

Introduction

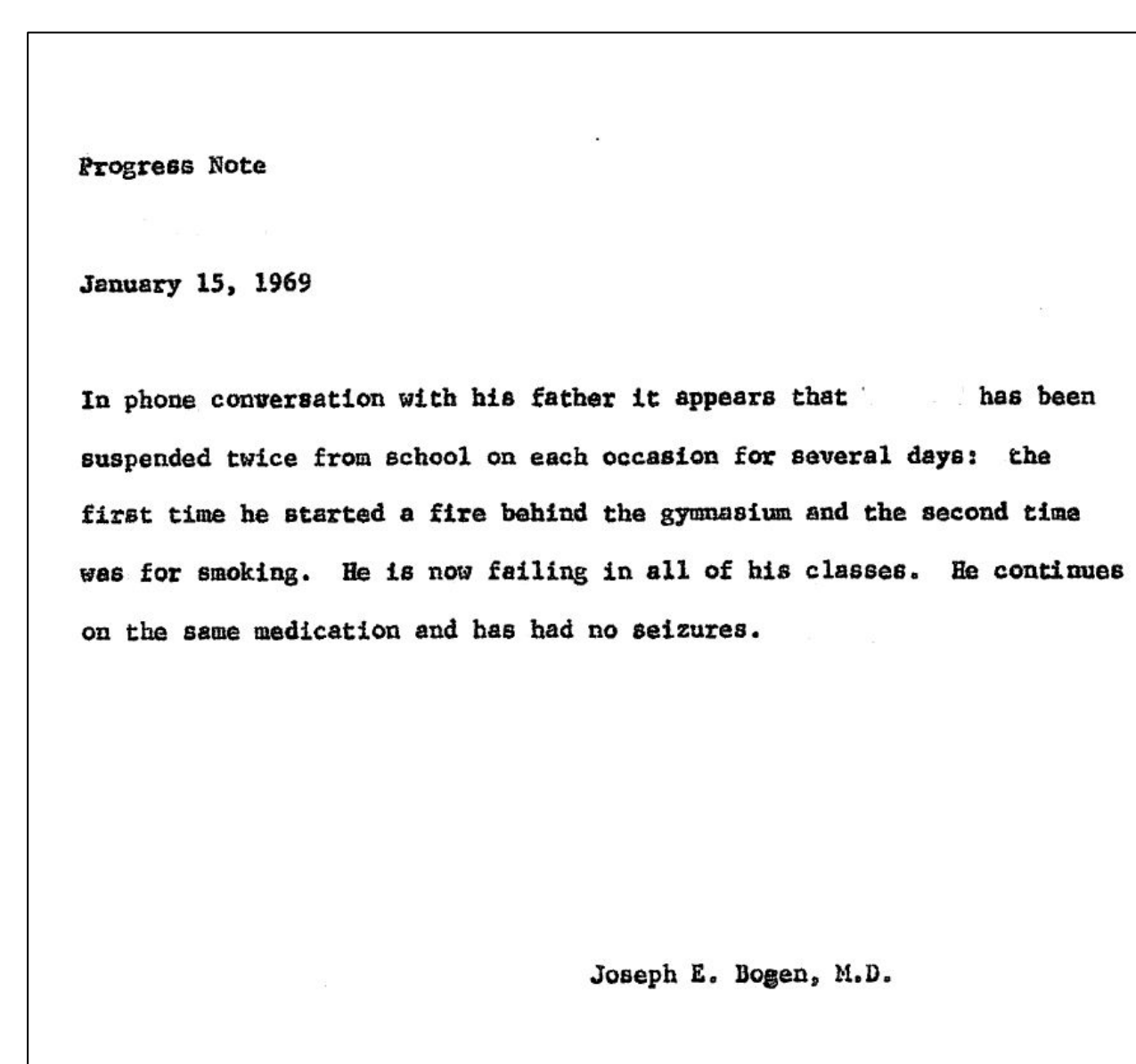
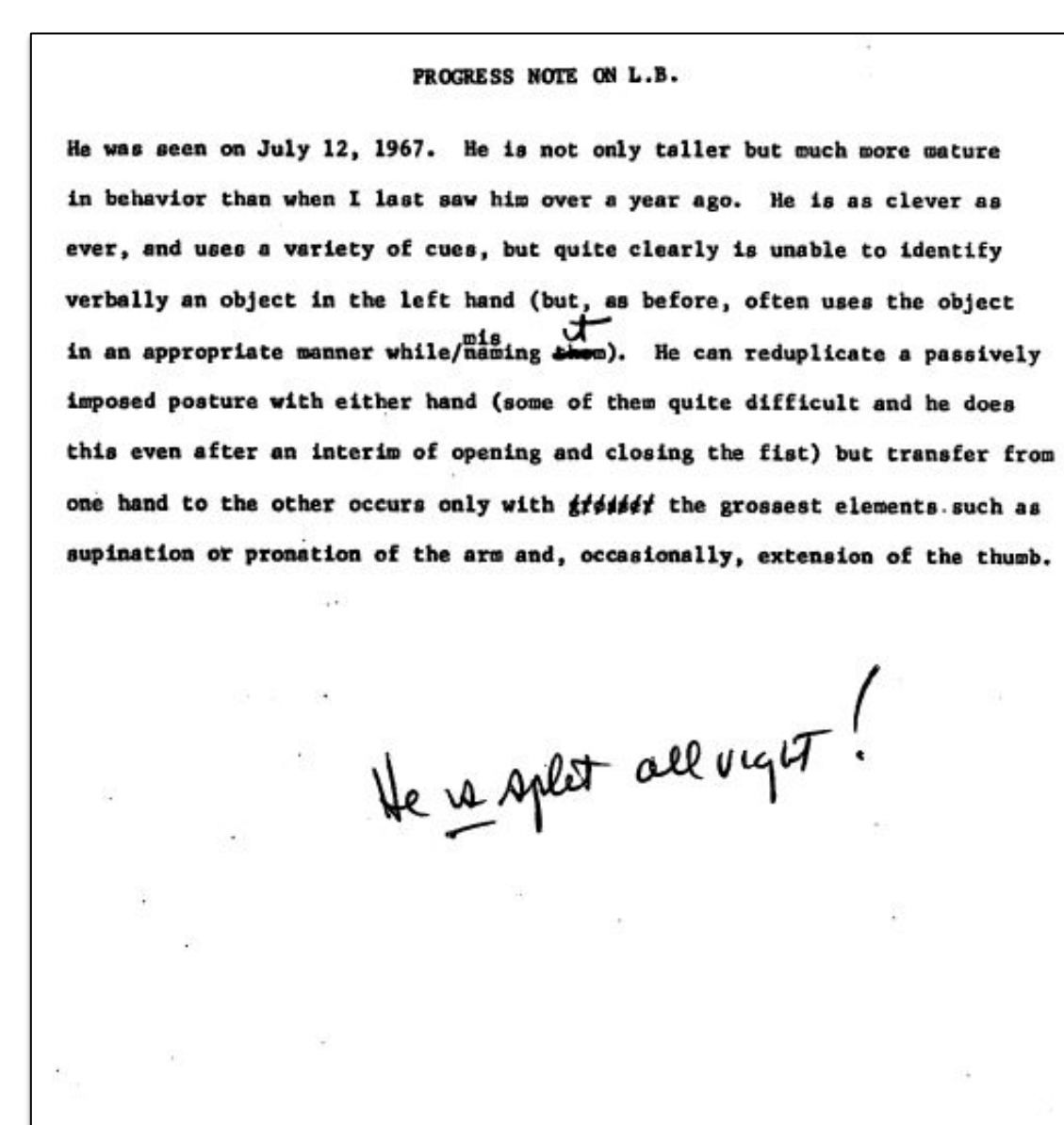
Roger W. Sperry was the first psychologist awarded a Nobel Prize. Sperry received the award in Physiology or Medicine in 1981 as a result of his work in split-brain research, which was the culmination of his other endeavors in neurospecificity, equipotentiality, and consciousness (Puente, 2016).

Projects pertaining to Sperry's lifetime achievements have been completed by students from the past 30 years of History of Psychology courses at UNCW. In the spring of 2016, a Sperry seminar was established through which students had access to Sperry's personal materials, such as recordings, correspondences, neuropsychological testing and surgery notes, videos and publications.

Roger Sperry's published research contains data from only three patients, and primarily focuses on one patient - L.B. However, recent studies found that a total of 42 patients were involved in the split-brain research overseen by Sperry.

Procedure

- This study reviews Sperry's most cited patient - LB
- Archives provided by Antonio E. Puente and Norma D. Sperry aided in this study. Reviewed material included, but was not limited to:
 - Progress Notes
 - Testing Record Forms
 - Case History
 - Preoperative Psychological and Neurological Observations

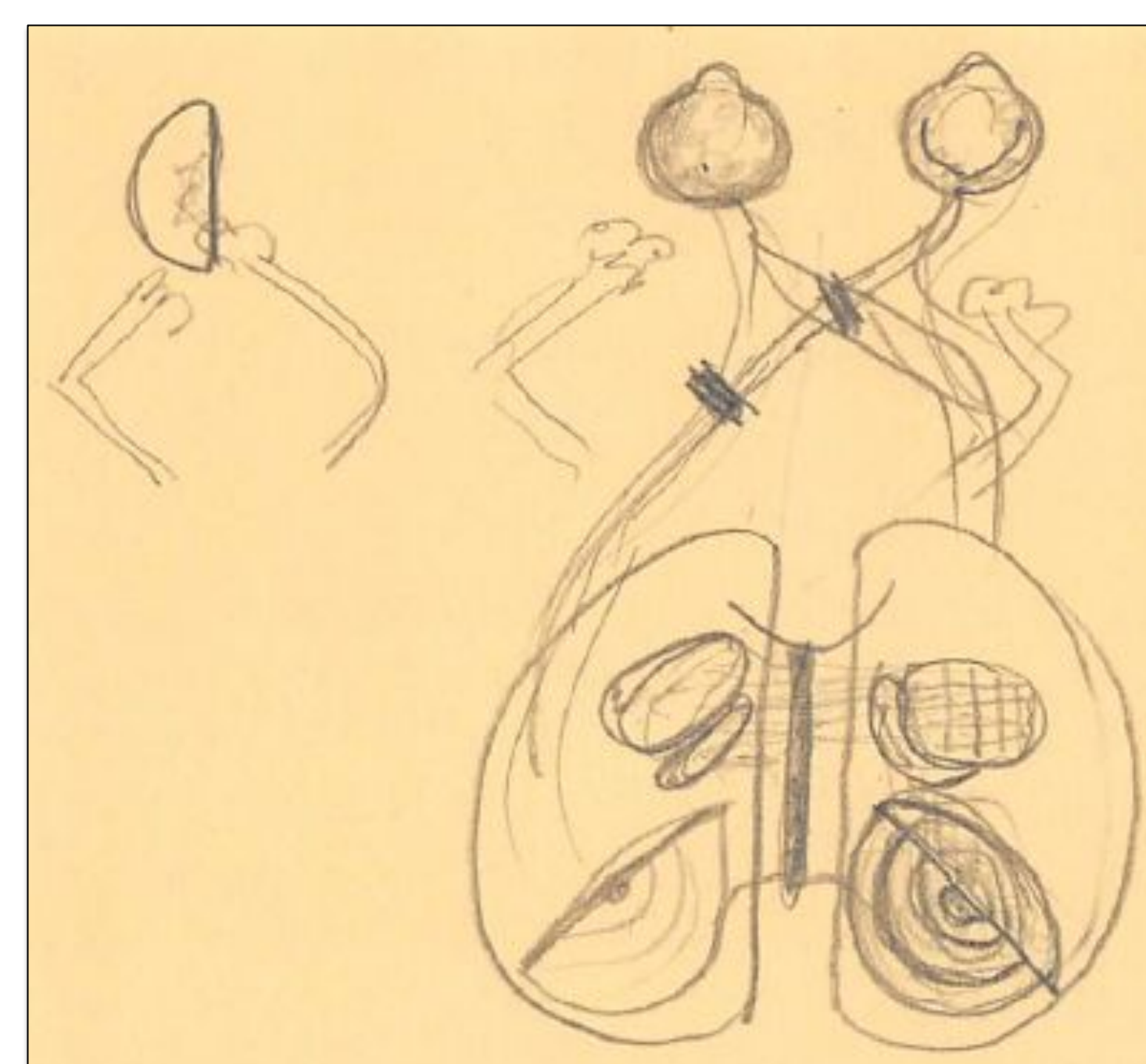


Pre-Commissurotomy

- First seizures at the age of three; became more frequent and severe with age
- Failing all subjects in school the year prior to surgery although he had an IQ of 115
 - had over 50 generalized convulsions during that year while taking phenobarbital, Mysoline, and Elipten
- General speech impediment associated with a slight slur to some words.
- No issues reading a passage full of terms not ordinarily read by a twelve year old boy; his pronunciation was fine.
- Drew Necker cubes and wrote with either hand; He aspired to possibly be a cartoonist.

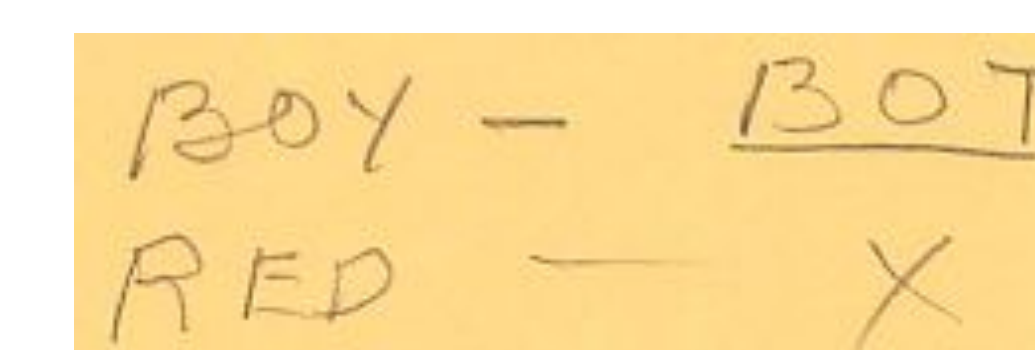
Post-Commissurotomy

- Spoke readily on first post-operative day
- Was ambulatory and well oriented by fifth day
- Three years post-operative:
 - Three generalized convulsions
 - Eight left-sided Jacksonian episodes without loss of consciousness
- Inability to verbally describe things held in left hand out of vision and inability to describe visual stimuli in left visual field



Post-Commissurotomy (cont'd)

- Two numbers were flashed simultaneously in L. and R. fields
 - Could not add, but could signal each correctly with each hand
- Could multiply two numbers presented in L. visual field, but did not know what numbers they were
- Could spell 3-letter words with L. hand and sometimes write out correct word, but could not speak it



- Had trouble feeling a 3-D letter with L. hand and it with R. hand



Discussion

- Roger Sperry's published research chiefly cites three patients, and primarily focuses on one patient, LB. In essence, one patient defined the basis of Sperry's Nobel Prize.
- LB was only 12 years old when he underwent his cerebral commissurotomy, which made him one of the youngest patients.
- This study focused on the case of LB. It should be noted that based on previous investigations, there were at least three other patients with identical initials.

Acknowledgments

- These findings represent the collaborative work of many students and colleagues over many years; additionally, they represent a constantly growing body of knowledge which will be added to as new information regarding LB.

References Cited

Puente, A. E. (2016). Nobel Prize. Retrieved August 01, 2017, from http://rogerssperry.org/?page_id=200.