



Questioned Documents Section – 2007

J7 “Watch That Step!” A Traumatic Injury Results in the Need for a Right-Handed Writer to Learn How to Write With the Left Hand

Carolyn M. Bayer-Broring, MFS*, Immigration and Customs Enforcement, Forensic Document Laboratory, 8000 Westpark Drive, Suite 200, McLean, VA 22102-3105

The goal of this presentation is to document a case study of an individual forced by injury to learn how to write “wrong-handed” (using the unaccustomed, in this case left, hand) and to demonstrate to attendees the process of an adult re-learning how to write.

This presentation will impact the forensic community and/or humanity by illustrating the ability of an adult writer to learn how to write “wrong-handed” and then to re-learn how to write with the dominant hand. Future studies on traumatic injury and its effects on the ability to write with the dominant hand may provide additional insight into similar cases.

On December 15, 2005, a fifty-year old female fell down a flight of stairs and suffered a traumatic compression injury of her right wrist. On December 16 the woman underwent surgery to install a “T”-plate and screws in the wrist and to install an external fixating device to stabilize the wrist.

Prior to sustaining the injury, the woman’s dominant writing hand was exclusively the right hand. In her cursive writing she displayed a measured, classic copybook style of writing based on the Palmer method that she recalls learning in second-grade while attending elementary school in Fairfax County, Virginia in the 1950’s. She observed that her mother has “beautiful” cursive writing and that she writes exclusively right-handed. Her father (deceased) was left-handed with “beautiful” cursive writing that was very vertical in its appearance. She has two siblings, both of whom are right-handed.

Due to the injury, the presence of the external fixating device and the need for total rest of the damaged hand, the woman was forced to write exclusively with the left hand for a period of time. The night of the injury was the first occasion writing with the left hand, having been forced to sign her name with the left hand while still in the emergency room of the hospital. Prior to sustaining the injury, she never consciously tried to write with the left hand, aside from the occasional childhood attempt to try to write with the “wrong hand”. One curious observation was that she claimed to have been able to write upside down with the right hand prior to the injury. It is not known if she still has that ability.

Subsequent to the surgery, she continued out of necessity to write exclusively with the left hand for approximately 40 days. The external fixator device was removed on January 14, 2006, a splint was utilized to stabilize the wrist, and six weeks of physical therapy were prescribed. By January 30, 2006, the woman documented her first attempts at starting to use the right hand to write again, still aided by the splint and physical therapy. During this recovery time she still wrote with the left hand primarily. By February 14, 2006 the woman was predominantly using the right hand for writing, occasionally switching to the left when pain or fatigue was felt in the right. At this point, she was experiencing difficulty re-gaining lost flexibility in her thumb and pinky fingers on the right hand and was not always able to properly support a writing instrument when trying to use the right hand. She also found it difficult and painful to exert pressure with the right hand, such as that experienced when writing checks that use carbons.

Throughout the course of her recovery, the woman provided periodic handwriting samples for this study, using both the left and right hand, to document the process of learning how to use the left hand and documenting the process of perfecting the left handed, and subsequently the right handed, writing. When asked about the current ability to use the right hand versus the left, she states that she is mostly right handed but still can use the left and does so more often than before sustaining the injury. She states that she uses the left hand when it makes it “easier” to do so. She has observed that she now has the ability to use the right hand to scan a document such as a chart or spreadsheet while using the left to write notes, and that this ability is not something she remembers having prior to sustaining the injury.

Compression Injury, External Fixating Device, Dominant Writing Hand