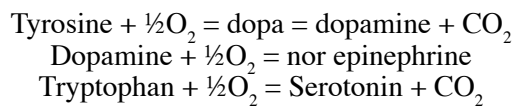


## Theory of acquired relative sensitivity as the sole cause of mental illness

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The theory outlines the cause of mental illness as due to decreased neurotransmitters synthesis during early fetal life, caused by placental clot(s) that in turn cause fetal hypoxemia and acidosis, the net result being altered relative sensitivity of the neurons to neurotransmitter(s). The events are as follows: Placental blood clot(s) cause low oxygen ( $O_2$ ) and high carbon dioxide ( $CO_2$ ) in the fetus. This decreases neurotransmitters formation of dopamine, serotonin, and so forth, depending on the period of fetal development. As the formulas reveal below<sup>1</sup>:



Consider, when your income decreases, you become more sensitive to price levels at the supermarket. So, the fetal neurons become more sensitive to dopamine, for example, and you treat schizophrenia with dopamine antagonists (at the D2 receptors.) Further, the drug fenfluramine releases serotonin, and thus causes increased anxiety in patients with anxiety disorders,<sup>2</sup> confirming the more sensitivity theory again, in this case to serotonin.

It is probably between the sixth week and twentieth week of pregnancy that placental clots can cause mental illness. It is called the critical period of fetal development in this context. Each week here matters and can cause a different type of illness, but some overlap is possible. Exact details are impossible because you cannot research a fetus and its placental clots while in the uterus. Thus, the cause of mental illness has nothing to do with genes or Freud's imagined childhood conflicts, rather it is acquired intrauterine. Placental clots had been totally ignored as a cause of disease, and their possible role in other medical disorders should be investigated. Einstein offered the theory of Relativity in physics; I offer the theory of Relative Sensitivity in neuroscience.

Further support comes from the following data:  
1. Carbon dioxide inhalation or lactate infusion precipitates a panic attack in a patient with panic disorder.<sup>2</sup> The theory explains this easily: It recreates the deleterious chemical environment of the fetal trauma, the neurons sense it, and panic, as they did in fetal life. As the placental clots cause (a)  $CO_2$  rise, as the placenta can not hyperventilate like a lung. (b) Hypoxemia, which results in glycolysis and lactate formation.

2. The concordance rate (CR) among monozygotic (MZ) twins for schizophrenia is 50%,<sup>3</sup> and that for generalized anxiety disorder is also 50%.<sup>2</sup> The theory can explain this data easily again: If the placental clots affected parts of the placenta linked to one fetus only, then solely that fetus will develop the disease. The same if the twin fetus have separate placentas, then clots could affect one but not the other fetus.

3. The failure of genetic research, despite decades of research, to identify the presumed culprit genes or chromosomes and modes of inheritance. This gives further support to my theory that establishes an acquired cause by logic and indirect evidence, similar to what physicists/chemists have used to prove the existence of atoms and electrons, which can not be seen by direct vision.

4. A recent article by Lin et al,<sup>4</sup> establishes a negative relation between neurotransmitter (NT) acetylcholine and neuromuscular synaptogenesis in utero: the NT negatively regulates synapse formation. This is similar to the negative relation between income level and sensitivity to price levels mentioned earlier. In other words, as NTs synthesis decreases due to placental clot(s), more receptors or receptor subtypes are formed, thus altering the relative number of receptor types on the neurons, postsynaptically, presynaptically, or both. This is a major mechanism of altered relative sensitivity.

5. Genetic causes would give a 100% CR among MZ twins, since the twins have identical genes. However, studies on mental illness show a CR much less than 100%, more around 50%. Placental clots explain this easily as mentioned earlier.

In conclusion, the preceding evidence overwhelmingly supports my theory. I propose the following advice to pregnant women: Stay calm. Most pregnancies proceed normally even if you live in a jungle. But, take a one year vacation from your job, or quit. An 8-hour work day is stressful psychologically and physically and could thus, predispose to placental clots by diverting some blood flow from the viscera. Housework routines are allowed, but avoid excess fatigue. Soft exercise like walking is allowed.

Addendum: A second possible mechanism of altered relative sensitivity could be due to configurational change in a critical protein within the neuron. I suspect this as a contributing mechanism in bipolar mood disorders since altered relative receptor types alone cannot explain the shift from depression to mania in the same patient. Multiple studies, have also reported increased numbers of dopamine D2 receptors in the striatum of schizophrenic patients.<sup>5</sup> Neuroscientists should thus focus their research on the correct target: fetal neuron mechanisms, and stop

chasing imaginary genes. Mental illness is acquired in-utero during brain development in the early fetal period.

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## Errata

The title of the manuscript by Alkali NH and Pullen AH in *Neurosciences* 2006; Vol. 11 (3): 135-139, should have appeared as follows:

“Activation of microglia in mice spinal cords following passive transfer of purified IgG from patients with amyotrophic lateral sclerosis”

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In the October 2002 (vol. 7, no. 4, 248-255) issue of *Neurosciences* an article was published by Muhammad Saeed, Khalid R. Murshid, Amin A. Rufai, Salah E. Elsayed, Muhammad S. Sadiq entitled “Sternalis. An anatomic variant of chest wall musculature”. Both Figure 1 and Table 1 drew extensively on material published in an article by Jeleu L, Georgiev G, Surchev L, The sternalis muscle in the Bulgarian population: classification of sternales, published in the *Journal of Anatomy* (vol. 199, no. 3, 359-363, 2001), without permission and due acknowledgment.

The Editors of *Neurosciences* and Drs. Saeed, Murshid, Rufai, Elsayed, and Sadiq wish to apologize unreservedly to Drs. Jeleu, Georgiev, and Surchev, and the *Journal of Anatomy*.