

Patients with temporal lobe epilepsy (TLE) often demonstrate memory dysfunction in the setting of otherwise normal intelligence. Though anterograde memory deficits are well documented in patients with epilepsy, the extent to which remote/retrograde memory deficits occur is less clear. Many assessments of remote memory utilize news events with such frequency of exposure that they have become embedded in semantic memory. This study utilizes the Transient News Events Test (TNET) to assess remote memory loss in both healthy controls and subjects with epilepsy. The goals of the project are to provide normative data for an updated version of the TNET in healthy controls, as well as compare task performance to epilepsy patients in order to determine the effects of epilepsy-related factors on these types of memory tasks. The TNET uses stimuli consisting of popular news events that were prominent in the media only for a limited period of time. Items were drawn from the New York Times Archive. Each event appeared briefly in the news, then declined in frequency of reporting over the subsequent 3 years. Items were then grouped by hemidecade (a period of five years), such that remote memory would be tested for distinct periods (i.e., 2012-2016). This study presents an updated version of the TNET since it was last updated in 2013. Questions in the TNET span from 1966 to 2016. We expect that participants will demonstrate better recall of recent versus remote events, that total free recall scores will increase as age of the participant increases, and that subjects with epilepsy will perform poorer than the healthy control group. Ultimately, we may be able to better capture the day-to-day memory difficulties experienced by epilepsy patients. If deficits in remote and prospective memory are found, this may have implications for 1) the types of tests that should be incorporated into clinical batteries, 2) how we counsel patients about post-operative deficits, 3) how we identify patients at risk for these types of memory loss (e.g. patients with certain seizure types or EEG signatures), and 4) better targeted treatment/rehabilitation strategies. By working on this project, I am able to contribute to the field of neuroscience by developing tools to test memory in epilepsy patients, which can later be used to develop better treatment strategies. I spend approximately 8 hours a week at the lab, during which I independently recruit, screen, and test both control and epilepsy subjects. I conduct my own data analysis and am in the process of creating a poster presentation. Due to COVID-19, the recruitment and testing processes will be done remotely via phone and video conferencing, and all other aspects of the study can be kept the same.