Motives and triggers for actions are sometimes murky. The action itself may be clear—Jack Ruby shot John F. Kennedy’s assassin, Lee Harvey Oswald. No question. Newspaper photographers, eyewitnesses on the spot, television cameras, viewers at home could all testify that Ruby was guilty. His reasons for the killing were confused, but the issue crucial to his defense was not why—it hinged on the following question: Did he know the difference between right and wrong?

I was in the service at that time, stationed at Scott Air Force Base, and to me, Kennedy had been more than the President—he had been our commander-in-chief. I was overwhelmed as I watched the numerous television replays of his assassination by Lee Harvey Oswald. Two days later—it only seemed moments—Oswald appeared on live television escorted by sheriff’s deputies through the basement of the Dallas police headquarters. Suddenly, a heavyset man, wearing a dark suit and a light gray fedora, stepped forward holding a 0.38-caliber pistol. The country watched as Jack Ruby killed Oswald on a Sunday morning.

Some months afterwards, I was one of eight Air Force neurologists who met at Wilfred Hall Hospital in San Antonio. The featured dignitary and speaker for our meeting was Frank Forster, the chairman of Neurology at the University of Wisconsin and a consultant to the surgeon general of the US Air Force. He was scheduled to conduct a seminar on epilepsy, an area of neurology for which he was renowned. A year ago, I had been his resident at Wisconsin and was excited to see him again.

Frank loved drama. He had a towering physique that made him appear as imposing as a football lineman but his manner was gentle and kind. He invited us all to join him at the front of the classroom as he unpacked his bulging brief case and carefully unfurled an EEG on the long table.

“This is Jack Ruby,” he announced. He immediately had our attention. We gathered close to get a good look. “I’ve been asked to testify at his trial in Dallas. Ruby says he doesn’t remember shooting Oswald and his attorneys maintain that epilepsy is a player or, at least, that’s what his attorneys intend to establish. They say he committed the act during an epileptic seizure and that an abnormality on this EEG taken while he was in prison proves he had one.”

The real question was could his attorney, Melvin Belli, convince the jury that Ruby did not know the difference between right and wrong and had he realized the nature and consequence of his action. This was the basis of the M’Naghten rule that represented the legal precedent defining insanity in the state of Texas.

We clustered around Ruby’s EEG, examining each page carefully, as Frank slowly leafed through them. The Ruby trial was still a few weeks off and we had been taken aback at having his EEG laid out in front of us.

“These short bursts of six per second activity arising from the temporal lobes are the real issue here,” Frank said, a soft smile appearing beneath his black bristly mustache. “Frederick Gibbs will be the star witness for the defense—he and William Lennox pioneered EEG at the Boston City and he thinks this forms the basis for a diagnosis of psychomotor variant epilepsy. He’s written a lot about it. What do you think about them?”

There was a long silence before one of my colleagues said, “It just looks like some non-specific slowing.” The rest of us nodded our heads in agreement.

A few weeks later, Frank and other leading neurologists and psychiatrists of the day made their appearances on the stand in Dallas. Martin Towler, professor of Neurology and Psychiatry at the University of Texas Medical Branch, was an expert witness for the defense early in the trial.

“I found what we refer to as paroxysmal discharges of five to six per second, slow wave activity . . .” Towler said. “That is an abnormal finding in an EEG.”

In reviewing Ruby’s neurologic history, Towler added, “During the course of our routine history, he [Ruby] described some rather unusual situations . . . ‘prickling sensations in the head,’ . . . spells of uneasiness, . . . and feelings of strange familiarity.”

Belli finally asked after Towler’s prolonged testimony: “What was your clinical opinion?”

On the basis of the history of the ‘spells,’ described by the subject as well as the abnormal encephalographic recordings, it is my opinion that the subject is suffering from a seizure disorder. This type of seizure disorder most accurately falls into the category of a ‘psychomotor variant.’ This type of seizure phenomenon has recently been described by Dr. Frederick A. Gibbs et al. in the December 1963 issue of Neurology . . .”

Towler and Gibbs agreed on the interpretation...
and significance of the EEG findings. Gibbs testified that psychomotor variant epilepsy did not have a clinically defined presentation. "The symptoms are too diverse to allow a clinical diagnosis." The diagnosis of psychomotor variant, Gibbs told the jury, is based on the electroencephalographic pattern which he said was just as distinctive as petit mal and grand mal. He maintained that Ruby had this, as he termed it, "very rare type of epilepsy." Gibbs demonstrated what he said was evidence of this seizure type by pointing out a brief burst of notched six per second waves arising from the right temporal electrodes and he further testified that this was associated with personality instability—"lack of emotional control, convulsive and excessive types of behavior."

Dr. Manfred S. Guttmacher, a psychiatrist on the faculty of Johns Hopkins and University of Maryland Medical Schools, testified as to Ruby's personality disorder, which Belli attempted to tie to the psychomotor variant epilepsy. Almost the first question Belli asked him was, "Do you have an opinion as to whether he [Ruby] knew the nature and consequences of his act, the difference between right and wrong. . .?"

"I don't think he was capable of distinguishing right from wrong and realizing the nature and consequences of his act at the time of the alleged homicide."

Belli was making his case early during the medical testimony—that Ruby had a seizure disorder and that he was unable to distinguish between right and wrong at the time he shot Oswald. Guttmacher would not, however, connect the two. Rather, he spoke to Ruby having "a disruption of his [weak] ego" and "temporary very short-lived psychotic episode" during the Oswald shooting.

Guttmacher described Ruby's tumultuous personal history. His father was "a drunken immigrant carpenter who tyrannized his family. Ruby's mother had a paranoid psychosis and he grew up in a series of foster homes. Ruby had a lifelong history of extreme emotional instability, outbursts of aggression, marked mood swings, and impulsivity." There was "a voracious need to be accepted and admired...particularly by individuals in positions of authority and great social prestige...ranging all the way from police to presidents." Deprived of love from both parents, he had "intense psychosocial conflict leaving the patient to be constantly asserting his masculinity by fighting, sexual promiscuity, and body building exercises. . ."

On the day of Oswald's arraignment, Ruby, upset about Kennedy's death, joined a crowd at the police station when Oswald was being transferred to the county jail. In Guttmacher's subsequent interviews with Ruby, he noted Ruby's astonishment at seeing Oswald between two guards and Ruby's comment, "He looked cunning and vicious, like an animal, like a Communist. I felt like I was looking at a rat."

Guttmacher ultimately testified that Ruby shot Oswald during a fugue state—during a time that he did not know right from wrong—and that "it's impos-

sible to tell...whether this man was in a psychomotor epileptic attack at the time."

Unlike Guttmacher's, Frank Forster's opinion regarding Ruby shooting Oswald during a seizure was unambiguous. He viewed the six per second theta activity as a "slight abnormality" and not indicative of a seizure disorder.

"Doctor, will you tell us what psychomotor epilepsy is?" the state's trial attorney asked.

After giving the definition, Frank asked, "Would it be proper to give an example?"

"I have no objection," attorney Belli responded.

Frank painted a picture. An "excellent example was a school teacher who was, of all things, a civics teacher, and he was on the stage of the high school, the auditorium was filled with the student body, the Stars and Stripes were proudly displayed, the school band played the national anthem, and everybody stood and sang, all except the civics teacher. At this moment he remained seated in his chair, moving his arms from side to side and moving his lips, and in one of the more dulcet parts of our national anthem, he could be heard saying, 'God damn it.' When he was finished he knew that something had happened, but he didn't know what. But by the reaction of people around him he knew it wasn't good. Now, here was psychic activity in the anger and the verbalization, the overactivity and the restless movement...It was purposeful but it couldn't have been more irrelevant."

Frank was getting to the heart of the problem.

"Doctor," the state's prosecuting attorney continued, "let me ask you a hypothetical question...Suppose a person were standing on the edge of a crowd, had to make his way through at least one line of the crowd in order to draw a gun and shoot a moving man who is at least ten feet away when he first saw him, was a—made some explanation as 'you rat s.o.b., you shot the president' or 'you s.o.b.,' was immediately apprehended and within two minutes said something to the effect 'I intended to kill him' or—either that or 'I hope the s.o.b. dies' and then within three minutes said, 'I thought I could get off three shots, but you guys stopped me' or words to that effect. I'll ask you if, in your opinion, that person could have been suffering from psychomotor epilepsy at the time that he did the shooting?"

The jurors watched intently as Frank, a seriousness of purpose indelibly imprinted on his face, said without hesitation, "No."

On March 14, 1964, the jury convicted Jack Ruby of killing Lee Harvey Oswald and sentenced him to death. The conviction was later overturned; the Appeals Court agreed that Ruby could not receive a fair trial in Dallas in view of the excessive publicity. He died of cancer 3 years later while awaiting a new trial. "Psychomotor variant" is now referred to as rhythmic temporal theta bursts of drowsiness and, as a type of epilepsy, has become a historical footnote.