MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Department of Brain and Cognitive Science 9.68 – "Affect ..." Spring 2013

Kille Case Chronology S.L. Chorover

June 7, 1933 Eighty years ago this year; -- Leonard Arthur Kille comes into the world in the usual way at Cambridge City Hospital in Massachusetts.

Franklin Delano Roosevelt is in the first of his 4 terms as US President. The nation is in the depths of the "great depression." Life in working class New England is hard. Money is short. Work is scarce, his father is unemployed.

It is a normal birth, and he weighs in at a normal 7.5 pounds. He is his second generation native born Irish Catholic working-class parents' second-born son. (His elder sibling is 15 months older). The family lives in a small apartment on Pleasant Street. His mother is struggling to keep the family together. His father, a stone mason without work, remains in a pretty-much constant state of drunken rage and self-pity. When inebriated he is physically abusive to her. He stays away from the house as much as possible and self-medicates with pain killers – mainly alcohol ...

1934 – As the great depression deepens, various academic and professional specialists including anthropologists and other serious students of human social systems begin noticing increasingly widespread and serious familial dysfunction and fragmentation in families where the "breadwinner" is out of work. With so many millions of people losing their jobs, career paths, and livelihoods, the experience of men – most workers, and hence the majority of the unemployed were male – was painful, frustrating, and angry-making; it is most common to focus on the violence-prone experience of men, but it must be noted that women were both directly and indirectly affected by the down turn.

As men's losses of livelihood undermined their sense of personal potency, efficacy, and control, a major multigenerational disaster was taking place. Today, many are still – and again – experiencing the effects. Both among us as people (human individuals) and as members of particular families and other human social groups, we are familiar with the fact that anything that undermines our senses of self-confidence, self-esteem and self-worth can turn out to be decisively self-defeating.

This harsh reality isolates the more adversely affected members from each other and the rest of the community; it reshapes peoples' personal and social lives – coloring their (our) individual and collective sense of our own identities; Diminished in this way, we find that our cognitive and affective and behavioral capacities for timely and effective response have been reduced. For many it is getting harder and harder to be and to become and to remain behaviorally engaged, competent and responsible, self-consciously self-aware, self-respecting people. (Are instances of this kind and degree of acquired disability evident in the current crisis?

Leonard's parents move with kids from Cambridge to Schenectady NY in ultimately unsuccessful search for employment.

1934 – An International Congress of Neurology is meeting in London. From Yale University, John F. Fulton & Carlyle F. Jacobsen (leftmost images below) report complex cognitive and affective after-effects of frontal lobe lesions (see red vertical line representing frontal section plane) in non-human primates. Fulton delivers the report. In the audience is Portuguese neurologist Egas Moniz (below right)

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Moniz rises during the subsequent discussion and asks Fulton (who presented the paper) whether he knows of any efforts to do the same kind of "calmative neurological surgery" in otherwise allegedly uncontrollable human mental patients. Fulton's immediate response was not recorded. He offers a vaguely negative answer and will later say that he was shocked by the question. Undaunted, Moniz returns to Lisbon and enlists his neurosurgeon colleague, Almieda Lima, in a clinical trial. Together they perform the first recorded series of bilateral frontal lobotomies on chronically hospitalized mental patients. Post-operatively, according to their report, one third are doing better, one third are unchanged, and one third are doing worse.

1935 -- The Kille family returns to Cambridge and sets up house at 3 Columbia Terrace.

1935 – John W. Papez (below left) postulates that feelings/emotions are mediated by a brain circuit involving several parts of what will come to be called "the limbic system" (see also 1946 below)

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1937 The Kille family moves to 199 Harvard Street in Cambridge. Father remains unemployed most of the time.
1938 – American neurosurgeon, Walter Freeman, (below, left) has been stimulated to act by Moniz' reports. He begins performing lobotomies in US; becomes best known for "outpatient" supraorbital "hammer and icepick" approach (below right).
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1939 Leonard Kille (age 6) enters first grade at church-run St. Mary's Grammar School on Norfolk Street in Cambridge.
1939 – Heinrich Klüver and Paul Bucy report discovery of complex behavioral syndrome following bilateral temperolimbic lesions in individually-caged adult male rhesus monkeys.
Image removed due to copyright restrictions.
1940 Leonard's parents' marriage breaks up. (His mother says her husband "just ran off" the children are first told that their father has gone off to join the Air Force and are later told that he is "dead."

1942 -- Leonard and his brother are enrolled in a church-run boarding school. They call it "the orphan asylum." His mother is employed full time doing war-related work in an East Cambridge machine shop. Also working part time job in a Central Square coffee shop.

1945 – Both Kille boys are still attending catholic church boarding school. Later reports will identify it as a time/place where boys were not uncommonly abused by priests. Second World War Ends with US A-Bomb attacks on Japanese Cities

1946 – Paul MacLean advances "triune brain" concept. Identifies "limbic system" with affective sensibility and describes its involvement in afferent and efferent brain processes that "transform the cool light that we see into the warm glow that we feel."

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1946 -- Leonard's elder brother graduates from boarding school, returns to live with his mother and new husband and begins attending Boston College High School. His mother later will say: "Len ... wanted to come home too but there has to be a separation sometime and he accepted it". During this time Leonard is befriended by, and spends a lot of time alone in the company of one of the institution's priests.

1947 -- Leonard – age 14 -- graduates from boarding school, returns to Cambridge to live with mother, brother and stepfather (Joe); begins attending Rindge Technical high school; hopes to become an engineer.

1948 – August: Leonard – age 16 years and 3 months -- drops out of high school and joins the Air Force.

1948 -- D.O. Hebb (below left) a onetime student of Karl Lashley's (below right) is a psychology professor at McGill University. He publishes "The Organization of Behavior." It presents some prescient notions about the process of learning. For example, he posits that learning and habituation (or sensitization) depend on the coordinated activity of multifarious "cell assemblies" and suggests that these are best thought of as consisting of multiple synapses whose overall connectivity is changed in some ways (increased? or decreased?) in the learning process. This notion continues to inform present-day research.

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1949 – In the past 15 years, many thousands of prefrontal lobotomies have been performed world-wide. Reports of positive results predominate in professional quarters. Egas Moniz cited for initiation of psychosurgery, shares Nobel Prize in medicine with W.R. Hess pioneer student of core brain processes.

1950 –Karl Lashley publishes "In Search of the Engram." In it, he reports on many failed experimental efforts to find specific memory traces located in particular brain sites. His negative findings lead him to some important notions, including neuropsychological "equipotentiality" and "mass-action." These ideas are further tested and refined by others in laboratory contexts using experimental methods. Many empirical studies by Lashley and others show the complexity and contingency of brain organization and development. His view complements and tempers (for a time) the influence of more widely entertained, more markedly linear, categorical, mechanistic and reductionistic (localizationist) doctrines inherited from phrenology.

Lashley criticises prevalent conceptions of "mind" as misleadingly concretized. Argues that mental activity is best understood as a nonlinear complex adaptive system – an ongoing and recurrent dynamic process that ought not be falsely reified and frozen and fossilized into a "thing" or definitely fixed monadic unity. Whatever it may be, "mind" is not a palpable kind of thing or "stuff." On the contrary, "the insubstantial country of the mind" remains wholly devoid of any tangible space-occupying substance, any wholesome and vital spiritual liveliness or any affective dynamism.

Both would be appalled, I think, by today's theories, in which ostensibly quite ethereal "minds" or "souls" are presumed to have an ontologically tangibly real and humanly influential existence; a tangible existence, moreover, that is "modular" (in the phrenological sense) and whose mode of organization and development wholly and essentially reducible to and coincides with the sum of the functional activity of separate and distinct neural monads – units of the very smallest and unanalyzable bits of stuff; "entities without windows." (Leibniz).

I contend that multiple instances of such misplaced concretenesses are embodied in psychological jargon (and technical terminology). Consider, for example, terms like: "faculty" or "trait" or "propensity" or "tendency." Through word-games there is widely supposed to exist an enumerable set of more or less characterologically fixed sets, or dispositional mental/behavioral attributes of particular persons. In point of scientific fact, serious inquiry reveals that behavior in a given situation at a particular time is inclined to be highly context-dependent, contingent and experientially conditioned/constrained.

1950 – War in Korea

1951 – Spring: Leonard – age 18 – is serving as a ballistic missile defense radar monitor at a remote and isolated northerly "early warning" outpost in that war. There he is said to have suddenly suffered acute abdominal distress (the official dx is apparent perforated peptic ulcer with an infection that waxes systemic). He is said to have sustained severe loss of blood and a prolonged drop in blood pressure accompanied for several days by coma, stupor and cardiovascular shock. He nearly dies. But after a prolonged period of convalescence he is mustered out of the service, returns to his family's home in Cambridge, renews his romance with girlfriend, Janice, resumes his High School studies, and goes to work as an electrician's helper.

1951 -- November 11; Leonard and Janice elope to New Hampshire and get married. He is 18, she is 17.

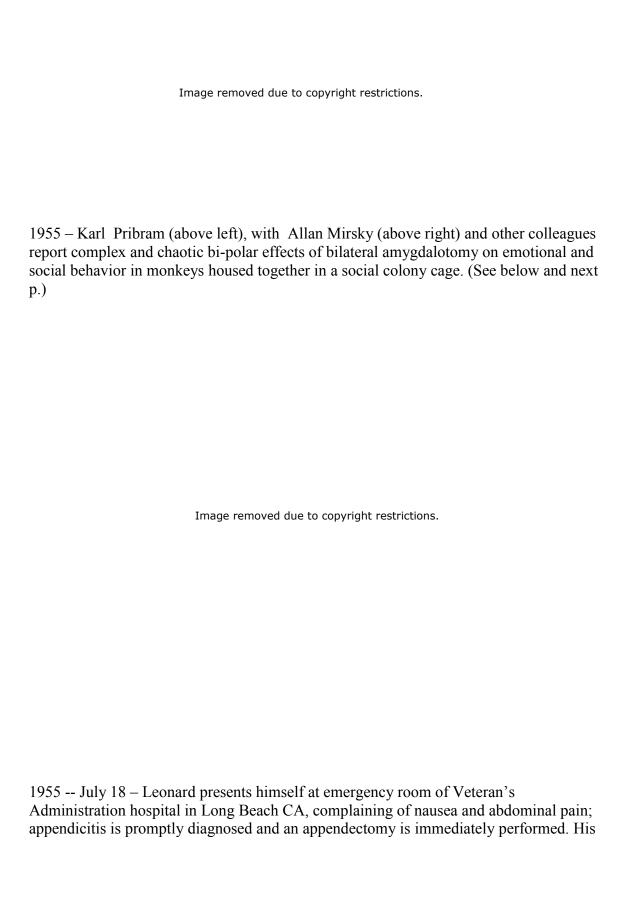
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1952 – Herbert Lansdell, (above left) is working toward his doctorate in D. O. Hebb's lab, at McGill. His thesis research demonstrates clear contingency and context-dependency of behavioral effects of brain lesions in rats. He replicates some of Lashley's experiments with the additional twist that "experimental" animals are allowed to roam around relatively freely in a large laboratory space after brain surgery, while "control" Ss are subjected to a regimen that includes comparable amounts of physical exercise (running on a treadmill), but no additional social experience. Irrespective of lesion location or size, animals that were allowed to roam the lab after surgery recovered more quickly and completely than rats given no such experience.

1953 – Lawrence Weiskrantz (above right) shows that symptoms comparable to those of the Klüver-Bucy syndrome occur in monkeys after bilateral brain lesions limited to the amgdala. Effects observed include the "tameness" and polymorphously perverse hypersexuality but exclude the visual symptoms (visual agnosia).

1953 – In non-human primates living under more or less standard laboratory conditions, (e.g. individually housed in single small cages), Paul MacLean and Jose Delgado observe complex, contingent and context-dependent mental and behavioral effects of electrical brain stimulation delivered to various limbic loci via chronically implanted electrodes.

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1953 – October: Leonard and Janice's first child is born.
1954 – Daniel S. Lehrman: (below) studies interactions of hormonal and behavioral influences on reproductive behavior in female ring-doves. Finds that neither (1) internal hormonal state nor (2) external auditory of visual stimulation by sight or sound of a sexually ready mate are sufficient to evoke sexual receptivity in the female. Both the internal state and the external stimuli in close temporal and spatial proximity are required
Image removed due to copyright restrictions.
1954 Leonard's mother and stepfather move to Long Beach California
1955 January – Leonard and Janice also move with baby to Long Beach California. Stay for a while with his mother, eventually rent and then buy a home. Leonard is gainfully employed as a photographic instrumentation engineer at Douglas Aircraft plant in Santa Monica.



recovery is uneventful except for the persistence of complaints of severe abdominal pain and urinary retention.

1955 -- Terzian and Dalle Ore report full-blown human case of Klüver-Bucy syndrome in a young man following bilateral temporal lobectomy (surgery ostensibly primarily aimed at reducing the frequency and severity of both grand mal and petit mal epileptiform activity).

1955 -- August – Janice and Leonard's second child is born.

1957 -- Scoville and Milner report a case of severe memory deficit in patient (Henry M.) following bilateral anterior temporal lobectomy (surgery ostensibly primarily aimed at reducing the frequency and severity of both grand mal and petit mal epileptiform activity.)

1957 – Arthur Kling and colleagues study effects of bilateral amygdalectomy in monkeys socially maintained in simulated free-ranging habitat. They find consistent fatalities (due to starvation, ostracism, isolation violence) among animals returned to their troops following surgery.

With these findings, all reasonable grounds for believing that this kind of brain surgery can be safely and effectively used to "tame" people whose behavior is otherwise very difficult to manage has all but disappeared.

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1958 Kille's third child arrives.

1958 – Murray E. Jarvik (below left) is a psycho-pharmacology researcher who studies the effects of various psychotropic drugs on behavior in monkeys and humans. He and colleagues demonstrate context-dependent dose-response relations in a study of effects of ostensible stimulants and sedatives on behavior in monkeys maintained under normal laboratory conditions. If placed in quiet, darkened surroundings monkeys tend to get sleepy; if placed among other monkeys in a noisy and brightly-lit environment they tend

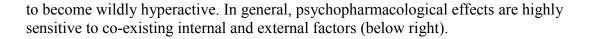


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1958 fall – Leonard leaves his job at Douglas Aircraft in Santa Monica. He and Janice and the three children relocate to Somerville Mass. Leonard goes to work as a draftsman for Polaroid Corporation

1959 – Spring -- Leonard is promoted to senior draftsman at Polaroid; he and his wife buy a house on Winthrop Street in Stoneham, north of Cambridge.

1959 – Fall: Leonard is promoted again – to assistant engineer with responsibility for developing parts for the Polaroid Land camera.

1959 -- Clark Kerr, Chancellor of the University of California, looks forward to coming decade with optimism regarding what he sees as the almost perfect social compliance of the "60s generation: "Employers will love this generation. They aren't going to press any grievances. They are going to be easy to handle. There aren't going to be any riots."

1960 -- Gregory Bateson (below left) and colleagues, including Virginia Satir (below right) begin to analyze communications patterns in families with children exhibiting severe behavior problems. They find increased risk of mental illness in children in dysfunctional families where they are repeatedly exposed to "double binds" – a situation in which mutually contradictory messages from parents produce communication impasses with adverse effects. These become pathogenic under conditions where there is no meaningful discussion of the problem and where there is no possibility of negotiation or escape from the situation.

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1960 February – Black college students in Charlotte, North Carolina "sit-in" at segregated lunch counters beginning what will become a long series of non-violent protests demanding desegregation of public eating facilities. Leonard is treated for pneumonia at a Malden Hospital; upon release he suffers a relapse during which he complaints of weakness, light--headedness and severe left chest pain which is treated at home.

1960 May -- Leonard is hospitalized for a week and treated for right flank pain at Boston Veterans Administration Hospital.

1960 November -- Leonard – whose work at Polaroid has resulted in award of several US patents naming him as co-inventor -- resigns his position at Polaroid and starts employment as an engineer with a weekly salary of \$194, at Salem Massachusetts-based (MIT spinoff) plant of Edgerton, Germeshausen and Grier (EG&G)

1961 January – Janice Kille seeks, and is granted, a restraining order against her husband in Middlesex County Probate Court. This is the first open indication that there is trouble between them.

1961 March -- Leonard's salary at EG&G is raised to \$205 per week. His wife obtains a support decree from Middlesex County Probate Court

1961 – Soviet Cosmonaut Yuri Gagarin becomes first human to orbit the earth. Cuban military and civilian defense forces foil US-CIA invasion attempt. 1500 troops – mostly Cuban exiles and all trained and equipped by US – attempt to "liberate" Cuba. All are captured or killed within 3 days.

1961 – May -- Leonard's salary at EG&G is raised to \$220 per week and he is promoted to Senior Engineer.

1962 – Rachel Carson publishes "Silent Spring"

1962 -- Cuban Missile Crisis

1963 – Leonard promoted again at EGG;

- 1963-- November President John F. Kennedy is assassinated in Dallas shooting.
- 1963 -- Stanley Milgram Reports results of his Obedience Experiment
- 1964 January President Johnson begins escalating US military involvement in Vietnam
- 1964 -- March, Kitty Genovese murder.
- 1964 May 15 Leonard voluntarily terminates his employment at EG&G and begins working at Honeywell Corporation at an annual salary of around \$12,000
- 1964 First in series of "long-hot summers" (race riots) in US cities.
- 1964 -- Fall Escalating domestic conflict in Killes' household. Leonard begins to see a psychiatrist the same one who has been treating his wife for some time. He attributes their marital problem to Leonard's anger and presumes the latter to have a biological basis.
- 1964 Bateson and others continue study of the family as a system; this is the beginning of what will within a decade become a vigorous "field" of family systems theory and therapy.
- 1965 Jan 25 Leonard undergoes EEG at MGH
- 1965 February Malcolm X is assassinated.
- 1965 March 17 Leonard's mother visits Kille home in Stoneham for St. Patrick's Day weekend and reports chaotic conditions; Leonard harried and hard working; Janice "drunk" and "doped" and "out of it"
- 1965 May: Jose M.R. Delgado, Yale Medical School demonstrates and advocates use of brain stimulation as a means of social control. (see also 1974)

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1965 – Another "long, hot summer" in poor urban communities across the U.S.

1965 – August 16 – Leonard's salary at Honeywell is raised to \$12,600/yr; his title is upgraded to "design Engineer"

1965 – November Leonard and Janice now have five children and a sixth is expected around the end of the year. They sell their Winthrop Street house and buy a larger and more expensive one on Cedar Avenue.

1965 -- December – Leonard – concerned about the financial burden represented by the cost of their new house, consults his parish priest, Father Paul Shanley. Learning that there is an unoccupied top-floor apartment in the house, the priest suggests renting it to a recently divorced fellow parishioner, Robert Dirkman, who is looking for a place to live.

January 1966 - Georgia State legislature refuses to seat Julian Bond, 25 year old black activist and member of SNCC who opposes US involvement in Vietnam.

January 1966 - Robert Dirkman moves in to Killes' house and soon becomes more than just a tenant. He frequently takes his meals with the family, helps Leonard with chores around the house and engages in long conversations with Janice late into the evenings.

1966 -- February 4-19 Leonard, experiencing what appear to have been severe attacks of anxiety, marked by "shortness of breath, weakness and dizziness," takes medical leave

from his job at Honeywell and spends two weeks at the New England Sanitarium where he is officially diagnosed with pneumonia. Twice during this stay, he abruptly signs himself out and back in. Growing trouble at home and at work

1966 -- February 28 Leonard quits his job at Honeywell and accepts a position as a senior engineer at Cambridge-based Block Engineering at a salary \$13,500 a year

1966 -- March 1 – Leonard's car is in disrepair. He borrows Robert Dirkman's car and is driving into Cambridge for what is supposed to be his first day on the job at Block Engineering. While stopped for a red light the car he is driving is struck from behind and propelled forward. The front end forcefully impacts the rear bed of a truck stopped in front of it. Both ends of the vehicle are severely damaged; (and it is Robert Dirkman's car!). Leonard, complaining of a head injury is taken by ambulance to Cambridge City Hospital where he remains for several days of observation before being released. But he remains only briefly back at home. Escalating tension around domestic arrangements provokes jealousy and renewed marital arguments. Leonard voluntarily checks himself in to Boston VA Hospital.

1966 -- April 5 –Leonard signs himself out of VA Hospital AMA ("against medical advice"). The psychiatrist mentioned above, to whom both Leonard and his wife have been paying professional visits, is a neurobiologically oriented practitioner. Suspecting that Leonard has some sort of a brain disorder, he refers him to Dr. Frank Ervin, director of the "violence research unit" at Massachusetts General Hospital. Ervin collaborates with Vernon H. Mark, a neurosurgeon. Together, they are doing clinical research, diagnosis and treatment aimed at making credible their main hypothesis, namely that violent and assaultive action "is an expression of the functioning brain." In their view, the abnormal brain functions responsible for what they call "episodic dyscontrol," can be (indeed should be) manipulated by surgical and or electrophysiological destruction of selected brain regions in the limbic system.

The violence control unit is operating under the general supervision of neurosurgery department chairman and Harvard Medical School professor, William H. Sweet. Although officially admitted to MGH as a patient, Leonard is admitted to the violence research unit as a research subject and placed on a locked-down ward.

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Vernon Mark, M.D.

stereotaxic instruments in use

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1966 – Don D. Jackson publishes: "The individual in the larger contexts."

1966 – August Texas Tower Shootings – Chas. Whitman – a former marine, kills and wounds scores with high powered rifle before being killed. In a very poorly documented account of a post-mortem examination of Whitman's brain Mark, Ervin and Sweet will allege that his episode of rage and violence was traceable to the alleged presence of bilateral amygdaloid tumors in his limbic system. *Life* magazine publishes a special issue on the subject of violence. It places strong emphasis on the prospect of brain control. In one article, Drs. Mark, Ervin and Sweet are favorably reported to be researching the brains of people allegedly afflicted with the symptoms of a previously unknown affective disorder that they claim to have identitied and which they call "episodic dyscontrol syndrome." Photos of one of their patients – "Julia" were featured in the article. Meanwhile, they were also beginning to study and treat Leonard Kille; the patient they would end up calling "Thomas R."

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1966-67 -- Over a period of many months Leonard undergoes "pretreatment testing." In preparation for surgery (electrode implantation) his head is shaved, he is sedated and locally anaesthetized. His head is positioned and fixed in the frame of a stereotaxic instrument and multiple stranded electrodes are implanted in his brain bilaterally, with their tips arrayed in the vicinity of his amygdalae. After a brief period of recovery from surgery, a long series of electrophysiological recording, stimulation and lesioning trials is begun.

Several months into the process, the physicians/researchers decide that they are now ready to move to the final phase of treatment. They set out to determine whether, and if so, and in what respects, it might be possible to alter Leonard's mental activity and behavior by selectively and progressively destroying more and more of the brain tissue in the targeted areas of his brain bilaterally. This was done by passing high frequency (microwave) currents into limbic loci within his brain via the previously implanted electrodes.

Several times, Leonard protests, refuses further treatments, absconds from the hospital; but each time he returns.

Eventually, he is persuaded to submit to more and more brain destruction treatment.

1967 – January; Pentagon announces deaths of 5,008 Americans in Vietnam during previous year; An American military officer is quoted as saying after an attack on a Vietnamese hamlet that "the village was destroyed in order to save it."

1967 – Yet another long, hot summer; race riots nationwide. Leonard is still in hospital. Drs. Mark and Ervin reckon that the electrolytic destruction of his amygdale is almost complete.

1967 -- The implanted electrodes still remain in place in his now bilaterally amygdalectomized (amygdalotomized) brain. Janice Kille files for divorce. (Yes, she will later marry Robert Dirkman).

1967 -- Electrodes withdrawn; treatment complete, damage done, Leonard is discharged from MGH; once again, he attempts and fails to reconcile with Janice, then travels across the country by car to Long Beach CA to be near his mother and Stepfather Joe.

Serious social problems emerge at once. He is patently deranged. His deterioration accelerates in weeks and months after release. At one point he is found wandering aimlessly around a supermarket parking lot late at night. He is picked up by police, taken into custody and forcibly hospitalized. At the hospital, he is soon assigned the diagnosis of "paranoid schizophrenic" – largely on the basis of an incredible and fantastic story that he tells, in great procedural and technical detail, about having been a patient and research subject at Boston's MGH; of doctors operating on his brain; implanting electrodes, remotely recording depth electroencephalograms and applying occasional electrical brain stimulation, and , finally, using radio frequency currents to destroy portions of his limbic system; destroying his mind and life and work and family; leaving everything in shambles, etc. etc.

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1967 -- In early fall of the same year, in the aftermath of the latest long hot summer, Mark, Ervin and Sweet publish a letter in JAMA suggesting a link between "Brain disease and urban violence." Their call turns out to be for "intensive research and clinical studies of individuals committing the violence to pinpoint, diagnose and treat ... people with low violence thresholds before they contribute to further tragedies."

1968 – Leonard's periodic hospitalizations for episodes of disruptive behavior become increasingly routine.

1968 – Dr. Martin Luther King, Jr. is assassinated; Robert F. Kennedy is assassinated; Police Riot at Democratic National Convention in Chicago

1969 – Leonard absconds from CA VA hospital; apprehended by Nevada police outside Las Vegas; he is held at NV VA for a while before being returned to CA.

1970 -- Mark and Ervin publish *Violence and the Brain*; The book (of which you have read some of the relevant passages) includes several "case studies" One of these introduces us to the patient "Thomas R." He is described as a brilliant engineer with

several important patents to his credit. However, he is also described as episodically violent towards his wife (and potentially to others) due to previously undiagnosed "limbic brain disease"

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1970 -- With his repeated re-hospitalizations becoming routine, Leonard is already well-embarked on what will become his lifelong career as a chronically hospitalized mental patient.

The book very sketchily alludes to supposed facts in Leonard's personal and professional life (home life and work life). The account ends on an extremely hopeful and positive note, with the claim, in effect that Mark and Ervin have achieved a complete cure of his principal presenting complaint. (Translation: he's no longer violent towards his wife or anyone else).

By all other accounts, however, this picture of his condition is simply false. In fact, Leonard's personal and social condition has been worsening. Now he is severely disturbed, severely brain-damaged, a socially incompetent, psychologically impaired man in his late 30s who has become, since the operation, increasingly episodically violent.

1970 – Ohio National Guard forces massacre protesting students at anti-war rally at Kent State University.

1971 -- Peter Breggin, MD., a Washington, DC psychiatrist and well-known critic of psychosurgery, has read "Violence and the Brain." He does a bit more research and locates the patient, "Thomas R." at his mother's and step-father's house in Long Beach CA. After interviewing Leonard Kille and his family, Breggin publishes his conclusion that the brain surgery performed on him at MGH has rendered him incurably incompetent.

1973 -- Medical malpractice suit is filed on behalf of Leonard Kille by his mother and legal guardian in Boston Superior Court. Vernon Mark and Frank Ervin are identified as the defendants. The defendants' legal counsel is a distinguished senior Boston attorney. The plaintiff's attorney is from a large and prestigious DC law firm.

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1973-78 Lawyers for plaintiff and defendants prepare cases; Leonard Kille is deposed under oath; describes treatment and after effects.
1974 – Jose M.R. Delgado continues to promote brain control as a basis for social control.
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1978 – More than a dozen years have passed since Leonard's discharge from MGH. For most of the last decade, he has been a chronically hospitalized mental patient at the Bedford (MA) VAH.

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Fall, 1978 -- Six weeks trial in Boston courtroom fails to prove malpractice; proceedings end in acquittal of defendants on all charges.

1990s – Charges of predatory sexual behavior involving Catholic priests. One of the accused is Father Paul Shanley – Leonard and Janice Kille's pastor in 1965 and the one who recommended to them that they take their (then) recently divorced fellow-parishioner, Robert Dirkman into their house as a tenant.

1993 – Leonard Arthur Kille Dies; Age 60, at Bedford VAH.

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