A Balm in Gilead

Curing Autism
and
Awakening the Physicians

Mary W Maxwell, PhD, LLB

Keywords:
autism, retrovirus, lentivirus, immune dysfunction, Parkinson's disease, Ido Kedar, Michael Goldberg, MD, Williams syndrome, William Crofton, MD, pleomorphism

To Naoki Higashida,

in no uncertain terms

And, *in memoriam,* to George,

a man who was interested in everything

The harvest is past,
the summer has ended,
and we are not saved.
Since my people are crushed, I am crushed;
I mourn, and horror grips me.

Is there no balm in Gilead?
Is there no physician there?
Why then is there no healing
for the wound of my people?

Jeremiah 8: 20-22

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BERNARD RIMLAND'S QUESTIONNAIRE [abridged]

Does the child look through, or walk through people?
Does he refuse to drink from a transparent container?
Does he take an adult by the wrist to use the adult's hand to open the door, get cookies, etc?
Can he understand you, judging by the way he follows instructions?
Does he hide his skill or knowledge so you are surprised later on? Has he ever used the word "yes"?
Does he have an unusually good memory for songs, or TV commercials?
Does the baby rock in his crib?
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Does he like to spin a jar lid?
Does he whirl himself like a top?
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Does he line things up precisely in even spaced rows and insist that they not be disturbed?
Is he upset by things that are not right, like a crack in the wall?
Is he very good at jigsaw puzzles, or arithmetic?
Does he resist new clothes?
Does he react badly to being interrupted?
Does he adopt complicated rituals like putting dolls to bed in a certain order?
Does he get upset if furniture or toys are rearranged?
Is there a problem that makes him hit, pinch, and bite himself?

See website of Autism Research Institute for more information.

PREFACE

As explained in my Youtube video of March 18, 2014, I thought autism may be caused by a retrovirus. That will be the subject of Chapter 7. But this book is about more than that. It listens to any and all medical talk about autism.

Looking for the medical causes and cures is intellectually exciting, and, as you will see, it brings up many related unsolved problems. I sure hope doctors will jump in on the discussion. In particular, I aim to stimulate the interest of young scientists. If any of them wish to contact me about this I would be delighted.

The ten chapters below were written with the intention to publish it then and there. However, just after Chapter 10 was complete, I had the opportunity to pop up to the US, from Australia, for a second AutismOne conference. That led me to pay more attention to Michael Goldberg's views on virus. I also discovered the old pleomorphist William Crofton and decided that the book needed an Epilogue. You may wish to start with the epilogue!

In a way, this book builds on a study I published in 2013, *Consider the Lilies: A Review of 18 Cures for Cancer and Their Legal Status*. It presented the cures offered by reputable doctors, mainly pre-1950 ones that had been suppressed.

My degree in law supports two other books I recently wrote: *Prosecution for Treason*, and *Fraud Upon the Court*. From those titles you might guess, correctly, that I am on a bit of a mission. But in this book I bit my tongue whenever missionizing started to emerge. (The appendices section is not 100% mission-free however.)

ACKNOWLEDGEMENTS

I thank Craig Arnold for making a video on my mother's 100th birthday, which you can see on Youtube.com. (I heart Youtube.) I thank Shiva Jade Motlagh for giving me some hot tips in matters neuroscientific.

I thank the Age of Autism website folks for letting me squeak up on many an occasion. I thank Teri Arranga for producing an amazing conference in Chicago in 2013. I thank Ann Moyal for supporting unlettered scholars and I thank Johannes Gutenberg for giving us all a leg up. I thank Dee McLachlan for believing me. Oh, it's so nice to be believed.

Of course I thank the authors that I relied on in this study, especially Portia Iversen, Ido Kedar, Arthur Fleischmann, Robert Sears, Temple Grandin, Naoki Higashida, Alan Cantwell, Steven Ross, Vijendra Singh, Michael Gershon, Virginia Breen, SH Shakman, and Rush Dozier, Jr.

I humbly salute some brilliant physicians who are no longer alive: George Crile, Sr, Charles Creighton, Emanuel Revici, William Crofton, and Francis Pottenger.

I had better thank the American taxpayer for financing the treasure trove of medical articles online at Pubmed. And, as always, I am grateful for the magic resource of Worldcat.org, and abebooks.com, too. One wonders how one lived before surfing became possible.

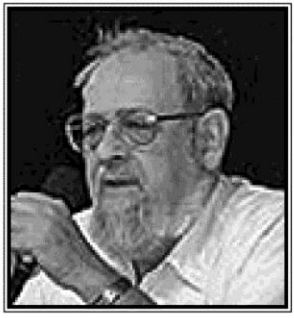
I offer the reader heartfelt thanks for reading me and ask him/her to please pass the book along to someone else, as that is the only way an odd item like mine can make it.

My kingdom for an Amazon review!

Mary W Maxwell Adelaide, 23 October, 2014

Caroline
born 2006

Caroline is a marvelous girl who has been trying many interventions. Her mother shares details at the website RegardingCaroline.com.



Bernard Rimland, PhD
(1928-2006)

A clinical psychiogist and father of an autistic son, Mark, Bernard Rimland founded the Autism Research Institute in 1965.

1. INTRODUCTION AND DEFINITIONS

This is a book about severe autism. Its purpose is to zero in on the heart of the matter, to find out why this odd illness arose in the late 1980s and has attacked both newborns and 18-month-olds in huge numbers worldwide

The book is not a guide for parents, nor is it an advocacy piece for the point of view of any individual or organization. It is an open inquiry. It can hardly provide all the answers the reader may wish for, but it at least performs the service of bringing together much data.

One autistic adolescent, Ido Kedar, has recently thrown a spanner into the works of autism research. He has blithely announced that the outward symptoms of autism are quite different from what he is experiencing. In other words, we onlookers are misinformed!

Ido, by the way, does not have Asperger's syndrome (which is not covered in this book). If you met him you would not call him a 'high functioning autistic.' He's in a state of severe autism outside, but inside is 100% normal! This odd fact has never been investigated. It is screaming for interpretation.

DEFINITION OF 'SYMPTOM'

Before delving into our topic, let's define two words.
The Oxford Dictionary gives this definition of *symptom:*
"A physical or mental feature that is regarded as indicating a condition of disease, particularly a feature that is apparent to the patient."

The word is derived from the Greek *sym,* with, and *piptein*, to fall. A symptom 'falls with,' that is, occurs alongside, something. Crinkled skin and stiff joints occur with old age. They are commonly called symptoms of old age. It's safe to assume that the 'problem' (old age) is the *cause* of the symptoms. Experience is a sufficient guide here: Year after year we see that persons who were not old, but then became old, started to get crinkled skin and stiff joints.

But be careful: a symptom might not only fail to guide us to the cause, it may mislead! We will see this in autism.

Note that there are *intermediary* causes of symptoms. Consider diabetes. Fainting is one of its symptoms. But there is no 'thingie' in the body, called 'diabetes,' that instructs the brain to make a person faint. Diabetes is a complicated affair involving the pancreas and the body's manufacture of glucose. It can result in dehydration. Typically it is the dehydration that makes the person faint.

Anyway, symptom is a vague word. Doctors often ask you to list your symptoms. It is helpful for them to know the *manifestations* of a problem.

Even if a diagnosis is made, that is not the same thing as finding the cause of the ailment. If you report a headache to a doctor you may be given a diagnosis of 'headache.' You may be advised to take painkillers. Yet the *cause* could be that you are under pressure from a workplace problem. Nothing has been done to eliminate that problem!

In this book, the word *symptom* means a manifestation. For example, autistic persons often manifest a lack of eye contact and a desire to repeat actions over and over. Of course lack of eye contact can be a symptom of blindness, too, and the desire for repetition can be a symptom of something other than autism, such as the syndrome known as OCD, obsessive-compulsive disorder. I think it's OK to say that those two things are "symptoms of autism," as long as the label does not

entail any further commitment as to "what is really going on." But if it makes us stop thinking about what's really going on, then 'symptom' *is* an unfortunate label.

DEFINITION OF 'DISEASE'

The American Heritage Dictionary of the English Language offers this definition of the word *disease:*

"An abnormal condition of a part, organ, or system of an organism resulting from various causes, such as infection, inflammation, environmental factors, or genetic defect, and characterized by an identifiable group of signs, symptoms, or both."

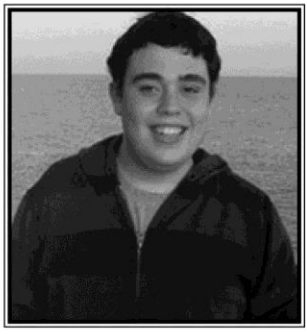
The word originally meant dis-ease, lack of ease, lack of what should be considered the normal state of health. How normal is good health? Probably much more normal than the media would like us to realize. For now just note that since autism is so new – it's been epidemic only for three decades – no one should be ready to give it a label. Practicalities – such as insurance coverage – may urge that we call autism a disease, but for intellectual reasons it's crucial to keep asking "What is going on here?"

Please ponder this 1953 remark by the great René Dubos (in an essay entitled "The Gold-Headed Cane"):

> "It is obvious that the 'normal' performance of any living organism demands a state of subtle equilibrium between its different component parts, as well as between them and factors of the environment. Any change is likely to disturb the balance of forces upon which depend the maintenance of the normal state. 'Disease,' said Virchow, 'is life under altered conditions.'"

Carly Fleischmann
born in Toronto, 1995

Carly Fleischmann is a student at University of Toronto, and a regular columnist, via her website, with advice for parents. She has "spoken" on the Larry King Live show.



Ido Kedar
born in Los Angeles, 1996

Ido Kedar does not suffer fools gladly. He is the author of *Ido in Autismland,* which he says is a pun on Alice in Wonderland. His goal is to help every autistic person.

2. THE IDO REVOLUTION

You almost have to throw away all previous writings on the behavioral syndrome that constitutes autism, thanks to a 2012 book by American high school student, Ido Kedar.
(The name Ido is pronounced Ee-doh. It's Hebrew.)

Ido, and at least two other teenagers, Carly Fleischmann of Canada and Naoki Higashida of Japan -- who were not in cahoots with each other -- have corrected many mis-understandings we had about severe autism.

In fact, for starters, we really should throw out the word 'autism,' since it derives from the Greek *autos* meaning 'self.' The self-absorption blithely attributed to these people can no longer be validated.

Validated? What do I mean by that? I mean that Ido, severely autistic, is in no way turned in on himself. If you met him you may well see him as turned in on himself. He looks away from you, not at you. He fails to mix with other kids, and so forth. But he explains it all, in his book.

Ido is no more turned in on himself than you or I. This central tenet of autism has been un-validated. Period.

Also, he hasn't got a deficit in language comprehension. He has mastery, superb mastery, of language – and that is despite his inability to utter a word. Sure, if you asked him to lift his right hand he wouldn't do so, and thus you would reasonably surmise that he did not understand you. But, again, you'd be wrong. He now offers a perfectly good explanation: it's a 'motor-output problem.' Ido's book is a happy shock to us all. Hallelujah!

There are also many other items on which the three teenagers set us straight. Before listing them I should say that I fully realize that three swallows do not make a summer. (Note: for some researchers, three thousand swallows are still 'anecdotal.') It's quite possible that Ido, Carly, and Naoki *aren't* very representative of the autism population. But let's hear them out.

MOTOR OUTPUT

The reason Ido does not follow instructions, such as "lift your right hand" is that his motor connection is blocked. This may cause him to be considered stupid, which then drives him crazy. The following quote from Ido's blog (February, 2014 when he was age 17) contains his sarcasm about the baby-like flashcards he was trained with, year after year, when he was yearning for some real education:

> "Here is what I would have told them, if I could have, when I was small. My body isn't under my mind's complete control. I know the right answer to these thrilling flashcards, unfortunately my hand isn't fully under my control either.
>
> My body is often ignoring my thoughts. I look at my flashcards. You ask me to touch 'tree,' for example, and though I can clearly differentiate between tree, house, boy and whatever cards you have arrayed, my hand doesn't consistently obey me.
>
> My mind is screaming, "Don't touch house!" It goes to house. Your notes say, "Ido is frustrated today." Yes, frustration often occurs when you can't show your intelligence, and neurological forces impede communication between mind and body, and experts then conclude that you are not cognitively processing human speech."

Carly says similar things and also mentions that she hasn't got the fine motor skills to even wield a pencil.

EMPATHY

We can put paid to the "Autistics lack empathy" business with any of several incidents reported in the books of our three teenager reporters, but I'll let Ido's obituary for his grandmother do the job here.

REST IN PEACE, OMA

My beautiful, wonderful grandmother died last weekend. She was, in the end, in a sort of cancer existence. The illness was eating her inside. She lost her ability to speak to others. She lost her ability to walk. She lost the ability to hold up her body. She lost her ability to eat food with texture. Being so helpless, she was graced with caretakers who were kind, hard-working, and loving. She was blessed with steady visits from family, who never resented the extra work.

I was observing this in my usual way. Relatives visited her often. She did the best she could to still be loving. I watched my mom sit near her bed and hold her hand. My grandmother swung their hands. She smiled, and smiled, and smiled.

Who wants to smile in her situation? She smiled to be encouraging to her visitors who showed calmness on the outside. She smiled, too, because she saw how devoted her children, and grandchildren, were. She was not alone.

My grandmother had a lot of alone in her life. An orphaned child sent to a strange land, she had to endure a lot. Why is it that despite her hard life she smiled, and laughed, and courageously faced her challenges? I see many people who face less and complain constantly. My beautiful grandmother chose to give life her all and not waste it in self-pity. Her legacy speaks for itself. She smiled until she couldn't anymore.

Now she is with God and I hope her parents are happy to embrace her once again. Their souls are reunited, and I am happy they are.

Rest in peace, my lovely, wonderful Oma. I love you.

-- idoinautismland.blogspot.com May 12, 2012

At her website, Carly Fleischmann answers questions:

1. Do you hum or spin? If so do you know what makes you do that? My son does it all day. Thanks.
A: It's a way 2 shut down all my other senses & just focus on one. Huming normaly is followed by covering your ear to change sounds. Its masking.

2. My Younger Brother has autism, he sometimes gets very frustrated and hits himself, what is the best way to calm him down?
A: We hit ourself for many reason. I hit myself 2 stop me from doing what I no is wrong. So if is the case don't stop it. Best way to help is to read us when we our getting frustrated and try
to calm us down before we get to that point.

3. My daughter is 3 & she's non verbal. She cries a lot cause certain sounds bother her. I don't know why. Do u maybe know why?
A: I my self hear a hundred sounds a minute. Lots of noises that other people tell me that they can not hear. We take many sounds all at once. For some of us certain sounds are much louder then others.

4. When stimming, what is going on? Is it relaxing, a need, defense mech., centering (proprioceptive)... ? I'll be watching in Aug.
A: Drs. Have the definition of stimming wrong. Stims are when you make or create output to block sensory input or over load.

5. What would you tell siblings of Autistics?
A: That we don't mean to steal the attention form them and we are sorry when we brake things and we do care for them.

6. Besides humming, hand flipping, etc… what kind of environment or activities calm you the best?
A: Flapping and humming and rocking does not calm me down it helps me cope with stuff around me.

-- Carlysvoice.com

FAREWELL, "THEORY OF MIND"

We can stop talking about auties' lack of empathy now. Naoki Higashida's backs Ido's intimation that's it's not a subject anyone should be planning to do a PhD on! Same for the notion that the autistic person can't put himself in another's place, and so can't guess his/her opponent's strategy. It was a good guess, but wrong-o, bigtime.

SOMA MUKAHOPADHYAY AND RAPID PROMPTING

I learned about the 'breakthrough' from Portia Iversen's book *Strange Son* (2007). She tells how her son, Dov, was able to come out of complete non-communication when he conquered the keyboard technique. He would never have conquered it on his own, thanks to a motor output problem, as mentioned above, plus a problem of needing a prompt to initiate an action. This was recognized by his teacher, Soma Mudhopadhyay, who is from India.

Soma invented the method of Rapid Prompting in order to help her son Tito (who has now authored several books, including poetry). Tito is severely autistic. His Mom filled him with educational facts, not knowing for sure if he could hear her, and then wrote letters on a page which he could point to, in order to spell words. The key to her success lay in putting pressure on him, to get him to do the pointing. Otherwise he stayed in a fog.

The pressure sometimes took the form of a squeeze of the elbow. Soma later taught Ido Kedar in California and he is extremely grateful to her. (She presently runs a school in Austin, Texas.) Some of her students have progressed to using an iPad, which speeds things up, both via 'word prediction' and by supplying a computerized voice. (You can hear Ido's make-believe voice at the Commencement speech he gave at Northridge High School, which *The Los Angeles Times* presents on a video, at Youtube.com.)

WHAT IS THE CORE OF THE AUTISM DISABILITY?

Because of the Ido revolution, it is now fairly easy to figure out what the brain malfunction consists of. In the next few pages I argue that a mere three items account for most of the strange behavior of autism: the motor thing, some issues of sensory integration, and the improper workings of short-term memory.

With the facts emerging from our three informants (and from Elizabeth Bonker, who will appear in Chapter 10 as yet another voice), we can stop talking about the seeming mental retardation of autistics, and their "naughtiness."

Here is Naoki Higashida on his actual understanding of instructions to *not* repeat what he has just done:

> "Somehow we just repeat the sequence. I've thought about how the sequence gets imprinted. First I do some action that I'm not allowed to do; then something happens as a result. My impulse to recreate this sequence trumps the knowledge that I've been told not to do it. I work hard to solve this problem but it costs so much energy. Maintaining this grip on myself is really, really, really tough. It's at these times that we need your help with patience, guidance, and love."

That's from page 135 of Naoki's book *The Reason I Jump* (published in 2007 when he was 15). On page 145 he offers an explanation of why he can't sit still:

> "When I'm not moving it feels as if my soul is detaching itself from my body [holy Christmas!] and this makes me so scared that I can't stay where I am. I'm always on the lookout for an exit, but I can never actually find my way there. I'm struggling inside my body, and staying still really hammers it home that I'm trapped here. But as long as I'm in a state of motion, I'm able to relax a little bit."

So much for the 'wilfulness' of outrageous behavior by auties! It can't be defiant, as it is not directed by the will. Also, Carly's Dad, Arthur Fleischmann, says Carly wakes at 2.00 am, ready to bound around with unbelievable energy. Imagine your sleep cycle being so screwed up!

MOTOR IS ALSO INFLUENCED BY MEMORY

I have not studied neuroscience, and therefore cannot get into the brain, either of a normal or an autie. But I'm able to relay the amazing information being provided. Carly says that her memory often takes 24 hours to work. That is how long it takes her to do sensory processing, which we normals do simultaneously with the sense perception.

She claims it accounts for her long delays. To a query sent to her website carlysvoice.com, she replied as follows:

Q. Carly, did you ever scream for what seemed like no reason? Like you showed a happy face, and everything was calm and relaxed, but you just start screaming? My daughter does it. Thanks!
A. I love this question. She is audio filtering and breaking down sounds noises and conversation throughout the day. Other than the screaming you might see crying or laughing fits and even anger. It's our reaction from finally understanding things that were said and done last min; last day; last month. SHE IS FINE AND TELL HER TO KEEP IT UP.

For a memory-motor connection, listen again to Ido:

"My short term memory is lousy. I am easily distracted from my goal. Maybe that's not memory. Maybe it's attention. I know it is a big problem. It always makes people mad at me. I am kind of lost in my head if I'm distracted. For example, if I am getting dressed sometimes I am fine and finish in a few minutes independently. Other times I am really spacey. I pace or flap or stare in space. I get one sock on, or only my pants, then I am in

a sort of trance, pacing half done with my task. Where do I go? I have no idea. It's bad because I need prompts to get things done often. If someone tells me 'Finish!' I'm like, 'Huh?' It's like I'm emptied of thought. I need to be reminded of what I was doing (2012: 88)."

[Note: Temple Grandin noted years ago that the reason she scored low on some tests was that her short-term memory prevented her from holding the first part of the test question in her mind as she read the second part.]

LET'S DISPENSE WITH THE SELF-INJURY IDEA

Many people in this world harm themselves, perhaps out of self-hatred, or perhaps because pleasure and pain are closely connected. Autistics do it, too, but for a different reason. It's the motor thing. They want to take a certain action, and if their CNS (central nervous system) won't play ball, they may try to act in reaction to that problem. Carly says she has to strike at her neck – which can be pretty dangerous – when she is frustrated. You can see a video of her head-banging in Youtube. Hard to watch!

Really there isn't much work left for psychiatrists in the autism field. All the 'peculiarities' are now seen to have a logical explanation. Bernard Rimland's questionnaire has an item that used to intrigue me: *"Does he take an adult by the wrist to use the adult's hand to open the door, get cookies, etc.?"*

Get ready for Naoki's explanation (2007: 83):

"In my gym class, the teacher tells me to do things like 'Stretch you arms!' and 'bend at the knees!' But I have no clear sensation of where my arms and legs are attached [Fathom it!]…I think the reason why some kids with autism try to get hold of an object by 'borrowing' someone else's hand is that they can't tell how far they need to extend their own arms to reach the

object… because we have problems perceiving and gauging distances. … I can't tell when I've stepped on someone's foot or jostled someone out of my way."

Hmm. I said we could boil all the issues down to three: motor, sensory, memory. Maybe we need to add another one for the "not knowing where my legs are" affair. However, the famous five senses are not the only senses. There's the proprioception that passes information around as to where we are. There are also our visceral senses. (How else would you know that your belly has wind?)

'LACK OF EYE CONTACT'

The famous autistic trait of lack of eye contact, often seen as indicative of a social communication problem – and indeed it can *cause* a deficiency in bonding – is not caused by psychological issues of sociality. It is indicative of the motor mess-up and the sensory mess-up.

Eye doctor Neil Margolis, OD, has identified many visual deficits that result in odd behavior. A tendency to have an abnormal balance of central versus peripheral vision can make a child walk funny, as well as spoil 'eye contact.' It may account for toe-walking. The child cannot see where he is in relation to the ground. (Providing him with prism glasses may solve the problem!)

When Carly watches TV she does not exactly watch it; she sits next to it. But then we must note that her visual problems are extreme. She has said that when she sees a face she takes a thousand pictures of it. That's reminiscent of Temple Grandin's report that she has inadvertently memorized everything she has seen. Some autistic persons also have photographic memory. But this, I believe, cannot mean that they have a talent the rest of us do not have. Nothing in the repertoire of the autistic persons is alien to me. I do not toe-walk, but I *could* toe-walk.

We should have thought of this, years ago! God did not make two separate human evolutions. All brains have the same wonderful capabilities. With variations, of course.

The books by Kedar, Fleischmann, and Higashida do show that we have just about everything in common, such as:

1. the need for self-confidence in order to perform well
2. the role of memory in carrying out a physical task
3. the language faculty's independence of speech (yes)
4. the brain's capacity for photographic memory
5. the way in which despair can turn bodily functions off
6. the emotional importance of familiarity and routine
7. the brain's search engine
8. the difficulty of initiating intentional action
9. the thirst for knowledge

You have simply got to read their books for their further insights on:

10. the desire to escape from unpleasant circumstances
11. the need for protection against uncertainty
12. the lure of what's out there (this includes wanderlust)
13. the integration of visual and audio sensory data
14. the unpleasantness of flashback memories
15. the ubiquity of anxiety in human life
16. the human sense of belonging to nature
17. the consequences of not expressing one's anger
18. the attractiveness of letters and symbols
19. the frustrating horror of having made a mistake
20. the reason why they want to swim.

The following is a page from Naoki Higashida's book that totally knocked me over. (He wrote it at the tender age of fourteen years.)

"I think that people with autism are born outside the regime of civilization. Sure, this is just my own made-up theory, but I think that, as a result of all the killings in the world and selfish planet-wrecking that humanity has committed, a deep sense of crisis exists.

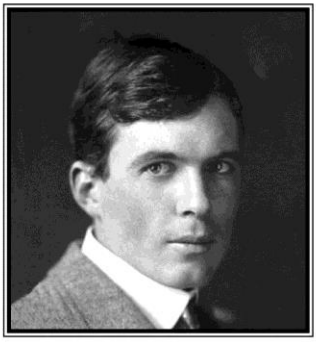
Autism has somehow arisen out of this. Although people with autism look like other people physically, we are in fact very different in many ways. We are more like travelers from the distant, distant past. And if, by our being here, we could help the people of the world remember what truly matters for the Earth, that would give us a quiet pleasure."

--*The Reason I Jump* (2007), page 151

Temple Grandin, PhD
born in Boston, 1947

Temple Grandin is a professor of animal science at University of Colorado and the designer of livestock equipment on many farms in US. She advocates devotedly for autistic persons.

3.



Lawrence Bragg, PhD
(1890-1971)
born in Adelaide

Sir William Lawrence Bragg is the youngest recipient of the Nobel Prize. He made it possible to see the structure of molecules, via diffraction. This helped Rosalind Franklin envision DNA.

3. GENES AND THE AMAZING TOOL

What makes something 'genetic?' Brown eyes are genetic. A dandelion is genetic. Falling in love is genetic, feeling pain when you touch a hot surface is genetic, crocodiles are genetic, sensing distrust toward foreigners is genetic. Etc. All the living parts of nature are genetic.

Take a cell from any plant or animal. Put it under the microscope and see that the cell has a nucleus and a surrounding liquid (the cytoplasm). In the nucleus are found the strands of DNA. These carry all the inherited instructions for the building of the body from the moment of conception.

One day, when I was 58, I looked in the mirror and had a good laugh. There was my father's eyebrow! I mean that my eyebrow, which hadn't previously had a 90° angle in its upper, outer corner, suddenly did have that, just like Dad's. So not only did my DNA carry the instructions for making that trait, it must have also carried the timing for its expression, waiting patiently all those 58 years.

TEMPLE GRANDIN AND THE GENETICS OF AUTISM

Autism does not have any characteristic that is agreed upon by all. There is no sign by which a diagnostician can say "This child has autism." The doctor judges by the reported symptoms, the patient's response to various treatments, lab tests, and family history.

Temple Grandin, in her 2013 book *The Autistic Brain,* has offered us 'evidence' of her autism. Namely, she has published MRI scans of her own brain. In three instances she found corroboration for her earlier hunches. To wit, Temple learned

from MRI that her amygdalae are 22% larger than the norm. (These are related to fear; she had a life of near-terror until she got medicated at age 34.)

She was told her cerebellum is 20% smaller than normal ("probably explains why my sense of balance is lousy") and her intercranial volume is 15% higher than controls. "The neurons may have grown at an accelerated pace to compensate for the damaged area" (2013: 29-31).

Don't go away thinking Grandin has now said that these are markers of autism; she says no such thing. She says only that those oddities are consistent with her symptoms. Grandin is a meticulous scientist and knows that you can't prove a point with a single case.

In an earlier book, at age 44, she looked into her family history and noted that some of her so-called autistic quirks were obviously held by her *non*-autistic relatives:

> "My sister is bothered by confusing noise from several sources. On my father's side there is explosive temper, perseveration on one topic, extreme nervousness, and food allergies. Both sides of my family contain artists. There are also signs of immune system abnormalities in myself and my siblings. I had shingles in my thirties, and my brother had them at age 4. My sister had serious ear infections similar to the ear infections in many young autistics. My dad, brother, and myself all have eczema."

I was amazed to read this sentence in that same book: "My grandmother is also very sensitive to loud noise. She told me that when she was a little girl, the sound of coal going down the chute was torture." (1991). From that, it seem reasonable to say that whatever led to Temple's experience of certain noises as torture-like may well have caused her to have that symptom, like her grandmother, even of she had *never* acquired the other autie symptoms.

If it should turn out that autism (whatever that is) is acquired -- let's say, for argument's sake, by a bacterial infection or by

metal poisoning -- we can then say that autism is *not* a 'genetic disease.' Yet even if we hit upon such a cause, it may well be that the particular individuals who "come down with autism" are ones predisposed to those things, i.e., bacterial infection and metal poisoning.

The literature on 'the genetics of autism' cannot be accurate. It mixes apples and oranges by including all cases on the spectrum (e.g., Asperger's syndrome), and it uses as an identifying symptom the 'lack of empathy' trait that Ido has blown out of the water.

BEING BORN WITH IT ISN'T 'GENETIC'

A baby can acquire an illness, in utero, that it didn't have at conception. One environmental trigger, pesticides, has been suggested as causing autism by way of the mother's exposure to it during pregnancy. Might the embryo receive those chemicals? Possibly. It's well established that a child can be damaged prenatally by medications such as anti-emetics or painkillers taken by the mother, or by a trauma such as the mother being hit.

The word "peri-natal" rather than "pre-natal" is used if the harm occurred during the act of birth, or immediately after, such as before the umbilical cord is clamped.

EPIGENETICS

Genes are made up of amino acids, as was noted by Watson and Crick in 1953. By 1990 it was realized that many of our genes are dedicated strictly to the task of turning off and on specific genes. This is gene regulation, called epigenetics. (Epigenetics can also refer to our en-counters with the world that may rewrite our DNA.)

A main mechanism of gene regulation is methylation. I quote Robert Hedaya, MD, in *Psychology Today:*

"The methylation cycle is essential for mental and physical health. It is critical to the metabolism of catecholamines in the synapse via an enzyme, as well as the synthesis of 'depression-relevant' compounds such as melatonin, myelin basic protein, carnitine, CoQ10, etc.

Basic nutrients necessary for normal function of this [methylation] cycle include B12, glycine, serine, activated B6, selenium, cysteine, methionine and folic acid."

-- "Nutrition and Depression" (November 22, 2010)

Autism is said to involve poor methylation.

GENETIC ENGINEERING

With regard to both plants and animals, many scientists have lately been playing God. Since around 1970 we have known how to take bits of DNA from one creature and put them into another, same species or different species!

Yours Truly is out of her depth on these high-tech matters but it's said that, in the normal work of nature, a cell's DNA sends the information to the RNA, which in turn makes proteins that carry out the relevant work.

The modern procedure known as 'gene therapy' involves replacing a person's sick or troublesome gene with a better one. How is it done? In 2012, Jennifer Doudna, PhD invented a new technique for scissoring the DNA. It is called CRISPRcas9. (See RNA.Berkley.edu)

Before that, you may be astonished to hear, a common method for inserting the alien gene into the body consisted of biologists employing a *virus* as a tool to get into the DNA.

And which virus was the best one? By golly, the HIV, human immunodeficiency virus. Yes, many a (probably unsuspecting) hospital patient has received gene therapy for a genetic disease, such as cystic fibrosis, with a famously harmful virus acting as inserter.

Gene Therapy. Gene therapy is related to the science of cloning. (Recall the sheep Dolly who lived from 1996 to 2003?) I quote a lecture from the Utexas.edu website, for a course entitled "Zoo 317. Heredity and Evolution":

> "The techniques **developed for gene cloning** are the basis for most approaches to gene therapy. Functional versions of the defective genes are **cloned into viral vectors** that introduce the desired gene into cells of the person.
> -- In *ex vivo* procedures, cells (usually bone marrow cells) of the patient are removed and infected with a vector into which has been inserted the functional gene. The modified cells are injected back into the patient, where they are encouraged in various ways to flourish.
> -- In *in vivo* procedures, the viral vector is introduced into the patient, where it invades target cells, **carrying along the correct version of the gene**." [Emphasis added]

The word "vector" there can refer to HIV. Incredible.

CURRENT LITERATURE ON GENE SCREENS

An article entitled "The Genetics of Autism" by R Muhle et al. was published in *Pediatrics* in May 2004. It says:

> "There are three main approaches to identifying genetic loci, chromosomal regions likely to contain relevant genes:
>
> 1. Whole genome screens, searching for linkages of autism to shared genetic markers in multiplex families (families with more than one affected member),
> 2. Cytogenetic studies that may guide molecular studies by pointing to relevant inherited or de novo chromosomal abnormalities in affected individuals, and
> 3. Evaluation of candidate genes known to affect brain development… or genes selected a priori because of their presumptive contribution to the pathogenesis of autism."

That article said "Data from whole-genome screens suggest interaction of at least 10 genes in the causation of autism." For example, "a putative speech and language region at 7q31-q33." One candidate gene provided in that article is "the FOXP2 receptor subunit." Fancy that.

An editorial in the January 15, 2008 edition of the *New England Journal of Medicine*, entitled "A Hot Spot of Genetic Instability in Autism," by Eicher and Zimmerman, says:

"The study by Weiss et al supports the general notion that large, spontaneous **deletions** and duplications contribute to the **molecular causes of autism** [though] the only credible and novel association reported by Weiss was that between autism and the 16p11.2 locus."

A VERY TELLING EXAMPLE: WILLIAMS SYNDROME

Later, in Chapter 7, it will be shown that scientists are able to knock out a gene, in laboratory animals, and study the behavioral effects. In humans there is a new illness (or development disorder, as these things are often called) in which children have a specific set of symptoms called Williams syndrome. Although these kids are somewhat retarded, they have excellent insight into people (as a pet often seems to know what's going on). They have *a heart defect* and some very specific linguistic oddities, yet they speak with much greater fluency than you might expect.

What has this to do with genes? Everything, apparently. I learned from Steven Pinker's 1999 book *Words and Rules,* that "Williams syndrome" involves "a deletion of about 10 genes on the long arm of chromosome 7 [and] different parts of the syndrome can be traced to different missing genes." For Pinker's observations, see our Appendix H.

That said, this book will traffic but little in 'the genetic causes of autism.' Autism is an epidemic today and no epidemic has ever been genetic. Period.

Jokes

(I asked jokes4us.com for "gene jokes" and got these):

Q: Did you hear about the famous microbiologist who traveled in thirty different countries and learned to speak six languages?
A: He was a man of many cultures.

Q: What did one cell say to his sister cell when she stepped in his toe? A: Mitosis.

Q: What does DNA stand for?
A: National Dyslexics Association.

Q: What do you call a cab that provides drug therapy?
A: Chemotaxis.

Q: How does Juliet maintain a constant body temperature?
A: Romeostasis.

Q: What did the femur say to the patella? A: I kneed you.

Q: What did the male stamen say to the female pistil?
A: I like your 'style.'

Q: How do you identify a bald eagle?
A: All his feathers are combed over to one side.

Q: Where do you bury dead people? A: Asymmetry

Q: What do football players wear on their heads? A: Helminth

Q: If H2O is the formula for water, what's the formula for ice?
A: H2O cubed.

Q: What is the reproductive area in South America?
A: Spermatagonia

Q: Where do hippos go to university? A: Hippocampus

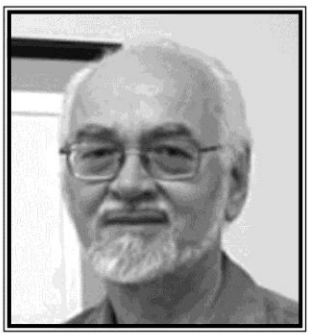
Q: How do you know you're dehydrated?
A: You can hear your red blood cells crenating.

Q: Why are environmentalists bad at playing cards?
A: They like to avoid the flush.

Q. What did one Drosophila say to the other?
A. Your human is down.

Holly Riley

Holly Riley is a schoolteacher with a son who has recovered from autism. She has shared her information on a video at Youtube.com.



Jaak Panksepp, PhD
born in Estonia, 1943

Professor Panksepp was the first to propose a biological treatment for autism: naltrexone, in 1979. He is the author of *Affective Neurocience* and co-author of *Archaeology of Mind.*

4. TREATMENTS AND THERAPIES

How's your methylation working today? If you're like me you don't even know that your body has a great way to methylate, and that a break in that system can be very bad for you. This is one of the things that some pediatricians are now fixing in autistic kids. I say "some" pediatricians as there seems to be only a minority of doctors who do it.

In 1995, three experts met to form a group called DAN! -- which stands for Defeat Autism Now! They are: psychologist Bernard Rimland, pediatrician Sidney Baker, MD, and nutritionist Jon Pangborn, PhD. They decided that attention needed to be paid to the children's digestive system, immune system, nervous system, and so forth.

Believe it or not this is labeled "alternative medicine." It was driven as a grassroots movement. For instance, many parents have started to take their children off dairy products, as these are irritant to auties. In this chapter, a list of treatments is offered as a clue to identifying what may really be going on in the autistic child.

Please read the story of Holly Riley, a DAN! mother:

HOLLY RILEY (Retrieved from Youtube.com March 17, 2014)
My son Quinn was diagnosed with autism right after his second birthday. Today he's seven years old. He is in a typical classroom with no additional supports. I'd like to share some of our journey with you.

My pregnancy was very normal. Delivery: nothing extraordi-nary. In infancy he had occasional colds and some eczema. He met all his milestones until he was about one and a half. He started crawling at about six months; walking around a year. He was babbling a lot and was generally a pretty happy baby.

After his first birthday we started seeing a lot of behaviors. We didn't recognize it at the time, but there was a lot of spinning going on. He was really lost in his own world. He was very gentle and mild. He had occasional tantrums, but overall he was content to just spin by himself in the corner.

At his 18-month check-up, I remember having a very detailed conversation with a pediatrician about his lack of speech. I convinced both myself and the doctor that everything was fine. When his second birthday was approaching, it dawned on me he still wasn't speaking. I went to the bookstore. I picked up a book about autism kind of on a whim but a hunch as well, and after reading less than two pages, I knew that that's what we were dealing with. I went straight to the Department of Education. After three long months of pushing the system, we had all of the assessments in and we began his therapies. So by two and a half, he was receiving speech therapy, occupational therapy, and applied behavioral analysis or ABA.

He uttered his first words when he was about two years and nine months. He said "A-bub-bub." I remember the day my husband came to me and said, "I've been reading that some families found that their kids got better when they removed wheat and dairy," and I just thought that was the most absurd thing because that was really all he ate. He could drink a gallon of milk in a day and he ate wheat toast, and if we took him off of those things, what would he eat?

But I figured it was worth learning about, so I came to a site called Generation Rescue. That site did a tremendous job of explaining the medical problems. We stopped all dairy. We took him off of all milk. And within a few days, we saw dramatic changes in his behavior. It's like he came out of a fog. He brought us toys for the first time for us to play with him. And we started to get some approximation of eye contact. So we changed his diet to be a gluten-free, casein-free diet. We were able to find what's called a Defeat Autism Now! practitioner medical doctor in our area and made an appointment with her.

Quinn had suffered from both constipation and diarrhea accompanied by a very bad diaper rash all along from infancy, and we began to learn about the gastrointestinal problems and the ways to treat it, not only through diet, but through different supplementation. We also learned about detoxification. Our children with autism often

have difficulty excreting toxins. Environment toxins come from many sources, but heavy metals are a very serious assault on the neurological system as well as the immune system. We found that, through testing, Quinn had pretty high levels probably of both mercury and lead, and we began chelation working with our doctor.

We also treated the gut dysbiosis through antifungal medica-tions as well as probiotic treatment to help recolonize the gut with good bacteria. These things happened in conjunction with the traditional therapies: speech therapy, occupational therapy, ABA and lots of supplements. When he was about three and a half I attended a conference where I learned about the mild hyperbaric oxygen therapy. I got to see some amazing doctors do presentations and talk with more families that helped a lot.

From the beginning, we had done B12 supplementation. Methylcobalamin is the form of B12 we used, and we gave him shots every other day. My husband and I talked about his speech, and we were counting words on our fingers at that point. "Wow, that was a complete sentence. He had four words." And we noticed this pattern -- that those incredible spurts of language were happening on the days after he had had his B12 dose, which he got in the night. So we switched to daily dosing of that B12 supplementation. He's at a point now where he can articulate how important it is for him. He wants to have his B12 because it really helps his ability to focus and attend and get the most out of social interactions and school.

We did rent a hyperbaric oxygen therapy chamber, and saw incredible improvements with that.

We also restricted his diet even further. We removed all starches -- and did what's called the Specific Carbohydrate Diet or SCD. The only carbohydrates that are allowed are ones that are monosaccharides, so essentially that means fruit. So no other starches are allowed. We stopped all rice, potato, tapioca. Essentially, he had a very balanced diet of fruits in moderation and vegetables and various meats. We did that for six months.

We were working very closely with a speech therapist who was also working with a chiropractor, and at that time, we did some alternative chiropractic work called Network Spinal Analysis, along with a breathing technique called Somato Respiratory Integration.

Essentially, it's gentle touches to help with energy along the spinal column, so very non-invasive.

In first grade at the Catholic school, they do ITBS testing, and I was thrilled and shocked when I got the results. He was in the 79th percentile overall. Quinn scored in the 98th per-centile in first grade ITBS general education testing. He's come a long way. He's social. He has a best friend.

We are very fortunate. We wouldn't be here if it weren't for the hope that we have had all along, and I give that hope to you for your child. Good luck in your journey. [End of quote by Holly Riley]

A Quick List of Biomedical Treatments

The following treatments are in use (Note: every GP has had occasion to use them on non-autistic patients, too):

Anti-fungals, antibiotics, probiotics
Vitamins, mineral supplements (such as zinc)
Thyroid extract, norepinephrine inhibitors
Gluten-free casein-free diet, Special Low Carb diet
Anti-anxiety drug (selective serotonin re-uptake inhibitors)
Hyperbaric oxygen therapy (HBOT)
Chelation (to remove metals from the blood)
Anti-seizure medication, anti-inflammatories
Milk thistle, and unique remedies of homeopathy.

Those biomedical treatments are given in addition to various one-on-one therapies that a child may receive in the home (partly paid for by each state's Education Department).

The main therapies are: speech, behavioral, and physical therapy (including exercise), and occupational therapy (which includes checking on lights, sounds, smells, etc, that may be causing trouble to the child). See below.

Caveat. Stop Press! I have just learned from reading Michael Goldberg's *Myth of Autism* (which is a very sober assessment of all pediatric aspects of the sick child) that some of the interventions that can be very rewarding at first may have

repercussions down the track. So if you are 'taking hints' from information in this chapter, such as on chelation or hyperbaric oxygen, please also see what he has to say, in the Epilogue.

LIST OF SYMPTOMS, DIFFICULTIES, AND DEFICITS

Thus far we see that treatments, when effective, shed light on what is going on in the body. For example:

1. food allergies
2. infections and inflammations
3. pollution of blood or brain by heavy metals
4. undersupply in the body of vitamins or minerals
5. oxidative stress ('free-radicals': unpaired oxygen atoms)
6. under-activation of the thyroid
7. overstimulation of the adrenal gland (as in anxiety)
8. overproduction of hormones leading to aggression
9. seizures (which may appear only as 'spacing out')
10. poor muscle tone and lack of strength.

Those are in addition to issues mentioned by Ido Kedar in the Ido Revolution chapter: short-term memory prob-lems, lack of motor control, sensory overload, difficulty in processing sensations, deficits in proprioception, and inability to form words orally. Those are mainly in the brain, while Items 1-8 above are in the whole body.

Yet neither of these two sets of symptoms quite gets at the main thing that has occurred in the child's health. It probably involves a disruption of the central coordinating system in the body. To find that would be to learn how the brain stuff and the blood stuff are interconnected.

Note: The list on the next page is keyed to 7 of the above 10 items.

PERFECT PRISCILLA – A MODEL OF HEALTH

Comparing to normalcy is a way to help see what the autistic child is suffering. Imagine a child, Priscilla, who does not have any autism or any unusual health problems, versus Andrew, a typical autism sufferer.

1. 'Perfect Priscilla' can eat any food without having an allergic reaction. 'Autistic Andrew,' by comparison, may find that a protein in the food he eats mistakenly causes his immune system to react against that protein. He may need to adopt a new diet (without dairy and wheat).
2. Priscilla only rarely has an outbreak of yeast, such as Candida, which can cause fatigue, vaginal infection, and eczema. Andrew is plagued with it (so takes anti-fungals).
3. Priscilla eats fish but is not overloaded with mercury. Andrew's body seems to accumulate mercury (which can be chelated out orally, topically, or intravenously).
4. Priscilla's body has normal vitamin-mineral balance. Andrew lacks what he needs for methylation metabolism, which helps gene regulation (thus he takes Vitamin B12, specifically the methylcobalamin type).
5. Priscilla, on a normal day, produces free radicals (extra atoms of oxygen that can cause trouble in the body) but her system is well equipped to handle it. Andrew has so many free radicals running around that it amounts to oxidative stress (for which he might use HBO treatment).
6. Priscilla is happy that her thyroid does a great job running much of her automatic system such as temper-ature control. Andrew is often cold and sluggish and has peeling skin (so he takes thyroid extract for this).
7. Priscilla is generally calm but responds appropriately to dangers. Andrew has constant anxiety, thinking something is about to happen. (He may take SSRIs.)

(*Important: do NOT take advice from me, I'm unqualified* -- MM)

GUT ISSUES. SORTING OUT THE CAUSES

Many autistic persons suffer terrible constipation or diarrhea. Robert Sears, MD, knows that there are varying reasons. He says in *The Autism Book* (2010: 82-84):

1. *Antibiotics,* say given to a baby for ear infection, kill the good bacteria of the gut and may "create a susceptibility to digestive, immune, and allergic problems."
2. Food *allergies* irritate the gut.
3. The above can combine to create *leaky gut.* The lining of the gut is supposed to be a very effective filter. It digests the good stuff and eliminates the bad stuff to the stools. "When the lining isn't healthy, the digestive *enzymes* that are supposed to be secreted by the gut aren't, and the lining of the gut becomes more permeable or leaky… leaky lining lets in more chemicals and toxins than it should."
4. Milk and wheat *sensitivity*. "Some children lack a specific intestinal enzyme, DPP IV, responsible for digesting milk and wheat proteins…. An overload of gluten in the blood may trigger an autoimmune reaction against the gut."

Also see the ideas of Andrew Wakefield, MD (2010).

Parris Kidd, PhD, covers the ground in a 2002 online review, which has a huge bibliography. He writes:

> "Certain food-derived peptides have endorphin-like effects on the dopamine neurotransmitter system, and to differing extents also the cholinergic, serotonergic, noradrenergic, and GABA-ergic systems. In 1979, Jaak Panksepp suggested [in *Trends in Neuroscience*] that incompletely digested peptides with opioid activity could be causative in autism. Thus began the "opioid excess" theory of autism.
>
> In 1981, Reichelt and colleagues reported abnormal peptides with opioid activity in the urine of 22 of 25 autistics studied. Gillberg later found excessive levels of endorphin-like substances, later coined exorphins, in the CSF of autistics."

[Note: Panksepp's theory will be presented in Chapter 6.]

SENSORY INTEGRATION AND THERAPIES

Although this chapter emphasizes 'biomedical' treatments, there are many therapies that autism families seek, such as sensory integration, physical therapy, and speech and music therapy.

Pretend for a moment that you are undoing the button on the cuff of your long-sleeve shirt. (Please do this thought exercise.) Three talents of your brain come in to play here. First is sensory perception; you have to feel the button. Second is your memory of having done it before (If this were your first-ever button undoing you would not do it so smoothly.) Third is the muscle-and-nerve package of activity needed for this task.

See? Everything we do requires a lot of coordination by the brain even though we take it for granted. Almost every task requires perception, memory, and praxis (action). An autistic child may lack fluency in these things.

Note: when a child is instructed verbally to perform any task, he may have trouble hearing those words in the first place. Pulling out the sounds from the environment that make up human conversation can be quite a chore.

OCCUPATIONAL THERAPY

When an adult is recovering from, say, a stroke, an OT may go to his home and make suggestions as to how to rearrange the furniture or the lighting to suit his new needs. For autism, there are OTs who can train the child to deal with objects in his environment. If the child has tactile problems the training may consist of *desensitizing* him. The OT would expose him to a slightly rough-feeling cloth, then a bit more, working her way up to a rough cloth that will now be not so repellent to him.

Carly Fleischmann has advised fellow sufferers that one way to cope with the 'wrong' tactile nature of foods such as pizza is to dip them in mustard (*Quel* yuck!) (2012:376).
She says, "At camp I dip my food in ranch dressing."

Dr Bob Sears (2010: 145) opines: "Calming down the sensory overload these kids experience allows the brain to relax and

begin processing all the sights, sounds, smells, touches, and tastes of daily life in a more regular manner. [The therapy] may take six to twelve months."

An 'occupational therapy' device that was invented by Temple Grandin for her own use is the squeeze machine. She had noticed that cattle squeezed into a chute seem to get calm. It also helped her define her body space.

Ido Kedar reports that working out at the gym has started to help him feel more in control of his body. Of course that is true of all athletes but for an autistic child it can mean discovering the feeling of 'where your legs are.'

MUSIC THERAPY

The Australian Music Therapy Association defines its job:
"Music therapy is a research-based practice and profession in which music is used to actively support people as they strive to improve their health, functioning and wellbeing."

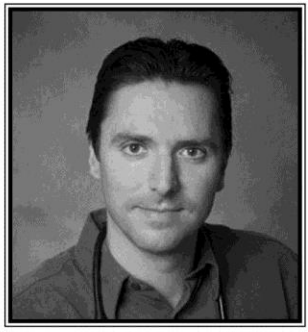
The 2012 issue of *Autism Science Digest* has an article by Dr Harry Schneider on "Music: Nature's Gift of Speech." He points out why music therapy helps autistic children to achieve speech. The parts of the brain that control movement provoke spontaneous language. He says:

> "The treatment process is greatly enhanced if move-ment skills (dancing, swinging, walking, and playing with a ball) are incorporated into the treatment protocol…. Science is now confirming that music finds its way to dysfunctional areas of the brain and revives them." Yay!

There are other therapies, too. I've omitted speech therapy, as Carly et al have shown great language facility. Still, it may well be that some auties need speech therapy. Note: I'm calling "autistic individuals" *auties* to save space.

Joan Campbell

Joan Campbell has done the needed service of collecting reports from over a thousand persons at her website Followingvaccinations.com. She lives in England.



Doctor Bob Sears, MD

Robert Sears is a pediatrician, author of *The Autism Book*. He goes by the name Dr Bob, as his pediatrician father is also Dr Sears.

5. THE SEARCH FOR ENVIRONMENTAL TRIGGERS

What causes autism? We do not know. I think a retrovirus may be the cause. That will be the subject of Chapter 7. The present chapter considers environmental, that is, non-genetic, causes of autism. Vaccination is a big candidate.

HOW CAN I HARM YOU? LET ME COUNT THE WAYS

As an exercise in inventorying the environmental factors that can cause, or trigger, a disease, pretend I am assigned to bring about a disease in you. Presumably I could inject it into you (as is done to lab animals every day). But even if I were not allowed to touch you, there are ways I could get illnesses into you. For example, I could:

1. deprive you of good food
2. reduce your supply of pure air
3. stress the hell out of you with threats and traumas
4. deprive you of all sensations, so your brain shuts down
5. give you a meal that will mess up the flora in your gut
6. put some contaminating chemicals near your home
7. hand you a drink that has disease-causing bacteria in it 8. irradiate you with rays that will change your DNA.

Environmental insults of that kind are around us all the time. The last three – chemical contaminants, bacteria, and radiation -- will be discussed later in this chapter, as being possible environmental triggers of autism. First, though, we will discuss vaccinations. Without doubt, they correlate significantly with the onset of autism.

CDC Recommended Schedule of Vaccinations
As of January, 2014

Total of 26 shots by age 18 months:

Hepatitis B (HepB)	at birth, 2 mos, 6-18 mos
Rotavirus (RV)	at 2 mos and 4 mos
Diphtheria tetanus & pertussis	at 2, 4, 6, mos and 15-18 mos
Haemophillus influenzae	at 2 mos, 4 mos, and 12-15 mos
Pneumoccoccal conjugate	at 2, 4, 6, and 12-15 mos
Inactivated poliovirus1	at 2, 4, 6, and 12-15 mos
Influenza (IIV, LAIV)	annual, 1st from 6-12 months
Measles, mumps, rubella, MMR	at 12-15 mos
Varicella (VAR)	at 12-15 mos
Hepatitis A (HepA)	2 dose series 12-13 mos

[That's roughly a tripling of shots in recent decades. Why?]

Compare the Australian schedule, as printed in George M. Maxwell, MD, *Principles of Paediatrics,* University of Queensland Press (1977):

Total 9 shots by age 18 months:

2 months Diphteria/pertussis/tetanus (DPT)
3 months DPT
4 months DPT, oral polio trivalent (OPT)
6 months DPT
12 months Measles, BCG if indicated [for tuberculosis]
18 months DPT, OPT, smallpox

VACCINE-AUTISM STORIES. Joan Campbell of the UK has collected 1,200 stories as of April, 2014. They are posted at her website, Followingvaccinations.com. Here is a tiny sample:

1. ELIZABETH P. -- K received her 4-month vaccines at 14 weeks of age; they included the DTaP, HBV, Hib, and IPV. She went home screaming, passed-out and slept way too long, woke up with legs that flopped to the table at diaper change, lost interest in eating, lost interest in smiling and looking us in the eye, began squealing like a dolphin, started staring at her hands in front of her eyes for extended periods of time, and by the ninth day started shrieking in a non-stop high-pitched wail and did not stop for six hours, the hospital disregarded our concern and sent us home with Amoxil and Tylenol….

2. KIMBERLY P. My son Quenton is 12 now and has been diagnosed with mild to moderate autism spectrum disorder. We are in Englewood Colorado USA; he received his MMR in May of 2000 and quit speaking for about a little over a year, and of course this is when his autistic attributes kicked in.

3. CHRIS P. This child is my great nephew. CPS forced us to get him current on vaccinations at the last minute or we would have risked losing the adoption. Moving forward to present day, we now have his twin three-year-old brothers as foster children and will probably adopt as well. Once again CPS mandated these guys get current on their TB shots. Reluctantly we did so, as again they are a ward of the state. These two guys were happy and completely well the day we took them in. Within hours of the TB injection one of them was acting as if he was sick. Within 24 hours he had a fever and was coughing. Within 36 hours he was admitted to the hospital with respiratory failure. By this time the other twin was following suit with the same symptoms. In speaking with no less than 15 medical professionals about this being a reaction to the TB shot, not one admitted it was possible. Actually quite the opposite, they looked at me like I was crazy.

4. ALICA P. Hi, my son Dane is the youngest of 4 kids all born within 37 months of each other. He was also the only child that I had group B strep with and had to be given 2 rounds of antibiotics directly before his birth by c-section. He had a reaction to an MMR vaccine around 2 years old. His leg swelled and he developed a fever for a few days followed by a month of intense regression, screaming at night, etc. In addition his bowel movements turned white. His pediatrician did nothing except tell me he had a virus and not to feed him milk. His injury occurred in Waco, Texas in 2005.

5. SHEILA P. After my son received 6 vaccines at once when he was a year old, my son completely changed. He used to talk and now he doesn't even say 1 word. He used to play appropriately with toys, now he doesn't play with them at all. He now prefers stimming and making unusual sounds. He used to make eye contact and now will do it only once and a while when he chooses. He used to be very calm and now he is extremely full of anxiety. His behaviors are very impulsive, obsessive and compulsive. He never sleeps anymore unless he is medicated. It's as if the "normal", healthy, happy son I had was walking along the road and without warning fell off of a cliff and fell into Autism never to be seen again. He is now 9 years old and his vaccines were given to him in Florida.

6. JAMIE P. My son stopped rolling over, babbling, crawling at age 7mo after a vaccine, also within 24hrs he was covered from head to toe with extremely severe eczema, he is 2 1/2 now and still doesn't talk, and we are still battling the eczema. The shots were DTaP, HIB, HepB, PCV7, Rotavirus, and flu.

7. JULIANNA P. My son Nathan was severely affected by vaccines. Oct 2000 he was given before during and after vaccines. He broke out in a rash which he had for over 3 years fevers daily, autoimmune, pain, loss of skills, and yes acquired autism. These vaccines include mmr, varicella, dtap, polio, they were given in fresno ca. Dr Wakefield's work must continue.

8. TANIA P. I live In Pakistan. My son was absolutely normal till the age of 18 months, but after his MMR shot, we saw changes in him, he was like altogether a different person: He was a friendly child who always posed in front of the camera, loved playing with his siblings, after a month when he took the MMR vaccine, he never smiled, wanted to be left alone all the time, stopped responding to his name etc. He turns 5 today!!!

9. AMANDA P. What makes me the maddest is that I am not alone on this earth when I say the Vaccines made my son autistic. What I don't understand is why no one is being held accountable for what the Vaccines are doing. I had a beautiful happy normal baby boy until he got his around a year old. I can positively say he had almost immediate reactions. He was cranky and withdrawn and stopped trying to talk, he stopped even babbling and started to seem like he was looking over your head. He was physically there but mentally he was far, far away. My son is awesome but some days I get so frustrated that there is nothing being done about vaccines.

10. SHANNON P. Aidan was 5mos old. He had just started to say mama and coo and form sounds. He recieved DTaP, IPV, HiB and Hep B in a Comvax Inj. And Prevnar. He screamed horribly on one of them. Like he'd been burned. He ran a fever throughout the afternoon into the nt. He lost all verbal and most social. He is now 7. Pretty hf and an angel. He now can speak in 5 to 10 word sentences.

11. AMY P. My Son received 5 vaccinations in one Visit. MMR and Dtp were 2 of them. He lost all speech that he had at that time. No eye contact, became a Very picky eater. This was shortly before he turned 2yrs. He was diagnosed with autism about 8 months after I noticed all the regression. He started signing then, talking again finally at age 5 1/2. He is now 7 1/2 reads writes plays socializes at school and enjoys school! For the most part! I strongly believe those 5 vaccines is what caused his autistic behavior.

12. MARTHA P. My oldest son was a little late receiving his vaccines at 18 months and the doctors decided to "catch up" and give them to

him all at once. In all, there were 7-8 vaccines, combined into 5 shots. I was nervous, as I had a vague knowledge of the dangers of vaccinations, but figured the doctors knew what was best. We took my son home and he began running a very high fever that alarmed me. The very next day, we took him back to the doctor, the fever was still very high. I was told it was normal and to give it a few days. My son is now 2 1/2 and has almost halted intelligent development from that point. I am praying for a recovery. Wichita KS

13. SUSIE P. My son at age 21 years got a hep A vaccine Within 24 hours his personality changed from an easy-going guy to an angry belligerent withdrawn person. His health declined and he was diagnosed with Type 1 Diabetes. In 1954 my 2-year-old brother was revaccinated because the doctor 'lost' the records and insisted he needed them. He suddenly started having violent outbursts, which my mom knew were due to the vaccines. Eventually they discovered he was having silent seizures. Doctors denied any link to the vaccines. Things haven't changed much (except that he had 'only' eight vaccines instead of the horrendous number babies get today).

STILL, VACCINES CAN'T BE THE FULL EXPLANATION

No reasonable person can deny that for some children it is the vaccination that brings on the autism. Personally, I would not have any child of mine vaccinated, owing to all of that information. Yet the vaccination story, by itself, does not solve the problem of autism, as:

1. Some children show autistic symptoms from birth.
2. Some children even get the regressive type of autism without any vaccination having occurred.
3. Most children take the full schedule of vaccinations and yet they do not come down with autism.

Note: Some US folks can be compensated by a federal scheme for non-autistic injuries that followed vaccination. For example, a severe allergic reaction after the polio shot, called anaphylaxis, within 72 hours, is compensable. Congress chose to exclude

autism but that does not tell us that vaccines don't cause autism. See Appendices A to D.

CHEMICAL CONTAMINATION OF THE ENVIRONMENT

Most of the elements on Mendeleev's periodic table occur in nature. Some of them also get into compounded form in nature, such as water, H2O, and sodium chloride, NaCl. But since the 1800s thousands of new compounds have been manufactured as part of our 'civilized culture.'

My late friend Sir Mark Oliphant once wrote an essay for me entitled "Socio-physics" (to balance my devotion to sociobiology). In it, he informed me that the making of dyes, such as aniline dye, is what got the ball rolling in complex compounds (and much hazard for the species), starting two centuries ago. Just now I googled for "dyes invented" and got a remarkable list. The same Google page happened to furnish this item as well:

> "In the fall of 1978, under a good deal of industrial secrecy, CIBA-Geigy dye chemists were flown to a special seminar in Basle, Switzerland [regarding] a new dye: Cibacron F. The actual chemical formulas are still not public knowledge, but the dye chemistry is based on fluorine. Fluorine is related closely to chlorine, but is more reactive. Apparently, the use of fluorine leaves more 'space to play' on the molecule." [Hmm.]

We are now overwhelmed with chemicals. Much of it is related to agriculture. Most farming today involves the following three types of chemicals: fertilizers, to increase crop growth; herbicides, to control weeds; and pesticides, to get rid of insects that eat the crops. God forgive us for our lack of stewardship, not to mention for our idiocy.

"NEW STUDY: AUTISM LINKED TO ENVIRONMENT"
Jan 9, 2009, by Marla Cone, reprinted in *Scientific American*

California's sevenfold increase in autism cannot be explained by changes in doctors' diagnoses and most likely is due to environmental exposures, UCal scientists have reported.

More than 3,000 new cases of autism were reported in California in 2006, compared with 205 in 1990. In 1990, 6.2 of every 10,000 children born in the state were diagnosed with autism by the age of five, compared with 42.5 in 10,000 born in 2001, according to the study, published in *Epidemiology*. The numbers have continued to rise since then.

To nail down the causes, scientists must unravel a mystery: What in the environment has changed since the early 1990s that could account for such an enormous rise in the brain disorder? Hertz-Picciotto and Lora Delwiche of the UC Davis Deptment of Public Health Sciences analyzed 17 years of data.

Many researchers have theorized that a pregnant woman's exposure to pollutants, particularly metals and pesticides, could be altering a developing baby's brain structure, triggering autism. Dozens of chemicals in the environment are neuro-developmental toxins, which means they alter how the brain grows. In addition, fetuses and infants might be exposed to a fairly new infectious microbe, such as a virus or bacterium, that could be altering the immune system or brain structure."

Note**:** We may wonder who keeps the statistics. Autism is apparently a reportable disease in California, but not federally. The CDC watches food poisoning, syphilis, chickenpox, etc. Clearly a central register would help.

VIRUSES AND 'FILTERABILITY'

If a virus has caused autism, that is environmental. Later, I'll argue that indeed one particular virus, a lentivirus, has done the damage. This chapter discusses viruses more generally, including Rosenow's challenge re 'filterability.'

It should be noted that the word 'virus' is not cut and dried. Until about 1930 it was used interchangeably with 'bacteria.' There were no professors of virology.

In some work, the criterion that determined what a microbe would be called was simply its size. If it could pass through a filter it was tiny, hence filterable, hence deemed a virus. Moreover, and this is a mystery, some eminent scientists such as Edward Rosenow, MD, and Philip Hadley, MD, had no doubt that a bacterium on Monday could be a virus on Tuesday, and keep changing. In the 19th century, Antoine Béchamp held that view, too.

If it be true that a species is so unstable, one wants to know why, and what that portends regarding disease. We should pay attention to work of Rosenow who published scores of articles in JAMA, before 1960.

In my book *Consider the Lilies,* I mention Rosenow's discovery of a cure for polio in 1917. It was based on being able to monitor the change from a poliovirus to a streptococcal bacterium, which he could then culture and use as an autogenous vaccine! That is the kind of 'vaccine' aimed not at future protection but at cure. It is made from the patient's blood or urine. Franz Gerlach, MD, used it in Germany, and Crofton in the UK. (I do not know why it fell out of favor.)

While you may hate to hear about making lab animals sick, the fact is that Rosenow injected mice or rabbits with bacterial cultures from persons with *schizophrenia* and *multiple sclerosis* and got 'imitations!' Yes, that means that the cause of the person's psychiatric or neurological ailment may have been – must have been? -- bacterial. How else could the mice end up with MS symptoms? This wants investigation urgently, as MS is now rife.

Rosenow also found that the bacteria of encephalitis in an *epidemic* differed from that found in the same disease when there was no epidemic! Again, his insights seem to have fallen by the wayside. We need all this data today.

BROXMEYER: TB BACTERIA MAY EXPLAIN AUTISM

In his 2012 book, *Autism: An Ancient Foe Becomes a Modern Scourge,* Lawrence Broxmeyer, MD, hypothesizes that it is a bacillus that is causing autism. In particular, he names the tuberculosis bacillus. ('Bacilli' are rod-shape bacteria.) Using the same autism statistics from the California population that were mentioned earlier as correlating with exposure to chemicals, Broxmeyer notes that TB was becoming prevalent in California at that same time. At the moment, TB is a major cause of death worldwide.

Broxmeyer says "everybody knew" that tuberculosis could be passed to a child from the placenta if the mother carried the tuberculosis bacillus, even if she was not ill. If the child did get TB, it was usually of the brain, the meninges. It resulted in childhood schizophrenia.

Until the 1980s, the type of child who withdrew from the world was said to have 'childhood schizophrenia,' rather than autism. Broxmeyer thinks it is the same illness. I can't accept this. I see Youtube videos of youngsters with schizophrenia who have symptoms of paranoia and hallucinations, unlike autism. Still, I think Broxmeyer's thesis needs to be looked at. The idea of bacilli doing such widespread injury in the body cannot be ruled out!

RADIATION FROM CELL PHONES, WIFI, ETC.

Everything in nature has a magnetic field. The human body has a magnetic field and so does the planet earth. *H. sapiens* evolved on the earth in keeping with the radiation produced both by the planet and in the atmosphere. In the last few decades something quite new has been added to the scene. Technology has changed the magnetic fields.

I have no knowledge of this causing autism. Still, just the correlation of the rise in autism (since late 1980s) with the advent of cell phone towers (late 1980s) is suspicious. In autism,

the brain's normal means of sensory integration is wanting. Odd things happen when new electric currents are applied to animal or human brains. See the book by Devra Davis, *Disconnect* (2011) re cell phones, and Andrew Marino's book (2011) on government's vehement reaction to plaintiffs who file pertinent environmental lawsuits.

Since the 1970s it has been accepted by physicians that the mental illness SAD, seasonal affective disorder, can be predicted by weather patterns. Edward Rosenow, mentioned above in the context of seeing poliovirus change into bacteria, conducted tests to see the effects of season. He wanted to measure influences on the phenomenon of pleomorphism ('many shape'-ism). I quote a review by Stuart-Hale Shakman that was online but is gone now:

> Changes in the virulence of streptococci had been induced by exposure to the high frequency field Rosenow and others saw as early as 1933, and mutations in bacteria and viruses had been produced on exposure to x-rays, ultraviolet, and radiation.
> Dr. Rosenow hypothesized that the responsible agent for the observed changes may be some form of radiant energy.
> He tested this hypothesis in three long-lasting storage experiments, in which organisms derived from 'neurotropic' [nerve seeking] and 'pneumotropic' [lung seeking] sources were stored in a mine 5000 feet under limestone and compared with samples stored at ground level where they would be exposed to solar radiation, and also in a lead-lined safe where they would not be so exposed. Dr. Rosenow found that the samples exposed to radiation changed properties seasonally, as indicated by measurements of cataphoretic velocity, but that samples shielded from solar radiation did not change. In contrast, organisms stored at ground level for up to 7 years in glycerol-NaCl (2:1) suspensions were found to retain their original specificity regardless of season or current epidemic." [How amazing!] See EC Rosenow, "Radiant energy as probable cause of seasonal changes in specificity of non-hemolytic streptococci," *Postgrad. Med.* October, 1950, p 290.

Terri Arranga

Terri and her husband Ed Arranga are autism parents and founders of AutismOne. It runs a yearly conference and publishes an up-to-the-minute magazine, *Autism Science Digest.*

Harold Saxton Burr, PhD (1889-1973) born in Massachusetts

Burr was professor of anatomy at Yale. He studied signalling in the brain. Discovered what the Chinese call chi. He wrote *The Fields of Life.*

6. How To Model A Cause or a Cure

Some people say it is wrong to talk about a cure for autism, as that may perhaps raise false hopes. What nonsense! A society that declines to talk about finding a cure is certainly not going to be able to find one.

Last year ('13) I attended a smashingly good conference in Chicago, sponsored by AutismOne. There were at least 40 sessions you could choose from. I went to about ten, all of which were excellent. Ten out of ten, as they say.

In three of the ten, the speaker unabashedly said he knew the cure for autism. One, Juan Rodriguez, claims to have cured his son, at age 5, by figuring out that the problem is the brain's microglial cells These can be treated with a combination of ibuprofen (an anti-inflammatory), and probiotics ('good bacteria' for the gut), he says.

Rodriguez models his work after that of a Nobel Prize winner, Mario Capecchi. We in the audience were shown 'Before' and 'After' pictures and are certain that the Dad accomplished what he said he accomplished with Junior. His website, StopCallingItAutism.org, displays the names of 50 doctors who are willing to prescribe this protocol.

Speaker Two was James Bradstreet, MD, who said he is so sure that stem cells can solve the problem that he recommends that patients travel to Kiev, Ukraine, if the procedure is not allowed in the US. I've seen an autistic boy, Ken, on Youtube, who looks much improved after stem cells. (As far as I know, any illness can be cured if you can get a fresh start with new, undifferentiated cells.)

The third speaker, Mark Geier, MD, has had his medical license revoked. That is not necessarily a bad sign. At times it is a good sign. Geier's sin, in the eyes of the state, consisted of treating autism with Lupron, which acts against testosterone. Never mind that he boasts complete success and has no patients complaining. (The theory has to do with autism being caused by excess male hormone.)

THE VERY MODEL OF A MODEL (BY JAAK PANKSEPP)

I'll now insert a thought piece, dating back to 1979. I hope students will read every word of it. It shows how to hypothesize the cause of an illness or abnormality. Note how Professor Panksepp uses his own ordinary observa-tions and does not hesitate to talk about values. He does what every scientist used to do – he gives the facts that support his case, and then throws doubt on his own work, and canvasses other reasonable approaches to the issue.

(I'll underline, to demonstrate the scientific approach.)

Jaak Panksepp, **A Neurochemical Theory of Autism**, 1979

[My] thinking about autism evolved from an interest in the emotions, which mediate positive social feelings between animals. …There may be basic similarities between the under-lying processes of narcotic addiction and the brain mechanisms which mediate social dependence. Perhaps brain opiate systems can create feelings of belonging, so people who are lonely and isolated can use narcotics as a substitute for the interpersonal bonds…. In our initial experiments, we found in many species that low doses of opiate drugs were very effective in reducing the crying of young animals when separated from their mothers or siblings for 10-15 min, almost as if opiates are neuro-chemically equivalent to the presence of the mother. [Wow!]

Opiate-induced symptoms of autism

…[U]nderlying neurochemical imbalance in autistic children may be excessive, or unusual, activity in their own endogenous brain opiate systems. … Young animals treated with morphine exhibit unusual body postures, such as walking on toes… [!]

Possible aetiology of autism

Why might certain children have excessive brain opiate activity? Although our experimental work has not yet addressed this question, a few possibilities arise from other recent work. Certain areas of the prenatal rat brain are rich in the most potent of the endogenous opiates but, with maturation, the manufacture of opioid peptides may shift towards the weaker and shorter acting ones (the enkephalins). … autism may reflect a failure of brain systems to exhibit the maturational decline ….

Accordingly, early childhood autism may be caused by a … lag in which certain brain chemistries tend to remain at an in infantile stage of development, leaving the autistic child in the opiate 'bondage' which perhaps all young animals experience.

Furthermore, why should normal infants have high opiate activity? Perhaps the capacity of opiates to cause catalepsy provides a clue. Opiate-induced motor 'bondage' may restrain the visceral and motor activity of the foetus in the woman and, in the newborn, may quell the urge to be active before muscular strength and co-ordination have matured.… The autistic child would [thus] be expected to fall greater emotional depths when environmental circumstances prevail which can normally turn off brain opiate activity. If the autistic child's brain is over-opiated, then any condition which shuts down this system (i.e., separation from familiar objects) would produce symptoms like withdrawal in the narcotic addict -- intense panic, crying, and an insistence to be reunited with the comfort of the familiar.

Proposed therapy

Although the paucity of data relevant to this proposal casts uncertainly over it, the reasoning does suggest relatively safe medical interventions which can be tried now. If the key which allows brain opiate systems to respond creatively to the social environment is lost to the autistic children, can we unlock the door, even a little, by pharmacological blockade of brain opiate systems? Perhaps drugs such as naloxone can open the mind of the autistic child to more normal social feelings and perceptions. Fortunately, naloxone is a safe

drug with no major contraindications. Another promising agent is naltrexone.

Possible shortcomings [Students, see what I mean?]

…. A specific dilemma is that opiate-blockade could induce compensatory over-production of endorphins and enkephalins so that after the drug wore off, autistic symptoms would be intensified. Still, preliminary studies with dogs have shown that naloxone increases solicitive behaviours, such as face-licking and tail-wagging towards humans, without any expression of distress. We have kept puppies on high doses of naltrexone (10mg/kg per day) for 6 weeks with no untoward effects.

Alternatives

Other neurochemical systems which are closely tied to opiate activity especially of brain serotonin, acetyl choline, and MSH/ACTH, need to be considered. For instance, autistic children's blood platelets differ from normal children, their difficulties may arise from excessive brain serotonin activity.

TRIAL AND ERROR IS RESPECTABLE, TOO

This chapter bears the title "How To Model a Cause or a Cure." I believe we should use every method available today as we are in a great crisis. If you read the newspaper, especially during April which is supposed to be "Autism Awareness Month," you will be chagrined to find that the media is coaxing the American population to 'adjust to' the new reality of huge numbers of autism cases, rather than to show this terrible affliction to the door.

I've already mentioned Rodriguez, Bradstreet, and Geier, who boldly offer a cure, and Panksepp's more detailed approach. Now recall the mother-driven program of Chapter 4. Many treatments used to date by the DAN! doctors get passed around the community by Moms who are keen to share whatever has helped their child. A most comprehensive website by Rebecca, the mother of a 7-year-old girl, has been posted for three years. It is called RegardingCaroline.com and is loaded with links to

in-depth articles. (It's also replete with great photos). In Appendix F of this book you will find out about Caroline. Here are a few of her mother's surprising discoveries:

-- Fixing digestion helps Caroline's focus and language.
-- Cod liver oil helps her tolerate change.
-- Trying to fix the immune system hurts the sleep cycle.
-- Chelating lead increases imagination and social play.
-- Antibiotics ameliorate OCD [for non-autistics, too].
-- Camel milk helps engagement and language. [Wow!]

To my knowledge no medical student society has adopted this information as a base from which to do some theorizing, yet such is needed. How do all the bits and pieces fit together? And is Rebecca misinterpreting any of the connections? ("Correlation is not causation.")

Also, why did Holly's son and Rebecca's daughter have improvements, yet Carly and Ido are stuck with disabling issues, such as the motor-output deficit? These vital questions can't be left hanging.

WHAT TEMPLE TOLD US TWO DECADES AGO

There's another valuable resource that students can use. In 1991, Grandin gave us not only a peek into her life, but a list of references to studies that backed up her self-observations. Please skim the next three pages (I bolded some important bits) with an eye to seeing if we can grasp what is going on in the most severe types of autism.

From Grandin's *The Way I See It* (1991) [all bolding added]:

Lack of Speech. Not being able to speak was utter frustration. If adults spoke directly to me **I could understand everything they said**, but I could not get my words out. Screaming was the only way I could communicate.

It is interesting that my speech resembled the stressed speech in young children who have had tumors removed from the cerebellum.

Rekate, Grubb, Aram, Hahn, and Ratcheson (1985) found that cancer surgeries that lesioned **the vermus, deep nuclei, and both hemispheres of the cerebellum** caused temporary speech loss in normal children. **Vowel sounds were the first to return**, and receptive speech was normal. Courchesne, Yeung-Courchesne, Press, Hesselink, and Jernigan (1988) reported that 14 out of 18 high- to moderate- functioning autistics had **undersized cerebellar vermal lobules** VI and VII. Bauman and Kemper (1985) and Ritvo et al. (1986) also discovered that brains from autistics had **lower than normal Purkinje cell counts in the cerebellum.**

In my case an MRI scan revealed cerebellar abnormalities. I am **unable to tandem walk** (the standard 'walk the line' test done by the police for drunken drivers). I end up toppling sideways. Vestibular stimulation **can sometimes stimulate speech** in autistic children. Slowly swinging a child on a swing can help initiate speech (Ray, King, & Grandin, 1988). Certain types of smooth, **coordinated** movements are difficult for me.

Rhythm and Music. It took me longer than others to start getting my words out. **Singing, however was easy.** Rhythm problems may be related to some autistic speech problems. **Normal babies** move in synchronization with adult speech (Condon & Sander, 1974). **Autistics fail to do this**.

Auditory Problems. My hearing is like having a hearing aid with the volume control stuck on 'super loud.' **Hearing tests indicated that my hearing was normal.** I can't modulate incoming auditory stimulation. Many autistics have problems with **modulating sensory input** (Ornitz, 1985). Also, autistics have profound **abnormalities in the neurological mechanisms that control the capacity to shift attention between different stimuli** (Courchesne, 1989). An autistic child will cover his ears because certain sounds hurt. It is like an excessive startle reaction. **A sudden noise** (even a relatively faint one) will often **make my heart race.** Cerebellar abnormalities may play a role in increased sound sensitivity. Research on rats indicates that the vermus of the cerebellum modulates sensory input (Crispino & Bullock, 1984). Stimulation of the cerebellum with an electrode will make a cat hypersensitive to sound and touch (Chambers, 1947).

Tactile Problems. I often misbehaved in church, because the petticoats itched. The problem was the change from pants all week to a skirt on Sunday. The nerve endings on my skin were supersensitive. Stimuli that were insignificant to most people were like Chinese water torture. Ayres (1979) lists many good suggestions on methods to desensitize the tactile system.

Approach-Avoid. As a child I was hyperactive, but I did not feel 'nervous' until I reached puberty. At puberty, my behavior took a bad turn for the worse. Gillberg and Schaumann (1981) describe **behavior deterioration at puberty in many autistics**. Shortly after my first menstrual period, the anxiety attacks started. The feeling was like a constant feeling of stage fright. I had a pounding heart, sweaty palms, and restless movements. **The 'nerves' were almost like hyper-sensitivity rather than anxiety**. The 'nerves' subsided during menstruation. Sometimes the 'nerves' would manifest themselves in other forms. For weeks I had horrible bouts of colitis. **When the colitis attacks were active, the feeling of 'stage-fright' nerves went away.**

I was desperate for relief. At a carnival I discovered that riding **on the Rotor ride** provided temporary relief. Intense pressure and vestibular stimulation calmed my nerves. Bhatara, Clark, Arnold, Gunsett, and Smeltzer (1981) have found that **spinning** in a chair twice each week **reduces hyperactivity** in young children. Prior to building the squeeze machine, the only other way I could get relief was strenuous exercise or manual labor. There are two other ways to fight the nerves: fixate on an intense activity, or withdraw. **Fixating on one thing had a calming effect.**

I read in the medical library that antidepressant drugs such as Tofranil (Imipramine) were effective for treating patients with endogenous anxiety and panic (Sheehan, Beh, Ballenger, & Jacobsen, 1980). The symptoms described in this paper sounded like my symptoms, so I decided to try Tofranil. Fifty mg of Tofranil at bedtime worked like magic. After being on Tofranil for four years I switched to 50 mg Norpramin, which has fewer side effects. These pills have changed my life. **Colitis and other stress-related health problems were cured**.

I no longer fixate, and I am no longer 'driven.' Prozac and Anafranil (clomipramine) have been very effective in **autistics who have obsessive-compulsive symptoms** or obsessive thoughts which race through their heads. Other promising drugs for aggressive autistic adolescents and adults are beta blockers. Beta blockers **greatly reduce aggressive behavior.**

Visual. All my thinking is visual. There is however, one area of visualization I am poor in. **I often fail to recognize faces** until I have known a person for a long time.

During the eight years I have been taking antidepressants, there has been a steady improvement in my speech, sociability, and posture. This year I had an opportunity to visit an old friend who had known me before I started taking antidepressants. She said I used to **walk and sit in a hunched-**over position and now my posture is straight. Eye contact had improved and I no longer shifted around in my chair. I was also surprised to learn that I no longer seemed to be out of breath all the time, and I had stopped **constantly swallowing.**

Frankly, I consider Temple Grandin to be cured! It seems to me (based on a reading of several of her superb books) that she simply forced herself into the real world. She always credits her mother, and one particular high school science teacher, with having conveyed to her all along that she would be a winner. Today she tries to talk young mothers out of referring to their child mainly as an autistic person and just get on with it as to developing their interests and talents. I think I'll give this a name: Grandinism. We need all the Grandinism we can get.

Note: Many self-help books and religious books emphasize the power of positive thinking, and faith. This works for some (I consider myself suggestible to the placebo effect.) But why not? The 'psychosomatic' phenomenon itself is well grounded in biology.

WHAT ABOUT PERFECT PRISCILLA?

As far as investigating the mechanisms for curing autism, the trick is to read Temple's essay above with an eye to what *should* have been there in her brain. For each of Temple's disabilities or abnormalities, pick out the normal healthy ability of Priscilla, our perfect model.

Priscilla, without giving it a thought, can:
-- feel rhythm and be synchronized
-- tune the volume of hearing to less than super-loud
-- make do without her heart racing at every sudden noise
-- be 'reasonable' in her reaction to the feel of petticoats
-- have a life in which anxiety is not the dominant feeling
-- be free of obsessive thoughts racing through her head
-- recognize faces even after only one meeting
-- sit upright, or walk with good posture
-- swallow routinely, not like it was going out of style.

This will help us have a baseline. We must note the intri-cate design of the *normal* brain, not take it for granted.

DIAGNOSING AUTISM VIA THE DSM-5

Before the 1990s, GPs had little familiarity with autism, and would refer the child to a psychiatrist. Autism was first written up as a disease in 1943, pitched strictly as a psychiatric matter. By 1994 it was called neurobiological, and is often called a learning disability by educationists.

'Medical science' has only managed to come up with the guide to diagnosing that is published in the Diagnostic and Statistical Manual of Mental Disorders, DSM-5. This is a book of symptoms that a doctor in an emergency room can use to screen patients. It is also well understood that there are political inputs to it, for example reflecting the wishes of insurance companies. As of 2014, DSM-5 gives these criteria for "Autism

Spectrum Disorder" that includes both Asperger's syndrome and severe autism:

"1. Deficits in social-emotional reciprocity, ranging, e.g., from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.

2. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.

3. Deficits in developing or maintaining, relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers."

AND IF THE CATEGORIES ARE WRONG?

This is ridiculous. Clinicians end up doing the wrong thing if the handbook has wrongly portrayed the nature of the illness. (Who is accountable for those guidelines?)

Also, research seems to me to be starting out with wrong premises. While Arthur Fleischmann's story about Carly's communicative ability has been on Youtube for years, the Autism Science Foundation nevertheless announced grants in 2014 for such studies as:

1. "Characterizing and Manipulating the **Social Reward** Dysfunction in a Novel Mouse Model for Autism"

2. "Developing Automated Algorithms to Assess **Linguistic Variation** in Individuals with Autism"

3. "**Social Motivations** and Striatal Circuit Development in Children and Adolescents with Autism"

4. "Endocannabinod Enhancement of **Sociability** in Autism-related Mouse Models." [Puh-leeze.]

I admit that I prefer the making of bold hypotheses whose premises are clear and whose laboratory results can settle the matter. As Karl Popper says, make your idea *falsifiable.*

In competition with the 'prestigious journals' there's now a venue called *Medical Hypotheses,* where one can float an idea. Alan Strickland, MD, contributed this on autism:

"**Prevention of cerebral palsy, autism spectrum disorder, and attention deficit hyperactivity disorder**," May 2014.

"This hypothesis states that cerebral palsy (CP), autism spectrum disorder (ASD), and attention-deficit/hyperactivity disorder (ADHD) are all caused by an exaggerated central nervous system inflammatory response to a prenatal insult [such as] infectious disease of the mother or the fetus, or other causes of maternal inflammation such as allergy…. The resultant fetal inflammatory hyper-response injures susceptible neurons in the developing white matter of the brain … at specific gestational ages.

The exaggerated neuroinflammatory response is theorized to occur about 19 and 34 post-conception weeks for CP… and about 36 and 48 weeks (i.e., 2 months after delivery) for ASD. The exaggerated inflammatory response is hypothesized to occur because present diets limit intake of effective antioxidants and omega-3 polyunsaturated fatty acids…. The suggested antioxidant [for pregnant women] would be N-acetylcysteine, though melatonin could be chosen instead."

Note: No matter what Strickland or any other doctor says, please don't construe it as advice from me. And here we're only *modelling.* To make a bold, even a reckless proposal for a cure, might clarify what's going on in a disease.

On the next page, see how Jules Samuels, MD, thought up an explanation for the dominance of the pituitary, and used it to create an electric cure for many illnesses. Many consider him a quack but I found in researching cancer that many doctors who got it right were subsequently run out of town as quacks. Please decide for yourself:

Samuels on the Pituitary as 'Conductor of the Orchestra'
(from *A New Light on Cancer (1951)* by Francis de Caux)

In 1935 Jules Samuels was associated in Paris with Heri Dausset, Chief of the Physiotherapy Clinic in Paris, who was conducting research on Vierort's method (1876) of examining the rate at which Oxyhaemoglobin (HbO2) gives up its oxygen in a piece of temporarily isolated tissue, **and trying to correlate his findings with endocrine diseases.** Dausset noted that the reduction time of HbO2 could be varied by the stimulation of certain endocrine glands by the **passage through them of ultra-short radio frequency waves.**

Samuels, on his return to Amsterdam, continued this research and while doing so improved on the method of spectroscopic examination involved. All cases attending his clinic were examined in this fashion irrespectively of the diseases [they had.] Dausset and Samuels saw that, by stimulating the pituitary thyroid and sex glands with short wave currents, the reduction numbers (the **time of cell respiration**) registered before and after the treatment differed.

After treatment of the thyroid the number was higher than before and after treating the sex glands [ovaries, testes], lower. With treatment of the pituitary in certain cases the numbers where higher, in others lower.

At first nobody could explain this. Later on, Samuels compared all these cases with each other and saw that in the cases in which the thyroid was **dysfunctioning, the pituitary number was higher (less) than the initial number;** and in the case in which there was a sex gland dysfunction, the pituitary number was lower (greater).

He consequently concluded that there was in pituitary gland a hormone which accelerated and **another which retarded the respiration of the erythrocytes** and, later on, of all cell functions. This is a very logical thought, for not only with hormones, but also with the nerves of the body, especially the parasympathetic and sympathetic nerves, the one accelerates and the other retards the functions and in this way there is a regulation of these functions. [Emphasis added]

ANALYZE THE TREATMENTS THAT WORK

To model either a cause or a cure, it pays to consider all treatments that work, *even if they only relieve symptoms.* Recall Holly Riley's story and see Caroline's in Appendix F. In Appendix G, Robert Sears, MD, endorses similar biomed-icals, including supplemental zinc. Let's recap the lot:

Biomedical Treatments:
Chelation of metals/ Vitamins, e.g., B12, for methylation
Gluten-free, casein-free diet/ Hyperbaric oxygen therapy
Special Low Carbohydrate Diet/ Fatty acids and cod liver oil
Digestive enzymes/ Glutathione, taurine, various minerals
Physical therapy and exercise/ Chirporactic gentle massage
(Not mentioned till now is sodium chlorite; see Epilogue.)

Pharmaceutical Medications:
The following Rx get prescribed by GPs and/or psychiatrists:
Antibiotics/ probiotics ("good bacteria" for the gut), Thyroid extract, Anti-seizure drugs, Anti-fungals, Anti-inflammatories, Dopamine, Antidepressants, Risperidone, Strattera, Naltrexone

Self-invented or Self-applied Remedies:
Autistic persons themselves can tell you what brings relief, e.g.,
Stimming and fixating are reported by Grandin, Fleischmann, Kedar, and Higashida as ways to limit sensory overload. Riding the Rotor relieves anxiety. 'Borrowing a hand" counters visual depth issues. Spinning in a chair reduces hyperactive behavior. Singing gets one to use words more easily. Temple Grandin created a squeeze machine to relieve distress. (She said her cat liked her better after that as it made her more sociable!) She also said strenuous exercise relieved mental stress. And though we would not normally think of head-banging as a 'treatment,' the idea here is to mention whatever brings relief.

Note: an amazing aid to the study of autism is the fact that most families take videos of their healthy, happy baby. So, if he subsequently gets ill, there is a record of that change. Happily, if he then recovers, this change, too, gets recorded on video.

DON'T FORGET THE REVOLUTIONARIES

Chapter 2 proposed that the whole picture of autism research must change, now that Ido, Naoki, and Carly have corrected our mistaken belief that severely autistic children necessarily lack language and are unable to add two and two. What does this new stuff suggest re a cure?

I think we are obliged to take Ido's advice directly. He wants a cure for his motor-output problem. He says that when he is too cold in bed at night he wants to pull the blanket up but just can't organize it. He is not paralyzed; he can move his arm in the way needed to pull the blanket, but his brain won't cooperate. Just think about what medical cure he needs. It's no mystery as to what part of the brain controls the initiation of movement. It is the substantia nigra.

Now listen to Naoki (2007:35), slightly abridged:

> "You normal people talk at an incredible speed. Between thinking something and saying it takes you just a split second. To us, that is magic. So is there something wrong with the circuitry in our brains? Life's been tough for people with autism, yet nobody's really been able to identify the causes of autism. For sure, it takes us ages to respond to what the other person has just said. It isn't that we haven't understood. But by the time it's our turn to speak, the reply we wanted to make has often upped and vanished from our heads." [Or, p 51]:
>
> "If someone's talking to me from far off, I don't notice. You're probably thinking 'same here' yes? However even when someone's right here in front of me I don't notice that they're talking to me. If I feel guilty toward the person who has spoken to me I can't even apologize, so I feel miserable and ashamed that I can't manage a proper human relationship."

Any student-scientist can envision a raft of cures for that!

Finally, I post an essay by Harold Saxton Burr. It may inspire someone to cure motor-output! Note: he was a Yale professor, not of physics but of anatomy!

Harold Burr, *Nature of Man and the Meaning of Existence* (1961)

Myriads of cells which make up [our] nervous systems endow it with properties which are not inherent in any of its component parts which arise from the combinations, the relationship of these parts.

The sets of forces which impose the necessary relationship between the component parts of the nervous system must be of great power and must provide the very important **directional properties** of the activities of living systems. These patterns of organization, are not the result of accident, but are the result of the operation of a rigidly determined forceful control over the movement of all charged particles with in the whole living system and of the direction in which energy will flow.

These are forces which give direction to the whole problem of organization of protoplasm and its functional activity. You and I, like all other living systems, are electrical fields. These fields are primary. They determine the arrangements of the parts of the living system and control, to a very considerable degree, most of its activities.…

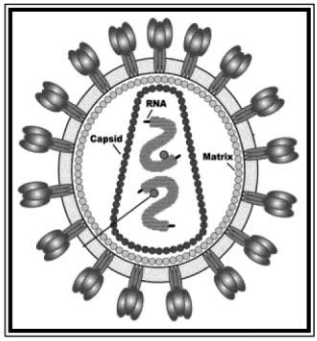
We have seen that there are at least four kinds of controls over the activity of our bodies, over the thing we call human behaviour. The most complex of these controls is that which emanates from the neurones of the cerebral cortex, but includes also the inherited, automatic, associated patterns mediated by the nuclear masses at the base of the brain, the basal ganglia, the **automatic balancing mechanisms** supplied by the brain stem and cerebellum, and finally the reflex activities of the spinal cord and its peripheral nerves.

Four kinds of control of behaviour, therefore, can be recognized, but perhaps the most astonishing thing of the whole nervous system is the fact that these controls all find expressions through the activity of motor cells lodged in the ventral lateral regions of the spinal cord. These have been called **anterior motor horn cells,** or the final common pathway. They are rather large neurones whose axis cylinders run out to muscle, over which neural messages [are] sent for appropriate control.

[Emphasis added]

Mary Maxwell, PhD
born in Boston, 1947

Mary Maxwell first learned about autism from the Robert F Kennedy article at salon.com. She lives in Australia and studies law. Was a conservative candidate for US Congress in 2006.



Wikipedia's rendition of a retrovirus.

The retrovirus is the source of quite a bit of trouble for humans, and also for laboratory mice, thousands of whom have been sacrificed for the cause.

7. I HYPOTHESIZE THAT A RETROVIRUS DID IT

As far as I know, no one has proposed that autism is caused by a retrovirus. I now claim that it is. This is only a hypothesis; please don't take it as a fact.

A retrovirus is a virus that enters a host's cell and changes the DNA there. The prefix 'retro' may be confusing, as the slang word 'retro' means old-fashioned or backward looking. Here the prefix indicates the unique quality of this type of virus. It can do 'RT' -- reverse transcription. That is, after it enters the host cell, bringing with it its own RNA, it gets the host cell to copy it.

(Don't confuse retro viruses with 'rota' viruses. Those are ordinary viruses, responsible for a lot of diarrhea, that are named rota only because they have a round shape.)

It was only an odd piece of luck that brought me to the idea of autism being caused by a retrovirus. When writing the chapter on environmental triggers, I jotted down *virus*, along with other things such as bacteria or pollution. Then I went online to get a definition of retrovirus (I had never known what that entity consists of). The Google page for retrovirus happened to provide a related *Wikipedia* article on "Feline Lentiviruses." Remembering that cat medicine had shed some light on my research into cancer in 2012, I decided to read it.

That article gave me the notion that if the autistic children had been hit by a retrovirus, that would explain a lot about the variety of symptoms involved and the apparent correlation of autism with 'genetics.'

So thank you, Google, and thank you, *Wikipedia.* Even if I am proved wrong, it was great to be sent on the hunt.

A LENTIVIRUS OF CATS

In 1986, a veterinary expert at University of California at Davis identified a Feline Immuno-deficiency virus. Like HIV in humans, it harms the immune system, especially the T-helper cells, rendering the cat unable to deal with opportunistic infections. (Note: I do not suggest here that *autism* resembles immunodeficiency. They are different.)

Re cat lentiviruses, this is what *Wikipedia* told me:

> "FIV can attack the immune system of cats, much like the human immunodeficiency virus. **FIV infects many cell types** in its host, including **T** lymphocytes, **B** lymphocytes, and **macrophages**. FIV can be tolerated well by cats, but can eventually lead to debilitation of the immune system..
>
> The virus gains entry to the host's cells through the interaction of the envelope glycoproteins of the virus and the target cells' surface receptors ….
>
> This causes the viral and cellular membranes to fuse, allowing the **transfer of the viral RNA** into the cytoplasm where it is reverse transcribed and **integrated into the cellular genome**. … Once integrated into the host cell's genome, the virus can lay dormant in the asymptotic stage for extended periods of time without being detected by the immune system."
>
> [Emphasis added] -- retreived March 16, 2014

GENE THERAPY, GENETIC ENGINEERING, SPLICING

We need to talk briefly about the new technology of genetic engineering. It was only in 1953 that the famous double helix of DNA was discovered, and by three decades later it was possible for laboratories to fiddle with that DNA in such a way as to change God's creation. (This is now a commonplace in genetically modified food.)

You may have heard that persons suffering from certain diseases, such as retinitis pigmentosa and cystic fibrosis, can have something inserted into their DNA to correct their problem. This is known as 'gene therapy.'

You've no doubt heard of gene splicing in laboratories where the goal is to take something from one species and put it into another, such a putting a mouse's ear on a pig's flank. For years now, splicing of human genes into cows has been done to enable the manufacture of insulin.

How is it done? As mentioned in Chapter 3, scientists use a *virus* as the tool for getting into the host cell to effect the desired genetic change. Often the virus being used as a tool is none other than the famous human HIV, the retrovirus associated with AIDS. If that leaves you shocked, just take two aspirin and call me in the morning.

Taxonomically, the retroviruses constitute a new family (Retroviridae), and within this family there's a new genus, *Lentivirus*. (Right here in our own lifetime, a new genus!) It derives its name from the Latin 'lente,' slow, as this virus can say dormant for years; it works slowly.

A lentivirus makes possible the entry (of new material) into a cell whose membrane would normally protect it from intrusion. The virus is thus said to act as a 'vector.'

In the *Proceedings of the National Academy of Sciences*, of the US, in April 2004, Robert Belshaw et al said:

> "Lentiviral infection has advantages over other gene-therapy methods including: high-efficiency infection of dividing and non-dividing cells, long-term stable expression of a transgene, and low immunogenicity [That means it won't elicit an immune response].
>
> Lentiviruses have been successfully used for transfection of diabetic mice with the gene encoding platelet-derived growth factor, a therapy being considered for use in humans. Vectors have so far been used in more than 300 clinical trials."

I'm guessing the culprit in autism could *alter the child's DNA,* rather than just being a virus that makes him ill. Now please see, on next page, the knocking out of a gene.

"'Autistic' mice created – and treated." [Knockout mice]
Chelsea Whyte, newscientist.com, 29 September, 2011.

A new strain of mice engineered to lack a gene with links to autism displays many of the hallmarks of the condition. It also responds to a drug in the same way as people with autism, which might open the way to new therapies for such people.

Daniel Geschwind at UCLA and colleagues tried a fresh approach, however. Rather than simply examining existing strains to identify mice with autistic-like behaviour, they engineered mice to lack a gene called *Cntnap2*, which had already been implicated in autism. *Cntnap2* is the largest gene on the genome, clocking in at 2.5 million bases, and is responsible for regulating brain circuits involved in language and speech. Geschwind was initially sceptical that the modified mice would display the behaviour typical of autism in humans, because the neural pathways in the two species are… different.

Surprisingly, he says, it turns out to be a lot like a human with autism. "Knockout" mice lacking the gene were less vocal than their genetically unaltered littermates, and less social as well. They also showed repetitive behaviour such as grooming which was "wild almost to the point of self-injury" Geschwind said. These three symptoms are the ones normally used to diagnose autism in humans.

Next, Geschwind and his team tested a drug approved by the FDA to treat repetitive behaviour and aggression in people with autism, Risperidone. The treated mice were less hyperactive, but still avoided interaction with others. "[The drug] didn't touch the social behaviours," says Geschwind. "It just normalised the repetitive behaviours."

POSTULATING MAL: MAXWELL AUTISM LENTIVIRUS As shown in the above example, it is possible to subtract a gene ('knock it out') from the animal's set of genes. Theoretically a lentivirus could *add,* rather than subtract, from the DNA. It's hard to imagine, though, that a mutation in nature could, out of the blue, come up with complicated new traits, such as the oddball tactile senses of the autistic kids. So I postulate the MAL (Maxwell Autism Lentivirus) to be one that subtracts.

To zero in on the MAL, I need to decide which genes it would target. For now, I'll designate three symptoms of autism as 'core': motor problems, sensory problems, and short-term memory, so we can look for genes for these.

It will be my job only to come up with a way for a lentivirus to produce the core symptoms. And since it is likely done by subtraction, I'll look only for ways in which *a gene that governs the core* may have got knocked out. Indeed I'll take the lazy approach of imagining that one gene does it all. Don't worry, I know that there's never a sole gene for any trait. (Not even for Dad's angular eyebrow.)

THERE ARE FEW LENTIVIRUSES; ALL ARE MODERN

To repeat, I postulate that a lentivirus causes autism. There are not many lentiviruses. The first one to be discovered was HIV, human immunodeficiency virus. The discoverer was Robert Gallo, MD, in 1984. (Quite a year.)

Wikipedia on **Lentiviruses** [Emphasis added]:
Lentivirus is a genus of the Retroviridae family, characterized by a long incubation period. Lentiviruses **can deliver a sig-nificant** amount of viral RNA into the DNA of the host cell and have the unique ability among retroviruses of being able to infect non-dividing cells, so they are one of most **efficient** methods of a gene delivery vector. See HIV, SIV, FIV, EIAV.

The primate lentiviruses are distinguished by the **use** of CD4 protein as a receptor. The virions are enveloped, slightly **pleo-morphic,** spherical. **Lentivirus is primarily a research tool** used to introduce a gene product into *in vitro* systems or animal models. Large-scale collaborative efforts are underway to use lentiviruses **to block the expression of a specific gene**.

There are also immunodeficiency viruses in horses, cattle, sheep, cats (not dogs), and monkeys. The Veterinary College of Cornell has a website advising cat owners to vaccinate against another lentivirus, FeLV, feline leukemia virus. There also is a

horse lentivirus, equine anemia virus. It does *not* confer immuno-deficiency or cancer.

You may have heard of MLV, mouse leukemia virus. It never occurs in nature in mice, but is injectd into them for laboratory research, especially re human cancer. Back around 1960 it was postulated that cancer had a viral etiology. See the "Epstein-Barr virus" on that.

MY THREE REQUIREMENTS

It is incumbent upon me to do three things in support of my radical claim about a "Maxwelll Autism Lentivirus":

1. determine which body system gets hit by MAL,
2. identify the genes that instruct that body system, and
3. account for transmission of the virus to the child.

I've admittedly wiggled out of Requirement 1, by alleging that there is something in every human that coordinates the individual's activities. I know I'll be laughed at but really we need to find that item, for many reasons.

Should we ever find it, a clerk could then search the gene map to fulfill Requirement 2. (But we won't need to bother, if the lentivirus can be opposed 'on its own.')

Regarding Requirement 3, I now hypothesize that MAL is *everywhere.* Today, HIV is worldwide. So is FIV! While HIV passes by way of blood, FIV passes from cat saliva to the victim of "deep bite wounds." I cannot come up with the mode of transmission for MAL. (Maybe it is *not* by vaccination. That is, the 'hit' that a vaccine gives may merely provoke a latent MAL.)

Note: Epidemiologists haven't tried to explain the intercontinental spread of FIV. In Appendix K you'll see an equine virus that infects horses mainly in South America. In 1995, in Colombia, 14,000 humans are said to have contracted this horse virus (Sounds a bit odd to me.)

COLD SPRING HARBOR TREASURE TROVE

When I went online to look for possible data about any retrovirus causing damage to the brain, I didn't expect to find much. But I was lucky to locate a 1997 textbook, *Retroviruses,* edited by J Coffin et al. Here are some items:

1. Neurological diseases **caused by retroviruses** show changes in the same areas of the CNS as multiple sclerosis.

2. There are complex interactions between neurons and supporting glial cells. In some CNS diseases, an inflam-matory response is the hallmark. (Go, Juan Rodriguez!)

3. Significant numbers of the mice develop hind limb paralysis.

4. In spongiform disease of mice, the myelin sheath that covers and insulates axons degenerates. … Lesions are in the **anterior horn cells** of the lumbar spinal cord.

5. Some of the **virus** produced by infected cells is released **directly into the CNS** where it infects brain cells.

6. Interestingly, susceptibility is developmentally regulated; **only very young mice that have not developed an immune response** are susceptible to neurologic disease.

7. Some neurodegenerative lesions are induced by **HIV**.

8. The most severe lesions are usually associated with areas of heaviest **microglial** cell infection.

9. Some cells are **latently** infected, a feature that may characterize lentiviral CNS infections. [Emphasis added]

The above book has 1400 references in its bibliography. I shall look forward to hearing those authors challenge the MAL idea. Note: Appendix J, below, contains many more *astounding* items culled from Coffin's book.

WHAT ARE VIRUSES?

So far I've been postulating a lentivirus, MAL, that harms DNA and could somehow cause autism. But don't forget ordinary viruses. (Per virus.stanford.edu, half of the soldiers who fell in the Great War fell not to the enemy but to flu.) We don't even know why viruses exist. They're not an animal species, they are a bag of proteins. Rosenow said a virus is but a stage in a bacterium's life. I can't debate pleomorphism here, but it mustn't be swept under the carpet. See *Saving Sammy* by Beth Maloney for proof that an antibacterial, Strattera, cured her son's OCD.

We laypersons think of a virus as a 'thingie.' But we are seeing the symptoms not the disease. Cornell's website tells us the symptoms of feline leukemia lentivrus, FLV: The cat gets pale gums, enlarged lymph nodes, infections of the upper respiratory tract, diarrhea, and possibly seizures. All of that occurs simply because her body is fighting the virus. *Additionally,* she'll get blood cancer (leukemia).

Discussion of the immune system, the I.S., will be put off till Chapter 9, but please note that some of autism's symptoms may be the I.S.'s reaction to alien visitors. Certainly this is true of inflammation. Usually a good thing, inflammation is a task of the immune system. But it may go overboard and cause a swelling in the brain.

On the next page is a century-old essay by George Crile, MD. He explains that symptoms of an illness are ways to get us to do something. *Pain,* as he says, makes the nine-month pregnant woman keep pushing till she gets the baby out. *Malaise* makes you lie down and get the needed rest while the leukocytes are doing battle.

Fever, too, has its functions. My husband once had malaria and I, being ignorant, thought that the symptoms were the disease. His sweating alternated with teeth-chattering, every ten or fifteen minutes. I took that to be 'malaria,' but actually it was Nature protecting him. See:

Fever. George Crile, *The Origin and Nature of the Emotions,* 1915.

As Sherrington has stated, "Environment drives the brain, the brain drives the various organs of the body;" [that is] the key to a mechanistic interpretation of all body processes. In the case of dangerous assaults by enemies, the brain, through the nerves and all parts of the motor mechanism, meets the attack….

In whatever part of the body and by whatever apparent cause *pain* is produced, we find that it is invariably a stimulation to motor activity -- whose ultimate object is protection. Thus by the muscular action resulting from pain we are protected against heat and cold; against too powerful light; against local anemia caused by prolonged pressure upon any portion of the body. So, too, pain of greater or less intensity compels the required emptying of the pregnant uterus and the evacuation of the intestine and the urinary bladder.

Pain, however, is not the only symptom of the invasion of the body by pyogenic or parasitic organisms. *Fever,* invariably, and *chills,* often, accompany the course of the infections. It is known that the malarial parasite develops in the red blood-corpuscles, and that the chills and fever appear when the cycle of parasitic development is complete and the adults are ready to escape from the corpuscles of the blood plasma.

Bass, of New Orleans, has proved that the favorable temper-ature for the growth of the malarial organism is 98°, and that at 102° the adult organisms will be killed, though the latter temperature is not fatal to the spores. The adult life of the malarial parasite begins after its escape into the blood, and it is there that the organism is most susceptible to high temperature. We must infer that the fever is an adaptation.

What, then, may be the protective part played by the chill? A chill is made up of intermittent contractions of all the external muscles of the body. This activity results in an increase of the body heat and in an anemia of the superficial parts of the body, so that less heat can be lost by radiation. By this means, thus, the external portions of the body contribute measurably to the production of the beneficent and saving fever.

IS THE 'SECOND BRAIN' INVOLVED IN AUTISM?

Oh dear. I have just read, in a 2011 article by Dan Hurley in *Psychology Today*, that the neuro-gastroenterologist Michael Gershon, MD, holds that the genes affecting autism may be ones that run the gut. Let's have a gander at Gershon's *The Second Brain,* a truly stunning book.

As everybody knows, the brain controls all the systems of the body, right? Well, not exactly. Some functions of the intestine, and relatedly of the pancreas and gallbladder, have their own brain. Although this ENS 'enteric nervous system' was discovered a century ago, Gershon in 1980 did the biochemical experiments to prove it. Here is an example of work done in Gershon's lab, by Paul Wade:

"By the time the guinea pig's stool reaches the terminal colon, the fecal material has been concentrated into very hard little round pellets, not unlike the stool of a person with severe constipation. Paul isolated [removed] the colon, maintained it in an organ bath, and allowed it to clear out its fecal pellets… He then inserted an artificial fecal pellet into the open oral end of the colon. The pellet was transported by the activity of the bowel's musculature to the anal end where it was expelled …he recycled it by putting it back in the oral end.

As soon as the bowel sensed the reinsertion of the pellet, it transported the pellet again.... What was incredible about [this] was its reliability. It stayed the same through repeated trials for hours and hours…. Paul found that the transport of pellets are nerve-mediated and thus **stopped immediately** when he **paralyzed the nerves in the gut**. Paul could also stop the pellet from moving by adding 5-HTP-DP. Conclusion: pellet moved down the bowel because it exerted pressure on the gut lining and the **pressure released serotonin**….

Serotonin is an important signaling molecule in the intestinal mucosa that **initiates enteric reflexes** and sends messages up to the brain." [Emphasis added]

-- Michael Gershon, *The Second Brain*, 1998, pp 219-220.

For our purposes, the point of the ENS, the second brain, -- 'Brain South' -- is that there is a separate controller of diarrhea and constipation, two of autism's bad symptoms. This brain operates *without authority from Brain North!*

Gershon explains the ENS as a huge group of neurons operating along the 27-foot alimentary canal from esoph-agus to anus. It has to deal with our food environment that brings in the raw material, breaks it down chemically into what is needed for the body, and shunts the waste out. Moreover, Brain South can, and does, control mood.

In the 1950s it was discovered that neurotransmitters, the chemicals that moderate the communication among neurons, can be used as drugs for mental illnesses. So, depression is treated by the serotonin-reuptake inhibitors such as Prozac. Gershon notes that happenings in the gut can also *cause* mental illnesses, including schizophrenia.

THE BIOME. When the Human Genome Project was finished it was found that about 90% of the DNA in humans is … wait for it … bacterial DNA. We already knew there were helpful bacteria in the gut – probiotics; prescribed antibiotics can disturb the balance of them. But what of all the other bacteria living peaceably in our blood? Eric Enby and his teacher Gunther Enderlein have persuaded me that it's got to do with eventual recyclying of us back into the earth (a sort of Grim Reaper in Residence waiting to do the necessary putrefaction).

Thanks to an article by Teresa Conrick (2014) at AgeofAutism.com, I looked up the latest on gut-immune connection. Was surprised that JL Round and SK Mazmanian, back in May, 2009, in *National Review of Immunology,* raised "the possibility that the mammalian immune system, which seems to be designed to control microorganisms, is in fact controlled by microorganisms." Something to think about….

KOALAS UNDER THREAT FROM NEW RETROVIRUS

Wow! I have just learned that Australia's koalas are on the way out due to a new ailment, KoRV, koala retrovirus. This virus enters the germline, so will be passed to offspring! I wonder what could have made this illness appear now after millions of years of marsupial evolution:

"Evolution of endogenous koala retrovirus," by R Tarlington, J Meers, P Young, *Cellular and Molecular Life Sciences,* Nov. 2008.

"Although endogenous retroviruses are ubiquitous features of all mammalian genomes, the process of initial germ line invasion from a pathogenic element has not yet been observed in a wild species. Koala retrovirus (KoRV) provides a unique opportunity to study this process of endogenisation ….

Consequent high levels of viraemia have been linked to neoplasia and immunosuppression in koalas. This apparently recent invader of the koala genome shares a remarkably close sequence relationship with the Gibbon ape leukaemia virus."

AND SO TO GIBBONS

B O'Hara et al of Lederle wrote, in *Cell Growth and Differentiation,* 1990, about a "Human gene conferring sensitivity to infection by gibbon ape leukemia virus" – GALV:

"GALV enters cells following interaction with a specific **receptor protein.** We have isolated human complementary DNAs encoding a protein which … **confers on these cells specific sensitivity to infection by GALV**. This was done by transfection into mouse cells of human DNA …using infection with a retrovirus …. It thus appears that [this] represents the human receptor for GALV. [H]omologues of the gene were found in several other vertebrate species tested." [Emphasis added]

I guess Lederle was hoping to develop an antidote.

Finally, re my hypothesis of a lentiviral cause for autism, I ask you to read Appendix H re Williams syndrome. In that ailment, gene deletion is definitely the culprit.

SUMMING UP THE FIRST SEVEN CHAPTERS

To pull together what has been said so far:

Ch 1 defined 'symptom' and 'disease,' pointing out that the very existence of those words makes us think a certain way, and maybe we shouldn't!

Ch 2 introduced the *dramatis personae*: Ido, Carly, Naoki.

Ch 3 downplayed the role of genetics in autism, taking a reserved approach to the ballyhoo about autism genes.

Ch 4 listed the biomedical treatments, relying on one mother, Holly (who is backed up by Appendix F and G), re diet, vitamin B12, chelation, HBOT, antifungals, etc.

Ch 5 allowed that there must be environmental triggers: surely vaccines, but also -- maybe – chemicals, bacteria, changes in electromagnetic fields, and viruses.

Ch 6 showed a model of how a responsible scientist, e.g., Jaak Panksepp, goes about looking for causes and cures. He relies on observation and logic as well as experiments. (His idea of using Naltrexone became a reality. Yipee!)

Ch 7 said autism may be caused by a lentivirus (a modern retrovirus known in cats, farm animals, and humans). It alters host DNA. I couldn't identify specific genes to alter; I guessed that there is a 'coordinator' in the brain, and that attacks on it result in the core symptoms of autism. I list these as motor-output/ sensory/ memory problems.

Besides lentiviruses, we talked about viruses in general. The body is set up to fight viruses. Fever and pain contribute to that effort. We then talked about the amazing story of ENS, the second brain. This might well illuminate autism's gut problems. Come on, Everybody, concentrate on this. We have a brain in our gut complete with its own production of serotonin. What can it all mean?

Soma Mukhopadhya
born in India

Soma Mukhopadhyay helped her autistic son Tito to use a letterboard and he is now a poet. She then taught the method to many others at her school in Austin, Texas.

Patrick Flanagan, PhD
born in Oklahoma City, 1944

Patrick Flanagan is a genius who discovered the potential of colloidal water. He was awarded a patent for the Neurophone which allows a deaf person to hear through the skin.

8. CURE-SHOPPING FOR CNS DISEASES AND SENSORY

I'm no physician. I have no cure for autism. But we can go shopping for relevant cure-information from any medical areas that have something in common with two of autism's core problems -- motor and sensory.

This chapter looks at CNS disorders: stroke, Parkinson's and multiple sclerosis, MS, and then at sensory stuff.

It's not that cures for MS, etc. would be likely to fix autism, but as we sniff around some of the particulars I think you will have new thoughts about fixing autism.

Start with Sally's story. Her fiancé, Sam Goddard, had a stroke, following a sports injury. He was 'not there.' She was desperate for him to be there. Thus she went on a research trip around the Internet and came to a case in South Africa where a man had been brought out of a coma by a drug called zolpiden (brand name Stilnox).

Sally got permission to import it to Oz. After two years of working with this drug, Sam can now talk, and can walk an eighth of a mile per day.

I hasten to say that this drug won't pull every comatose person back into consciousness. Far from it. But it worked for Sam.

I had also better issue the required disclaimer and caveat. I am NOT giving medical advice here! I think you would be crazy to accept it even if I tried to give it. When I bolded 'anterior horn cells' in the two previous chapters I didn't really know what I was talking about. This is amateur work. Make a real physician do it!

Waking the brain: The sedative paradox, by Fran Molloy, 2011 [source]

"In May this year, something amazing happened to a 24-year-old Australian, Sam Goddard -- he started to speak. Having experienced a severe brain injury 15 months previously, what was striking about Sam regaining his speech was the means by which he achieved it. Sam is the first Australian brain injury patient to have learned to speak after taking the hypnotic zolpidem (sold in Australia as Stilnox, among other names).

… **Sam can only speak while the drug is active.** Case evidence is emerging to show that zolpidem can initiate short-lived responses in some patients with serious brain injury. Early results from numerous trials suggest that between 6% and 10% of patients with disorders of consciousness, some months or even years after acquired brain injury, may respond. Despite a decade of research, the use of zolpidem in Australia … remains well outside the realm of standard clinical practice.

The first case of zolpidem's impact on a brain-injured patient occurred in South Africa in 1999. Louis Viljoen, a 29-year-old who had been in a persistent vegetative state for more than three years, was prescribed the drug to ease involuntary spasms in his left arm by GP Dr Wally Nel. Within half an hour, he started to make his first sounds since the injury and then spoke.

The drug effect wore off after 2–3 hours, but he has since been taking zolpidem daily for 11 years and, while he remains brain-injured, his condition continues to improve. "There's two effects: patients wake short-term then go back to where they were, but in the long term there is a steady improvement."

Zolpidem works as a highly selective nonbenzodiazepine gamma-aminobutyric acid (GABA) agonist, which acts on the GABA-A receptor, but there is still little understanding of how its transient restoration of neurological function works. Dr Clauss theorises that the brain's GABA-A receptors become over-inhibited, but zolpidem acts to suppress this inhibition short term. … John Whyte in Philadelphia is conducting a study with 100 patients." [Emphasis added]

WHY DON'T THEY CURE PARKINSON'S THIS WAY?

Recall that Jules Samuels claimed that the pituitary gland exerts control over many processes. Francis de Caux, MD, decided to try Samuels' shortwave cure on one of his own Parkinson's patients in London:

> "Woman, 58, first seen July 1949. Condition diagnosed by patient's own doctor in December 1946. She had salivation; pain in her muscles and was very rigid in the back and limbs. The tremor in the left hand and forearm was worse than that in the right. Her gait was uncertain and festinating. Her head was bent forwards, arms flexed at the elbows, fingers extended and flexed on the hand with typical 'cigarette rolling' tremor. Her facial expression was wooden. Her height is 61 inches and weight was 119 lbs. Pulse 88: Blood pressure 130/90.
>
> Now after seven months treatment the salivation and muscle pains have gone and she is very much less rigid. The tremor in the right hand has gone, and that of the left is not always present although emotion and fatigue brings it on. There is a marked change in the gait: she now strides along or appears to. She holds her head up and shoulders back with the arms to the sides. The expression is almost normal and she smiles frequently. She feels less rigid and more energetic. Her weight is now 124 lbs., an increase of 5 lbs. Blood pressure 140/80. She looks and feels very much better than she did."
>
> -- de Caux, *New Light on Cancer* (1951)

Is it nonsense? I don't think so. And now I had better state my prejudice. I prejudicially believe that God knows what He's doing. If you've ever seen a wilderness, either in person or by photos, you will know that in areas where man had no presence, things were working beautifully. Also, until recently, when a family brought their new baby home, they geared up for years of watching a spectacular train of events, the natural growth and development of that boy or girl. You can't tell me that the 21st century has some better way of managing life. The old way is FINE.

DEEP BRAIN STIMULATION – 'DBS'

The Annals of the New York Academy of Science carried a 2012 article "Deep Brain Stimulation for Movement and Other Neurological Disorders" by M DeLong and T Wichmann. It sounds high tech but it seems to have something in common with the Samuels-de Caux approach. That is, it uses the body's natural goings-on:

"Deep brain stimulation was introduced as a treatment for parkinsonism… and is now being explored for Tourette syndrome, gait disorders, etc… Although the mechanism of action of DBS remains unclear, [it works on] **functionally specific circuits**. [The fact that it can be used in many diseases] suggests that DBS does not counteract the pathophysiology of any specific disorder but acts to **replace pathologic activities** in disease-affected brain circuits with activity that is more easily tolerated." [Emphasis added]

Those same authors published in the same journal back in 2003, "Pathophysiology of Parkinson's disease: the MPTP primate model of the human disorder." [Emphasis added]:

"The striatum is viewed as the principal **input** structure of the basal ganglia, while the internal pallidal segment and the substantia nigra pars reticulata are **output** structures. Input and output structures are linked via a monosynaptic 'direct' pathway and a polysynaptic 'indirect' pathway…. [Probably] striatal **dopamine** enhances transmission along the direct path-way, and reduces transmission over the indirect pathway.... Electrophysiologic and other studies in primates rendered parkinsonian by treatment with the dopaminergic **neurotoxin** MPTP have demonstrated **a reduction of neuronal activity**.

[Our] findings have been replicated in human patients. [We see] further support to the proposed circuit abnormalities. The lesions of GPi or STN are effective in treating parkinsonism, because they reduce or abolish abnormal basal ganglia output, **enabling remaining circuits to function** more normally."

To repeat: "Electrophysiologic studies in primates rendered parkinsonian by treatment with the dopaminergic neurotoxin MPTP have demonstrated a reduction of neuronal activity…"

I'm not too thrilled about "rendering a primate parkinsonian" (and maybe we should find out the mechanism of MPTP and tell Ido), but for the moment let's look at *dopamine*. I'll highlight whatever seems relevant.

Dopamine, a neuroendocrine transmitter (*Wikipedia*):
In the brain, dopamine functions as a neurotransmitter -- a chemical released by nerve cells to **send signals** to other nerve cells. The brain includes several distinct dopamine systems, one of which plays a major role in **reward-motivated** behavior. …

Other brain dopamine systems are involved in motor control and in controlling the release of several other important **hormones**. Several important **diseases of the nervous system are associated with dysfunctions of the dopamine system.** Parkinson's disease, a degenerative condition causing tremor and motor impairment, is caused by **loss of dopamine-secreting neurons in the midbrain area called the substantia nigra.**

There is evidence that **schizophrenia** involves altered levels of dopamine activity. Attention deficit hyperactivity disorder (**ADHD**) and restless legs syndrome (RLS) [may be] associated with decreased dopamine activity….

The **substantia nigra** is a component of the basal ganglia, a group of interconnected structures in the **forebrain and midbrain** that play a central role in motor control. The precise nature of that role has been difficult to work out, but one popular line of thought describes it as 'response selection.'

That theory proposes that when a person is in a situation where several behaviors are possible, activity in the basal ganglia determines which of them is executed, by **releasing that response from inhibition**. Thus the basal ganglia are responsible for **initiating behaviors** but not for determining the details of how they are carried out. [Emphasis added]

NOW CONSIDER THE MYELIN SHEATH

Another disease invites your scrutiny – multiple sclerosis. It injures the myelin sheath that protects the nerves. Now listen to the UK National Health Service:

> MS is an autoimmune condition. This means your immune system mistakes the myelin for a foreign substance and attacks it. **The myelin becomes inflamed** in small patches (lesions).
>
> This can disrupt the messages travelling along nerve fibres. It can slow them down, jumble them, send them down a different nerve fibre, or stop them from getting through….
>
> These attacks can eventually damage the underlying nerve fibre. Research into MS around the world has shown that it's more likely to occur in countries far from the equator. [They] are exposed to less sunlight and so have less vitamin D. Some studies have found a link between lower levels of vitamin D and incidence of MS. **Another theory is that a virus may be involved in MS**, e.g. the Epstein-Barr virus" [Emphasis added]

A far as curing MS goes, I can only point to an odd case. In March 2005, *Acta Neurologica Scandanavica* published: "Immunoablative doses of cyclophosphamide may provide a long-term remission of multiple sclerosis (MS)" based on a case of a 48-year-old woman. Allegedly, she got an accidental intravenous high dose of the drug and remained MS-free after 7 years. It is also known that MS patients go into remission rather unpredictably. This raises the query How can it be? If goods are damaged how do they suddenly get restored? How did Stilnox wake Sam?

THE SECOND TRACK OF THIS CHAPTER

This chapter is a sort of transit lounge between the theory of lentivirus (Ch 7) and the theory of autism as an autoimmune disease (Ch 9). It emphasizes cures. We have been looking at cures for CNS. Now we move to sensory cures.

First, however, a word about language development:

From *Principles of Paediatrics,* by George Maxwell, MD, 1977

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Disorders of speech are common in childhood, and must always be taken seriously. The crying of the infant begins at birth. At the age of 8 weeks the infant coos, again with the simplest of emotional content -- usually pleasure, and without any sense of communication. Babbling begins by the age of 6 months, and some are able to parrot single words by 9 months.

At 1 year, single words are distinctly spoken in the correct context; speech is no longer mere imitation. However, communication is less reliant upon speech in the adult sense, and gesture and intelligent anticipation are still largely relied upon. Most normal children have 2-3 word speech by 2/1/2 years at the latest. …

Speech difficulties may have a variety of causes. Since speech is the expression of ideational capacity, it will fail when such capacity is wanting. Thus, the child who is mentally defective will be slow to speak, and the content of his speech will always be limited.

There is the problem of the child who, while possessing ideational capacity, does not have the motor ability to express his ideas. This is epitomized by the patient who has cerebral palsy. This child, characterized perhaps by poverty of movement, and delayed motor development, may yet be able to communicate, although speech may be not only delayed, but imperfect and difficult to understand.

In this situation, the problem may be one of *dysarthria* the patient has imperfect motor control or poor feedback to its motor centres from the larynx. If he has essentially a *cerebellar defect,* his speech is monotonous and devoid of the normal emotional overtones….

More subtle is the schizophrenic (autistic) child, who has communicated normally and then withdraws from society. The child is alone, has little or no commerce with anyone….

How then does the pediatrician investigate the child with a speech difficulty? He recognizes first of all that there is a wide variation in individual achievement of speech. He does not, however, send the mother away totally reassured.

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THE SOMA MIRACLE

Elizabeth Bonker and Ido Kedar are both alumni of Soma Mukhopadhyay's training. I became aware of them only a few months ago. Is this miracle being kept secret?

Chapter 2 described a revolution in autism. The amazing thing is that a child can look totally different from what he really is. He can look uncaring, aggressive, inattentive to his surroundings, and quite low in unintelligence. Before Ido and Elizabeth met Soma they could not pass their wonderful insights to the public. Now they can, and do. Elizabeth Bonker's book is entitled "I Am in Here."

So now we know that a 'severely autistic person' may be exactly like us. Note how this throws into disarray any belief we may have had about how their brains work. As far as emotion, social warmth, and intellectual talent is concerned, their brains *are not messed up*. Not one little bit. Also, it now seems that a person's language faculty can be beautifully intact even if he cannot make his mouth talk.

Of course we knew that deaf people can, without oral speech, be as fluent in English as you or I; they use the same grammatical nuance in signing ASL. But there was Carly, who never tried pantomime, despite the companionship of a twin sister (non-autistic), and Elizabeth, who has an autistic brother. You would think that they could have somehow 'broken out.' But, desperate as they were, they couldn't!

One of the main things Soma does is keep them focused on the task, and she uses a little pressure to prompt their action. I must confess that I could use this a bit of that in my life. Since becoming a widow I have gotten very, um, passive. I don't pay a bill until I get the Final Notice We Are Going To Shut Off Your Electricity type thing. Then I get active. Note: my handicap must be neurochemical rather than neuroanatomical. I have no real damage and do not suffer motor-output frustration, as such.

Emotion. Come to think of it, Ido tells us that his motor delay is emotional, especially in regard to his perception of how the outside world does or does not respect him.

Ido-the-consultant wrote (in 2009): "I'm talking to all you parents now. You need to let your kids communicate on letterboards. They will need your support, your love and your belief in their intelligence to succeed."

Portia Iversen went through a period of despair when no one believed that her son, Dov, was actually writing. If academic persons came to the house to test him, he'd be so aware of their skepticism that he couldn't perform. I am sure there is an important clue there.

Similarly from Naoki, in *The Reason I Jump* (2013: 69):

> Us kids with autism would like you to watch out for us – meaning "Please never give up on us…. We can be made stronger just by the fact that you're watching. Like every-one else we want to do the best we possibly can. When we sense you've given up on us it makes us feel miserable."

I recall an interview Dr T Berry Brazelton gave to Bill Moyers for a PBS series, *The World of Ideas*. Speaking of normals, pediatrician Brazelton said a kid can give up on life even before 10 months of age if nobody cares, if nobody says "Wow" when she takes her first steps.

Emotion influences everything. As the Buddhists know, it controls the autonomic system. Maybe language, too? In an appendix to *Ido in Autismland,* Ido says, in a fascinating interview with linguistics scholar Yoram Bonneh:

> "If I am pointing on my letterboard I hear the words [in my mind]. If I am not pointing… I see a lot of words rapidly. Pointing slows down my racing mind. It helps focus my internally swirling soup of words. [Previously] my swirling soup interfered all the time with my ability to get my thoughts out. Soma taught me how to [handle] it. The speed…accelerates if I am emotional" (page 157).

Regarding my bill-paying problem, if a friend drops by and encourages me I can do it with no hesitation at all.

Now listen to Ido Kedar expressing unbelievable insight at the age of 15: "In my opinion a school should be really proud to help a disabled person who is climbing out of a severely isolating set of symptoms. Then my victories would be the school's victories and I would be happy and relaxed" (page 146).

In the final chapter of this book I will have more to say about the way that the revolutionaries have got oodles of ideas to help us, the 'normals.' They may even cure us!

Now we read about the 'globality' of emotion:

Antonio Damasio, *The Feeling of What Happens,* 1999, p 67

"In a typical emotion, then, the commands are sent via two routes. One route is the bloodstream, where the commands are sent in the form of **chemical molecules that act on receptors in the cells which constitute body tissues**. The other consists of neuron pathways and the commands along this route take the form of **electrochemical signals** which act on other neurons or on muscular fibers or on organs (such as the adrenal gland) [that] release chemicals of their own into the bloodstream. [Hey ho! The coordinator!]

The result of these coordinated chemical and neural commands is a **global change** in the state of the organism. The organs which receive the commands change as a result of the command, and the muscles… move as they are told to do. But the brain itself is changed just as remarkably. The release of substances such as monoamines and peptides from regions of nuclei in the brain stem and basal forebrain alters the mode of processing of numerous other brain circuits, triggers certain specific behaviors (for example, bonding, playing, crying), and modifies the signalling of body states to the brain.

In other words, both the brain and body proper are largely and profoundly affected by the set of commands." [Emphasis added]

MANY SENSORY ISSUES IN AUTISM

Temple Grandin has often pointed out that autism brings both sensory overload and sensory integration difficulties.

"Once a sound has my attention, I have trouble letting go and moving on to the next sound. If a mobile phone rings during one of my talks, it totally disrupts my train of thought; it grabs my attention, and my ability to shift back in slower than most people's" (*The Autistic Brain,* Grandin and Panek, 2013, p 90).

Some parents report that their autistic child refuses to walk on grass or sand because it hurts. Some kids can't take a shower because the water feels like spikes. However weird those things sound, they can't mean that the child has acquired some all-new tactile sense. He has the very same receptors we do, but some aspect of processing has changed. Maybe the difference is only slight.

Carly Fleischmann asks us to consider what it is like for her to try to have a conversation in a coffee shop:

"The rough side of my left sleeve cuff rubs up and down …. That starts to get my attention as the whoosh and whistle of the coffee maker blends into different sounds all around me. The visual of the door opening and shutting in the front of the store completely consumes me…. I have lost the conversation. I find myself hearing only the odd word" (2008: 362).

Grandin has complained about the outrageous lack of research on these important matters. She says:

"In 2011, I contributed an article to a big, scholarly book on autism. Eighty-one articles in all. Guess what. The only one that addressed sensory problems was mine…. I've even talked to researchers who say that the sensory problems aren't real [!!!]. They call themselves strict behaviorists. I call them biology deniers" (2013: 72-73).

RESEARCH CONSULTANCY

I recommend that anyone who wants to get a grant for autism research has first to be interviewed by a severely autistic person, or if that is not possible, the siblings of auties. They, and only they, have perspective.

Grandin says that when she's arguing with the 'biology deniers' she tells them "Maybe that kid is freaking out in the middle of Walmart because he feels like he's inside a speaker at a rock concert. Wouldn't *you* be freaking out if you were inside a speaker at a rock concert?"

This is not the place to open a broad debate on the state of the medical profession, but note that its very eminent, and very humane spokesman, Sherwin Nuland, MD, has this to say, in his 2008 book, *The Uncertain Art,* page 25:

> Of all the manifold problems afflicting the modern medical school, one of the least frequently addressed is the inherent inconsistency among its several aims.
>
> If one is a clinician whose notion of a medical school is that it should be a place where young people come to learn how to take care of the sick, the most fundamental difficulty arises from the primacy of research. Since the 1960s, the level of medical investigation has become increasingly sophisticated, as the requirements of molecular and genetic studies have demanded an ever-more meticulous understanding of laboratory and interpretive methodologies.
>
> **The ideal of a liberal permeation by the wider university now seems more remote than ever**. Medical schools **rarely** promote teachers for teaching well or for caring for (or even about) the sick. In the preclinical sciences, such as molecular biology, genetics, and immunology, instruction often involves an overemphasis on the particular part of the field in which the teacher is working. **Even in such seemingly "bedside" disciplines as surgery and internal medicine, the research these days is less likely to apply to direct patient care than to molecular-level phenomena**. [Emphasis added]

THE NEED TO TASTE EVERYTHING

My hypothesis, stated in the preceding chapter, is that a lentivirus has 'knocked out' of the autistic person's brain some genes that we normals still have. Thus I indicated that an autie *lacks*, say, a trait for visually attending only to what is relevant in the environment. Or he lacks the simple ability to make his motor muscles obey him. But in the behavior of tasting, he may have *more* than we have.

Consider the fact that Ido has a need to mouth things:

"I taste objects. To me they seem incomplete without a taste. Their taste is as obvious to me as their appearance. I think this is one reason why I still mouth objects so frequently. If I don't mouth the object I either feel annoyed or it's like I missed part of it. I know this seems odd. It's just one more interesting attribute of my disease" (2012: 73).

Likewise, on Youtube video there's a lovely autistic child, Madison who, according to her Dad, has to give every-thing the taste test. That sort of thing is unknown in my life. Still it must be phylogenetic. If Ido and Madison have this throwback to our animal days, we all have it. It can't have been invented anew for them! Anyway, they're not being weird and they don't need to see a psychiatrist over it. Agreed?

THE ELECTRIC CONNECTION

I venture to guess that a cure for sensory mess-ups may be found, one day, in the area of electro-therapy. For that matter, electric medicine probably looms large in the future for many health issues. Our brain is an electric piece of equipment if ever there was one.

Three surgeons and an engineer contributed marvelous theories that are often overlooked. The surgeons are: Crile (of fever fame), Robert Becker, and Bjorn Nordenstrom. The engineer, Lakhovsky, appears on the next page:

The Secret of Life by Georges Lakhovsky, trans Mark Clement, 1925

We may go even further and say that the atmosphere in which we live is permeated with a multitude of vibrations… essentially characterized by different frequencies. We have already pointed out that sunlight forms but a very small part of the whole range of vibrations originating partly from the sun and partly from the stars.

It is impossible to deny the influence of the stars in this connection. The tides, occurring twice a day, by the combined action of the moon and the sun, show that the most extensive mechanical work taking place on the earth is of astral origin. Nature is the scene of a host of phenomena, alleged to be inexistent or inexplicable owing to our limited powers of perception, but whose effects manifest themselves nevertheless.

Thus I postulate the existence of a multitude of radiations of all frequencies emanating from the interplanetary space and traversing our atmosphere unceasingly. To this conception I have given the name of *Universion*.

Some of these radiations, the luminous ones, transmit through their rays a certain amount of solar energy and give rise to a process of synthesis in plants in connection with assimilation of chlorophyll. This was termed photolysis by the eminent French scientist, Daniel Berthelot. In the vegetable kingdom synthesis of organic matter is accomplished with simple elements and with the intervention of energy directly transmitted by solar radiations (light, heat, infra-red, ultra-violet and cosmic radiations) which bring about this metamorphosis.

It is actually these radiations, of very high frequency, invisible and imperceptible to our senses, which were supposed to act, according to a *modus operandi* we shall discuss presently, on the metallic circuit mentioned in my experiments with cancerous geraniums. It is these radiations which were responsible, in the inoculated plants, for re-establishing oscillatory equilibrium between healthy and diseased cells. These radiations, emanated from my Radio-cellulo-oscillator.

BE OPEN TO NEW (VERY OLD) IDEAS

As the state of research into the fantastic problem of autism is so pathetic, one should be happy to try anything.

When preparing my cancer book I bumped into some very old books that look fabulous to me, a layperson. Research was hellzapoppin in the 1920s! This, from Crile's *Bipolar Processes of Life* (1926: 127):

"The effect of radiation is to interfere with the mechanism in the cell for the creation and storage of electric charges, an interference which as effectively prevents growth and function" … "Surely then the sun's energy released within an animal may be capable of organizing energy systems."

Max Gerson, MD, (famous for curing many diseases via nutrition) has similarly said a mouthful:

"I am convinced that the problem of chronic disease is not one of biochemistry; rather, it is produced by deeper forces which cause the **deficiencies of energies.** It is the electrical forces that hold matter together. If the **electrical forces become disorganized**, matter will disintegrate. **Disease is the result** of disorganized electrical forces. Health results in the organization of electrical forces; therefore, we must discover how to organize these forces."
-- Website of the Pythagorean Center for Natural Healing

TRANSCRANIAL STIMULATION

I have just been advised by my grandchild that this book should include a treatment known as TSC, transcranial stimulation, as there is now a way to get into the brain externally through the skull. Thus I dutifully trekked to Pubmed and found that there are two types of treatment. One is transcranial stimulation and the other is magnetic pulsing. The patient has to wear a headband, and use an electric device. They are used for motor problems and emotion or motivation (ahem).

Both are sold online, FDA-approved. (What's the world coming to?) And Australian National University is trialling transcranial magnetic stimulation for depression.

Please see Appendix O re the Diapulse machine. It's FDA-approved for use against pain but, according to Steven Ross, author of *And Then Nothing Happened,* it also has healing power. This would square with the work of Robert O Becker, MD's study of 'current of injury.' If you get a wound, the body's repair system starts fixing it almost instantly, by sending an electric current to the site.

WHAT'S IN THE CURE CART THUS FAR?

This chapter on cure-shopping promised that although there is not (yet) a cure for autism, there may be cures for related conditions that are usable by autistic patients. So far we collected a few:

-- zolpiden (brand name Stilnox), that helped Sam Goddard recover from stroke and start to speak;

-- the Samuels short-wave stimulation of pituitary that allowed Francis de Caux's Parkinson patient to improve;

-- Deep Brain Stimulation, available at hospitals today;

-- transcranial stimulation, which may be a noninvasive, or less invasive, form of deep brain stimulation

-- a drug known as cyclo-phospho-something-or-other (remember whom you're dealing with here) that caused one person to go into permanent remission of MS.

I have also heard of an interesting cure but it claims to be a matter of fiction only. There is a novel entitled *Neuromancer* (1984), which reputedly introduced the new term "cyberspace." The plot is that a man is 'rendered parkinsonian' as a punishment for disobeying his bosses in organized crime. He then goes to some lab wizards and negotiates a cure. For our purposes the amazing fact is that the way he was rendered

parkinsonian was by the use of the toxin MPTP. I raced to the library when I heard about this book but found it very hard to read. In fact I had to glean the plot from Amazon reviews (of which there are more than 900 for this out-of-date book! Is there something fishy going on?).

I have also read that Olle Linvall, MD, in Sweden, is trying a new cure for Parkinson's. He puts *fetal* neural cells on the substantia nigra. This requires surgery.

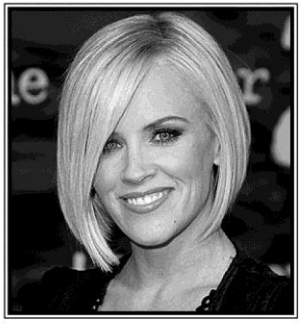
And don't forget that more than 60 years ago Edward Rosenow, MD, of the Mayo Clinic, had a cure for multiple sclerosis. (He also had a cure for just about everything and it is certainly worth looking into his papers.)

Neurophone. Anyone can buy, over-the-counter, a device called Neurophone, invented by the genius Pat Flanaghan. It allows the deaf to hear through the skin rather than through the ear. The inspiration for this invention was the fact that dolphins get their information by sound waves through the water without benefit of auditory reception. The waves pass into the whole body of the dolphin. The neurophone costs $800 and may well be worth it! Is there some reason why Science is not celebrating Flanaghan's wonderful work?

COULD CURING AUTISM BE BAD MANNERS?

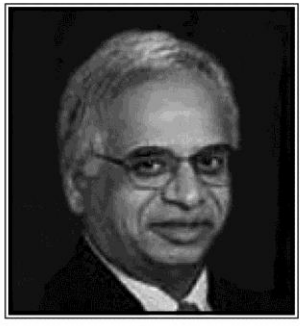
If you are a student wanting to help out with the terrible condition known as severe autism, I say just enter the arena and be creative. The 'life force' should protect you. Don't be put off by the new 'Neurodiversty Movement.' Some high-functioning autistic persons are understandably offended that anyone would talk about 'curing' them.

I agree that it is insulting for normals to set up standards that all must follow. And society does need neurodiversity. But you can listen to those autistic individuals who do desire a cure.



Jenny McCarthy
born in Chicago, 1972

Jenny McCarthy, an autism Mom, founded the organization Generation Rescue. She is a co-host of a TV show, and was *Playboy's* Playmate of the Year in 1993.



Vijendra K Singh, PhD
born in India

Vijendra K Singh is a neuro-immunologist with deep involvement in the matter of autoimmune disease. He has much knowledge about the effect of multiple vaccinations.

9. WHAT PART DOES IMMUNITY PLAY IN AUTISM?

Friends, Romans, Countrymen, lend me your cerebra. I had come to bury autoimmunity, not to praise it. Matter of fact I hoped to dodge the whole subject of immunity, as I lack a secure understanding of it, but now it seems unavoidable. Wait till you see what VK Singh comes up with.

CAN AN IMMUNE SYSTEM BE CURED?

When I set up my hypothesis of Maxwell autism lentivirus on March 16, 2014, I was right away disheartened by it, as it occurred to me that someone would ask "If the cause of autism is a lentivirus, what is the cure?" Needless to say I do not see how one cures a lentivirus. However, after poking around a bit, I did find a few things. So we can start with those and then discuss immunity in general.

On the website RegardingCaroline.com, excerpted in Appendix F of this book, the Mom, Rebecca, mentions that her child was given an immuno-modulator called Immunovir, that seemed to help. But it was bad for her sleeping, and so was abandoned. Rebecca also said that a doctor had prescribed 'Transfer factor' specifically to get the measles virus out of Caroline's system! And Proboost Thymic protein A for the same purpose. (Those worked well but had to be stopped because of a yeast flare-up.)

I don't want to confuse the issue. We're not, now, look-ing at a biomedical treatment of the child's symptoms; only at the concept of aiming a medication at an immune system dysfunction. ("Measles virus was persisting.") OK?

Note re immunomodulators: In regard to a cat lentivirus, FIV, for which no cure is known, the US Department of Agriculture in 2006 approved the following product for treatment: Lymphocyte T-Cell Immunomodulator. It "regulates FD4 production and increases Interleukin."

LET'S DO A PRISCILLA: A WELL- FUNCTIONING I.S.

We shall return to the question of how to correct immune dysfunction. For now, we look at the normal, healthy subject. The immune system is totally incredible and little understood. Its job is to monitor the body 24/7 and to keep it in the best condition. (There are some helpful animations on Youtube.) Here are some relevant definitions from layperson me:

Pathogen – causes disease if it enters the body uninvited, e.g., parasite, bacteria, viruses (*Path*, sick; *gen,* to make).

Leukocytes – white blood cells tasked with responsibility for fighting pathogens (*leuko,* white; *cyto,* cell).

Immune system's 'organs' – thymus, spleen, lymph ducts, and bone marrow (as locus of production of leukocytes).

T-cells (they emerge from the thymus, hence the letter T).

NK cells – 'natural killer cells' (I'm not making this up). You are born with these to fight 'standard' aliens.

Antibodies – proteins you make to oppose specific baddies.

Phages -- naturally occurring viruses that kill bacteria for you. (Pretty amazing, what's in it for them?)

What can go wrong? At least four things:
1. If the immune system is overworked, it may pause.
2. If it is directly attacked (as in HIV), it may collapse.
3. One of its processes, inflammation, may forget to stop.
4. The job gets done but to the wrong targets. This is autoimmunity. The immune system attacks its owner.

IS AUTISM A SO-CALLED AUTOIMMUNE DISEASE?

Now let Singh argue autism as an autoimmune disease. He seems to be onto something. If he makes his case, I may have to surrender my MAL hypothesis. Of course that would be a pleasure if it means the problem is solved!

Vijendra Singh, Congressional Testimony, April 6, 2000:

An estimated one-half of a million Americans, mainly children, and millions more worldwide are known to suffer from autism. …. I refer to a subset of autism that has autoimmune etiology. … This subset may indeed be a result of vaccine injuries to children who display autistic regression.

Auto-immunity is a mosaic of highly complicated interactions and **networking between cells and molecules** of the immune system, as happens in autoimmune diseases such as lupus…. Autoimmune diseases are identified and characterized by many factors. The hallmark is the "organ-specific autoantibodies" that have also been identified in people with autistic disorder.

To that end, I have recently summarized laboratory data of approximately 400 cases (autistic and controls) and found that **up to 80% of autistic children have autoantibodies to specific brain structures**, in particular a brain protein known as myelin basic protein (MBP) of the myelin sheath, a fatty coating that insulates nerve fibers essential for higher brain functions.

These autoantibodies are present quite frequently (65-85%) in autistic children, but **only rarely** (0-5%) **in normal children** and other disease controls. Accordingly, I postulated that autism involves a specific autoimmune response to MBP -- an immune assault that **impairs myelin development** in the developing brain, thereby **modifying the nerve cell functions of the brain.**

Ultimately, by way of **impaired wiring diagram** in the brain, this results into autism….

[Emphasis added]

My main hesitation about Singh's theory – which he models excellently -- is that he doesn't say why autism has arisen suddenly. His Congressional testimony, given under oath, holds that some autistic children have an auto-antibody to their own MBP – myelin basic protein.

Well how about your grandparents -- did they have the same trouble with their MBP? No, they didn't. So when did it come into our species? Here Singh seems to depend on the vaccination issue. In an article entitled "Autoimmune Autism," in the May 2009 issue of *Annals of Clinical Psychiatry,* Singh said:

> "Many autistic children harbored brain myelin basic protein autoantibodies and elevated levels of antibodies to measles virus and measles-mumps-rubella (MMR) vaccine. Measles might be etiologically linked to autism because measles and MMR antibodies (a viral marker) correlated positively to brain autoantibodies. Autistic children also showed elevated levels of acute-phase reactants -- a marker of systemic inflammation."

(Sure, he's pussyfooting a bit there, but in the vaccination 'controversy' one may prefer not to call a spade a spade.)

Perhaps I'm prejudiced but the autoimmunity story does not appeal to me. It seems odd. God does not usually make a mistake like that! And why would it explain so many strange illnesses that seem to have cropped up in living memory? Examples are: Lyme disease, rheumatoid arthritis, diabetes, Chron's, multiple sclerosis, and asthma.

Autoimmunity is also said to explain food allergies, such as the peanut allergy that is now epidemic. There, the person's system tells her that what he has just consumed (the peanut) is a dangerous plant, when it really isn't. It sets her body up to fight, and she falls ill. Why should there be a malfunction of the immune system such that all these diseases are able to flourish?

CURING IMMUNE PROBLEMS

More will be said about Singh and autoimmunity below. Let us now ask what can be done if my hypothesis is correct that autism is caused by a retrovirus. Is any medication available?

Since 1990 we've had anti-retrovirals for the most famous lentivirus (which has caused death to millions). I am referring to HIV, which is sometimes called AIDS. People with AIDS now take anti-retrovirals such as AZT. Those are very expensive but are said to work effectively.

The action of an anti-retroviral makes sense. As Chapter 7 said, an invading retrovirus wants to fuse with the host's cell. Once in, it employs an enzyme, reverse transcriptase, RT, to copy its genetic material into the host's DNA. So, to stop this, we'd like to 'nuke' it. The nukes, as those drugs are called, block the workings of the RT.

Note: there is a new drug called Truvada that helps gay men avoid AIDS. I guess it's a vaccine by any other name.

TWO WHO TREATED LENTIVIRUSES CREATIVELY

Any scientist should feel free to use his imagination to solve the autism problem. Regarding AIDS, I know of two scientists who came up with creative solutions. They are Emanuel Revici, MD, a fabulous clinician trained in physics, and Salvatore Capatano, an ex-army medic.

The late Mr Catapano had the idea (from his army days) that typhoid vaccine would work for HIV. In 1987 he was awarded a US patent for this protocol: US 4,711,876A.

The pharmaceutical is manufactured only by Wyeth Labs. Later, Catapano sued that company for infringing his patent. The case was dismissed. The judge pointed out that Wyeth was not the correct defendant, as their packaging did not mention the use for HIV. (If any patent-infringement took place, it was by the doctors.)

All applications for patents can be seen at uspto.gov. Catapano's application cites a Ft Detrick memo, signed by Dr Michael Chirigos, in the era before AIDS. It says:

> "We have completed our initial experimental testing of typhoid vaccine for immunostimulating activity. The immune cells involved in the immunological response are T-Lymphocyte macrophages or B-Lymphocytes.
>
> Our results show that **typhoid vaccine stimulates macrophages.** 'T' Lymphocytes are responsible for cell-ular immunity; 'B' Lymphocytes, for humoral immunity. The second type of immunity is achieved through the formation of large numbers of highly specialized lymphocytes that are specifically sensitized against the foreign agent. These have the special capability to attach to the foreign agent and to destroy it. [Emphasis added]

I am unable to judge if, or why, a *typhoid* vaccine would counteract a lentivirus such as HIV, as Catapano claims. But it would be worth looking into the phaging aspect.

As for the other inventor of a cure for AIDS that isn't a nuke, we look to Emanuel Revici, MD (1897-1998). The report by Marcus Cohen in Appendix P will help you understand Revici's unusual approach. Revici's textbook is free online but was written in 1961 so does not mention AIDS. His cure has to do with phospholipids.

William Eidem's T*he Doctor Who Cures Cancer* (1997) claims Revici cured many who came to him with HIV. I believe it, as I had a great time reporting on Revici's knack for curing cancer, in my book *Consider the Lilies*. (See my Youtube discussion of Revici at marywmaxwell.com.) He could also cure addictions, medically! By the way, he was among the many cancer-cure physicians who lost his license to practice. Pretty outrageous if you ask me.

BACTERIAL/VIRAL CURES THAT MAY SUIT SOME Four more medications will be mentioned:

What if you could give the patient a gut bacterium that would solve his autism? On December 5, 2013, *Nature* gave us the story "Bacterium Can Reverse Autism-Like Behavior in Mice," written by Sara Reardon. It concerns Paul Patterson at Caltech who created, in mice, what he sees as the core symptoms of autism: lack of social communication, anxiety, and repetitive behaviors. Patterson "created mice with autism-like symptoms by injecting a chemical that mimics viral infection into pregnant mice."

(Sorry I don't know what 'mimics' means.) He observed:

> "Those animals then bore offspring that were less sociable and more anxious than wild-type animals. The autistic mice also had 'leaky guts,' in which the walls of the intestine break down and allow substances to leak through." [Intriguing!]

The good news is that the "autistic" mice were found to be lacking in a gut bacterium called *Bacteroides fragilis,* and when given a dose of it they showed relief of symptoms! (Recall Juan Rodriguez' protocol: ibuprufen and *probiotics*.)

The second item is one that I saw on Youtube.com, at the channel of Rafael Sanchez. A man reports that his son, Ethan, had severe autism, and was given a combination of anti-virals (Valtrex) and anti-fungals. By the 21st day of that therapy the boy recovered. Hot *dog!*

A third way of treating autism could be by sodium chlorite. I do not have information about this except from Youtube. It is related to a wonder drug, literally called Magic Mineral Solution, MMS, that can attack any pathogen. For that matter – but I cannot research it here – colloidal silver is said to be able to kill all bugs. And George Miley, MD, used UBI (ultra-violet blood irradiation), a simple procedure, to cure many illnesses. (See Appendix T for a cure of tetany by way of ultra-violet light.)

The fourth possibility is a new drug offered for rheumatoid arthritis, RA. If autism is autoimmune, maybe this drug would help. In Dovepress Journal, A Shetty et al write, in March 2014, "Tocilizumab in Treatment of RA":

"With multiple **cytokines well-known now to play a role** in the pathogenesis of RA, including tumor necrosis factor alpha, interleukin (IL)-1β, and IL-6, targeted biological treatments against these cytokines have emerged. Tocilizumab is antibody **against the IL-6 receptor**.
[Imagine coming up with a name like To-cili-zumab!]

There is strong evidence that its use [reduces] the signs and symptoms of RA. TCZ may be **beneficial in the treatment of other auto**immune diseases, spinal disease, and malignancies where **elevated levels of IL-6 may play a role in the pathogenesis of these diseases**." [Emphasis added]

Oh, and in case you did not yet see it, in Appendix F, Caroline's mother waxes enthusiastic about camel's milk as it has healing power against bacteria and *viruses*.

LET'S DO A PANKSEPP: I'LL KNOCK MY OWN THEORY

The Maxwell Autism Lentivirus hypothesis wants criticism. The first competitor I have run into is Vijendra Singh. That's how thin on the ground are theorists of autism! His story seems persuasive. If he is right, I may have to jettison my lentivirus idea. In my scheme the child is born healthy and then is visited by the baddy, the MAL. In Singh's scheme the deck is stacked against the child before birth (genetic trait for over-reactive immune system), and then gets an insult such as the MMR.

There are many horrible diseases happening today that are called auto-immune. Why so many, so suddenly? So an argument I made above against Singh is that he does not explain why our grandparents did not have these diseases, and that he can't account for kids who weren't vaccinated.

Still, I have to admit that my theory fails to account for any cases of autism pre-1980, the time when there were no lentiviruses. Note: It won't do to say "Some cases of autism are old-time stuff and some are lentivirus." I feel that whoever is right, be it me or Singh (or a newbie), needs to be able to account for the full autism epidemic.

Another area in which I may be wrong – and it is vital to my theory – is the claim that the DNA gets altered by this alleged retrovirus. (Reminder: a lentivirus is a new species within the family Retroviridae.) To be honest, I do not understand epigenetics. I grew up thinking DNA does not change but that is incorrect. Probably the environment is doing a number on the DNA even as we speak.

I also am not sure if the stem-cell cure for autism (see Chapter 6) poses a challenge to MAL.

To repeat for anyone who forgot: my story is that the lentivirus causing autism is one that attacks the genes that run key parts of the brain. I didn't attempt to identify a particular gene but said it must have control over motor or simply be a master gene that coordinates things. Please note that Harold Burr, who was no slouch in neuro-science, insists that there are 'directional forces' like that.

A POSSIBLE SINGH-MAXWELL COMPROMISE

My theory could be salvaged, in light of Singh's work, by a compromise (which I am not quite ready to make), saying that the thing that 'my' lentivirus hits, when it hits the child, is the child's immune system. We know there is such a thing as a lentivirus hitting, principally, the I.S., as that is the essence of the most famous lentivirus, HIV, human immuno-deficiency virus. This would take the mickey out of my idea that the thing hits, say, the substantia nigra!

But I will consider it! I quote from an article in *Immuno-pharmacology*, *Immunotoxicolog,* by S Froelich, A Tai, Pin Wang. Its

title tells us all we really need to know: "Lentiviral Vectors for Immune Cells Targetting"!

> "Lentiviral vectors (LVs) are efficient gene delivery vehicles suitable for delivering long-term transgene [inserted gene] expression…. **Engineering** LVs to have the capacity to transduce specific cell types is of great interest …. We provide approaches **to target LVs to cells of the immune system**.
> ... When **combined with a CD4 antibody,** the vectors were able to specifically transduce CD4 lymphocytes in human primary blood mononuclear cells." [Emphasis added]

TROPICAL SPASTIC PARAPHARESIS, RAMPANT IN 2014

Recall that the lentivirus commonly used in laboratories as part of cancer research is MLV, murine leukemia virus, and that this has no natural counterpart. Another lentivirus used to infect animals is with HTLV-1 (human T-cell lymphotropic virus).

> For several decades the term 'tropical spastic paraparesis' (TSP) has been used to describe a chronic and progressive disease of the nervous system that affects adults living in equatorial areas of the world and causes progressive weakness, stiff muscles, muscle spasms, sensory disturbance, and sphincter dysfunction.
>
> **The cause of TSP was obscure until the mid-1980s, when an important association was established between the human retrovirus -- human T-cell lymphotrophic virus type 1 (also known as HTLV-1) -- and TSP.** The HTLV-1 retrovirus is thought to cause at least 80 percent of the cases by **impairing the immune system**." [Emphasis added] – from the website of National Institute of Neurological Diseases and Stroke

Note: TSP is ravaging Papua New Guinea and Philippines. It would be logical to look into the possibility of bio-war, or some local mischief, in such unusual circumstances.

WRAP-UP OF THIS BOOK

Some amazing items in this book were treated almost as asides, as I needed to keep the story moving. You may wish now to go back and look at them. The following guide gives the page number and the gist of the item.

Maybe by playing with this list you will come to an entirely new theory. Let me know! Note: the underlining of a page number means I think the item needs to brought to autism doctors' attention without delay. The underlining of the last word means I think something is scientifically hot, hot, hot.

From Chapter 2, the Ido revolution:

22 "My brain says Don't touch house, I touch house."-- IK
24 Humming or spinning is how I shut down. -- CF
24 I hit myself to stop myself doing wrong. -- CF
26 I can't sit still, always looking for exit, I'm scared. -- NH
29 I use your hand when I can't gauge things visually. -- NH

From Chapter 4, biomedical treatments:

43 "Son was helped by HBO and B12 methylcobalamin."
47 If gut has poor lining, the digestive enzymes don't work.
47 Overload of gluten in gut may trigger autoimmune….
47 Food peptides act like endorphins on dopamine system.
49 Squeeze machine helps autie define her body space.
49 Part of brain for movement evokes spontaneous talk.
49 Music finds its way to dysfunctional areas of brain.

From Chapter 5, environmental triggers:

60 Autism epidemic is running in tandem with TB epidemic.
60 Cell phones change magnetic field, this affects the brain.
61 Weather patterns do predict Seasonal Affective Disorder.
61 Rosenow saw a polio virus change into a streptococcus.
61 If you bury bacteria where sun can't radiate, no changes.
61 Organisms in glycerol-Nacl 2:1 retained specificity 7 yrs.
61 Streptococci seasonal change? Likely cause is radiation.
61 Some organisms are pneumotropic, some neurotropic.

From Chapter 6, modeling a cause or a cure:
63 Rodriguez follows Capecchi, blames microglial cells.
63 Bradstreet recommends stem cells to cure autism.
64 Mark Geier blames testosterone, prescribes Lupron.
65 Animals addicted to opiate; it can substitute for mother.
65 In womb, opiates may lock the embryo from moving.
66 Blockading the brain-opiate may help autistic persons.
67 If autism mainly motor, why do biomedical items work?
67 Why does a person come out of fog when gut clears?
67 Why does cod liver oil help a child tolerate change?
68 Brain cancer surgery causes temporary loss of speech.
68 The vowel sounds are the first to return.
68 TG: I can't tandem walk for police, I topple sideways,
68 Smooth, coordinated movements are difficult for me,
69 I have trouble shifting attention between sensory stimuli,
69 While having colitis attacks my stage-fright went away,
69 My nerves felt more like hypersensitivity than anxiety.
69 Autistic babies don't move in synchrony with Mom talk.
69 Behavioral deterioration at puberty is likely for autistics.
70 TG: The Rotor ride gave me temporary relief,
70 Intense pressure and vestibular stimulation calms me,
70 Fixating on one thing had a calming effect,
70 Norpramin and Tofranil each helped me; ended colitis,
70 Friend said I was always hunched over and swallowing.
70 Teacher: Let hyperactive kids spin in a chair twice a week.
71 'Priscilla' can tune hearing volume to not-super-loud.
72 Silk purse cannot be made of bad DSM-5 criteria.
73 Strickland blames Mom's lack of Omega-3 fatty acids.
73 It's worth imagining a bold cure, e.g., big pituitary theory.
74 Samuels cured illness by buzzing sex glands and pituitary.
75 Studying full list of good treatments may yield Eureka's.
76 I want to pull blanket up but motor output no good. - IK
76 He's in front of me, I don't know he's talking to me.-NH
76 Burr: There are directional properties of living systems.
76 Motor cells in ventral lateral regions of cord are the boss.

From Chapter 7, hypothesis, a retrovirus causes autism:
80 Feline immunodeficiency virus was discovered in 1986.
80 Lentiviruses 'found' in horse, sheep. We give it to mice.
80 Virus's envelope fuses with target host cell, brings RNA.
80 LV can lie dormant years not noticed by immune system.
80 Cystic fibrosis and retinitis pigmentosa get gene therapy.
81 When splicing a gene you can use lentivirus as the vector.
81 Belshaw: efficiently infect dividing and nondividing cells.
82 Mice engineered to lack *Cntnap2,* "autism related" gene.
82 Mice less vocal than controls and had repetitive behavior.
83 Maxwell: some genes must govern the core symptoms.
83 Hence a hypothesis of lentivirus knocking out a gene.
85 A retrovirus damages same area of CNS as does MS.
85 Some retroviruses give mice hind limb paralysis,
85 but susceptibility only until young mice develop immune.
85 HIV induces some neurodegenerative lesions.
85 Worst lesions are near heaviest microglial cell infection.
86 We don't know why viruses exist. Rosenow raises doubts.
86 Cat leukemia lentivirus: pale gums, enlarged lymph nodes.
87 Crile: both fever and chills are adaptive, to fight a virus.
87 Pain, invariably a stimulation to motor activity, protects. 88 The enteric nervous system is an independent brain.
89 Gershon: Happenings in the gut can cause mental illness.
89 Biome discovery: We all carry mucho symbiotic bacteria.
114 Koala retrovirus hits germ line, so gets 'endogenized.'
114 There is now a gibbon ape leukemia virus, GALV.
114 Human gene confers sensitivity to infection by GALV.
Appendix J: Williams Syndrome involves gene deletion.

From Chapter 8, shop for cures for CNS and sensory:
93 Sam had a stroke; Sally cured it with Stilnox (zolpiden).
94 GABA-A receptors overinhibited, zolpiden may fix that.
95 De Caux cured a Parkinson lady with Samuels shortwave.
96 Deep brain stimulation "works on specific circuits."
96 Primate got PD via a dopaminergic neurotoxin, MPTP.

97 Losing dopamine-secretion in substantia nigra causes PD.
97 PD is helped by reducing abnormal basal ganglia output.
98 Autoimmune MS -- inflammation of myelin sheath.
98 MS may be due to low Vit. D. or to Epstein-Barr virus.
98 Intravenous cyclophosphamide put MS into remission.
100 Soma uses pressure in her rapid prompting method.
100 Ido saw letters in a swirling soup. Emotion speeded it.
101 Bill-paying can be helped by a prompt or good emotion.
103 Grandin wrote the only sensory article of 81 articles!!!
104 Autistic teens are only a phone call away, to consult.
106 Cosmic rays interfere with health.
107 Transcranial stimulation and magnetic pulsing approved.
108 Novel *Neuromancer,* hero gets cured of MPTP assault.
109 Neurophone may help get around auditory disabilities.

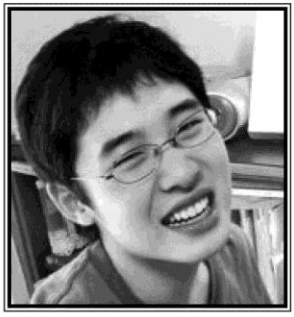
From Chapter 9, immunity and autoimmunity:
111 Transfer factor, proboost thymic protein-A, *vs* measles.
112 Lymphocyte T-Cell Immunomodulator helps FIV cats.
112 It "regulates FD4 production and increases Interleukin."
115 AZT, expensive antiretroviral for HIV, is effective.
115 AZT is a nuke, it blocks action of reverse transcriptase.
115 Fusion inhibitors prevent joining of virus and host cell.
116 Typhoid vax for AIDS; vaccine stimulates macrophages.
116 Revici reportedly cured AIDS with phospholipids.
114 Singh says 80% auties have autoantibodies to proteins.
114 Those are antibodies to MBP, myelin basic protein.
114 Singh: autism involves autoimmune response to MBP.
114 Auties show elevated marker of systemic inflammation.
116 Lyme, RA, asthma, Chron's, diabetes, all autoimmune?
117 *Bacteriodes fragilis,* given to gut, cures "autistic" mice.
117 Youtube autie 21-day cure: antiviral/antifungal combo.
119 Cures via stem cells seem to challenge MAL hypothesis.
119 Other ideas: Rodriguez cure, camel milk, MMS, UBI.
120 S Froelich et al help target MLV to the immune system!
120 Tropical spastic paraparesis hits adults, a CNS disease.
120 HTLV-1 was found to cause TSP by impairing the I.S.

Of the Above Hotties, These 18 Are Dyn-o-mite:
49 Part of brain for movement evokes spontaneous talk.
76 Burr: There are directional properties of living systems.
76 Motor cells in ventral lateral regions of cord are the boss.
85 Retrovirus damages same area of CNS as mult. sclerosis.
85 Some retroviruses give mice hind limb paralysis, but
85 Only young mice susceptible, pre immune system.
87 HIV induces some neurodegenerative lesions.
89 Gershon: Happenings in the gut can cause mental illness.
90 Koala retrovirus hits germ line, so gets "endogenized."
95 De Caux cured Parkinson lady with Samuels' shortwave.
96 Primate got PD via a dopaminergic neurotoxin, MPTP.
97 PD: lose dopamine-secreting neurons in substantia nigra.
109 Transfer factor, proboost thymic protein-A, *vs* measles.
114 Singh: autism involves autoimmune response to MBP.
117 Youtube autie 21-day cure: antiviral/antifungal combo.
118 Other ideas: glutathione, Rodriguez cure, camel milk.
120 S Froelich et al help target MLV to the immune system
120 HTLV-1 was found to cause TSP by impairing the I.S.

CARRY THIS WORK ON, PLEASE
Some readers may be disappointed to hear that this is as far as I can go with the story. I take credit for having pulled the literature together. (None of the science came from me a'tall.) I urge students to tackle the eight queries below, a.s.a.p. Note: Ido can assist your research, as can the other experts Carly and Elizabeth, and the Dean, Temple Grandin.
1. Speech and movement are connected. Can this help Ido?
2. What's the downlow on dopamine in the substantia nigra?
3. How exactly was the TSP caused by impairment of I.S.?
4. Why did Ethan's doctor combine antiviral and antifungal?
5. Where's Singh at now, re MBP? Any docs try his cure?
6. Despite happy stories, why do many parents have *no luck?*
7. Does a "spectrum" (autism/Asperger's) help find a cure?
8. What do Brain South and biome contribute to autism?

Elizabeth Bonker
born in New York, 1998

Elizabeth Bonker is the youngest revolutionary mentioned in this book, and the most succinct deliverer of information to the public. No surplus syllable is allowed to creep in.



Naoki Higashida
born in Japan, 1992

Naoki Higashida's mother taught him to write, in Japanese, and his book is now available in English, entitled *The Reason I Jump*. Autistic, he pities the rest of us.

10. ELIZABETH, WE ARE IN HERE

The old order changeth, yielding place to new.

There is a new generation, full of unusual citizens. They will put us to shame. They already outdo us in every important way.

I am referring to the revolutionaries. I don't know how many of them there are. I have only met four of them, in print, and I take them to be my best buddies, my confidantes, supporters. Yes, that's quite presumptuous of me, but you see they have extended the hand of friendship to all of us.

How can it be that they are so human? Well, how do any of us tap into humanity? How do all of us get to be human with so little effort? We get to participate, *gratis*, in all the events of the past and all the emotional experiences of everyone else! It just happens.

Recall Helen Keller (1880-1968). She was not really in the game when she was blind and deaf, but then made the connection with words, thanks to her teacher Annie Sullivan. Soon thereafter she was expressing profound insight and offering solidarity to any who wanted it. She said "Though I cannot see or hear your world, I can sense it."

She also wrote: "Security is mostly a superstition. It does not exist in nature. Avoiding danger is no safer in the long run than outright exposure. Life is either a daring adventure, or nothing."

Wow.

Morte d'Arthur, by Alfred Lord Tennyson (1809-1892)

Then loudly cried the bold Sir Bedivere,
"Ah! my Lord Arthur, whither shall I go?
Where shall I hide my forehead and my eyes?
For now I see the true old times are dead,
When every morning brought a noble chance,
And every chance brought out a noble knight.
Such times have been not since the light that led…
And I, the last, go forth companionless,
And the days darken round me, and the years,
Among new men, strange faces, other minds."

And slowly answered Arthur from the barge:
"The old order changeth, yielding place to new,
And God fulfils Himself in many ways….
Pray for my soul. More things are wrought by prayer
Than this world dreams of. Wherefore, let thy voice
Rise like a fountain for me night and day.
For what are men better than sheep or goats
That nourish a blind life within the brain,
If, knowing God, they lift not hands of prayer
Both for themselves and those who call them friend?
For so the whole round earth is every way
Bound by gold chains about the feet of God.
But now farewell. I am going a long way
With these thou seest -- if indeed I go --
(For all my mind is clouded with a doubt)
To the island-valley of Avilion;
Where falls not hail, or rain, or any snow,
Nor ever wind blows loudly; but it lies
Deep-meadowed, happy, fair with orchard-lawns
And bowery hollows crowned with summer sea,
Where I will heal me of my grievous wound."
So said he, and the barge with oar and sail
Moved from the brink, like some full-breasted swan
That ruffles her pure cold plume, and takes the flood….

This short, concluding chapter is about the gifts that Ido, Carly, Elizabeth, and Naoki are bringing to the world.

It strikes me that a paucity of numbers is no problem. In the United States you've got Ido Kedar on the west coast and Elizabeth Bonker on the east coast and that's more than sufficient to hold the whole country together. Though only two people they are worth a million people. Owing to books, they can be all over the place and in every heart. That is just the way it works, thank God.

HOMEOSTASIS

Antonio Damasio, MD, a neuroscientist, claims that there a way for homeostasis to take place in society just as there is in the human body. It is done by cultural community. Damasio points to the fact that even one-celled creatures can engage in 'quorum sensing.' They can decide if there are enough of them to take a certain collective action.

That's pretty good news today, when all seems to be unraveling -- the function of homeostasis can come into play, if, as Damasio says, it's biologically provided for!

He also goes a bit further -- though I am not completely ready to go there with him. He says (at bigthink.com, September 22, 2010):

> "What I think is happening with us is that little by little we have evolved the ability with our high brains and very complex organization of the nervous system, we have evolved the ability to project the process of consciousness into a completely different dimension.
>
> Instead of just running the basic homeostasis, just running the basic life regulation (largely given by our genome), we can now invent something new -- we can run what I like to call socio-cultural homeostasis; one in which we can create."

Now here are your friends, speaking on nature, inspiration, and social responsibility. Relax and be uplifted!

NATURE

NAOKI:
Us people with autism love the greenness of nature. I think it's a little bit different to everyone else. I'm guessing that what touches you in nature is the beauty of the trees and flowers. But us people with special needs, nature is as important as our own lives. When we look at nature we receive a sort of permission to be alive in this world and our entire bodies get recharged. However often we're ignored and pushed away by other people, nature will always give us a good big hug, here inside our hearts.

IDO:
I love nature. In nature I am teamed up with God. I see beauty all around me and feel part of it. The illness is put aside because I see perfection in the really lovely sights. I fit in so well. I se the system is messy but it works and it is WOW…. I am not a mistake, nor a sorry state of messy neurons. I accept my neurological system because it has given me a way of seeing life.
I fit in with the path in the woods. (written at age 14)

NAOKI:
People with autism can be restless and fidgety alls the time. It's as if it's the summer for us the whole year round. Most people look pretty relaxed when they're not doing anything in particular, but we're always zooming off madly like a kid who's late for school. We're like cicadas who'll miss the summer unless we hurry, hurry, hurry. Bzzzz, bzzzz, crick-crick crick-crick, chrrrr….

We who have autism, who are semi-detached from the flow of time, we are always uneasy from sunrise to sunset Just like the cicadas, we cry out, we call out.

IDO:
I also have a deep love of the mountains. I am hardly ever happier than when we are in the mountains or swimming in the mountain lakes. It is spiritual to be in a lake, it reminds me that I'm small and insignificant in nature, yet part of it too. I sleep well in the mountains.

INSPIRATION

IDO:
Recently I have been watching some re-broadcasts of the 2008 Paralympics in China. It inspires me. These athletes are fit, fast, and tough. Some have no feet, arms, or are deformed in some way. Many have been in accidents that changed their life completely, No self-pity. Maybe sadness of course but no self-pity. They say, Ok I lost my leg. What can I do with one? I am an athlete with one leg.

NAOKI: When our obsessive behavior is bothering other people, please stop us right away. When our obsessive behavior isn't actually bothering anyone I'd ask that you just keep a quiet eye on us. One fine day the obsessive action suddenly stops itself without warning. Sometimes our brain flashes up a GAME OVER signal. When that sign appears I feel set free.
To you who are helping us I'd say this. Please handle and approach our behavioral issues with a strong faith that they are definitely going to pass at some time in the future. And until we reach that point we'd like you to stick with it and stick with us.

CARLY:
All my hard work felt worth it. A couple of weeks before my bat mitzvah my mother and father sat me down and told me that Ellen agreed to read my speech. There is no greater feeling than knowing you can do something that may have seemed impossible. From that day forward I welcomed challenges.

ELIZABETH:
Special People

9-line poem awaiting author's permission

NAOKI:
I want to grow up learning a million things! There must be countless other people with autism who have the same desire, the same attitude. But our problem is, we aren't capable of studying all by ourselves. To be able to study like other people we need more time and different strategies and approaches. And those people who help us study, they actually need more patience than we do.
They need to understand our eagerness to learn, even though from the outside we may not appear to be keen students. But we are. We, too, want to grow.

IDO:
I am satisfied with more and more in my life. If I am open to challenges, don't give in to sorrow, and have a goal in mind, I can do in time what seems now out of reach.

Stims are the drug of the trapped. We can't do what we would like our bodies to do but God gave us this soothing hallucinatory escape from reality. I've stimmed away years of my life.

My amazing Dad has helped me to sit quietly in a rest-aurant or even at a concert. I don't know what my future will be but I know it won't be as a stimming person.

SOCIAL RESPONSIBILITY

ELIZABETH:
You Pollute -- Stop It!

8-line poem awaiting author's permission

IDO:
It's not just autistic kids who get depressed. Their parents do, too. I see it often. The parents look so grief-stricken or exhausted…. The kids are so limited and don't respond to rules. So parents start to go nuts. I saw a kid who couldn't sit still. To his Dad he was embarrassing and disruptive. The Dad looked so tired and despairing in between losing his temper. The son is suffering double; he can't overcome his sensory world, and then he is mis-understood by those he loves most. His dad loves him, I could see that. It hurt to see them both suffer so much.

CONCLUSION

I don't want to conclude on a high note. The message of this chapter is that all is well -- sort of. It's well because there seems to be new breed of humanity, the children of autism, now grown into thinkers and doers. We ought to listen to them.

But all is not well with us. During this month of April, which is 'autism awareness month,' I have been receiving Google alerts every day (per my request) on 'autism research.' Pity any in-the-know autistic person who has to see what is being said about their 'cause.'

A main theme the media is propagating is that society needs to adjust to this new state of poor health, and that school systems should gear up for chronic illness. My response is ANYTHING BUT!!!! Don't get conditioned to believe in 'the new normal.' Fight it tooth and nail.

The dishonesty of science is, also, pretty sickening. I wonder if they've all gone mad. Please enjoy another glance at the page-length quotes in this book from old geniuses Crile, Lakhovsky, and Burr. Although none of them express themselves religiously, they obviously had major respect for God's creation. If you are a student, insist that they be brought into the curriculum.

The question addressed in this book is Is there a balm in Gilead? Can severe autism be cured? Personally, I think love will find a way. But, as my mother would say, love doesn't grow on trees. You have to *do* something about it.

I think (like Naoki) that our society is in crisis. And yes, autism is a sign of it. Isn't it better to utter that truth and not retreat into euphemism? *Houston, we have a problem* -- not just a problem, but a shocking, catastrophic situation.

Who is going to turn this around? Why you, of course. This is your hour. You know what you must do.

GUIDE TO THE APPENDICES

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Children with Difficulties

Illnesses

Cures

Appendix A
US Supreme Court Ruling in *Bruesewitz v Wyeth,* 2011.

Dissent by Justice Sonia Sotomayor, joined by Justice Ruth Bader Ginsburg:

[Vaccine manufacturers] have long been subject to a legal duty, rooted in basic principles of products liability law, to improve the designs of their vaccines in light of advances in science and technology. Until today, that duty was enforceable through a traditional state-law tort action for defective design….

In holding that [the Act] pre-empts all design defect claims for injuries stemming from vaccines covered under the Act, the Court imposes its own bare policy preference over the considered judgment of Congress. In doing so, the Court excises 13 words from the statutory text, misconstrues the Act's legislative history, and disturbs the careful balance Congress struck between compensating vaccine-injured children and stabilizing the childhood vaccine market. Its decision leaves a regulatory vacuum in which no one ensures that vaccine manufacturers adequately take account of scientific and technological advancements when designing or distributing their products.

[Because Sect. 22(b)(1) is] invoked by vaccine manufacturers as a defense to tort liability, it follows that the 'even though' clause requires a vaccine manufacturer in each civil action to demonstrate that its vaccine is free from manufacturing and labeling defects to fall within the liability exemption of Sect. 22(b)(1).
[The majority's decision was based on] a policy preference. [It is better] to leave complex epidemiological judgments about vaccine design to the FDA and the National Vaccine Program rather than juries.

The decision to bar all design-defect claims against vaccine manufacturers is one that Congress must make, not this Court.

Appendix B

Letter published in *British Medical Journal* by Harold E Buttram, MD, of Quakertown, Pennsylvania.

Dear Sir,

In reference to the comments by Mr. Adam Jacobs of October 1, 2004 concerning my article in the *Journal of American Physicians & Surgeons,* he was correct in pointing out that I offered no definitive proof for my contentions, but he missed the entire point of the article in that there have never been any safety studies done for any vaccine in use today that would meet the criteria of scientific proof….

In order to meet the criteria of scientific proof, a vaccine safety study would need to perform before-and-after human studies designed to screen for possible adverse effects on the neurological, immunologic, and hematological systems, comparing vaccinated with unvaccinated subjects, both in sufficient numbers and followed for sufficient periods of time to be meaningful. There have never been any studies of this nature, and apparently none have been attempted.

Based on personal observation, it appears that before-and-after testing has been studiously avoided by government health agencies for fear that the results would discourage public confidence in vaccine programs.

Until this level of safety testing is done, it is a virtual certainty that many adverse vaccine reactions are taking place unrecognized and will continue to take place….

In my opinion the NIH, CDC, FDA can justifiably be accused of negligence in protecting the health and welfare of the American public, especially the children.

Regarding comments of Adam Jacobs concerning the editorial policy of JPS, this journal is unique in working to reverse the present trend towards depersonalization in the care of patients in today's medicine and a return to the traditions of medicine as an art as well as a science. I must wonder if Adam Jacobs is opposed to this, considering the nature of his remarks.

[Emphasis added]

Appendix C

Millicent Morden, MD, "Rabies Past Present in Scientific Review" in E McBean, *The Poisoned Needle* (1971), at whale.to

Rabies was an old superstition -- a relic of the times when devils ran to and fro between animal and man carrying disease.

Pasteur changed this old superstition into a money-making disease. Rabies is now a pet child of the Vivisection Trust which works internationally.

In early times, as recorded in articles available in old libraries, the kiss of a king would cure rabies. It was later discovered that a piece of the king's garment would be as efficacious. In 1806 a Mr. Kraus was awarded $1000 [for] his scientific discovery which had kept rabies out of New York for twenty years. His formula is a matter of record and consisted of the ground-up jaw bone of an ass or dog, a piece of colt's tongue and the green rust off a penny of George the First reign. Medicine has heard much of the startling cure of Joseph Meister by Pasteur. Little mention is made of the fact that three relatives of the Meister boy were bitten by the same dog and without benefit of the Pasteur treatment recovered completely.

Dr. H. Bastian, a contemporary, took sharp issue with Pasteur's scientific ideas and conclusions. Another contemporary of Pasteur, Dr. Antoine Bechamp, took violent exceptions to Pasteur's reports on rabies and, incidentally, it was Dr. Bechamp who claimed to have previously discovered the cause of the silkworm disease and who made the discoveries on fermentation. The records of the French Academy of Science substantiate Bechamp's claims.

Dr. W. R. Hadwen of England was also in controversy with Pasteur. Dr. William A. Bruette, former assistant chief of the Bureau of Animal Industry in Washington, was also a contemporary of Pasteur and gave many proofs of Pasteur's incorrect findings. Dr. Bruette has proved, as a matter of fact, that rabies vaccine is not only a fraud, but harmful. He states that "inoculation spreads disease." He goes as far as to call the sale of rabies vaccine an out and out racket.

Dr. Matthew Woods, a leading member of the Philadelphia Medical Society, stated, "at the Philadelphia dog pound, where on an average more than 6,000 vagrant dogs are taken annually, and where the

catchers and keepers are frequently bitten while handling them, not one case of hydrophobia has occurred." "The records of the London Hospital, a few years ago, showed 2,668 persons bitten by angry dogs. None developed rabies.

Dr. Charles W. Dulles [!], lecturer on the History of Medicine at the University of Pennsylvania, who was appointed by the Medical Societies of the state to investigate rabies stated that he is "inclined to the view that there is no such specific malady."

Dr. Elmer Lee ended another rabies scare on Staten Island. On autopsy the rabid dog was found to have died of thread worms and not rabies. The worms were lodged in the heart.

A similar finding of worms ended the Klondike Rabies Panic. Dr. Stillman, in 1922 voiced the opinion that rabies was "pure humbug" and that in over forty years as a practicing physician with a very busy practice and wide travels throughout Europe, he stated that he had "never seen a case of rabies."

Dr. William Brady, nation-wide columnist, has stated that, "The Pasteur treatment for rabies is a blind treatment and no one knows whether Pasteur treatment confers any protection against rabies. I'd never willingly receive Pasteur treatment or give it to any one under any conceivable circumstances…"

Is rabies then a disease? Have we isolated a virus or germ? Is the Pasteur-treatment specific? Is rabies, in short, fact or fancy? I believe it is fancy, for I have handled so-called rabid animals and humans without benefit of Pasteur treatment and in no case has there been a death or any other symptoms of rabies.

I submit that rabies is non-existent and that the Pasteur treatment for rabies is worse than the disease, if it were a disease, which it is not.

P. S. I have examined and witnessed the repeated examinations of every part of the brains of the so-called rabid dogs. The mouse and rabbit tests have proved ridiculous ever since the time of Pasteur.

-- Millicent Morden, MD

Appendix D

"Briefing on Vaccine Safety," March 6, 2008. From cdc.gov.
(The meeting was perhaps called in response to the fact of Hannah Poling's winning her case in court).

OPERATOR: Welcome, and thank you for standing by. During the question-and-answer session today you can press Star One. At this time, we'll turn the call over to Glen Nowak.

GLEN NOWAK: Thank you. This is on the science of vaccines and autism. We are not here to discuss the vaccine injury compensation case. I realize, this is related to that case, but we are unable to talk about the specifics of that case.

We do, however, recognize that, you know, many media stories have likely prompted new questions, caused some … greater awareness of mitochondrial diseases and disorders. And so, given the range of questions and interests that we've been getting the last day or so, we have a number of people here today to help answer your questions. As many of you have been calling us about mitochondrial diseases we also have Dr. Edwin Trevathan, Director of CDC's National Center for Birth Defects and Development Disabilities with us today. Edwin is a pediatric neurologist. And then Dr. Norman Baylor, who is the Director of the Office of Vaccines Research and Review in the Center at the FDA. And Dr. Anne Schuchat, Center for Immunization and Respiratory Diseases. [Mark these names.]

DR. JULIE GERBERDING: Today is, again, a very kind of sad reminder of how difficult autism is for so many families. And while we can talk about lots of different aspects of this I want to be real clear from the beginning that probably the most important aspect of this is the fact that autism is a very serious and challenging disease for many families and each of these families has to struggle to understand and cope with the condition and we wish we could be more helpful in supporting all of that. We also recognize that some of the information being promulgated about this particular situation is not accurately characterizing what we understand to be the true situation. So let me just be very clear that while we recognize and have recognized for a long time that mitochondrial disorders can be associated with nervous tissue degeneration … there's nothing about

the particulars of this situation that should be generalized to an understanding of the risks associated with vaccines for normal children and certainly nothing in any of this is going to change any of our recommendations about the childhood immunization for every child for whom these immunizations are otherwise indicated. I want to say that again.

Our message to parents is that immunization is lifesaving. And we are very committed to the interagency research but in the meantime we need to disassociate the issue of autism with the very important public health and health protection intervention…. [Say what?]

DR. THOMAS INSEL: Thank you. I'm happy to be with you. … For most cases, we actually don't have a cause. There are some forms of autism that will occur as part of other – part of genetic diseases, fragile X, tuberous sclerosis …And there are some cases of autism in which we find genetic lesions. [Qu'est-ce que c'est, une "genetic lesion"?] But, in fact, most cases are probably likely due to both genetic and environmental factors. … So there's lots of interest in trying to think about what those environmental factors may be but we have a long way to go before we've been able to pin down the most important ones. Dr. Gerberding mentioned, there's a lot of research in the diagnosis to causes, trying to find some new treatment. There's funding... And so it's a very active area.

DR. ED TREVATHAN: Thanks, Glen. It's good to be here today. When we talk about mitochondrial disorders, what we're really discussing are a group of rather heterogeneous genetic disorders. They are disorders of function of the mitochondria. And we often remember mitochondria from grade school or high school science as the powerhouse of the cells. And, in fact, that is a key thing to remember, because the children who have mitochondrial disorders or these genetic disorders can appear normal initially. But when placed under severe stress due to infections or vomiting, diarrhea, fever, other sorts of stress like perhaps severe sleep deprivation or malnutrition they're not able to make enough … [etc, etc, etc].

Appendix E

Questions from the public, with answers provided by Carly at age 16. From *Carly's Voice,* by Arthur Fleischmann and Carly Fleischmann, New York: Simon & Schuster, 2012. Pp 375-381.

How did you learn 2 communicate so well on your PC, and can low functioning kids w/ autism be taught likewise ? Thx!
A: We all have a inner voice that needs to come out and we just need some one to believe in us and push us to get it out.

My 5yr old often stares off to the side not turning his head just using his eyes wide eyed and almost straining. Why?
A: When I was young I couldn't stare directly at things. I was looked out the corner of my eyes and even though U think hes not looking he is.

What do you mean when you say "I take over a thousand pictures of a person face when I look at them?
A: It's the way I describe how we see. All the images come at us at once. It is so overwhelming.

So many people don't understand autism. We have been advocating for our son since he was diagnosed.
A: A lot of times its not that they don't understand its that know one has educated them. The only time an autistic person is on the news is when something bad happens. Or one day a year to raise awareness. But autism day should be every day.

I'm a massage therapist, planning to work with children with autism, any ideas on how to provide a space where the child will feel comfortable?
A: I hace had a massages and enjoyed them as for a space make sure the oils or cream you use is ok with the child and the smell them isn't overwhelming. We can still smell certain sense after you have used them on other people in the room. Make sure fans and even air-conditioners are off. Some times sounds overwhelm us when we are experiencing increase of sensory input like a massage.

How do you feel about your therapist/aides? What can I as a therapy aide do to make a kid's time with me a positive experience?
A: I like therapists in fact I am friends with a lot of mine. The best thing u can do is go with your gut not the book. If you think something will work try it. And always believe in your child. They will feed off of that.

If you didn't live at home what technology would you want in your apt?
A:. I would really like a tv that I could hook my laptop into so people don't looke over my shoulder to see what I am saying or spelling. I like to listen to tv with wireless headphones sometimes. They help me block out the other overwhelming sounds and can helps me focus.

Was is hard to lean meditation? My daughter also has extreme anxiety and sensory challenges. I feel so helpless!
A: My OT and my Therapist Howie introduced me 2 meditation and I was shocked at how fast I was able 2 learn it and how effective it works. I recommend meditation 2 any one who has high anxieties.

When you can't control yourself even when you know it's wrong, what is the best support a person can give you when this happens?
A: I know people want me 2 say they can control some of our behaviours but a lot of times. Some of our behaviours are to stop other behaviours. I was hitting my hands and the doctors thought it was self aggressive behaviour.
In fact I was hitting my hands to stop another behaviour. I could not walk by paper or bags with out felling the need 2 rip or shred them. So I would hit my hands to stop it. Sometimes when people interject they end up making things worse. But sometimes it can be great help.

What age did u feel u had a breakthrough, even if u couldn't voice it yet?
A: I think when I was around nine I really was able to audio filter what my sister had to say and I wouldn't believe it.

Appendix F

From the website RegardingCaroline.com (retrieved March 20, 2014).

Caroline was born in June, 2006 and was a happy, healthy, playful baby... until 6 months of age when she received the DTaP, IPV/OPV, Hep B, PCV7 and a Flu shot all at her 6 month well-child visit. After that, she began exhibiting a shaking behavior any time her excitement or sensations became more than she could process. She began to babble and was developing a few words...

However, after 12 months of age (and the MMR), she lost them. She became much more interested in electronics than people. It was subtle, but noticeable. No words until age 2 ½. Something developed early on, was remarkable intelligence and memory. She knew all the colors, shapes, letters and numbers before age 2. These skills gave us hope….

[Note: the mother's text, shown below, is chronological. I have divided it into segments so I could state the "lesson" that the mother gleaned from each episode. The numbering is arbitrary and was added by me for the reader's convenience. -- MM]

Caroline's sensory issues were mounting. She was becoming completely intolerant of transitions, defensive of many textures (including foods); social anxiety was debilitating At 33 mos we gave her a supplement called DMG (Dimethylglycine). It was amazing! She was considerably calmer and many of the tantrums over transitions and being in public places were gone. LESSON 1: DIMETHYLGLYCINE EASED SOCIAL ANXIETY.

At 35 months, we started digestive enzymes (DPP-IV, to help her digest gluten and casein) with every meal and snack. She became more focused and calmer, but she still needed prompting for almost every word with more than 1 syllable. By 38 months we decided to give the GFCF diet a try. She responded very well, more language and more focus on tasks.

LESSON 2: FIXING DIGESTION HELPED FOCUS AND LANGUAGE.

At 40 months, low sugar… this one made a big difference in controlling gut and yeast issues and even cleared her eczema.
LESSON 3: LOW SUGAR HELPED GUT, YEAST, AND ECZEMA.

At age 3 ½, Dr. John Hicks began methyl b-12 (vitamin) shots. Immediately upon starting them the words came easier for her. It truly was inspirational to watch happen nearly overnight.
LESSON 4: METHYL VITAMIN B12 HELPED SPEECH.

Cod Liver Oil made big difference in ability to tolerate change.
LESSON 5: COD LIVER OIL HELPS TOLERATE CHANGE.

To heal her gut (rather than just avoid foods she couldn't digest), we began the Specific Carbohydrate Diet. Grainless, limited to meat, fruits, vegetables, eggs. The results within days were more focus and attention, improvement of GI.
LESSON 6: LOW CARB HELPED ATTENTION AND HELPED GI.

In March 2010, gastroenterologist, Dr. Charles Dumont prescribed Diflucan (antifungal); within a day, she very quickly began putting 3 words together, had noticeably increased focus
LESSON 7: ANTIFUNGAL HELPED 3-WORD SENTENCES, FOCUS.

In April 2010, we added Flagyl (antibiotic) to fight bad bacteria in her gut. As many of her OCD behaviors lessened, she became more typical. Although upon stopping it, several behaviors slowly returned....
LESSON 8: ANTIBIOTIC MADE FOR LESS OCD.

We learned that Caroline's body can't overcome the viruses from the vaccines, as she is still fighting them. They're causing inflammation in her brain and gut, we tried LDN, Low Dose Naltrexone cream to help modulate her immune system.
LESSON 9: VAX VIRUSES STILL INFLAMING BRAIN AND GUT.

It was a social miracle. After a week on LDN, Caroline was more genuinely interested in people, saying hello to strangers, sharing her

favorite toys, instructing others how to do things. LESSON 10: NALTREXONE HITS VIRUSES AND HELPS SOCIAL.

Lasted for ONE day. Then the yeast flared and she regressed.
LESSON 11: IMMUNE FIXER INCREASES YEAST PROBLEM.

In August 2010 we began mild Hyperbaric Oxygen Therapy to supply more O2 to her brain (helping build connections), improve mitochondrial function, decrease oxidative stress and further heal her gut. At 12 hours of treatment, she became calmer, happier, more tolerant. Language was clearly improved and her tantrums and social anxiety disappearing. Grinding, clenching and pained look on her face no longer existed.
LESSON 12: HBOT UPS MOOD, SPEECH, FIGHTS PAIN, ANXIETY.

With hyperbaric, we needed to work diligently on suppressing yeast. When yeast returns, so do the lack of focus, teeth grinding, night waking (5 hours at a time) and drunken laughing. We increased antifungals even more to suppress it.
LESSON 13: YEAST MAY BE RESPONSIBLE FOR BRAIN SYMPTOMS

In September 2010, we tried Imunovir, another immune modulator and her night sleep disrupted (similar to LDN - also an immune system enhancer). She was wide awake 3-6 hours.
LESSON 14: TRY TO FIX IMMUNE SYSTEM HURTS SLEEP CYCLE.

From a urine porphyrins test we learned that she has elevated levels of mercury and several other metals. To remove them, in October 2010, we began low dose chelation with DMPS. It went extremely well. The DMPS is given every 8 hours for 3 consecutive days. It binds heavy metals and removes them from the organs. She especially needs this to fight the metals in her gut (as they may allow yeast and bacteria to thrive?).
LESSON 15: CHELATING SEEMED TO EASE YEAST, BACTERIA.

We chelate every weekend and have also added Alpha Lipoic Acid which removes metals from the brain. We're following Andy Cutler

chelation protocol, very small doses of chelator every 3 hours, around the clock to minimize possible effects of redistribution of metals. We're noticing more tolerance, improved awareness, more social engagement and language gains (sentences coming much easier). We have also been able to take her off of Flagyl. We replaced it with Berberine which seems to be keeping the bacteria under control.
LESSON 16: CHELATION HELPED SOCIAL ENGAGEMENT.

We stumbled upon adrenal fatigue as a cause of meltdowns, night waking. With Adrenal Cortex Extract (to raise her low cortisol during the day) and Phosphatidyl Serine (to lower it at night) we've kept her fairly meltdown free for about 8 months.
LESSON 17: ADRENAL CORTEX EXTRACT STOPS MELTDOWNS.

In March 2011, we visited a Homeopath, Miranda Castro. We read Amy Lansky's book "Impossible Cure" and understood the "like cures like" concept of homeopathy, however, it's hard to imagine that it can actually work. After studying all of Caroline's history Miranda prescribed a remedy, Belladonna. After the first dose, Caroline was remarkably improved... her eye contact and use of her language were undeniably better and she was much calmer than usual.
LESSON 18: HOMEOPATHY HELPED EYE CONTACT. IT CALMS.

Chelation has consistently been our "heaviest hitter" treatment to date. We added DMSA once a month to work on removing lead and seeing even more gains across the board and in her ability to generate ideas in both communication and play.
LESSON 19: CHELATING LEAD HELPED IMAGINATION, SOCIAL.

We've tried a few additional immune system enhancers: Transfer Factors specifically for MMR and other vaccines by Chisolm labs and Proboost Thymic Protein A. We saw nice gains, but after 1-2 weeks her yeast flared and we had to stop.
LESSON 20: SPECIFIC IMMUNE ENHANCERS GOOD BUT YEASTIE

Homeopathy has been a great friend. In May, we gave a "deep acting" remedy and are seeing very nice improvements. Everyone

agrees: better eye contact and it seems as if the veil that was keeping her in her own world is being lifted.
LESSON 21: DEEP-ACTING HOMEOPATH REMEDY LIFTED FOG.

In 2011, Caroline was sick with a cold and fever. After that, her OCD behaviors rapidly escalated. That can be a symptom of PANDAS (pediatric autoimmune neuropsychiatric disorders associated with streptococcus). In the past, antibiotics decreased her OCD, so I knew to pursue it. We began with a PANDAS specialist and are seeing enormous gains in engagement, eye contact, mood, lessening of OCD/rigidity, from Ibuprofen, Amoxicillin and Prednisone (5 day trial) ….
LESSON 22: ANTIBIOTICS DIMINISHED OCD AND RIGIDITY.

November 2011. We began working with Pierre Fontaine. She also began drinking Camel's Milk. Changes in her engagement, attention and language were dramatic. She was previously unable to go off antibiotics (because OCD and tics swiftly returned) but was encouraged to try a natural protocol and to our surprise, it's been able to keep her largely symptom free.
LESSON 23: CAMEL MILK* HELPS ENGAGEMENT, LANGUAGE.

*__Camel milk.__ I heard about this on a website that said, "Camel milk does not contain beta-casein. Children sensitive to casein can drink it safely. The milk is highly anti-viral and anti-bacterial. The nanoglobulins (particulate in size compared to our immunoglobulins) pass through cell walls instantly, very much like IVIG and because of the healing nature of the camel's immune system, it does wonders for those with autism, diabetes, Chron's, anything intestinal." We disguised it into a home-made popsicle so Caroline would eat it. – Rebecca

Adding supplements such as carnosine and seriphos, Caroline greatly increased her calmness and attention. However, it was treating Thyroid that brought us some of the most remarkable, improvements we've seen. She needs far less adrenal cortex extract -- because being hypothyroid is hard on the adrenals.
LESSON 24: TREATING THE THYROID HELPS, AND CARNOSINE.

Note from MM: I'll now sort those items into six groups, according to the problem that was apparently being addressed. Looking at the whole picture, and the interactions of the parts, could help researchers and doctors.
Keep in mind that these are observations of only one child, and that the Mom is not preaching at us.

Problem: **Poor working of thyroid and adrenals**:
17. Adrenal Cortex Extract stopped meltdowns.
24. Treating the thyroid helped this child. Carnosine helped.
18. Homeopathic remedy of Belladonna (works on adrenal?) helped eye contact, was calming.

Problem: **Insufficiency of oxygen**:
12. HBO aided mood and speech; fought pain and anxiety.

Problem: **Lack of good methylation**:
1. Dimethylglycine eased social anxiety.
4. Vitamin B12 helped speech.

Problem: **Lack of good immune function**:
9 and 10. Naltrexon improved immune function and social.
14. Trying to fix immune system hurt Caroline's sleep cycle.
11. Taking immunomodulators increased the yeast problem.
20. Specific immune enhancers were good but yeastie.

Problem: **Unwanted fungi and bacteria**:
8 and 22. Antibiotics diminished OCD and rigidity.
15. Chelation of lead eased yeast, helped language, and play.
7. Antifungals helped 3-word sentences and focus.
13. Antifungals lessened teeth-grinding and drunken laughter.
3. Low sugar controlled yeast and helped eczema.

Problem: **Gut Issues**
2. Gluten-free casein free diet helped with language and focus.
6. Low carbohydrate diet helped gastrointestinal and attention.

(I thank Rebecca and Caroline for kind permission to use this material. – MM)

Appendix G

"Don't knock it till you try it," Robert Sears, *The Autism Book,* 2010.

I have had many patients who haven't fit the classic story of regressive autism with gastrointestinal symptoms but who have responded well to biomedical treatments nonetheless. I want to tell you Nicholas's story; it's an example of how well biomedical treatments can work for any child. Nicholas was born with two eye conditions. One was strabismus, where one eye turns inward toward the nose: the other was nystagmus, where the eye jerks back and forth rapidly. Nicholas had some mild developmental delays. He used several words by eighteen months but didn't progress into short sentences by age two.

Nicholas never showed any regression of his skills. After undergoing surgery at age two to correct his vision, he opened up to some degree to the world around him. But over the next year, he didn't blossom socially as much as expected, and his tantrums became more extreme. At 3.5 he was diagnosed with autism and began speech, OT, and ABA therapies.

A few months shy of his fourth birthday, his parents became aware of the biomedical approach and started him on the GFCF diet. They saw some great results within two weeks: His social interaction with peers increased, his tantrums went from two or three per day to only ore or two each week, he was much happier and less agitated, and he started playing with toys. His language improved dramatically over the next few months (which could also have been due to his therapies).

I didn't meet Nicholas until he was four and a half years old, nine months after he'd started the diet. His main problems were decreased social interaction and interest in fun activities, lack of conversational language, stimming on the wheels of toy cars and trains, hyperactivity, and tantrums more severe than expected for his age. Despite a year of behavioural therapies, he was not progressing as much as he should have been.

He also had more than his fair share of ear infections and antibiotics (about ten courses!). His mother recalls him having more severe tantrums and other problems during his antibiotic courses.

However, he never had diarrhea or constipation. His stools had always seemed healthy. Testing revealed a number of problems that could be contributing to his autistic symptoms: His zinc level was very low; his thyroid gland wasn't functioning normally; he had evidence of exposure to human herpes virus; he had severe overgrowth of clostridia bacteria in his intestines and a moderate problem with yeast.

I started Nicholas on the standard supplements and extra zinc with excellent results, except that he became very hyperactive on the multivitamin/mineral, so we set that aside for a while. I prescribed thyroid hormones and iodine. I treated him with fluconazole and metronidazole for his intestinal germs and then started him on B12 nasal spray, TMG, and folinic acid. He responded positively to everything Virtually every one of his problems improved with the yeast and bacterial meds, especially his language, and the thyroid hormone improved his energy level and muscle strength.

I received the following e-mail from Nicholas mom:

> "Dr. Bob and Susan [my assistant at the time],
> I took Nick to speech on Thursday and his therapist said, "Wow his comprehension of complex language has dramatically improved in the last 4 weeks!" We went to Disney-land yesterday for his 5th birthday and in a 7 hour period there was never one behavior… and transitional issues… perfect! Rode all of the rides his siblings did, patiently waited in line (sometimes for 15-30 minutes). Amazing. And just this morning our nanny brought over her little puppy. Nick has been playing with it outside and when his sister woke up he ran up to her and said, "Sophia, come look… there is a puppy in our house." His ability to share perspective and enjoyment is improving as well. We cannot thank you enough. This is the first birthday in three years I can say I really enjoyed. I have hope and joy in my heart again."

Need a tissue? I do, every time I read this. It is phone calls and e-mails like this that make my job the best in the world. But I can't take the credit. I'm just providing the treatments that dozens of researchers and physicians have put together.

Appendix H

Williams Syndrome, in *Words and Rules,* by Steven Pinker, 1999.

Are there genetic disorders that [preserve] language and impair intelligence? … In a recent paper the psychologist Ursula Bellugi and her colleagues discuss a girl they have worked with:

In describing her future aspirations, Crystal, a 16 year-old ado-lescent said "You're looking at a professional book writer. My books will be filled with drama, action, and excitement. … Crystal describes a meal as "a scrumptious buffet," an older friend as quite elegant … when asked if someone could borrow her watch, she replies "My watch is always available for service." Crystal can spontaneously create original stories….

In view of her facility with language, proclivity for flowery, descriptive terms and professed focus on drama and action, her aspiration may seem plausible; but in fact Crystal has an IQ of 49, equivalent of 8 years' At 16 she fails all Piagetian seriation and conservation tasks (milestones normally attained in the age range of 7 to 9 years); has reading, writing and math skills of a first or second grader; visuospatial abilities of a 5-year-old; and requires a babysitter for supervision.

Crystal has Williams syndrome, a rare form of retardation accompanied by heart and circulatory defects, pixielike face, and abnormal calcium metabolism [and OCD and poor muscle tone]. People with Williams have other islands of preserved ability: They are friendly to strangers, good at recognizing faces, and competent at inferring what people are thinking.

Recently the genetic defect behind Williams syndrome was identified: a **deletion** of about ten adjacent genes on the long arm of chromosome 7 (the same chromosome as SPCI-I1, though in a different place). 39 different parts of the syndrome can be traced to different missing genes. The **absence of a gene for a protein called elastin causes blood vessel defects**, and astonishingly, the absence of a kinase gene, LIM-kinase1, is responsible for their **terrible spatial abilities**.

People who have lost **only** the elastin and LIM-kinase1 genes, but not the other genes, have **circulatory** problems and terrible trouble

in spatial reasoning, such as **arranging blocks,** assembling toys, or copying simple shapes. But they are not retarded; in fact they are unimpaired in every other way. LIM-kinase1 is active in fetal and adult brains, and helps to regulate the tiny filaments found in the fingerlike projections of growing neurons.

Presumably LIM-kinase1 **plays an important role in the development of the neural networks used in spatial reasoning, possibly in the parietal lobes.** The other missing genes, perhaps, are necessary for the development of other parts and processes of the brain, though not for language or face perception.

Neuroimaging studies have shown that the brains of people with Williams syndrome are smaller overall, and are different in many subtle ways. Children with Williams syndrome are slow in beginning to talk, but they take off in late childhood and adolescence. Their speech is grammatically complex and largely without error, and they understand sentences *whose meanings depend on their grammatical structure, such as The truck is pushed by the car.*

They can generate lists of words (say, animals) as quickly as normal adolescents. Yet something about their word use is not quite normal. Listeners are struck by their recherché and slightly off-target word choices, such as *evacuate the glass* for emptying it, and *concierge* for an usher. They easily think of the **secondary meanings** of ambiguous words, such as "fastener" for nut or "weapon" for club. It's not that their mental dictionaries are thoroughly disordered….

When I first heard Bellugi talk about Williams syndrome, I shot up in my seat when she casually mentioned that their only obvious grammatical errors consist of overgeneralizations like *catched* and *sleeped*. It makes perfect sense: Their grammar is running smoothly, but their word fetcher doesn't have the usual bias to fetch frequent and appropriate words quickly.

Irregular verbs survive on that bias, so occasionally an irregular form doesn't pop into mind quickly enough, and the rule is ready and waiting to step in…. Neuroscientists often depend on brain lesions and genetic knockouts to understand what different parts of the brain are for.

[Emphasis added]

Appendix J

"Neurological Diseases," in John Coffin ed, *Retroviruses,* Cold Spring Harbor Laboratory Press, 1997. [Note: MLV refers to the mouse leukemia lentivirus, which never occurs in nature.]

*A variety of retroviruses **induce diseases of the CNS**, all characterized by progressive loss of neuronal function.
*Animal retroviruses are important. These induce pathological changes in the same areas of the CNS as multiple sclerosis, amyotrophic lateral sclerosis, and Creutzfeld-Jakob disease.
*The excellent animal models for the neurotropic MLVs allow analysis of what **facilitates viral spread** and infection of CNS.
*Some aspects of CNS physiology are still mysterious, e.g., the **complex interactions between neurons and supporting glial cells** (astrocytes, oligodendrocytes, and microglia) that provide the necessary microenvironment within the CNS.
*In retrovirus-induced CNS diseases, neuronal loss stems from changes in that environment. There are two types of disease:
*In one type, spongiform encephalopathy, neuronal degeneration occurs in the **absence** of an inflammatory response.
*The other type is the CNS diseases, in which an inflammatory response is the hallmark of the pathogenic process.
*These processes can be illustrated by the pathogenesis of **two viruses**: Cas-Br-E MLV, a neurotropic MLV, and **HTLV-1.**
*The first clues that murine retroviruses could cause neurologic disorders came from studies on wild mice. A significant number of these develop **hind limb** paralysis.
*These viruses, typified by the well-studied Cas-Br-E MLV isolate, induce a similar disease in laboratory mice.
*Examination of diseased mice reveals neuronal loss, as well as **proliferation and hypertrophy of glial cells.**
*Both neurons and glial cells accumulate vacuoles, giving the tissue a characteristic **spongy** appearance, and the myelin **sheath that covers and insulates axons degenerates**.
*Lesions are in anterior horn cells of the lumbar spinal cord.
*Cas-mice contain high titers of circulating virus, **facilitating infection** of vascular endothelial cells early in the disease.

*Some of the virus produced by these cells is released directly into the CNS where it infects cells within the brain.
*Interestingly, susceptibility is developmentally regulated; only very young mice **that have not developed an immune response are susceptible to neurologic disease.**
*Some neurodegenerative lesions are induced by HIV.
*The **most severe lesions** are usually associated with areas of heaviest microglial cell infection.
*The way in which the neurotropic MLVs induce neuronal loss remains a matter of speculation. Most models postulate that these cells are damaged by indirect effects of SU expression.
*One suggests that SU [**surface of retroviral envelope**], produced by infected microglial cells, binds to an unknown receptor on the surface of neurons, triggering cell damage. Such a receptor might normally interact with a factor that is required for survival of the neuron; binding of SU would block this interaction.
*Other models suggest that production of the SU protein could **stimulate the release of toxic substances that damage neurons** or diminish the supportive and scavenger functions normally provided by the glial cells.
*There is also Inflammatory CNS Disease induced by **HTLV**.
*Some HTLV-1-infected individuals develop a chronic CNS disorder affecting the spinal cord, **tropical** spastic paraparesis.
*HTLV-1 was implicated in a subset of these disorders when a high frequency of anti-HTLV-1-antibodies was found in patients with similar pathologic findings. The pathological hallmark of HTLV-1-induced CNS disease is a severe **demyelination** associated with a vigorous **inflammatory** response involving T cells, macrophages, and other cells.
*This response can damage the CNS by **a direct immunologic** attack against virus-infected cells or other cells.
*The mechanism by which HTLV-1 enters the CNS and the types of cells that are infected by the virus are not known.
*Certainly it seems likely that some cells are latently infected, a feature that may **characterize lentiviral CNS infections**.
*The release of cytokines and chemokines by the infiltrating cells causes damage. [Emphasis added] The above is abridged.

Appendix K

"Venezuelan equine encephalitis virus" *Wikipedia,* March, 2014.

Venezuelan equine encephalitis virus is a mosquito-borne viral pathogen that causes Venezuelan equine encephalitis or encephalomyelitis (VEE). VEE can affect all equine species, such as horses, donkeys, and zebras. After infection, equines may suddenly die or show progressive central nervous system disorders. Humans also can contract this disease.

Healthy adults who become infected by the virus may experi-ence flu-like symptoms, such as high fevers and headaches. People with weakened immune systems and the young and the elderly can become severely ill or die from this disease. The virus that causes VEE is transmitted primarily by mosquitoes that bite an infected animal and then bite on another.... The speed with which the disease spreads depends on the subtype of the VEE virus and the density of mosquito populations.

Enzootic subtypes of VEE are diseases endemic to certain areas. Generally these serotypes do not spread to other localities. Enzootic subtypes are associated with the rodent-mosquito transmission cycle. These forms of the virus can cause human illness but generally do not affect equine health.

Equines, rather than rodents, are the primary animal species that carry and spread the disease. Infected equines develop an enormous quantity of virus in their circulatory system. When a blood-feeding insect feeds on such animals, it picks up this virus and transmits it to other animals or humans.

Although other animals, such as cattle, swine, and dogs, can become infected, they generally do not show signs of the disease or contribute to its spread. Serology testing performed on this virus has shown the presence of six different subtypes.

Venezuelan equine encephalitis outbreaks

Outbreaks of Venezuelan equine encephalitis virus occurred in Central American and South American countries. This virus was isolated in 1938, and outbreaks have been reported in many different countries since then. Mexico, Colombia, Venezuela, and the United

States are just some of the countries that have reported outbreaks. Between December 1992 and January 1993, the Venezuelan state of Trujillo experienced an outbreak of this virus. Overall, 28 cases of the disease were reported along with 12 deaths. June 1993 saw a bigger outbreak, as **55 humans died** as well as 66 equine deaths.

A much larger outbreak in Venezuela and Colombia occurred in 1995. About 500 equine cases were reported, 475 deaths. In Colombia in September 1995, this outbreak resulted in 14,156 human cases that were attributable to Venezuelan equine encephalitis virus with **26 human deaths**.

A possible explanation for the serious outbreaks was the particularly heavy rain that had fallen. This could have caused increased numbers of mosquitoes that could serve as vectors for the disease.

A more likely explanation is that deforestation caused a change in mosquito species. *Culex taenopius* mosquitos, which prefer rodents, were replaced by *Ochlerotatus taeniorhynchus* mosquitos, which are more likely to bite humans and large equines. Currently, treatment of VEEV infection is mostly supportive because there are no specific drugs for alphaviruses.

Vaccine

There is currently a vaccine available for both humans and horses. In the U.S., only at risk military and laboratory personnel are vaccinated with the TC-83 strain and some receive C-84 boosters if initial vaccination did not produce sufficient immunity. The vaccine does have side effects that ranged from mild to moderate and did not provide full protection of nonhuman primates challenged by aerosol exposure the route of transmission most likely if VEEV were to be used in a biological **terrorist** attack…. During the Cold War, both the United States biological weapons program and the Soviet biological weapons program researched and **weaponized** VEE. In April 2009, the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick reported that samples of Venezuelan equine encephalitis virus were discovered missing during an inventory of a group of samples left by a **departed researcher**. … [Emphasis added]

Appendix L

"Smallpox vaccine 'triggered Aids virus'" THE TIMES, LONDON, MAY 11, 1987, Pearce Wright Science editor.

The Aids epidemic may have been triggered by the mass vaccination campaign [!!!] which eradicated smallpox. The World Health Organization, which masterminded the 13-year campaign, is studying new scientific evidence suggesting that immunization with the smallpox vaccine Vaccinia awakened the unsuspected, dormant human immuno defence virus infection (HIV)…. While **doctors now accept that Vaccinia can activate other viruses**, they are divided about whether it was the main catalyst to the Aids epidemic.

But an adviser to WHO who disclosed the problem, told The Times: 'I thought it was just a coincidence until we studied the latest findings about the reactions which can be caused by Vaccinia. Now I believe the smallpox vaccine theory is the explanation to the explosion of Aids.' 'In obliterating one disease, another was transformed.' Further evidence comes from Washington. While smallpox vaccine is no longer kept for public health purposes, new recruits to the American armed services are immunized as a precaution against possible biological warfare. Routine vaccination of a 19-year-old recruit was the trigger for stimulation of dormant HIV virus into Aids.

This discovery of how people with subclinical HIV infection are at risk of rapid development of Aids as a vaccine-induced disease was made by a medical team with Dr Robert Redfield at **Walter Reed**. The recruit who developed Aids after vaccination had been healthy throughout high school. He was given multiple immunizations, then his first smallpox vaccination.

Two and a half weeks later he developed fever, headaches, neck stiffness and night sweats. Three weeks later he was admitted to Walter Reed suffering from **meningitis** and rapidly developed further symptoms of Aids and died after responding for a short time to treatment. … In describing their discovery in a paper published in the *New England Journal of Medicine* a fortnight ago, the Walter Reed team gave a warning against a plan to use modified versions of the

smallpox vaccine to combat other diseases [?] in developing countries….

The coincidence between the anti-smallpox campaign and the rise of Aids was discussed privately last year by experts [?] at WHO. The possibility was dismissed on grounds of unsatis-factory evidence. … It is now felt that doubts would have risen sooner if public health authorities in Africa had more willingly reported infection statistics to WHO. Instead, some countries continued to ignore the existence of Aids even after US doctors alerted the world when the infection spread to the US.

However, as epidemiologists gleaned more information about Aids from reluctant Central African countries, clues began to emerge from the new findings when examined against the wealth of detail known about smallpox as recorded in the Final Report of the Global Commission for the Certification of Smallpox Eradication.

The smallpox vaccine theory would account for the position of each of the seven Central African states which top the league table of most-affected countries [and] why Brazil became the most afflicted Latin American country….

Although no detailed figures are available, WHO information indicated that the **Aids league table of Central Africa matches the concentration of vaccinations**. The greatest spread of HIV infection coincides with the most intense immunization programmes, with the number of people immunised being as follows: Zaire 36 million; Zambia 19m; Tanzania 14m; Uganda 11m; Malawai 8m; Ruanda 3m; and Burundi 3m. Brazil, **the only South American country covered in the eradication campaign**, has the highest incidence of Aids in that region.

Dr Robert Gello [sic], who first identified the Aids virus in the US, told *The Times*:

"The link between the WHO programme and the epidemic in Africa is an interesting and important hypothesis. I cannot say that it actually happened, but I have been saying for some years that **the use of live vaccines such as that used for smallpox can activate a dormant infection such as HIV**."

[Emphasis added]

Appendix M

Standard of Care. Excerpts from *The Thinking Mom's Revolution,* essays collected by Helen Conroy and Lisa Joyce Goes, New York: Skyhorse, 2013.

Twonk, p 5. Because of his heart defect I paid extra-special attention to the vaccine controversy. Some doctor was being slagged off in the news for suggesting a possible link between the MMR and sick kids. It made me ask the pediatrician what she thought was best. I asked her opinion, as if it would be unbiased, independent, based on real scientific evidence, in the best interest of the child she was treating. She thought being vaccinated was best, and I now know that I should never have expected her to say anything different. She was part of a machine – a cold-hearted, narrow minded, bought-and-paid for medical establishment – and she didn't even know it.

Poppy, p 28. I decided that the boys would get no more shots, but I felt so confused. I read about many of these children having seizures. J never did. In retrospect, he did in fact have petit mal seizures as a baby. He would tense up, open his mouth wide, and squeeze the rail of the crib. Of course, I told Dr Soprano about it, and he said that J was just so excited and over-stimulated. Now do you understand why I want to wring this idiot's neck?

Savage, p 36. I didn't feel comfortable with vaccines. I wanted to know more, do more research, but I fell for the propaganda. The pediatrician won out; my guilt won out. How could I refuse the shot and possibly leave my newborn baby at risk for a dreaded disease? Every well-child visit Michael received three or four vaccinations. After every round of shots he would develop a fever of 102, sometimes 104, and every time I called the doctor in a panic. Every time I was assured these "side effects" were normal and I was being an over-anxious mother. The pediatrician told me "Your son's hips are dislocated." [Note: An autistic girl in this volume also has this 'bilateral hip dysplasia.'] He would need to be in traction, then have surgery.

The Professor, p 64. My children have not been diagnosed with autism but both have neurological impairments – in all likelihood caused by similar processes. I now believe that most of the modern chronic illnesses so prevalent today have similar roots. As autism numbers have risen, so have those for diabetes, asthma, ADHD, arthritis, life-threatening allergies, obesity…. Children with autism are the canaries that are letting us know that so much of our lives has become poisonous.

LuvBug, p 92. I went to the swanky Children's Hospital web-site, found a bunch of GI docs and metabolic specialists. … The woman who answered the phone could not have been nicer to me. I explained that I wasn't sure if I had the right department. She was very friendly and suggested that I start with the GI specialist. I thanked her profusely, explaining that it had been kind of a hard week. We had just received confirmation of our son's autism diagnosis, on top of his dwarfism diagnosis. So it was lovely to have this confusing maze of medical mumbo jumbo cleared up by this nice lady.

But when I uttered that last sentence she changed her tune. "Oh, honey," she said, "we don't treat autism here." "Oh, you don't understand I'm not asking you to treat his autism. I'd like help with his chronic constipation and malabsorption." "I'm sorry," she continued, we don't treat autism." I was stunned.

Snap, p 134. I later understood that Alexander had a vaccine reaction after his 3-month well-baby visit. I remember crying and begging them not to give him four vaccines at once. The nurse reassured me, saying "It is safe. We do it all the time." Within 10 hours we were in the emergency room. My little baby's body was covered in a rash from head to toe. He was crying inconsolably. I called his pediatrician and said, "I was just in and he had his vaccines," and she said, "Oh, this is not from that." After this episode and more and more vaccines, he kept getting chronic ear infections. When I questioned his pediatrician about this, again she told me it was no big deal, very common in boys, it's "normal."… I no longer trust the majority of the mainstream medical community.

Appendix N

Stuart-Hale Shakman, PhD, Review of the Work of Edward C. Rosenow (1875-1966), at www.I-O-S.org (retrieved in 2012).

Many of the research pathways supporting the growing consensus that **infection is involved in the cause of schizophrenia** find independent support in Rosenow. [His work incorporated], as essential compo**n**ents, **transmutations among microbial species**, [and] reversibly dissociative, filter-passing forms, and their toxins.

Rosenow, in working with pneumonia, presented evidence from blood cultures that lobar pneumonia may be a "secondary localization of a primary blood invasion and not a local disease." Virulence and fermentative powers were found to be diminished in vitro, and increased in vivo. By 1914 he made cultures from excised tissues, blood and other fluids through the use of tall tubes affording an oxygen pressure gradiant, from aerobic at the top to anaerobic at the bottom…

The finding that relatively **avirulent strains might be made virulent by successive animal passage**, and the **reverse** by cultivation, along with other studies suggested to Dr. Rosenow that diseases of **widely different symptomatology** might be associated with microbes of related species but with **differing infecting powers.**

In 1916 he reported that intravenous injections of **cultures from multiple sclerosis, neuralgia, and multiple neuritis resulted in production of characteristic lesions in the spinal cord,** dorsal nerve roots, and peripheral nerves, respectively, of experimental animals.

These results were to be revisited five years later as the basis of detailed studies of post-influenzal encephalitis. Dr Rosenow said, "The epidemic was severe, and the need for vaccination was great; a large number of cases were available for bacteriologic study, and to supply the proper strains for the vaccine. ... Owing to the foresight of the founders of the Mayo Foundation, a large amount of the vaccine has been prepared and sent gratis on request to numerous physicians on condition that reports of the results be returned."

Whereas Dr. Rosenow's initial vaccine used in 1918 had contained

a small portion of influenza bacilli, these were rarely found later in the epidemic…. For the most part these reported vaccines were comprised of mixed cultures of fixed types of pneumococci (30%), pneumococci group IV and allied green-producing diplostreptococci (40%), hemolytic streptococci (20%) and staphylococcus aureus (10%). Of these, Rosenow suggested: "Of all the bacteria isolated, the somewhat peculiar green-producing streptococcus or diplo-streptococcus is the **most important.** This organism is present in large numbers at the very outset of symptoms of influenza and of the accompanying pneumonia; is commonly present after death."

In 1924 he discussed the extreme specificity of the green-producing streptococci, particularly in the case **of nervous system diseases.** He cited the reproduction of characteristic lesions in **inter**vertebral ganglions in rabbits and dogs by IV injection of green-producing streptococci from **herpes** zoster; in the posterior or sensory roots of rabbits, in the case of intercostal neuralgia; in the sheaths of large nerve trunks, in the case of sciatica… from infectious transverse myelitis.

According to Rowntree, Dr Rosenow "prepared **autogenous vaccines that worked miracles in innumerable patients**."

Noting that changes in cataphoretic velocity and virulence of streptococci had been induced by exposure to the high frequency field, by [himself] and others as early as 1933, and that **mutations or dissociations in bacteria and viruses had been produced by others on exposure** to x-rays, ultraviolet, and other radiation, he hypothesized that the responsible agent for the observed changes may be some form of radiant **energy**.

He demonstrated parallel altered infectivity in the case of both non-filtrable (streptococcal) and filtrable [**'viral'**] forms in accord with seasonal occurrence of neurotropic and pneumotropic epidemics respectively. He also noted a "striking parallelism" between measurements of streptococci from ill persons and those from the **raw milk** supply during epidemics, and the return to normal patterns of both after the epidemics.

He prominently cited the 1927 work of Philip Hadley, MD.
[Emphasis added]

Appendix O

"Diapulse" by Robert Maver, an insurance company executive, in Steven Ross, *And Then Nothing Happened,* 2008.

A machine that uses **pulsed electromagnetic frequencies to accelerate healing** appears poised to make a dramatic impact on medicine and medical costs. The Diapulse machine was developed in 1932 by Abraham J. Ginsberg, M.D., and Arthur Milinowski, a physicist. Ginsberg received medals from the US for his invention of the 'sniper-scope' used on the M1 rifle.

In the late 1950s Diapulse established research in the United States and at international universities and hospitals. There now exists a vast amount of research including laboratory, animal, and **double-blind clinical studies on the acceleration of wound healing with Diapulse therapy spanning over 40 years**. [!!!]

Because the Diapulse effectively addresses three basic processes involved in healing, i.e., elimination of edema, absorption of hematoma, and increased blood-flow, it has applications in a wide variety of medical conditions.

In 1958, the Mayo Clinic confirmed studies previously carried out by Ginsberg demonstrating the cellular effects of pulsed electromagnetic energy known as Pearl-Chain phenomena.

A 1961 study on arthritis produced some dramatic results. The data reported on 63 cases of longstanding duration (average 12 years) that had failed a variety of modalities. The average length of Diapulse therapy was 19 treatments over a period of six weeks. Out of 63 patients, 59 showed remarked improvement. The study uses categories not usually seen, e.g.:

Crutches Discarded	5
Wheelchairs Discarded	4
Cane Discarded	1

A 1962 study of Diapulse in the treatment of pelvic inflammatory disease reported an average hospital stay of 7.4 days for Diapulse treated patients, versus 13.5 days in controls.

A study of Diapulse on **spinal cord injury** conducted in Poland in the late 1970's produced amazing results. Ninety-seven patients underwent treatment. A **pronounced neurological recovery** was observed in 38 patients, i.e., some 40% of the group. Remarkably, in 28 individuals the recovery had substantial functional value: the patients were discharged from the Neuro-orthopedic Department with paresis slightly impairing the function of the extremities. In other non- Diapulse treated patients with such neurological lesions observed at the time of administration, **one rarely attains a definite neurological improvement.**

Sports medicine is another area that will be greatly impacted by Diapulse therapy. Just prior to the 1968 Mexico Olympics one of the European teams alerted the Olympic Organizing Committee it would be bringing a Diapulse machine to the Games. The Organizing Committee's initial reaction was not to allow the machine because it would **give that country's teams an unfair advantage, especially in a sport like boxing.**

The Committee's final position was to request Diapulse Corporation to make available 30 machines at the Games for use by all teams. Other than oxygen it was the only therapy supplied by the Olympic Organizing Committee. They have been treating athletes at every Olympic Games since. In the Montreal games, multiple gold medal winner Lasse Viren of Finland gave credit to the Diapulse for **allowing him to compete and win one day after a hamstring pull.**

Princess Anne used it after taking a bad fall in the equestrian and went on to win a medal in that event.
[Emphasis added]

(Steven Ross [2008] adds: "The FDA only allows the Diapulse Company to speak about the effect on pain or swelling. But what about all of the other aspects that you have read about in this book *[the book by Ross: And Then Nothing Happened]*? The Diapulse company is active and selling their devices. But how could this device not be a major part of every hospital, clinic and treatment center? How could research into this technology not continue and be part of major research centers?")

Appendix P

Marcus A Cohen, a *Townsend Letter* about E Revici, MD.

"Revici described AIDS as a condition with 4 major components. An individual might manifest only one or all four. It begins with **a virus that, if left unchecked, contributes to a generalized susceptibility to localized bacterial infections**. Those proceed into secondary infections sometimes accompanied by malignancies. In its final stages there is a systemic condition characterized by an "intensive" lipidic imbalance. About 50% of his AIDS patients [had] improvement according to indicators such as the **elevation of the Helper/Suppressor Ratio or an increase in T 4 cell count**.

The first of the four characteristics of AIDS occurs at the viral level. Viruses correspond to the subnuclear compartment in Revici's system of Hierarchic Organization. Viruses can be controlled by **special fatty acids**. To prove his hypothesis, Revici injected rabbits with either fatty acid lipids or with sterol lipids given just under the skin. Twenty-four hours later, the "prepared skin" sites were exposed to a virus.

The sterols "exerted a promoting (enhancing) effect on viral replication," but the fatty acids, "showed a profound **inhibitory effect**, suggesting a role for these substances in anti-viral activity."

So his hypothesis about the relationship between viruses and bacteria was correct: the fatty acids exhibited a natural defense activity to control viruses. The **sterols promoted** viral activity.

Armed with that knowledge, Revici began treating his AIDS patients with fatty acids for the purpose of stopping the activity of the virus. The **second part of the quadruple pathology occurs at the bacterial level**. Bacteria correspond to the nuclear compartment. When the AIDS virus is left unchecked, it will induce an attack on the lipidic defense system [making one] susceptible to infections. Revici identified **a class of lipids he suspected to be anti-bacterial -- phospholipids.**

When administered orally, these provided astounding protection to infant mice that were exposed to the tuberculin bacteria, anthrax, or E-coli bacteria. The death rate for the untreated mice was 100% for

both tuberculosis and anthrax. For the mice infected with E-coli, it was 86%. **But mice treated with phospholipids had protection. Only 8 to 12% of the mice** infected with the tuberculin bacteria died. None of the mice exposed to either the anthrax or E-coli bacteria died after treatment with phospholipids.

In patients with pneumocystitis pneumonia, favorable changes were often obtained in **24 hours**. Dr. Revici concluded that the **loss of certain specific phospholipids**, "represents the missing factor in the special pathogenesis of AIDS."

Abnormal lipids can play a direct role in cancer formation as well as in primary viral infections. The third component [is] marked by secondary opportunistic infections and a tendency to develop lymph cancer and/or Kaposi's sarcoma. To combat the effects of a disease that has reached this stage, patients are treated with a combination of lipidic medicines: fatty acids for their viral infection, and one of the phospho-lipidic agents for their bacterial infections.

For the third level of the disease, either anabolic or catabolic lipids **incorporated with a chemical element** are provided to combat the more generalized break-down of the lipidic defense system. It is at this stage of the disease that the encapsulated elements such as **potassium, copper, selenium, or zinc** are needed to help stabilize.

The fourth level of pathology is seen only in the sickest AIDS patients, who manifest an extreme systemic lipid imbalance.

By the mid-1980's Revici found that AIDS patients often had intra-cellular deficiencies of either copper or potassium. The intracellular deficiency was caused by abnormal lipid formations that **dump the unused potassium or copper into the blood**. (In fact, a blood serum test might indicate an excessive level of the element.

To correct the lipid imbalance while providing the needed missing element, he took a two-fold approach by incorporating the needed element into the middle of a lipidic substance. The central location of these lipid-attached elements prevented them from separating from the compound prior to reaching the intracellular compartment."
[Emphasis added]

Appendix Q

Patent Application of Salvatore Catapanao re typhoid vaccine (from uspto.gov). Example 3:

The patient is a black male, 38, weighs 150 pounds (regular weight 196-205 pounds), six feet two inches tall. He complains of extreme tiredness, sometimes combined with headaches, dizziness and light-headedness. He has a continual fever and night sweats. He has swollen glands in the neck, armpits and groin. He bruises more easily than usual and has progressive shortness of breath. He also has a heavy, continual dry cough, a thick, whitish coating on his tongue and a sore throat.

The patient is very weak and tired and has a temperature of 102° F…. The patient is treated by the parenteral administration of 0.75 c.c. of typhoid vaccine. The patient is advised to remain for three hours and then to leave.

On day eight, the patient is again examined. His headaches, dizziness, temperature and cough are determined to be diminished. After another examination, tests, and evaluation, the patient is given 1.0 c.c. of typhoid vaccine and advised to return a week later.

On day 15, the patient is again examined. He advises that his headaches and dizziness are gone. His condition is much improved. After another examination, he is given 0.75 c.c. of typhoid vaccine and advised to return a week later.

On day 22, the patient is again examined and it is found that the swollen glands in the neck, armpits and groin have reduced in size. He advises that the night sweats are gone. He is given another 0.75 c.c. injection of typhoid vaccine and advised to return a week later.

On day 29, the patient is again examined. He appears to be controlled. He is now asymptomatic. The patient informs that his eating is much improved and that he has gained five pounds. He reports no aches, sore throat, dizziness, fever, cough, and the swollen glands are much reduced. He is given another injection of 0.75 c.c. of typhoid vaccine. At this time, it is concluded that his affliction is in a state of remission.

[Note: There's no documentation here that the man actually had HIV -- MM

Appendix R
John Ott, Tomato Virus Theory, in *Light and Health* (1973).

The tomato virus usually appears following long periods of cloudy weather…. It is generally agreed that the **low light level also weakens the plants** so they become more susceptible to attack from the virus. I brought some virus-ridden tomatoes from the glass greenhouse into my plastic greenhouse. With just a few days of sunlight in my greenhouse, and a light foliar feeding of the leaves, the tomato plants quickly came to life, started new healthy growth and began producing.

[Why has] no consideration has been given to the possibility of a virus originating **within the living cells** of the plant itself …. The metabolism, or life itself, that goes on within a living cell is the utilization of the nutritional factors present by the energy of light. … A comparison would be the gasoline used in an automobile engine and the spark that ignites it. If the draft in the boiler is not adjusted right, or the carburetor is giving too rich a mixture, there will be incomplete combustion.

This can result in both the boiler and engine giving off not only obnoxious smoke and fumes but also partially consumed fuel. In a similar way, it seems quite possible that a **chemical substance of a poisonous nature could result as a by-product from an incomplete or unbalanced metabolism** within the cells of a leaf. …. If so, then this chemical by-product would fit all the various descriptions of a virus.

It would not be capable of reproducing itself, but if injected into the cells of other leaves, it might **throw the metabolism of these cells off balance** so that they would in turn produce more of the same chemical substance of a poisonous nature. …. **It could fit all the various descriptions of a virus and still originate within the affected plant itself**. ….

I built a new unit to take microscopic time-lapse pictures of the streaming of the protoplasm within the cell of a leaf as stimulated by direct unfiltered sunlight [and] various types of artificial light illumination. It would show precisely the effect of different sources of light and variations of temperature on the photochemistry. It would then be possible to **study the effect on the germination of spores, mitosis, and growth**. [Emphasis added]

Appendix S

The Conquest of Cancer, by CW Saleeby, MD, 1908, reporting the cure invented by John Beard, DSc, of trypsin and amylopsin.

Whatever the ultimate verdict on trypsin, I shall be well content if the following pages suffice to demonstrate that the pioneer work of Dr. Beard and his followers….

The evidence and the arguments of the succeeding pages are submitted in the belief that they should suffice to direct the attention of the practical worker away from modes of attack which have hitherto proved wholly unprofitable, towards a new mode which commends itself on two distinct counts.

It commends itself because of the favorable results already been recorded, in practice, by observers so eminent as Profs. Von Leyden and Bier of the University of Berlin, to name only two of the foremost workers associated with the attack on cancer by means of specific cancrotoxic ferments….

The surgeon's interest in medical chemistry is practically confined, as any one may observe for himself, to the examination of the urine for albumin or sugar, since these bear upon the suitableness of a patient for operation. Lately he has learnt to examine the blood for an excess of white cells, since this often indicates suppuration somewhere. That is almost the limit of his interest in these fields of inquiry.

Now we have to learn that, though cancer has hitherto been treated by the surgeons and left to them to study, it is in no useful sense of the words a "surgical disease." Dislocations and fractures are surgical disorders, and the genius of the surgeon is eminently suited to them. But of all known diseases, without exception, cancer is the furthest from these. It is a phenomenon of cell-life, dependent upon infinitely subtle factors in cell-chemistry. It is a problem in cytology certainly…

I was so convinced of the urgent necessity of and medicine and science generally; the doctrine expressed in the proverb about ignorance and bliss and in Pope's line about a "little learning." This doctrine has been a curse and a lie in all ages. A little knowledge is

the most that any of us can possess, and it is of priceless value compared with no knowledge at all.

The first important case was published by Dr. Clarence Rice, (*New York Medical Record*, November 24, 1906, p. 812). This is a case of what cannot be doubted to have been cancer of the voice box, or larynx, and it was reported cured. … Says Dr. Rice: "The results obtained left no ground for doubt that this treatment exerted a very prompt action upon the growth." I hear (October, 1907) that this patient is now quite well.

The next paper published was the report of Prof. Morton (*New York Medical Record*, Dec. 8, 1906, p. 893). This paper is substantial and authoritative: it deals with twenty-nine cases and the work of eight months. Though during the whole of this period, as I am now convinced, Prof. Morton was using doses far too small, he had most remarkable results. Certainly his report is the most amazing reading. In order to show the reader the quality of his results, I here quote his summary:

"Comments upon cases. -- Two of them, cases 10 and 14, severe cases of face cancer, are cured to date by the use of trypsin. 3. In all cases signs of amelioration in the progress of the disease have been observed.
4. Cases 1, 2, 3, 4, and 8, as well as others not specially recorded among the hospital cases, demonstrate that trypsin produced constitutional reaction characterized by rigors, shivering fits, fever, pain in the back, sense of weakness, drowsiness, etc., but of temporary duration.
5. Cases 1, 2, 3, and 11, among others, demonstrate beyond question that trypsin may produce local reaction in a cancerous tumor, indicated by swelling, heat, pain, or increased discharge.
6. Cases 20 and 21 demonstrate that enlarged glands associated with cancer have rapidly diminished in size under the influence of trypsin.
7. It has already been pointed out that these cases were mostly absolutely hopeless at the time of beginning treatment.
8. Rigors and increased temperature following within a few hours the injection of trypsin, is an encouraging sign, since it indicates that the

cancer has been attacked by the trypsin. The toxic action is due to the toxic action of absorbed and destroyed cancer products.
9. Trypsin has a decided effect in reducing cancer cachexia (system-poisoning) and in improving the general health.
10. Trypsin, in many instances, as notably in cases 12, 13, and others, demonstrates that even in severe cancer . . . the disease may be brought to a halt, so to speak, even if the patients do not eventually recover.
11. The use of trypsin has caused haemorrhages to cease and has alleviated pain.
12. It is a fact that the patients frequently refer their greatest feeling of improvement to the period of time when they are taking amylopsin following trypsin. An important, as well as a difficult, feature of the treatment, therefore, is to reasonably determine the proper time to administer the diastatic ferment as well as the requisite amount, following or during the use of the trypsin. It has seemed to me that the pure diastase (injectio-amylopsini) had much to do with favorable results." …

Prof. Morton reported a further case in the *New York Medical Journal,* March 9, 1907; two operations had been performed, and the patient returned in September, 1906, with a new small nodule situated beneath the chin. This was treated for only ten days, and entirely disappeared, nor was there any return of it three months later when the case was reported.

In the *Journal of the American Medical Association*, December 15, 1906, Dr. Wiggin reports a case of sarcomatous tumor of the tongue, the diagnosis being well confirmed, which was treated and cured by trypsin and amylopsin….
The next American case that may be referred to is that recorded by Prof. J. T. Campbell, of Chicago, in the *Journal of the American Medical Association*, January 19, 1907. In this case, at the time of recording, the cure of a cancer of the tonsil and tongue was almost completed.

Dr. Beard himself gave a brief preliminary report of a further case in his article, "The Scientific Criterion of a Malignant Tumor" (*New York Medical Record*, Jan. 5, p. 24). In this case a lady living in Naples,

and suffering from inoperable cancer of the tongue, was treated under the care of four distinguished Italian doctors. So far back as September, 1906, the last remains of the growth came away, and Dr. Guarracino, a prominent hospital physician of Naples, wrote to Dr. Beard, saying: "This is a wonderful result, and I declare that it seems to me the most considerable fact which our science has ever obtained." I write in October, 1907, and I hear that the patient is now entirely free from the disease. …"

Still keeping to the United States, we must note the case of Dr. Doran, also of New York, who reports in the *New York Medical Record*, July 6, 1907, a case of sarcoma, a terribly malignant tumor, in which the patient underwent the pancreatic treatment for recurrence of the disease after a most radical and extensive operation. The treatment was begun in the first week of January, 1907, and since April …. The patient had gained twenty- two pounds, and scarcely anything whatever could be discovered, at the time of reporting, remaining from the recurrent growths. Here is a case where surgery had done its utmost, and where nothing else in the whole armory of science hitherto could have availed the patient.

I may refer with equal brevity to a case no less remarkable, reported in the *New Orleans Medical and Surgical Journal*, July, 1907. In this case a cancer of the voice-box or larynx had been excised by the knife, but recurred. The pancreatic treatment was employed for about five months, at the end of which time no disease could be found -- nor two months after the treatment was discontinued. …

For records of substantial success in Great Britain we had to wait until a few days after the publication of my article in the Contemporary Review, in which, after re- cording results in Germany and America, I had scarcely more to say as regards Great Britain than that results would be published in a few weeks. On August 31, 1907, the *British Medical Journal*, which had refused to publish Dr. Cavanagh's report, later noted, published a brief memorandum by Dr. Cutfield, which may be noted as the first of its kind in that journal. The patient had been operated upon at Guy's Hospital for an abdominal tumor, rapidly growing, which the surgeon was unable to

remove, and which had already given rise to various secondary growths seen at the operation. The treatment was begun on the 1st of May, under Dr. Beard's directions, at which time:

"the whole epigastrium appeared to be full of solid tumor. He was, besides, wasting rapidly, and had become extremely weak; suffered a great deal of pain, especially in the back; had nausea and vomiting, pain after food, and sleepless nights."

Dr. Cutfield continues as follows: "Very soon improvement set in, and continued steadily. First, the vomiting, nausea, and flatulence disappeared, and the appetite improved, and then gradually the pain lessened, and the swelling also steadily diminished, while the weight, which was recorded weekly, regularly increased. The injections were continued daily for three months, and at the end of that time the man was practically well, the only symptoms left being some abdominal discomfort, and, occasionally, pain. He eats and sleeps well, and attends to his business regularly; his weight is only a few pounds less than it has been for many years, and the only thing to be felt in the abdomen is some hardness in the line of the incision, … it is extremely difficult to believe that the trypsin was not the cause of that improvement."

For reports much more extensive, however, we must turn to the *General Practitioner*. On August 31, 1907, this journal published a preliminary report "On the Pancreatic Treatment of Cancer," by Dr. Henry Meggitt, who has been practicing the treatment since December, 1906 (having begun it the day after the appearance of my *Pall Mall Gazette* article), and under my eyes since January, and who records the results hitherto obtained in six cases, of which four had previously been the subject of extensive surgical operation at very skillful and well-known hands. All these patients were admittedly past all surgery, and in them — as indeed in the other two — the nature and the high activity of the disease, on coming under treatment, was utterly beyond the vestige of question. The professional reader must be referred to that report. I may quote a word or two here from the general remarks:

"In all cases I have seen I have not yet met with one that has not obtained benefit. Trypsin has absolutely done away with morphia. The patients eat better, they feel better and happier, and put on weight. As a general practitioner of fifteen years, I look back with horror to the old days of treatment, when nothing was done but injections of morphia, and the sooner the patient was dead, and out of his pain and misery, the better for everybody. . . . Trypsin will, I am confident, if intelligently injected, relieve all pains of cancer, it will quickly remove all foetor and discharge from broken-down growths when applied both locally and hypodermically. By the end of two months' injections, marked improvement in glands will be noticed; they become smaller and softer. The size and hardness of the tumor itself at the same time shows marked shrinking. The general health improves in what I can only describe as a startling way. Cachexia disappears entirely, weight is put on, the appetite is good, and, as there is never any pain, the patients sleep well."

In the *General Practitioner* for the following week, September 7, 1907, there was published the report of Dr. Francis Cavanagh's two cases which the *British Medical Journal* refused to publish. The first patient had had a cancer of the stomach for two or three years, with all its typical accompaniments -- pain, sleeplessness, cachexia, and emaciation, and with large and hard glands in the groin. The patient's weight on coming under treatment was 6 stone 10 lbs.; the general condition was such that the operation recommended by a consultant could not be performed. The patient said that her pain had been practically continuous for over a year, and it prevented her from ever sleeping for more than one hour at a time.
Dr. Cavanagh says:

"Within a week of beginning injections, pain was relieved to the extent of allowing the patient to sleep for six consecutive hours. For over sixteen weeks now the pain has totally disap-peared, sleep is perfectly normal, appetite greatly improved, the cachectic skin has become quite healthy-looking, the tumor has decreased to half its original size, the glands are much smaller and softer, and the patient has gained pounds in weight. . . . The cessation of pain and the

improvement in this patient dated from the beginning of Dr. Beard's treatment, and this treatment was the only factor that was superadded to the patient's previous mode of life."

In the second case an abdominal operation had already been performed, and showed "a most extraordinary cancerous and irremovable condition." A palliative short-circuit (gastro-enterostomy) was made. A fortnight later the patient was attacked with most severe pain, at first related to meals, then more continuous, till at last it persisted without cessation for three weeks, and her nights were spent writhing in agony on the floor. Morphia said to be useless; certainly repeated thirty minim doses of tr. opii were ineffectual. . . . The patient was injected with trypsin at a time when she was still in that pain, which had lasted for three weeks. The pain disappeared that day. . . . Three days from the first injection had an attack of pain for two hours, then was quite free for six weeks. . .."

From surgery and the surgeons, as they have hitherto worked at the problem, there is nothing more to be hoped. They have pursued one line of inquiry only -- the making of their operations extensive enough to effect an extirpation of the disease; these operations have now reached the point at which, in some instances, they kill outright -- to render the phrase "primary mortality" in its Anglo- Saxon equivalent --more patients than even survive for the "three-year limit"….

These are the cases which the *British Medical Journal* refused to publish in circumstances which I detail elsewhere. I submit the fact to the judgment of public and professional opinion. I agree that, as the journal said in refusing them, they are "incomplete." But I will observe that the object of this treatment is not to convince anybody of anything, but to help the otherwise helpless.

In my judgment, which I believe universal opinion will sustain, the refusal to publish these cases, after a failure to acknowledge their receipt for three weeks, and then only on Dr. Cavanagh's inquiry, is disgraceful.

Appendix T

Robert Aitken MD, FRCPE. Ultra-Violet Radiations and Their Uses, with Foreword by Sir Norman Walker, Edinburgh, 1930.

Page 142: Spasmophilia and tetany -- conditions which are not infrequently associated with rickets -- react in a gratifying way to radiations. The muscular spasms of the hands -- the accoucheur's hand or carpo-pedal spasm -- yield to the influence of the rays and sometimes quickly. One of the most satisfactory features is then rapid cessation of the laryngeal spasms which are so alarming.
The vomiting which is so frequently seen in this condition, rapidly disappears, and the general condition of the child begins to take on a different aspect. In the more severe cases of the disease when there are actual convulsions, the same good results are seen, the number of attacks becoming rapidly less, and each attack becoming less severe, till they cease altogether.

The treatment should be continued till all signs of nervous irritability have passed away, and may have to be prolonged if there is an accompanying severe rickets. One point in treating this condition must be remembered, and that is that the spasms may become more frequent for a few days after the commencement of treatment.

Page 143: In asthma, in children, even where all other remedies have failed, ultra-violet radiations not infrequently bring about a great improvement. As treatment progresses the attacks become fewer and less distressing and in many cases what is practically a cure is brought about. Even where this cannot be obtained, the smaller number of attacks and the lessened severity of these is by no means to be despised and much relief can be given in this way.

[Note from MM: When researching my book, *Consider the Lilies,* I was astonished to find old medical texts casually mentioning the curative capacity of various treatments, and it seems that after about 1930 they ceased to be taught to doctors. It should not be assumed that these treatments are bunk; they were written by eminent physicians. It is possible that politics, rather than science, dictated their demise.]

EPILOGUE: GOLDBERG, TENNANT, OGDEN, CROFTON

Shock city! Having 'completed' my book, I attended a second AutismOne meeting in Chicago (2014). It was full of new ideas which I will summarize now. Also, I saw Goldberg's book there, about autism-as-virus, and Tennant's book, *Voltage Is Healing,* which thrilled me. Then, back home in Australia, I read Crofton on viruses. All of this calls for an Epilogue!

Notes from the 2014 Conference of AutismOne, organized by Mr and Mrs Ed Arranga. Registration fee: $99.00. Value: priceless.

(At AutismOne, it's a blessing that osteopaths, MDs, physical therapists, homeopaths, naturopaths, and nutritionists – and parents -- are all given a chance to say what they need to say.)

1. Erika Peirson, a naturopath, declared that Down syndrome is really hypothyroidism and is treatable.

2. Judy Mikovits, PhD, who has done prison time for her efforts in regard to showing that Chronic Fatigue Syndrome is caused by a retrovirus, thinks autism may be similarly caused.

3. Soma Mukhopadyay, founder of the Rapid Prompting Method, said that when the non-verbal autistic child comes to her, she first must discern which of his learning channels is open. By the way, she teaches classes in this skill; thus you can become an authorized practitioner of the RPM.

4. Jerry Tennant, MD, who was bedridden for seven years with encephalitis, stated that in almost all types of illness the body loses voltage and that one needs to obtain electrical stimulation to increase the voltage, if the body fails to do this on its own.

5. Tami Duncan advised a spiritual kind of healing for Lyme.

6. Steven Kossor, psychologist, said it's possible in 36 states for an autistic child to get Medicaid benefits, without means testing or assets testing, by being declared a "family of one."

7. Jimmy Gutman, MD (who said he "lost his virginity" by coming to this conference) claims that glutathione is the master anti-oxidant. Said there are 100,00 articles on Pubmed re glutathione, yet most physicians know little about it. (Makes you wonder, why are those 100,000 authors working on something that does not have a clinical application, so to speak?).

8. Stephanie Seffe, PhD, a biochemist at MIT, said that the epidemic of autism runs in parallel with, and is caused by, the use of Monsanto's "roundup ready" corn and pesticides.

9. Mayer Eisenstein, MD, advised that seeking a philosophical exemption or a medical exemption re vaccines is unwise. Better to go for constitutionally protected religious exemption. From the floor, Marcella Piper-Terry volunteered a text to this effect: "We believe religiously that God made a perfect immune system for us, which calls for exposure to some diseases in early life, and vaccination is likely to mess up God's work."

10. Rashid Buttar, a toxicologist, said that he treats every case with chelation for mercury and has great results. Buttar said that when he was charged with wrong treatment (in cancer), he brought the recovered patients to court and the judge deemed that "Irrelevant." (This caused a lady in the audience to make a fuss over the need to put certain decision-makers in jail.)

11. Theoharis Theoharides, PhD, MD, said many ASD children present with "allergic-like" symptoms that imply activation of a unique immune cell, the mast cell, which is activated by allergic, environmental, infectious, or stress-related triggers, to release pro-inflammatory and neurotoxic molecules.

12. Kerri Rivera, who at last year's meeting introduced the use of sodium chlorite, says she has recovered 115 children! It seems that this compound kills parasites or offending microbes

13. James Bradstreet, MD, proposed the use of MRT, magnetic resonance therapy, to calm both the Mom and her kids. He and Dr Yin discussed cannabis and Vitamin D treatments.

14. Neil Sharp, MD, showed the use of movement in therapy.

15. Svetlana Masgutova works with PTSD and studies movement and reflex integration processes to facilitate sensory processing, motor-physical and sensory-motor rehabilitation.

16. Andrew Wakefield, MD, late of the UK register, mumbled something about epidemics leading with the worst cases.

17. Gabor Lednyiczk, naturopath, hopped over from Budapest to discuss bioregulation therapy, functional electrodynamics testing, and bioenergetics processes. He spoke of Lakhovsky!

18. Theresa Deisher, PhD, physiologist, blamed the worldwide autism epidemic on vaccines contaminated with human fetal tissue "Insertional mutagenesis can be triggered by vaccines."

19. Nicksartproject.org adorned the hotel hallway with beauty.

20. William Walsh, PhD, who said he has seen 6,500 autism patients, claimed that most mental illnesses have to do with over-methylation or under-methylation. A Dad asked him what could be done for his eleven-year-old autistic son who has just started to be very aggressive. Walsh replied "See if he is low in zinc and high in copper. If so, use trimethylglycerine." Walsh's great book (re schizophrenia) is *Nutrient Power* (revised 2014).

21. Alyson Witherspoon hosted a meeting of activists, projecting that soon one in two American kids will be chronically ill!

22. Lisa Goes hosted a cocktail hour for the Thinking Moms.

23. Shawn Centers, DO, told of the original idea of osteopathy, which attends to the movement of the cranial bones. (He said most young DO's have to pay student loans, so now write allopathic prescriptions rather than take the time to be osteopaths.) Asked how soon after birth the umbilical cord should be clamped, he advised "later not sooner."

24. Andrew McCabe, PsyD, gave me his book *The Gifted One.* It says: "The world over, the young and old perceive through eyes that are the same, and yet they perceive so differently."

GOLDBERG AND MENA: NOBEL PRIZE MATERIAL

Michael Goldberg, MD's *The Myth of Autism* makes a persuasive case that the author has got both the cause and cure of autism down pat! To arrive at his conclusion he needed three things: proper scientific training in medical school (especially in pediatrics), urgent motivation (his wife Elyse suffered from Chronic Fatigue Syndrome), and the new NeuroSPECT technology provided by Ismael Mena, MD.

Mena's technique is more advanced than MRI. In auties, Mena found that blood is not flowing normally to the temporal and occipital lobes. This undersupply of blood is called hypo-perfusion. He says if blood does not flow normally in your brain you may exhibit the symptoms that are (incorrectly) labeled "autistic."

The two questions that arise from this are: 1. *What causes hypoperfusion?* and 2. *How to deal with it?* Goldberg's replies are:
1. A failure in the immune system, and 2 (You can predict this one!): treating the immune system so it gets healthy again.

As for the reason the person's immune system failed in the first place, Goldberg thinks the culprit may be a virus.

I haven't checked but I now presume that Ethan, the boy on Youtube whose doc prescribed a combo of antivirals and antifungals, was a patient of Goldberg. (Note: there are definitely other cases on Youtube of children who recovered by means other than Goldberg's. For the next few pages I want to dwell on Goldberg and will make no further attempt to account for those multiple methods of curing, OK?)

What happens when you take your "autistic child" to Michael Goldberg, MD? First, he tells you that your child does not have "autism." Goldberg is furious with any doctor who gives children a diagnosis of "a mysterious illness called autism." (I recall my late husband, a pediatrician, being baffled as to how any "new illness" could arise so abruptly. Diseases evolved in our species over many thousands of years.) Goldberg thinks we are looking at an ordinary disease process, a dysfunction in the immune system. He applies his interpretation also to other conditions such as Alzheimer's, CFS, diabetes – all of which have become epidemics. I will limit the discussion here to autism (which I'll continue to call *autism* as it's too

cumbersome to find another appellation), and related issues such as ADHD.

Let's begin with his treatment, which he calls The Goldberg Approach. He has already done the tests to determine what's in your child. Goldberg does not rush to his prescription pad. But after a while he may choose to prescribe any or all of the following: antivirals, antifungals, and SSRI's (such as Prozac).

First, though, he advises you to start fixing the immune system by "removing negatives." This may be all it takes! There are now many items in the environment that cause allergic reactions. If your child has to spend effort fighting them, his I.S. (immune system) has no leftover ability to do its regular job. Our I.S.'s job is to restore and repair our bodies, 24/7.

The biggest allergen worldwide (Goldberg claims) is bovine protein, as seen in milk, and in dairy carriers such as cheese-laden Dorito's. You can use fake milk instead, Goldberg says. The second worst offender is grains. Going to a CFGF diet will not help if you then substitute a bad grain. He does not want your sensitive child to have sugars, and carbohydrates become sugars. A small potato may be OK. Nuts are trouble.

Stay away from all red-dye foods, he says, or even natural reds such as strawberries and watermelon. If your kid likes the boxed juices you can tiptoe into the kitchen at night, open the box-top and replace the contents with one-half water. Chocolate is bad, he says, as it's usually milk chocolate. Goldberg allows the occasional treat of powdered chocolate drink in water.

I won't continue Goldberg's list. You get the idea: "Be good to the I.S." Environmental chemicals as well as foods can be harmful. His emphasis is on treating the *cause,* rather than the *symptoms.*

Why antivirals? As stated, the cause seems to be hypoperfusion. Goldberg has good reason to think a herpes-type virus is situated in the brain and is causing that hypoperfusion. Thus, he may prescribe Valtrex, one of the new antivirals. (He lists dosages.)

Page 118: "When a child starts on antiviral there's a 70-80% chance I am going to get a positive response after a die-off effect." "If I take them off and they are not fully in control… they become 'spacey'

again. In theory the only thing you can treat with Valtrex is a herpes-related virus. Antivirals are not neurotropic agents -- they don't work on the brain." [So if the child gets better, we should assume it was viral. Wow!]

Why antifungals? The next bit in The Goldberg Approach (Note: he has trademarked that name but not patented the protocol) is the use of antifungals. He thinks yeast is wrongly seen, in many diseases, as a primary pathogen when it is really opportunistic infection owing to a low state of the immune system. Page 128:

"It is interesting how the symptoms seem to relate to yeast by-products (fermentation, drunkenness)…. We are taught as physicians that delayed hypersensitivity is the part of our immune system that is supposed to control yeast. I'll stress again, in light of the large amount of misinformation given to parents, that if these children had evidence of yeast in their bloodstream they would be critically ill in hospital [or dead]."

"If there is real indication to use an antifungal, one must monitor its use (particularly the liver function). An antifungal if effective should cause a die-off lasting up to 14 days…. Rather than stopping or starting it's better to rotate antifungals every 6 or 12 months. Parents report that the frequency of inappropriate noises, teeth-grinding, hyper-ness, biting, hitting decreases. The children no longer act almost drunk, laughing."

(Note: These quotes are all from *The Myth of Autism,* 2014.)

Why SSRI's? Page 133: "I can say from experience with Neuro-SPECT, there would be nothing beneficial about giving Valium or Librium... they essentially work by sedating. The goal is to maximize a child's cognitive development…. SSRI's block the re-uptake of serotonin. Fortunately the temporal lobes are primarily serotonin-mediated. … It's as close as I can come to titrate that area of the brain…. Basing decisions on function I am always looking for a child to wake up fully refreshed in the morning…. Very sadly, when you look at trials of medications for 'autism,' most are based on control of behaviors, control of aggression…." (Goldberg peppers his book with the word 'sadly' in the style just mentioned. He hints at scandal.)

What's the scoop on seizures? I find that when Goldberg begins a sentence with "We were taught in medical school that…", he is about to show that some basic training gets shunted aside by docs when autism cases are involved. He says the teaching about seizures was that some kids would experience febrile seizures and these would pass. They were called 'idiopathic' -- of unknown cause. But a child presenting with 100 seizures a week had epilepsy, a neurological disease. He receives patients experiencing that many seizures still listed as idiopathic!

Child abuse, anyone? Page 138-142:

"I think these children are very anxious. I think they are very frustrated. (If one speaks with older children or adults with similar disorders, their brains hurt them, their bodies hurt them. It has been my overwhelming experience that they are not impervious to pain; they are just in a constant level of pain much of the time.) …
The fact that the brain is now known to develop into adulthood is a key reason for optimism…. We have to work to help them have a healthy potentially recoverable brain, not come from an assumption that somehow mysteriously the brain is pre-damaged…. I wonder how many of us would have succeeded if parts of our brain were shut down…. If you really think of them as children you could begin to argue that we are abusing these children. … If one recognizes that they are working with a potentially normal or above normal child, one would never think of repetitive manner of education as appropriate or even mentally healthy."

So far I have been showing how Dr Goldberg treats autism symptoms as he would treat any child's ailments. Now let me underscore two other contributions he makes to theory:

1. He says that if we step back and view several of today's illnesses together we will see that they are related. He assumes that the interconnecting bit is **herpes 6** (or herpes 7, 8, 9) virus.

Page 201: "I believe that many of the characteristics ascribed to autistic (and quiet ADHD) children overlap with the multiple complaints of adults afflicted with components of CFS and adult 'ADHD.' All have reports of various immune abnormalities including T cell changes reflected, for example, by increased CD4/CD8 cells,

increased/decreased NK and B cells, and altered viral titers…. The continued exploration of an immune-dysfunction epiphenomenon is a door we must walk through if we expect to change the future of this generation!"

"At the end of a research symposium in October 1997 that brought together top researchers to discuss Alzheimer's, adult dementias, social brain and autism PDD, this statement was made: "If a child develop normally during the first 12, 15, 18 months of life, developed any words, and then somehow went into this autistic spectrum, it was a 100% certainty that the process had to be immune/viral." …
Page 204: "There is *hope*."

Goldberg believes (and I don't know if he's right) that autism, ADHD, and CFS are all from the same virus, and that your age when it hits you is what determines the form it takes!
(Note: his wife Elyse, who had CFS for years, urged "If these kids are one tenth as sick as I was, you've *got* to help them.")

2. The other contribution is from Ismael Mena, MD, Emeritus professor of radiology at University of California, San Diego. He tell doctors, in the Foreword to Goldberg's Book, The Myth of Autism:

"Patients with CFS present signs of small vessel disease … in the lateral aspects of temporal lobes, pre-motor areas and parietal lobes reaching to the convexity of the brain and also in the orbital-frontal areas of the frontal lobes" [etc, more detail].

"Quantitative rCBF absolute measurement with xenon 133 were found to be significantly higher than normal in children with autism, with maximal values in the frontal lobes and visual cortex. Decreased rCBF was also noted in the cerebellum and occipital lobe. …[etc]. In Asperger's the hypoperfusion defects appear predominantly in occipital lobes in the paramedical aspects and also in the cerebellar vermis … In CFS and autism, the focal areas suggest strikingly [their] inflammatory nature."

(Note: Goldberg opposes use of HBOT and chelation for children. Mainly he does not want to do anything to autistic kids that implies they are "previously damaged." He sees them as ordinary kids undergoing a disease process.)

INTRODUCING THE DOC OF THE CENTURY: J. TENNANT

I now want to tell anyone who'll listen, about Jerry Tennant's 2014 book, *Healing Is Voltage*. It is jaw-droppingly good.

What would make me say something so foolish as "Tennant is doc of the century" when I have only just learned of him? Easy. He puts together the theories of electric medicine that I had been studying (in my typically dissident way) for the cancer book. The giants are: Georges Lakovsky, George Crile, MD, Robert O Becker, MD, Harold Burr, PhD, and perhaps Bjorn Nordenstrom, MD. I assume that Tennant came to his conclusions without knowing of Crile (my hero) but he does report Becker's work as written in *The Body Electric* (1985). He refers to Francis Pottenger, whose *Visceral Systems* I recommend. (And I can't wait to alert Tennant to Philip Callahan's *Paramagnetism*.)

Tennant rightly calls for a new paradigm. Let's hear him.

1. *Fungus*. Page 544: "Fungus plays an important role in the universe. It is responsible for turning dead organic material into dirt…. Think about a leaf on a tree. Since the leaf is alive it contains voltage. Since it contains voltage it also contains oxygen. Remember that the amount of oxygen in water is controlled by the voltage of the water. Oxygen controls fungus. Thus the fungal spores that are always present on leaves will be suppressed by the oxygen. As oxygen disappears, cell-wall deficient forms move toward becoming fungal forms. These cell-wall deficient forms are part of every living organism….

Now the leaf falls off the tree as winter approaches. As the leaf loses its voltage when separated from the tree, it also loses its oxygen. [This] causes the fungal spores on the leaf to 'wake up.' Then the fungus does what it was designed to do. It begins the process of turning the leaf back into 'dirt.' This 'dirt' contains a mixture of acids called humic acid. [In it] fulvic acid contains all the known vitamins, minerals, amino acids." [*Wow.*]

"Now a seed blows into the dirt. With the addition of water, the fulvic opens the cell membrane of the seed…. The seed grows into a plant. When we eat this plant our bodies get the necessary humic/fulvic…. Unfortunately, farmers use pesticides to kill the

fungus. So after a time the soil becomes depleted so the seeds they plant won't grow. Thus they add fertilizers containing nitrogen, phosphorus and potassium. This will allow the plants to grow but they lack much of the nutrition needed for healthy cells."

2. *Lyme disease*. Page 410: "Lyme disease is caused by a type of bacteria called a spirochete. If you do a fluorescein antibody test for it you will find that most of us have it. The difference between whether you have symptoms or not is determined by **whether your voltage is adequate for your immune system to keep it under control**." [Emphasis added]

"The Lyme spirochete sheds its cell membrane, goes inside a cell and lives there. That is why antibiotics almost never cure it. Antibiotics are effective only during the short time it has a cell membrane. Lyme disease is a political disease. Doctors don't lose their license for diagnosing infectious diseases like pneumonia [or] sinusitis. They do, however, lose their license for diagnosing Lyme disease. That puzzled me until I read the book *Lab 257*. It presents strong circumstantial evidence that Lyme disease was created as a weapon by the US government. If that is true it would explain why the government does not want doctors to find an efficient way to treat it."

Iodine. Page 277: "Jean Lugol, a Paris physician, [created] Lugol's solution in 1829. Iodine is bactericidal even at dilutions of 1:170,000. Iodine is so important in brain development that iodine deficiency is the leading cause of intellectual impairment in the world! (ADD, ADHD?) Hypothyroidism is one of the leading causes of violent behavior."

Obesity. Page 274. "It is my opinion that metabolic syndrome X is simply Type 2 hypothyroidism. After 6 to 12 months of therapy for hypothyroidism, most cases of hypertension, diabetes, and obesity return to normal without other therapies. Studies have shown that 80% of arthritics will be normal." [!]

Healing Is Voltage sets up a new paradigm. I've only scratched the surface here. You must buy the book, or attend Tennant's 3-day course in Dallas, as I did, to see the clinical implications.

NOW FOR TWO PAGES ON PARKINSON'S DISEASE

I'm proud of my coverage of PD. So guess what happened on my way to Chicago? (Note: I have had spooky good luck all my life.) I stopped in at New Zealand and by chance stumbled into Writers' Week. I heard Jenni Ogden speak and then bought her book *Trouble in Mind* (2012). In it, she tells us about a man, 'Robert,' with Parkinson's. He was a physician himself, in denial about his PD until his wife insisted that he seek advice. His only symptom, at age 58, was a tremor of the left hand. I'll now quote pages 311 to 333 of *Trouble in Mind*, abridged:

Dr Bracken began his examination with the 12 cranial nerves and Robert's reflexes. Dr Bracken next asked Robert to walk heel to toe. He moved Robert's arms passively back and forth from the elbow. Robert could see that his left arm stopped and started in a stuttering fashion, a PD symptom called cogwheel rigidity. Then Robert was asked to write a few sentences across a page and was relieved that his writing was normal. Dr Bracken agreed that there was no micrographia, where the patients' writing becomes smaller as it moves across the page. [What an interesting symptom, given that literacy came about only late in the species *H. sapiens!*]

It appeared that Robert had one-sided tremor, bradykinesia, and rigidity – three of the signs of early idiopathic (lacking a known cause) Parkinson's disease. Dr Bracken told him that in PD there is a loss of the neurotransmitter dopamine as a result of a loss of dopaminergic neuron (nerve cells that produce the neurotransmitter dopamine) in the substantia nigra, a part of the basal ganglia lying deep in the brain.

"And have you read about that tragic drug-related PD outbreak in 1982? A number of young Californian drug addicts took a heroin-derivative designer drug called MPTP, [so who designed it?] and it resulted in rapid onset of severe PD. Their main symptom was severe rigidity and when they were given L-dopa, their PD symptoms were relieved. In fact a positive response to L-dopa is one of the ways we confirm PD."

"So what's my prognosis?" Robert asked.

"The onset of symptoms is gradual. You are less likely to experience a rapid onset because you are young. In fact rates of dementia increase rapidly when the onset is after age 70."

"Tell me the worst. What should I expect down the track?"

Robert learned that rigidity could result in the patient becoming "stuck" in his chair or when turning over in bed, or making fine finger movements such as fastening buttons. Body rigidity was one of the most unpleasant symptoms as it resulted in a feeling if helplessness, and could cause muscular pain.

Posture often became stooped and the face stiff so that it lacked expression. Sometimes the shuffling gait became faster and faster and not entirely under the patient's control. Loss of balance, resulting in falls, usually occurred later in the disease.

Dystonias, which are persistent spasms of body parts, look awkward and could be painful. Some sufferers have "electrical" tingling in the limbs. Constipation was common as a result of the reduced ability of the bowel to contract. Fatigue is an ongoing problem with many neurological conditions.

"I've read that PD patients are often depressed" Robert said. "A significant proportion do suffer from depression…and many develop some mild and specific cognitive deficits. Executive impairments seem to be common although these are usually quite subtle. The loss of dopamine in the basal ganglia causes motor symptoms, **but the basal ganglia also have rich connections with the prefrontal cortex.** So a disruption of these pathways probably explains the executive difficulties. You can have difficulty with organizing and planning ahead" (emphasis added).

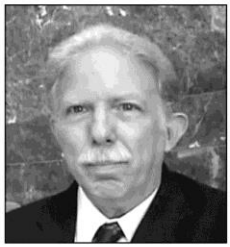
Robert was intrigued to discover that there was considerable evidence that Adolf Hitler was a PD sufferer. For example when he was only 45 he had a left-hand tremor. One theory is that he developed parkinsonism as a consequence of von Economo's encephalitis in 1918. Albert Speer wrote of Hitler in 1944, "He was shrivelling up like an old man. His limbs trembled. He walked stooped with dragging footsteps…."

Wouldn't it be a lot easier to protect people from getting PD or autism in the first place? Ask: what has brought about the epidemics of PD, autism, Lyme, MS, ADHD, CFS? Any ideas?

Contributors at Chicago and Auckland

James Bradstreet

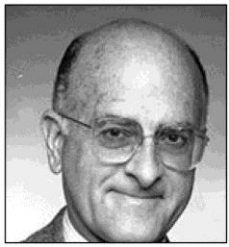
Tami Duncan



Michael Goldberg

Gabor Lednyiczk

Svetlana Masgutova

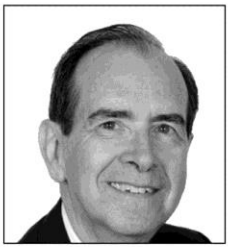


Ismael Mena

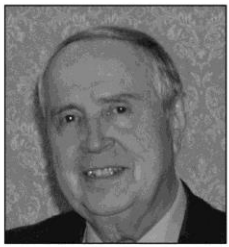
Jenni Ogden

Erika Peirson

M. Piper-Terry



Jerry Tennant



William Walsh

UPDATING THE MAL HYPOTHESIS

Dear Reader, you may think I should go back and change the main text of my book rather than append an Epilogue. I prefer to leave the 10 chapters as they were, as they show how the issues arose. For instance, there was my chance finding out about feline immunodeficiency virus that led to a bold claim (too bold) that a lentivirus is involved. Then there was the search for a cure for Ido's motor complaint that took me into some studies of MS, dopamine, and the zolpiden that let Sam Goddard wake up for a spell each day. Next, I felt obliged to let VJ Singh make his autoimmune arguments.

The new changes in my thinking arise from a combination of Goldberg's insistence that he sees recoveries from the use of antivirals (he says it tells him there is Herpes virus lurking in the child's brain) and Crofton's pleomorphic ideas. I haven't even talked about that yet, but presently I will. Let me also admit that there seem to be many roads to Rome, many different cures for autism. My goal is not to pick one, but to present good material.

CROFTON, PLEOMORPHISM, AND THE CENSORED BACILLI

I will jump right into a chapter of William Crofton's book *The True Nature of Viruses* (1936) that could be relevant to autism. He understood that mental illnesses need not be attributed to psychological problems; they could be purely medical. To start with a criminal case, Crofton tells us:

"In a recent trial for murder… the cause of it was revealed by the defence bringing forward the plea of concussion produced by boxing, the evidence for which was an attack of diplopia [double vision]. To me this revealed the true cause to be an influenzal encephalitis which had perverted this poor man's moral sense and judgment. I made the request to the Home Office to be allowed to make a culture from the convict's throat, but it was refused. We are not yet sufficiently civilized; the unfortunate man was hanged. The chronic infection may

have produced a complete change of personality, turning a previously moral person onto one who is quite incapable of subscribing to the ten commandments…" (page 98).

So what's this about throat cultures? Here I remind you that there was a major controversy about pleomorphism. For the most part the 'monomorphists' won; they censored physicians and bacteriologists (e.g., Rosenow) who claimed to see a life cycle of certain microbes. If an illness was 'decreed' to be a virus, no doctor should indicate that the virus was a morphed form of a bacillus. As far as I know, this anti-intellectual orthodoxy is still taught to medical students.

Fortunately, Crofton refused to be silenced. He relates:

"An old doctor friend who a few years ago was snipe-shooting in the West of Ireland developed suddenly an intractable hiccough. He came up to Dublin in great alarm while I was away, and was put into a nursing home Nothing that the patient, who was a most resourceful therapeutist himself, or the physician who was treating him, or others who were called in, could suggest had any effect except morphia, which gave him a few hours' relief. He was getting thoroughly exhausted and had made his will. My colleague kindly asked me to see him.

When I said it was certainly influenza everyone concerned was assured that their previous judgment of my mental condition was confirmed. I gave him at once a one-million dose of influenza antigen and took a culture from his throat. Within three hours the hiccough had stopped. Next day when it returned I gave him a two-million dose. Again it ceased in a short time and never came on again. Next morning I brought him to my laboratory to show this thoroughly sceptical patient the growth of his influenza bacillus and its typical appearance under the microscope. During pandemics, hiccough of this kind was common…. The therapeutic result of an apparently otherwise hopeless condition (for the patient himself is assured that I saved his life) was a perfect illustration of the diagnosis of a condition by a *test*

inoculation of a microbial antigen. [It] *satisfied a criterion of pathogenicity."* (from page 96, emphasis added)

Before continuing with Crofton's story I must mention that Jerry Tennant, MD, has been able to effect sudden cures of many illnesses by fiddling with the electricity of the body. So if he visited that same hiccoughing man, he may have been able to set him right by delivering voltage! Does this vitiate Crofton's claim that he caught the baddy, the bacillus? No. Apparently when the body is out of balance the 'baddies' start to do their thing. Still, bacilli from human patients are often injected into lab animals that are OK (i.e., not unbalanced) with the result that they get the same symptoms as the patient had.

It's too much for me to tackle this topic. We hardly know anything about the 'meaning' of microbes. Sure, we know that bacteria fix the nitrogen on the air to the soil, making agriculture possible. We know (only from recent work) that the biome in each person's body is a collection of bacteria. We know that an epidemic can run through a city harming everyone. We know that at the end of life the Grim Reaper in Residence helps return us to dust.

The task of this Epilogue is to update the book with the new material I found in Summer 2014. I want to cite a bit more from Crofton's book since copies of it are rare. When I bought it online, the copy that arrived at my door was the personal copy of Crofton himself. How amazing is that?

'Autogenous' means the doctor cultures the bacilli from a patient's urine (viruses aren't culturable, but bacteria are), then injects it back into the patient whose immune system knows how to fight a bacterial invader. BTW, Livingston's biochemist who makes the vaccine is John Majnarich, PhD, sill operating in US; telephone 1-425-869-4224.

Next, Crofton quotes from T.B. Hill, of the Post-Encephalitis Lethargica Unit of the Metropolitan Asylum's Board, in *Neurology and Psychopathology*, 1928. (Crofton page 99):

"Misbehaviour, whether immediately following the acute attack or appearing only after some months, develops to a maximum fairly rapidly and then runs a steady course for year; Parkinsonism supervenes, and when pronounced, abolishes it." Hill "ascribes these cases to a lesion of the thalamus, the Parkinsonism is due to a spread of the chronic encephalitis to the subthalamic region."

Among the symptoms Hill lists are: restlessness, meddlesomeness, uncontrolled outbursts of anger, cruelty to other children or animals, smearing objects with faeces or urine, and auto-mutilations. "Many of these persons are quite intelligent and in between attacks repent bitterly of what they have done" (end of Crofton, p 99).

"Meeting Dr Hill, I told him he could cure a good percentage of these cases with a potent influenza antigen, but to obtain the over 90% positive results that were possible he would *have to have made autogenous antigens from their throats and mixed infection antigens with microbes being excreted by their kidneys*. Under the circumstances such autogenous antigens were impossible. I supplied him with potent influenza antigen, with the result that he was able to restore to normality 50 % of the cases treated; a very good percentage for a stock antigen to produce. It has given a specific method of treatment where no hope was. *Nothing but a specific antigen could produce such results.*"

"Under the present circumstances *every judge* in the land ought thoroughly to familiarize himself with the detailed symptoms of this disease. *Is it not clear that a microbe, an antigen of which produces such focal reaction and cure of such lesions, must be the cause of the lesion?* Since Mclntosh and others have produced experimentally identical lesions by filtered material, they can only have been using a virus phase of the influenza bacillus. There can be no other explanation of the results. *Have I not proved my thesis to any reasonable mind in this case also?"* -- Crofton p 104, emphasis added)

ANTIGENS AS A CURE FOR AUTISM?

Dear Reader, in case you are wondering of I am implying that 'antigens' could be the cure for autism, yes I am. Do I have any qualifications to talk about such a thing? Sure, I have the qualification of having read Crofton. And now you, too, have gained that same qualification! I'd go so far as to say that physicians who remain unaware of the fact that a bacillus can take the form of a virus are *dis*qualified by their ignorance.

That said, I don't want to play doctor. I want to arm you with enough confidence to insist that your physician check this stuff out. Just last week (October, 2014), I made another visit to the historic collection of medical books at Notre Dame University Medical Library, Sydney. Why not take a trip there? You will cry when you see how many good treatments were available up until, say, 1940 and then someone put the kibosh on them. Some of the ailments that appear to me to be quite fixable are: arthritis, lupus, diabetes, and of course cancer. Isn't that great?

Please read Appendix M: Many autism Moms say how they feel guilty, as they had misgivings before allowing the vaccinations, but could not stand up to a doctor, or nurse when the crunch came. Learn from them! Be feisty!

PROPOSAL FOR A ROUND TABLE (IF U R YOUNG)

Chapter 10 mentioned King Arthur. How about lovely young people taking the bold step of forcing the issue re autism? Just form a "Round Table." Don't let any jerks in.

You can invite deceased scientists, such as Crofton. And real live people like Gershon, VK Singh, Kedar. If they decline the invitation, simply appoint actors to role-play their teachings.

Even if you had no more for a script than what appears in this book, you could get a big debate going. Honest. Each debater should try to press his point, and make the other parties shoot ii down or accommodate it. Politeness is irrelevant. You can appoint a chairperson to referee.

Here are some scientific questions to concentrate on:
Is there a retrovirus involved here? Does it change the DNA? Does it go for the immune system? Is the auto-immune-disease concept biologically sound? Are CFS, Parkinson's, Alzheimer's, Lyme, ADHD, all of a piece? Why is sodium chlorite a cure? Why the anti-fungals?

If there be a virus, is it airborne? Or delivered by vax? Is the food situation so bad now that eating accounts for all? Do the magnetic fields of cell phones have any influence here?

Please take a stab at it. See Chapter 6 on modeling. It is very acceptable in science for you to start with a wrong claim. As you try to defend it, you soon see errors and know what additional areas you need to work on.

The point is that we have to start somewhere. Experience hath shewn that there is no point waiting for officials or institutions to deal with the autism epidemic. (See Appendix D re the CDC.) I agree with Michael Goldberg, when he says that *not* to deal medically with the symptoms is "child abuse"!

Sadness

At the Chicago conference of AutismOne, the community spirit was notable. Many young couples, some with baby in tow, looked happy to be there. Of course it was a chance to be with other families who have the same issues. Yet I felt there was a great sadness in the air – and why not, this autism epidemic is a terrible event in our history.

I plead with you again to jump into the search for solutions. If I can help, let me know. (Have Gun, Will Travel.) See? I am not embarrassed by my lack of credentials and you shouldn't be either. Embarrassment is way too influential in the human species. We can probably go far just relying on common sense.

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ABOUT THE AUTHOR

Mary W Maxwell began book-writing three decades ago with *Human Evolution* (Columbia University Press, 1984). She holds degrees from Emmanuel College, Boston; Johns Hopkins, Baltimore; and University of Adelaide, Australia.

In 2006 she was a candidate for US Congress, in New Hampshire, and is interested in helping young candidates for office. Her Youtube channel is: mary w maxwell. She writes regularly for the Melbourne website Gumshoenews.com.

Her law book, which will be published in 2015 by Trine Day Press, Walterville, Oregon, is entitled: *Fraud Upon the Court: Reclaiming the Law, Joyfully*.

Maxwell's interest in writing about medical politics began when Alan Cantwell, MD, pointed her in the direction of investigating AIDS. From there she started reading the old books about cancer and found that many doctors had successfully cured cancer in the years 1890 to 1950, using a variety of medical techniques. Then, state governments (amazingly) colluded with the American Medical Association to mandate a "standard of care" that included only the big three treatments: surgery, chemo, and radiation. This she recorded in *Consider the Lilies: A Review of 18 Cures for Cancer and Their Legal Status* (2013).

Mary has experience in choral conducting, and is currently producing a dance-and-comedy show for the Adelaide Fringe, which will play on March 13 and 14, 2015. It is called "Puppetry of the Watermelons."

Email address: mary@ProsecutionForTreason.com