excited strangers from whom she could not escape. As another elderly study subject corroborated, in this case regarding soap opera characters, "...they become part of your life. They're in your room" (Tulloch 182).

Incidents, such as those my mother experienced, have caused me to wonder how elderly individuals, people who learned to decode this medium as adults, watch television. My

father, in the company of many other older media consumers, developed the habit of leaving every TV and radio blaring, observing that the cacophony provided a form of company (Gauntlett & Hill 186, 198). In some instances, the television may be on continuously throughout the day, even when no one is watching (Tulloch 191-192). Television provides an opportunity to travel and remain informed about the world as one's personal sphere diminishes due to reduced mobility and health, as well as possibly financial constraints. It also provides an inexpensive form of entertainment and a welcome distraction during times of illness or recovery, as well as grief (Gauntlett & Hill 188-198).

There are, however, common complaints from this demographic about television. Slowed cognition may make it challenging to comprehend a speedy action sequence (Gauntlett & Hill 179). TV commercials are described as irritating or confusing; "Suddenly it seemed to sort of not make sense.... We'd gone into an advert and I hadn't realized it" (Tulloch 184-186). Hearing loss may make it difficult to discern dialogue from the musical score (Gauntlett & Hill 179). Loss of visual acuity may cause increased difficulties in comprehending images onscreen. If dementia is added to this list of common problems, the difficulties in decoding television increase substantially.

For the dementia sufferer, television and reality collide. While, according to Eco, aberrant decoding is the norm for mass media, decoding acquires a second level of aberrance when cognitive abilities decline. The perception of television may change with diminishing sensory acuity, but as cognitive functions fail, an individual's ability to decode sensory input, as well as their own stored memories, leads to additional aberrance. This twin-phased aberrant decoding, at the level of both television and memory, can lead to increased confusion, overlapping perceptions of media with reality, and even delusional events.

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