

The Reciprocity Project

"You Shall Not Fold Your Wings"

The ADHD, CFIDS (ME), Acquired Autism Connection

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Reciprocity is a set of ideas. They explain a great many oddities, including the high proportion of autistic children with engineer parents, the growth of ADHD to epidemic proportions in one generation even though we know it is genetically related, and the confusion about whether ADHD is even a disorder at all. While they are certainly radical, the ideas are concrete and testable. Because they place the clinical observations into a wider social context, I'll summarise them here by describing the clue trail, then the first core idea, and then fit the clinical data into place.

Software Engineering

I began teaching software engineering as a practical matter during a skills shortage in the mid 1980s. Over time I realised that while a minority of my students were of the "natural hacker" type (a creative, effective programmer - not a criminal), the majority could be taught to be hackers. This was at variance with usual thinking in the field, which holds that most people are simply useless by nature. By observing engineers I noticed that there were two distinct "cognitive strategies" visible in the workplace. I tagged them "packing" and "mapping". You need to be a mapper to do software design, but most people are packers. My empirically developed lectures, which consisted of some common-sense comments about the nature of work, and some entertaining stories, somehow taught packers to map.

During the 1990s a trend developed within industry called ISO9001, which sets out to make people more aware of the jobs that they do, and yet for some reason tends to degrade into a short-sighted and defensive attitude. I became aware that while I was getting better at producing teams of aware people that could deliver robust systems within budget, their colleagues in the embedding organisations were becoming progressively more hostile to my teams' mere presence on site. I recognised aspects of the pattern in some of the most thoughtful writings on management theory. The idea that I was looking at two "natural" approaches was getting far-fetched. It seemed to me more likely that everyone was born a mapper, but somehow most people got "flipped" into the weaker packer mindset through social pressure. It seemed that packers were distressed by any reference - even implicit - to the mapper worldview. Yet this was a denied, neurotic kind of distress rather than an explicit disagreement about ideology.

I also became aware that with the two personality types identified, it was easy to categorise those of my own friends and useful colleagues who had been laid low with CFIDS (ME) as mappers, of the kind that react to the arrogant stupidity of the packers around them more with sorrow than with anger. The way a monkey's hair falls out if one pokes it with a stick for long enough came to mind.

A picture of a society unknowingly at war with itself was emerging. The packers were not just less able to cope with

problem-solving than the mappers. It seemed that they were driven by forces they were not aware of to actually persecute mappers!

When I learned of the existence of ADHD, I was amazed. The character type of the ADHD child was clearly recognisable as the precious mapper state of mind that does so well in software engineering, that I had been learning to induce. Moreover, the complete misconstruction of what these children were obviously trying to do - even by psychologists - precisely matched the workplace hostility experienced by my effective teams. This was true right down to the bizarrely loaded language and seemingly fatuous point missing that occur in industry - particularly since ISO9001 appeared. Sadly, the frustration and emotional distress caused to the children and engineers by the hostility of surrounding people was also the same - just less openly expressed by adults. Since putting my lecture transcripts on the web I've had responses from many engineers welcoming the expression of issues they had never been able to express in the usual language of the workplace. They say it with feeling.

[Here are the transcripts.](#)

[The organisations where I developed the approach are listed here.](#)

Widening the Problem

These clues suggested to me that there was something going on in a social and/or biological context that touched both engineering and child medicine, which for some reason, psychologists that had studied the matter deeply had not recognised any more than the people in industry who just can't understand systems design. There was more to this than cynicism, idleness and stupidity. Perhaps the interface of human problem solving and the concrete reference of effective engineering would be a better place to attack the problem than the complex ground of behavioural psychology.

With the announcement of the genetically determined polymorphic dopamine D4 receptor in ADHD children by Prof. Russell Barkley, a remarkable picture fell into place.

[Here is Prof. Barkley's article.](#)

I propose that humans have an ability to raise the level of the neuroinhibitor dopamine in their brains to reduce awareness if environmental novelty drops below a certain level. Perhaps the ability evolved to enable us to outwait predators in siege situations, where our higher intelligence might otherwise cause us to get too bored and try to outrun a physically better endowed animal. The trouble is, in societies where children are constrained and "ritualised" between ages 4 and 6 (at the school in developed societies, or the loom is less developed ones), tolerance to the elevated level can develop, and the child becomes "ritual addicted". We have the model of adrenaline addiction in athletes motivating them to take risks they would not normally take. Without realising it, the child will seek repetitive behaviour, and shun novelty. Within a community of such people addicted to their own boredom products in childhood, a self-sustaining condition develops between distinct causal arenas including neurochemistry, social behaviour and language. In systems terms I think of it as a parasitic flow - like a tornado - but distributed across multiple aspects of the world. I tagged the flow "M0" - a distributed Monster.

There is a whole class of cognitive faculties - easier to identify in hackers than children - which disappear. I argue that all these faculties are suggestive (in processing terms) of hardware implemented feedback mechanisms. I suggest that the feedback mechanisms are "squelched" by the raised neuroinhibitor. Meanwhile the person's subjective sense of well-being and awareness increases - just as in cocaine addiction. Cocaine is known to increase the subjective sense of well-being by raising dopamine levels.

People can fix rituals alone or by exchanging rituals with others. Therefore the awareness and ability to cope with novelty of whole groups goes up and down in synchrony, and ISO9001 together with the automation of many jobs required to create real material wealth has offered unparalleled excuses and opportunity to invent unproductive administrative rituals.

In the midst of this, the person with a defective D4 receptor is immune to dopamine self-addiction. They retain full cognition since they retain the ability to exploit feedback in cognition. They are able to discuss their observations with others who enjoy full cognition. Their cognitively superior state is demonstrable by results in engineering, but not in

arbitrary situations where engaging in repetitive behaviours and nothing else is by definition, an inherent good. The person is isolated socially and linguistically, and subject to bullying by people who are trapped in addictive behaviour, but think they have mastery of the situation. Their motivation in exchanges is influenced by resentment of the immune's non-participation in the dopamine economy.

[Here is the full argument.](#)

Clinical Consequences

The ADHD child is neither deficient nor disordered. He (or sometimes she) is actually more aware than those around him. When faced with 100 simple arithmetic examples he looks at what he is doing during the first few, grasps the principle of the algorithm, and can then handle the general case. This comprehension is then a part of him for life. He can see no possible benefit in doing another 90 examples, and repeating behaviours does not seem to be an inherent good. He therefore looks out of the window, where something interesting is happening. His teacher already resents him because of his non-participation in the dopamine economy - he does not co-ritual fix like the "good" children do. However, the teacher is unaware of this subtle aversion conditioning and simply brands him as deficient and unable to perform the task according to the procedure - surely the highest conceivable aspiration for any "normal" child. He is said to be unable to "pay attention". In fact, the zombie-like robotism the teacher calls "attention" is nothing like the true concentration the teacher calls "hyperfocusing". Woe betide the child if he expresses his feelings, since the teacher will then claim that he refuses to "learn", and often eggs on the "good" children to perform contempt/threat displays. The more effort the child makes, the worse the response from teacher. Eventually the distorted perception of the highly ritualised teacher is endorsed by highly ritualised local government officials and healthcare workers, the barrage of hostility becomes quite unbearable for the child, and he develops emotional disturbance. This contrasts with the unaware self-satisfied smugness of others, and he is described as unable to "keep calm".

People trapped in dopamine self-addiction don't have the experience of true thought. They imagine that thought is evaluated by quantity, not quality. For them, there is not any skill of finding simple ways to see complex things. Furthermore, they believe that quantity of thought is proportional to energy expended. They believe that great thinkers like Einstein and Feynman didn't see more deeply, instead their brain-pans became red-hot as they dissipated energy performing huge numbers of simple arithmetic examples! Their brains were "like computers". They "grind through it", "figure it out", "work through it". If an insight ever occurs to people trapped in dopamine self-addiction, it is a rare chance event - "the penny drops". To these people, thinking is just like shovelling manure. It is unpleasant, not a joy. Like all other behaviours that must be extracted from junkies, coercion must be used. Teachers are concerned with enforcing "compliance" to a bare minimum and end up preventing the aware children from excelling - on the grounds that all "non-compliance" is inherently bad. SATs in schools just make things worse, as ISO9001 has made things worse in industry.

When brain scans show that deep thinkers use less oxygen than most people, dopamine self-addicts assert that this is a consequence of the huge amounts of physical work being done by their brains compared to the "weakness" of the deep thinkers' brains. They don't interpret the data as neurons having to do extra physical work in most people just to keep them standing upright given the raised level of a substance generally recognised as a neuroinhibitor - for example in Parkinson's disease - but only below the neck!

Further, people trapped in dopamine self-addiction are hard pressed to rote memorise simple statements, do not seek out inconsistencies in models and usually rationalise their "motivations" after the fact. Hence they have no problem trotting out the "weak brains" story, and feed children powerful stimulants to treat "hyperactivity". For deep thinkers, particularly very young ones already in distress, who have not been taught to use their powerful minds correctly, stimulant drugs are a very bad idea. They cause the surface awareness to race, and block contemplation. The resulting state is known in slang as "speed psychosis". It renders the young mind burned out, punch drunk and "compliant" - an approximation to a dopamine self-addict. This is the situation in which it is not possible to have a rational discussion of the superior abilities of so-called ADHD children with educational psychologists. In software engineering, where tradeoffs in systems thinking must be appreciated every hour, the implacable mindset that treats hyperactivity with stimulants and abdicates personal responsibility to corporate proceduralism that cannot possibly contain prescriptive instructions for every possible situation makes useful progress quite impossible. This is why commercial software production is stagnating, while the freeware sector - where creative people make software for fun or later benefits - is going wild.

It is the deep thinkers and not the delusional, self-absorbed majority that are actually equipped to deal with nature. In a technological society, it is the engineers that have contact with nature. Engineers are preferentially drawn from among the natural immunes, and pass their natural immunity on to their children. However, the increasing ritualisation of modern society has rendered the delusional majority so averse to reality that they are now attacking the very minority that would otherwise feed them in the next generation. In industry, compliance-obsession is driving existing natural immunes out of organisations, leaving organisations self-satisfied and stagnant.

When the emotional distress caused by hostility and malicious "lesson teaching" behaviour is sustained for long enough, the physiological stress leads to susceptibility to immune system failure, and the infection patterns seen particularly in quiet ADHD children (who internalise the stress more).

Evidence of very similar viral activity in ADHD children, CFIDS sufferers, and children with acquired autism has been found by the NIDS group of clinicians. Their theory is that the viral activity causes the diseases. Since I have evidence that ADHD isn't a disease at all, but instead is the *normal* state, I propose that the stress of being normal in the midst of unhealthy - and bullying - people leads to immune system weakness.

[Here is the NIDS Group website.](#)

[Dr. Goldberg is Director of the NIDS Group. Here is his own website.](#)

Often it is the additional stress of an illness or period of intense emotional stress that triggers the CFIDS state. This model explains the extraordinary attitudes to CFIDS in certain sectors of the medical community. In the UK there are many who flatly refuse to accept the data, aggressively denying that there is any such disease. Sufferers should be managed by obtaining court orders, kidnapping them from their homes in dawn raids, and confining them on locked wards. There the children are "jollied along" (sic) with constant abuse, and forced to perform vigorous exercise. When their condition worsens they are issued with granny frames and continue to be marched up and down. Eventually they end up in bed, being fed by drip since they are too weak to eat, and subject to continued abuse about how much they have "cost" the taxpayer. This kind of behaviour by trained professionals is beyond understanding - perhaps beyond credibility. Yet within the closed and highly ritualised groups of certain healthcare and local government workers, the behaviour has reached the stage where the BBC TV flagship programme "Panorama" recently devoted a whole edition to it. Several after-the-fact court cases against local authorities are currently pending. However, as an unconsciously motivated group aversion behaviour directed at the group of natural immunes as a whole - unconsidered and emotional "lesson teaching" - it is more understandable.

[I got this advice from several people who've recovered from CFIDS.](#)

To explicitly make the link to autism, we can return briefly to software engineering. I have often observed (and been caught in) situations where a thinker is trying to maintain his composure, contemplate all aspects of a situation, and find the deep, elegant solution that the "mapper" experience says is always there if only we look for it. The response of packers to this activity is to physically surround the mapper, and set up a barrage of yammering. They change the subject repeatedly in mid-sentence, make false statements, and cite logical fallacies. Their attention span is less than two sentences. Yammering behaviour renders contemplation quite impossible. It's worse than the silly trick of shouting random numbers at a person trying to remember a phone number. Normal tactile self-stimulation that can be observed in most engineers when thinking increases to head rubbing, rocking and so on. The thinker becomes withdrawn and defensive. Eventually the only alternatives are to shout at the yammerers, or flee. I think of yammering behaviour in dopamine self-addiction as analogous to sneezing in viral infections. The problem makes the victim perform behaviours that spread the problem.

One may think that this model might not apply in pre-school children, but I believe a case can be made. From the perspective of a person free of dopamine self-addiction, the world is a rich, beautiful, elegant place. Many mappers develop a certain reverence - love - of the world we see. Our society denies this world in every word and deed, presenting instead a shallow mockery of the reality. For a sufficiently aware child in a society distorted in this specific way, I argue that just acquiring language can be enough to make a child vulnerable to the ambient yammering in society. From there we can get to stress-induced immune weakness as in ADHD. Some years ago there was an hypothesis that autistic children lack sensory filters, and can become overloaded. This seemed to be displaced by claims that autistic children cannot form interpersonal relationships. Yet according to the majority, I can't form relationships because I haven't memorised the

correct conversations and so have no social skills. In fact, my relationships (with other aware people) are deeper and more stimulating than I believe the majority can imagine. It does seem to be the case that aware children have a richer sensory experience than "doped" ones.

I also notice a possible link with "savant" abilities, which are found in some autistics, but not exclusively. Again, an example from engineering. I was once asked to look at a system that was doing some pretty subtle analysis of radar data. After looking at the expected and actual results for a while, I was certain that the problem did not lie in the post-processing. The raw data were somehow bogus. I was sufficiently certain that before I started examining the various sub-systems I insisted that we make an awkward climb up to look at the electronics near the dish itself. There was hardly anything near the dish, but wildlife had gnawed through some insulation (we never found out how) and high frequency signals were leaking all over a junction box. I did not have the faintest idea how I knew where the fault lay. If I understand the black art of radar propagation I'm not aware of my understanding. Similar stories are told of star diagnosticians in medicine, who look at a patient, sieze on one "pivot point" (without knowing why their key observation is so important), and make the correct diagnosis in one intuitive leap. The situation is captured in the following exchange between a journalist and an elderly Taoist teacher, which is quite well known in industrial Quality (Deming) circles:

*Do you study theories?
Oh yes! Theories are fun.
How do you use them?
When I must act, theories are too slow. To act, I must know.*

Perhaps the sensitivity to impression necessary to be able to do this with dates and prime numbers preferentially leaves the mind vulnerable to the kind of "ambient yammering" I'm proposing upsets autistics.

Beyond Dopamine Self-Addiction

A part of the dopamine self-addiction model is the idea that our society contains a cultural distortion which makes the cognitive component hard to see and discuss. With the cognitive component in hand, it was remarkably easy to subtract the stupidity it can account for from observed stupidity, and a very elegant and mathematical, profound picture of the cultural component emerged. This is discussed in the paper "2: The Ghost Not".

This concept certainly makes sense to the (mainly) engineer types currently involved with the discussion group that has grown around this website. With this component in hand, it was possible to re-evaluate a number of deep assumptions in our culture, using the Ghost Not as a kind of a map of that which will have been overlooked. I'm not concerned at the moment with whether or not the re-evaluation is correct. What is interesting is that it certainly seems to be an expression (in physical terms) of a model of reality that is seen (more or less) by many people in full awareness, in many historical eras. I suspect that if the dopamine self-addiction hypothesis has merit, we will be able to use this re-evaluation to assist communication (and hence self-esteem) amongst natural immunes, as my original lectures helped natural hackers to communicate amongst themselves as well as created synthetic hackers.

These notions seems to fit what I know of the data in ADHD, CFIDS, acquired autism, software engineering and management theory. The question is whether it is really neurologically allowable given prior data, because if it is, then it is certainly testable. If tests show it is real, we already know what to do to get in excess of 4,000,000 children off Ritalin and into the state where they can make the valuable contributions to the information age that they long to have the opportunity to make, make significant improvements to the health of the public in general - and get engineering back on course.

But the bottom line is this. If people say a child suffers from a genetic disease called ADHD that wasn't seen before this generation and the child simply *must* be drugged, or that CFIDS doesn't exist and a child should be harried to the point of being fed by drip, or that a child is autistic because the child doesn't "fit in" with idiotic social norms that get worse every year and becomes withdrawn instead, maybe *you* should "fail to comply" as well.

Take care of the healthy child instead of the "administrative convenience" of the unhealthy ritual addicts who are persecuting the child without even realising what they are doing. The ADHD child is *not* diseased. Just stressed out. The ADHD child *retains* the full faculties that every human should enjoy. Never mind the bullying and sneers of paper shufflers. The state of mind of the very best systems engineers, of Edison, Mozart, Einstein and Feynman, of Whoopi Goldberg and Robin Williams, is certainly desirable for any child of the information age! And remember - ADHD children

can teach *themselves* key subjects like mathematics, physics and chemistry in three *weeks* to the level that schools take three *years* to accomplish with the children they have ritualised into zombie unawareness - just by reading the books and *understanding* what they read. They are the *only* people who can compose music, poetry, great literature - and great computer programs. They are not supermen. They do have an advantage because they stay *normal* in unhealthy, ritualised societies. Societies that are getting worse as material wealth increases and pointless ritualism increases with it. Such societies need years of schooling to first render children ritual addicted, and then slowly push rote learned data into their brains. In years gone by, this painful process had to be done once per lifetime to provide fodder for the fields and the factories. These days learning is a process that must continue through life. ADHD children - children that retain normal human awareness even in ritualised societies - don't *need* schools. That's why in later life they are true leaders and not sheep.

[Here are some additional materials, links and references.](#)

[Here is the Reciprocity Project Homepage](#)

Now let's say it again, the ADHD way. From "The Prophet" by Kahlil Gibran:

*Would that I could gather your houses into my hand, and like a sower scatter them in forest and meadow.
Would that the valleys were your streets, and the green paths your alleys, that you might seek one another through
vineyards, and come with the fragrance of the earth in your garments.*

But these things are not yet to be.

*In their fear your forefathers gathered you too near together. And that fear shall endure a little longer. A little longer shall
your city walls separate your hearths from your fields.*

And tell me, people of Orphalese, what have you in these houses? And what is it you guard with fastened doors?

Have you peace, the quiet urge that reveals your power?

Have you remembrances, the glimmering arches that span the summits of the mind?

Have you beauty, that leads the heart from things fashioned of wood and stone to the holy mountain?

Tell me, have you these in your houses?

*Or have you only comfort, and the lust for comfort, that stealthy thing that enters the house a guest, then becomes a host,
and then a master?*

Ay, and it becomes a tamer, and with hook and scourge makes puppets of your larger desires.

Though its hands are silken, its heart is of iron.

It lulls you to sleep only to stand by your bed and jeer at the dignity of the flesh.

It makes mock of your sound senses, and lays them in thistledown like fragile vessels.

Verily the lust for comfort murders the passion of the soul, and then walks grinning in the funeral.

But you, children of space, you restless in rest, you shall not be trapped nor tamed.

Your house shall not be an anchor but a mast.

It shall not be a glistening film that covers a wound, but an eyelid that guards the eye.

*You shall not fold your wings that you may pass through doors, nor bend your heads that they strike not against a ceiling,
nor fear to breathe lest walls should crack and fall down.*

You shall not dwell in tombs made by the dead for the living.

And though of magnificence and splendour, your house shall not hold your secret nor shelter your longing.

*For that which is boundless in you abides in the mansion of the sky, whose door is the morning mist, and whose windows
are the songs and the silences of night.*