What questions, if any, does the surgical procedure known as hemispherectomy raise about personal identity?

Hemispherectomy involves the removal of half a brain, which raise questions on whether is the person still the same after the procedure, as the brain is in charge of cognitive functions such as memory and decision making1,2. In adults, hemispherectomy is observed to have led to memory losses3. According to Locke, personal identity requires psychological continuity which memories is required for linkage to the past.4Thus, an adult with the inability to remember the past after the procedure may not considered the same person. On the other hand, the article states that the procedure has no apparent effects on personality changes or memory in children because of the plasticity of the brain to develop and cover the functions of the removed portions of the brain. This raises doubt whether is it possible to have 2 of the “same person” as it is possible to transplant one half of the brain into another person, while still retaining mental continuity in both person who has half a side of the brain5. As these two person will act and think differently, this gives rise to another question to whether both should be considered as the same person as they clearly contradict one another.6

(200 words)

1. Cognitive Brain Function, Traumatic Brain Injury, TBI. at <http://www.brainandspinalcord.org/brain-injury/cognitive-brain-function.html>

2. Mastin, L. Parts of the Brain - Memory & the Brain - The Human Memory. *2010* at <http://www.human-memory.net/brain\_parts.html>

3. Spreen, O., Risser, A. H. & Edgell, D. *Developmental Neuropsychology*. 332 (Oxford University Press, 1995). at <http://books.google.com/books?id=OPy2IPWaAW4C&pgis=1>

4. Nimbalkar, N. John locke on personal identity. *Mens Sana Monogr.* **9,** 268–75 (2011).

5. Stich, S. P. & Warfield, T. A. *The Blackwell Guide to Philosophy of Mind*. 361 (John Wiley & Sons, 2008). at <http://books.google.com/books?hl=en&lr=&id=NEGK\_ZStddkC&pgis=1>

6. Olson, E. T. Personal Identity. *Stanford Encycl. Philos.* **Winter 201,** (2002).