

FROM THE STUDY OF SCHIZOPHRENIA TO THE CREATION OF ALGORITHMS

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I.P.N. contributed the original idea, drafted the manuscript, and revised and approved its final version.

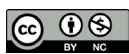
Towards the end of my undergraduate studies, I had to hand in a research paper on the genetic basis of a disease and I chose schizophrenia. One day when I was in the library of my faculty studying this topic, a colleague approached me and, when I told her about my work, she asked me something that I could not answer then with much certainty: is schizophrenia inherited? She told me that her father suffered from this condition, so she had a personal interest in this topic.

When I finished my bachelor's degree, I knew I wanted to pursue research in the biological basis of mental disorders. I looked for a thesis project in different institutions that would address such topic. In this way, I arrived at the Manuel Velasco Suárez National Institute of Neurology and Neurosurgery, where I was given an appointment with the research director, Dr. Camilo Ríos Castañeda. Dr. Castañeda told me that he had begun, in collaboration with Dr. Jesús Ramírez Bermúdez, research on a biochemical reaction that was believed to be altered in schizophrenia: the synthesis of nitric oxide. I accepted without thinking twice, it seemed like the ideal project for me.

To date, the collaboration with Dr. Ríos and Dr. Ramírez has produced numerous publications in scientific journals and books, as well as contributions to national and international congresses.

Dr. Bermúdez became one of my teachers. The son of a renowned writer, Dr. Ramírez is a prominent figure in the fields of psychiatry, scientific research, and literature. This recently led me to the publication of a book based on my doctoral thesis, which includes digital illustrations, reproductions of oil paintings and engravings, artistic photographs, and a foreword by Ramírez.

I am also an enthusiast reader. One of my greatest influences has been Gödel, Escher, Bach: An Eternal and Graceful Loop by Douglas Robert Hofstadter. Hofstadter's book awoke a tireless interest in symbolism in me. This led me to develop a project that aims to be a point of convergence between science and art: the creation of algorithms that allow converting texts into music. Such project, has produced eleven musical compositions to date. The most recent is based on the genetic sequence of a protein involved in Parkinson's disease: the monoamine oxidase B.



Perhaps because I am the son of a journalist, I consider the media coverage of science a very valuable task. I think it is unfortunate that for many years, the work and productivity of science researchers has not been recognized. In my opinion, close interaction between scientists and journalists is essential to access scientific knowledge in our society.

Events such as the Ibero-American Seminar on Science Journalism, organized by the National Council of Science and Technology (CONACyT), have focused on the specialization of journalists in scientific topics. However, there are few alternatives for training journalists in the coverage of science activities (see, for example, <https://somedicyt.org.mx/cursos-en-linea/>), although such events require coverage.

The book I published in 2015, which I mentioned previously, begins with an image that inspires me with many ideas: *The Visionary*, an oil on wood by Mauricio Soltero. The image is a character who lacks eyes but observes through his hands. In the future, I imagine the day when there will not have to be two separate national systems: one for science researchers and another other for art creators, but just one single system of intellectual creation. A system that includes those who do research in science or journalism, practitioners of any artistic discipline and, especially, those who transcend these labels in a multidisciplinary way.

Experience shapes the path of a researcher. Setting the beginning and the destination of a path is important to move steadily forward. However, many things are taken and left as one goes along. This can change the route one follows. In the realm of science, all paths are built anew every time one takes them.

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