

EDITOR'S NOTEBOOK/Bernard Rimland, Ph.D.

Autistic crypto-savants

Virtually everyone in the universe must by now have a clear mental image of autistic savant Raymond Babbitt, as the result of the extraordinary portrayal by Dustin Hoffman in *Rain Man*. While no current dictionary lists "autistic savant," there is little doubt that the term will appear in the reference books of the future.

Raymond Babbitt was patterned after several real-life autistic savants, so, fortunately, the public image fostered by *Rain Man* is accurate and valid—at least for the high functioning autistic savant. The picture is not complete, however, for there are autistic savants who are not high functioning. In fact, there are autistic persons with savant abilities so low functioning that no one knows their savant skills exist.

I have coined the term "autistic crypto-savants" to refer to those autistic individuals who, because of inability to communicate, or unwillingness to communicate, have savant skills which are hidden, or secret, and unknown to those around them, including their parents and teachers.

I will be writing more extensively on the subject of autistic crypto-savants elsewhere. In this brief article I wish only to mention the existence of the phenomenon, illustrate it with a few typical cases, and alert the autism community to the possibility that some low functioning autistic persons may in fact be crypto-savants waiting to be discovered by those insightful enough, and resourceful enough, to find them.

Case One: Michael M.

My first encounter with an autistic crypto-savant was anything but auspicious. Michael M. was a non-participating autistic pupil in a class for autistic children. Michael was non-participating for a very obvious reason—when the teacher asked him to participate in an activity, Michael's response was to strike himself hard on the face and ears, or to bite his hand. His face was a mass of callouses and bruises, and his hands were covered with bloody scars and scabs. His eyes were bloodshot. He had not spoken a word in his 10 years. His mother, who was active in the local autism society chapter, was the person taking me on a tour of the school, and she asked if I had any suggestions that might be helpful to Michael. The truth was that I'd seldom seen quite so hopeless a case, but I didn't have the heart to say so to the mother.

Imagine my surprise when I received from the mother a few weeks later an excited letter saying that Michael was now communicating, that he'd been tested and found to have an IQ off the scale, and that I would be hearing from his teacher before long. I felt that the poor mother had finally "gone over the edge."

Sure enough, a few weeks later I did receive a letter from his teacher, a psychology graduate student at a nearby university,

who explained that she discovered that Michael could type, and that she could communicate with him via typewriter. She sent me some sample conversations:

"Why did you hit Jimmy yesterday?"

"Because he kicked me while I was at the drinking fountain."

His teacher also had told me that she had given him the Peabody Picture Vocabulary test, and that he had answered all of the questions correctly!

A year later I met Michael's mother again and asked for an update. The mother told me the following story: She began to notice that after she washed the dishes, Michael would come into the kitchen, remove a small glass relish tray from the rack, and place it carefully at a certain spot in the dining room. She wrote Michael a note, asking why he did that. His written reply: "It is not just an ordinary glass tray. It is made of cut glass. It is an antique, and it is valuable."

His mother has no idea where Michael learned these things.

Case Two: Michael H.

Michael H., like Michael M., was a "hopeless" case who had never said a word. As I approached the principal's office, I could see Michael in the play yard riding a large tricycle. He had run the tricycle into a corner, and was unable to figure out how to back it up to get it out, so he continued to try to pedal it forward, grunting. He was 18.

After a few minutes' conversation with the school principal, she invited Michael in to join us. He sat at a desk, rocking and grunting. The principal turned to the huge bookcase which lined one wall. "Pick any book, and open it to any page at random." I picked the "B" volume of an encyclopedia set. I opened it to a page about bees.

"Now make up a multiple choice question based on the information on that page," the principal said. I picked a sentence that contained obscure information and wrote the following question: "The substance that a bee uses to make its sting irritating is: a) hydrochloric acid, b) nitric acid, c) acetic acid, d) formic acid, e) muriatic acid," etc. I think I wrote about eight different acids on the sheet, in large writing, as the teacher suggested. We then placed the open encyclopedia in front of Michael who glanced at it momentarily, then grunted. "He has read and memorized the page," said the teacher. "Show him your question." I gave him my question and he unhesitatingly circled the correct answer, formic acid!

We repeated the procedure on a few other pages, to make sure his answer was not merely a lucky guess.

It turned out that Michael had a strong interest in astronomy, especially cosmology, although no one knows where he learned of these subjects. Researchers at the computer

sciences department at a nearby university worked with him for a while, exploring and expanding his knowledge of cosmology, but then dropped the project.

Case Three: Joey B.

Joey B. was a six-year-old in the kindergarten of a school which has both autistic and normal students. Joey cannot, or will not, speak, but he is able to write, and his answers to the questions spoken to him are quite remarkable and show an amazing amount of information, and conceptual grasp, for a six-year-old. Joey communicates only by writing, and he communicates only when his teacher's hand is touching his.

His teacher wrote me about discovering his ability: "... when I was helping him copy a simple sentence, 'see the green ball,' ... I could feel his directing the pencil, so I released my grip and just held my hand on his and let him direct the pencil. He didn't even look at the words and finished the sentence ..."

The other teachers, not to mention Joey's parents, had difficulty believing Joey's accomplishments. Surely she must be guiding his writing! Joey's teacher was able to respond to this criticism by leaving the room, having several of Joey's classmates go through certain actions which Joey saw but she did not, then having Joey describe the classmates' actions by writing while the teacher's hand was touching Joey's hand. Since the teacher could not have written the answers herself, she was able to convince others that Joey was in fact writing.

Readers may be inclined to disbelieve this account of Joey's accomplishments, since it may seem that the teacher is actually guiding Joey's hand, and providing his answers. (I have encountered several other cases in the past, of autistic adults who could/would write only when their mother's hand was touching them. In one case, the autistic person was able to do algebraic problems when the mother's hand was touching his shoulder. She could not guide his hand by means of touching his shoulder, nor did she know algebra, so the case was convincing, although surprising.)

Joey's teacher has had a great deal of experience with autistic children, and is a kind and sympathetic person, which apparently helps Joey communicate through her. When Joey's teacher learned the family was being transferred to a different city, she asked Joey how he felt. "I don't want to move because I don't want to leave you because you can help me write and talk."

No one knows what proportion of non-communicating autistic persons have savant skills. The phenomenon is an intriguing one, and begs for exploration. Finding ways of reaching, and helping, these individuals is a real challenge that deserves much more attention than it has been given. Time to start!