Contents

Introduction

Caterpillars and butterflies share the same genes, but these are differently expressed, so the creatures look and behave differently. This is useful, since the two phases have different functions. In the first phase the creatures are hard to see so are less preyed upon, and in the second they are more mobile, which enables them to find partners and choose more widely between strips of vegetation. The phase difference in the case of locusts is less extreme but more like that of humans:

'A phase theory has been developed to account for the sporadic appearance and disappearance of locust swarms. According to the theory a plague species has two phases: one solitary and the other gregarious. The phases can be distinguished by differences in coloration, form, physiology, and behaviour. A solitary phase nymph, for example, adjusts its coloration to match that of its surroundings, does not collect in groups, has low metabolic and oxygen-intake rates, and is sluggish. A gregarious phase nymph, on the other hand, has black and yellow or orange coloration in a fixed pattern, gathers in large groups, has high metabolic and oxygen intake rates, and is active and nervous. Adult locusts differ more in form than in colour...

When a nymph of a solitary phase locust matures in the presence of many other locusts, it undergoes a physiological change and produces offspring of the gregarious type. If crowding is sufficiently dense and of long enough duration, the majority of a local population will shift to the gregarious migratory phase. The young of a gregarious phase locust, on the other hand, will produce offspring that revert to the solitary phase if it matures in isolation. The solitary phase is the normal state of the species, with the gregarious phase being a physiological response to violent fluctuations in the environment. Migratory swarms do not form in regions favourable for the growth of a species. Instead they form in marginal regions in which suitable habitats are scarce. A succession of favourable seasons enables a population to expand in numbers so that individuals are forced into marginal areas. When unfavourable environmental conditions occur in the marginal regions, individuals are forced to return to smaller, permanently habitable areas, resulting in crowding and triggering the physiological shift to the gregarious form.

A gregarious phase locust is restless and irritable, and it flies spontaneously on warm, dry days when its body temperature is high.'[1] It is also willing to prey on others of its own kind:

'Locust swarms are formed because the insect is desperate to literally stay a step ahead of its cannibalistic neighbour, an international research team says... Juvenile locusts cannot fly, but instead march up to 500 metres per day in swarms that can number "millions". The researchers reduced the ability of individual locusts to detect the approach of other locusts from behind. This was done by severing the main nerve in the abdomen of one group of juvenile locusts so they could not feel anything from behind and in a separate group reducing the insects' rear vision using black paint. Sword says although the surgery did not impede the locusts' movement, the loss of sensation meant the "de-nervated" locusts did not feel other locusts approaching from behind. This resulted in the locusts being less likely to move, and they were "literally getting their bums chewed off".'[2]

Recent findings by Professor Alberto Saco Alvarez of the University of Vigo in Galicia and myself imply that humans likewise have two main phases in response to climate. One phase is adapted to life in the ice-ages and the other to life in the interglacial periods, the former being the healthier and more basic phase and the other having evolved through pathological changes. The former tends to be more extreme in the case of humans with neanderthal forebears, revealing on the one hand the presence of neanderthals genes and on the other the mental and emotional traits of Neanderthals.

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1 Locust, Encyclopedia Britannica http://www.britannica.com/EBchecked/topic/345932/locust

2 Cooper, D. Cannibalism drives locust swarms, ABC Science http://www.abc.net.au/science/articles/2008/06/06/2263990.htm

Neanderthals were not known as such till some bones were discovered in the Neanderthal (Neander Dale) in Germany in 1856 so shall here be called more traditionally 'leprechauns' (leper-cans) as a reminder that they were solitary, helpful and humorous. The name alludes to their pale skins and use of irrigation, since they were devils in the world of the dammed.

Sunspots and ailments

A high number of sunspots tallies with

Alzheimer
cancer (infant mortality)
cancer (breast & colon)
congenital anomalies
congenital heart disease
sclerosis
low mental performance
criminality

and a low number tallies with

diabetes (mellitus)
schizophrenia
high mental performance
creativity
low immunity
low resistance to heat
addiction to smoking

Some of these findings are from Alvarez[3] and some from other researchers such as Stoupel: 'The monthly number of infants born with congenital heart disease is directly correlated with the level of solar activity... predominantly in the month of conception.'[4] Since diabetes and schizophrenia also tally with other ailments such as little immunity, these have been added to the list.

At first glance the two sets of correlations seem to imply that too much or too little solar activity is bad for the health and that the optimal amount lies half way between them, but the less the activity, the better the mental performance. This implies that solar activity is experienced by the body as interference and that ailments due to less of it are either no genuine ailments or are due to healthy states of the body ill adapted to present conditions. The level of immunity for instance should be neither too high nor low but adapted to the risk of infection. Much the same is true of diabetes.

'Prevention and treatment often involve a healthy diet, physical exercise, not using tobacco, and being a normal body weight.[5] Diabetes is due to lack of enough insulin or to cells' limited response, but too much insulin is not only wasteful but may also cause 'dangerously low blood sugar levels which can lead to convulsions and brain damage if not treated promptly'[6] and harm the cardiovascular system. In effect the amount produced should tally with needs, which in earlier times were different, as shown by the fact that 'remnants of Neanderthal DNA in modern humans are

3 Alvarez, A.S. Effects of extremely low freuqncies on human health, Advanced Research in Scientific Areas, 2014, pp. 2118-2123 www.arsa-conf.com/archive/?vid=1&aid=2&kid=60101-42

4 Stoupel, E. et al. Congenital heart disease: correlation with fluctuations in cosmophysical activity, 1995-2005. PubMed, US National Library of Medicine, National Institutes of Health, June 2009 www.ncbi.nlm.nih.gove/pubmed/18582962

5 Diabetes Fact Sheet 2012, WHO, October 2013

6 University of Manchester. Treatment breakthrough for rare disease linked to diabetes, Science Daily, 21 03 2011 http://www.sciencedaily.com/releases/2011/03/110315192817.htm

associated with genes affecting type 2 diabetes.'[7] Apparently less insulin was needed in the paleolithic, especially by Neanderthals, whereas Cro-Magnon may have ingested more carbohydrates in temperate zones:

'While farmers concentrate on high-carbohydrate crops like rice and potatoes, the mix of wild plants and animals in the diets of surviving hunter-gatherers provides more protein and a better balance of other nutrients... Skeletons from Greece and Turkey show that the average height of hunter-gatherers toward the end of the ice ages was a generous 5' 9" for men, 5' 5" for women. With the adoption of agriculture, height crashed, and by 3000 B. C. had reached a low of only 5' 3" for men, 5' for women.'[8]

The two main phenotypes

What the two sets of correlations – with high or low levels of solar activity – imply is that solar activity is basically harmful, but that the state of health tallying with a low level is ill adapted to certain conditions, so humans more readily changed by a rise of level have been naturally selected by these conditions. The fact that the state of health tallies with conditions in the ice-ages implies that ice-ages and interglacial periods are due mainly to the level of solar activity, so the level can prompt a fetus to evolve into the tallying phase or phenotype.

The fact that diabetes tallies with a low level and also comes from leprechauns implies that owing to their life in the far north their adaptation to cold was more pronounced and that modern humans with the tallying genes may have a bias towards the cold phase, being the last to change into the other and the first to change back. If so, not only their physiology but also their characters may be more typical of leprechauns, just as the phase difference in the case of locusts involves not only physiology but also behavior.

Firstly we can check whether or not solar activity is always experienced as interference by turning to the timing of birth. If it is, the states underlying diabetes and schizophrenia must be healthy as such, though ill adapted to the climate and modern life.

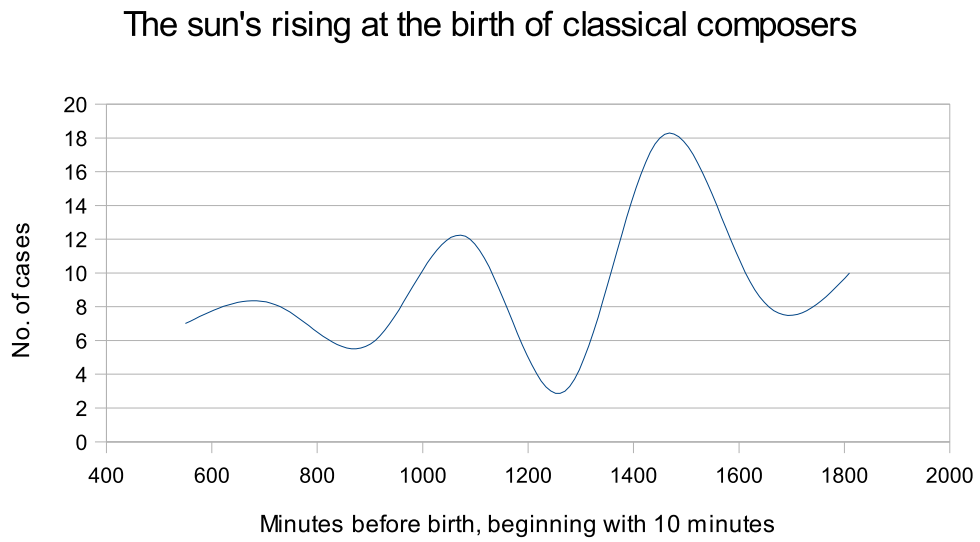
The timing of birth

In the gospel according to Mateus three wise monkeys or leprechauns come from the east on seeing the rising or a star or cluster of planets. This alludes to the leprechaun belief that birth is timed by the rising of a planet and that the choice of planet tallies with a child's temperament. However, according to traditional belief the relevant planet is the first to rise after birth, whereas according to my own and the Gauquelins findings, it is more often the last to rise beforehand. May this be due to a change in the mean level of solar activity since the ice-ages?

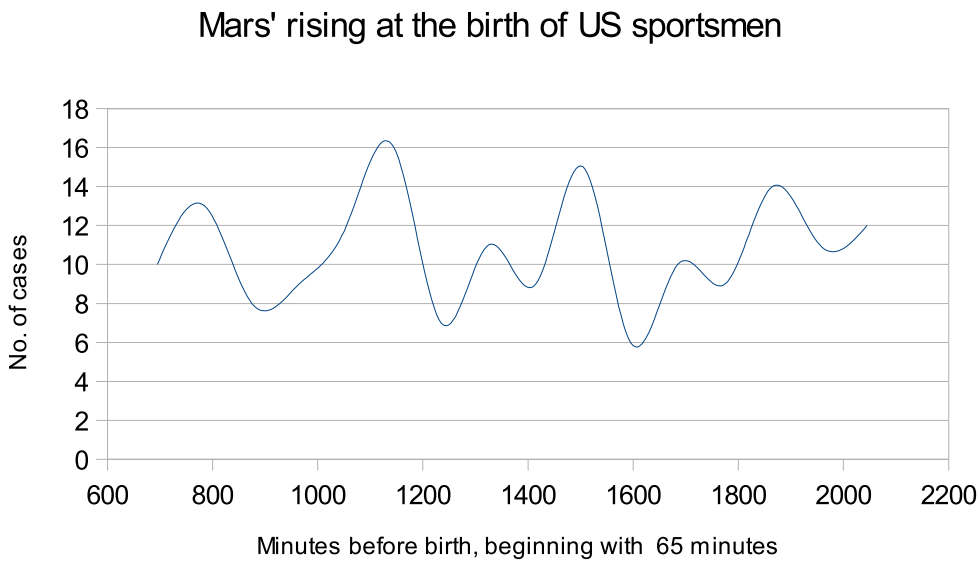
Here are the sun's intervals to rising at the birth of classical composers listed in the Wikipedia. 'Classical' is used in the wider sense to include composers listed under ' romantic' as well as some modern composers:

7 Neanderthals' DNA legacy linked to modern ailments, Harvard Gazette, 29 01 2014 http://news.harvard.edu/gazette/story/2014/01/neanderthals-dna-legacy-linked-to-modern-ailments/

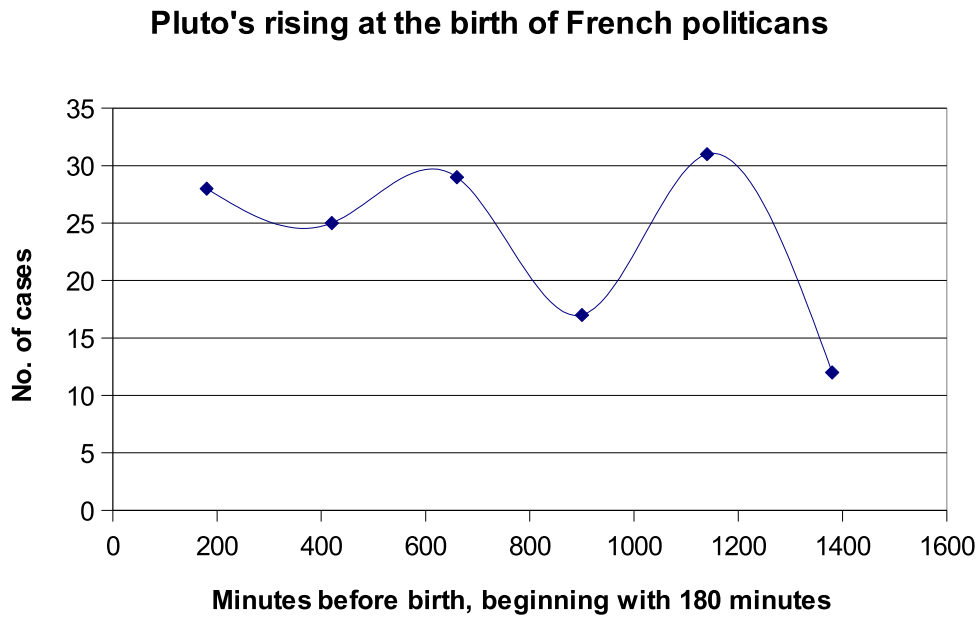
8 Diamond J. The Worst Mistake in the History of the Human Race, Discover Magazine, May 1987, pp. 64-66 http://www.ditext.com/diamond/mistake.html



There are regular 6-hour waves in a 24-hour envelope. The 6-hour waves are the second octave of the 24-hour wave, an octave being a doubling of frequency. Here are Mars' intervals to rising at the births of sportsmen from the first half of the Gauquelin Book of American Charts.



Mars is associated with not only 6-hour waves but also 3-hour waves, as if different orbs tally with different series of waves. Here are Pluto's intervals to rising at the births of politicians from the Gauquelins' French database.



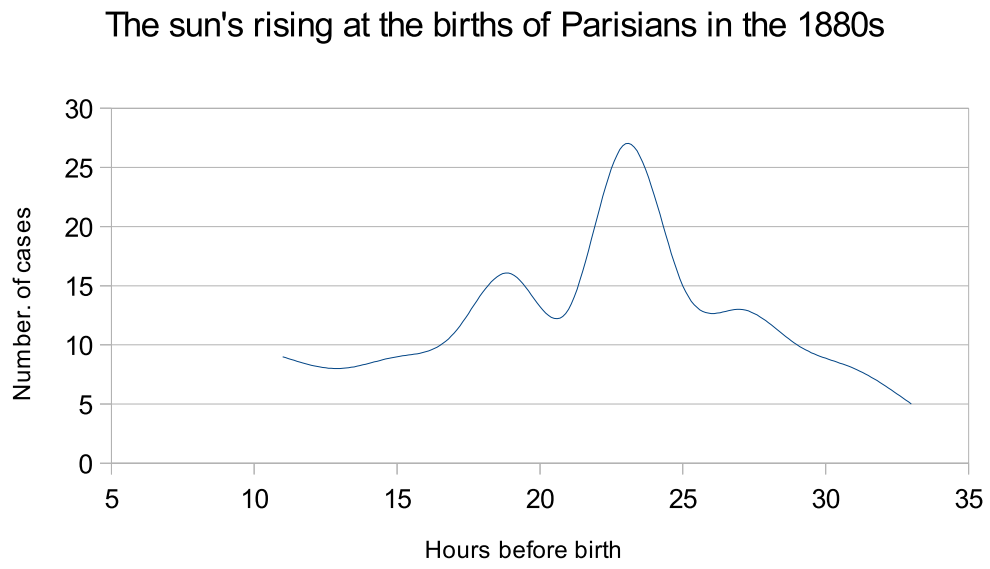
In this case the waves are 8-hours long.

The results for the various planets differ in two main respects. Firstly each is associated with a different series of waves or 'timbre' and secondly with a different lag between the last crest and birth. As a rule, the bigger or nearer the planet, the less the lag, as if the lag were the time needed by a network of cells to sense and identify the relevant series of waves, according to their amplitude.

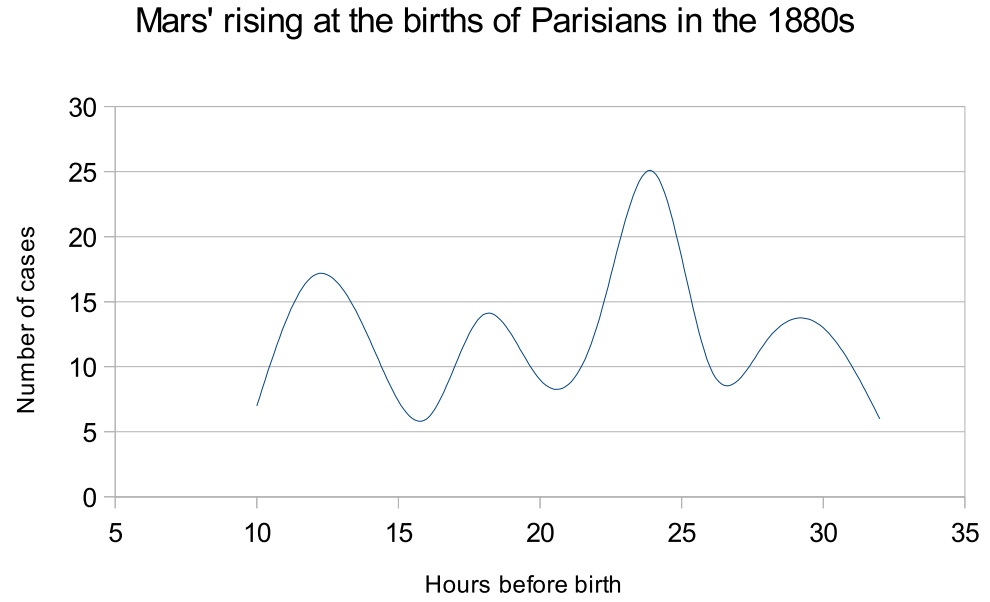
The effect of solar activity on the timing can now be checked by using data from a period of relatively low activity. The Gauquelins gathered data of Parisians, to find out whether or not parents and offspring tend to choose the same timers. For our purpose we can take the first 144 data of parents, beginning with the year 1866 and ending with the year 1886, most of the data being from the 1880s.

The orbs taken into account are the sun, Mercury, Venus, Moon, Mars, Ceres, Jupiter, Saturn, Chiron, Uranus, Neptune and Pluto. Working intervals out to the nearest minute, as before, would have taken weeks, so the horizon was simply swiveled through one hour at a time and the zones noted in which planets occurred. This is also why the number of data chosen is 144. Given 24 zones, each orb should appear 6 times in each zone by chance, so deviations are easily noticed.

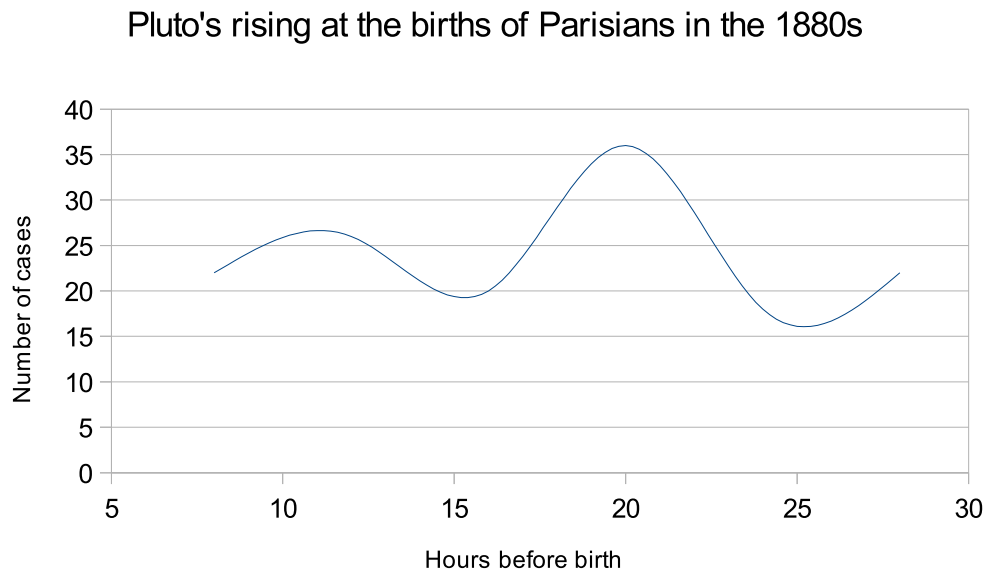
Here are results for the sun:



Here are results for Mars:

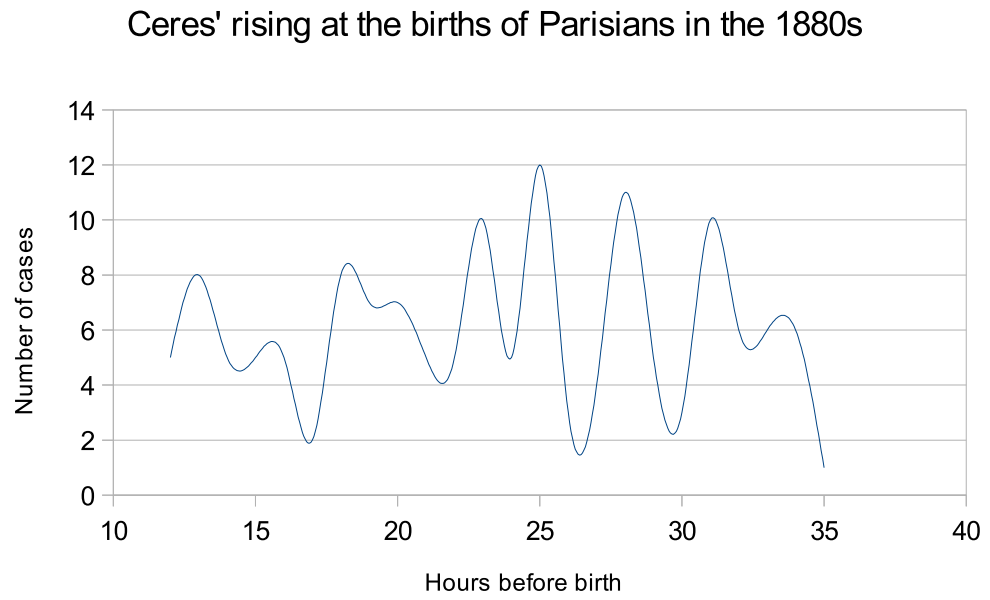


And here are results for Pluto:



In the case of the sun and Mars the crests have shifted about an hour to the left and the higher frequencies have dwindled. The shift implies that cells were able to sense and identify the relevant atmospherics much faster.

The results for Pluto are dissimilar in showing a slight shift to the right, but Pluto's orbit is very eccentric in the sense that its distance from the sun and earth varies a great deal and was nearly at its greatest in the 1880s. There are also positive results for the main asteroid, Ceres.



The 1-hour zones may not tally ideally with the length of Ceres' waves but are enough to show that the waves are in a 24-hour envelope, whose crest rises shortly before birth, as it should in the case of a relevant planet.

Even during the 1880s the level of solar activity was higher than in the early 1800s, and this was higher than in the 1600s at the time of a little ice-age. This implies that astrology arose during the ice-ages, when cells were able to sense and react to the timer before it rose, and that solar activity interferes with the process of sensing and slows it down. We can now turn to schizophrenia.

Schizophrenia

The correlation between schizophrenia and lack of solar activity has been found by Alvarez and other researchers: 'We also found a surprising inverse correlation between Wolf numbers (i.e. number of sunspots) and cases of schizophrenia in a 20 year period.'[9] There is also a correlation between schizophrenia and certain character traits, though the question remains open as to whether these are the traits of schizophrenia or of the sub-species most likely to succumb to it

'A five-year study conducted by John Brekke and his colleagues found that people diagnosed with schizophrenia were twice as likely to be assaulted, raped or mobbed than the general public... In addition, Brekke concluded that people with schizophrenia were 14 times more likely to be victims of crimes than to commit crimes. He found that 38 percent of the schizophrenic individuals in the study were the victims of crime during the five study years, and that 91 percent of the incidents were violent. 'The community poses more danger to them than they pose to the community,' said Brekke, author of 'Community Risk for Individuals Diagnosed with Schizophrenia'.

'That goes against the stereotypes of the population,' he added. 'Many people fear that the mentally ill are generally dangerous.' That common misconception may explain why the schizophrenic individuals were 45 percent more likely to be arrested than the general public. Few of the arrests of people in the study were for aggressive behavior, but rather were for traffic violations or jay walking. The arrest rate for violent crimes among patients diagnosed with schizophrenia was 40 percent lower than the general public.'[10] Schizophrenics seem to have little concern for rules and regulations but not for the sake of gaining unfair advantages over others. They are simply less habit-ridden and more creative.

Low immunity

This tallies with schizophrenia and thus with low solar activity. M. E. Benrós et al. 'observed that six percent of the schizophrenic patients had an autoimmune disease that requires hospital treatment... The study does not say anything about the cause of these associations but it does show that there may be a genetic overlap between these diseases. Maybe people suffering from schizophrenia are generally vulnerable to the impact of infections, which increases the risk of not only schizophrenia but also autoimmune diseases'.[11]

This implies that they are ill adapted to overcrowding. 'Population densities of hunter-gatherers are rarely over one person per ten square miles, while farmers average 100 times that.'[12] According to an estimate in 2012 the city Dhaka in Bangladesh had not a farming density of 10 persons per square mile but a density of 115,000. Paris had about 10,000.[13]

The higher the population density, the more virulent microbes become, in having a greater chance to move on from a dying host. During the Crimean War from 1853-56 the number of dead among the French amounted to 95,000, of whom about 60,000 died of infections; and the number of dead among the British amounted to 21,097, of whom more than 16,000 died of infections. Infections were much more lethal than the Russians.[14]

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9 Ventitriglio, A. et al., The Department of Psychiatry, University of Foggia. The light theory of mental illness, Correspondence, Medical hypotheses 74, 953-959, 2010 www.deepdyve.com/lp/elsevier/the-light-theory-of-mental-illness-is-there-a-relationship-between-Fy3QjywDzMi

10 Silsby, Gilien. Social work: Schizophrenic individuals victimized by crime, USC News, 23 10 2001, www.usc.edu//uscnews/stories/7368.html

11 Petersen, I. B. Schizophrenics more likely to get autoimmune diseases www.sciencenordic.com/schizophrenics-more-likely-get-autoimmune-diseases

12 Diamond J. The Worst Mistake...

13 Cox, W. World urban areas population and density: a 2012 update, NewGeography www.newgeography.com

14 Wikipedia, Crimean War

If folk more vulnerable to schizophrenia are those more adapted to life in the ice-ages, their low immunity is hardly surprising. They were exposed to less infection, and the infections were less severe.

'The mere fact that agriculture encouraged people to clump together in crowded societies, many of which then carried on trade with other crowded societies, led to the spread of parasites and infectious disease. (Some archaeologists think it was the crowding, rather than agriculture, that promoted disease, but this is a chicken-and-egg argument, because crowding encourages agriculture and vice versa.) Epidemics couldn't take hold when populations were scattered in small bands that constantly shifted camp. Tuberculosis and diarrheal disease had to await the rise of farming, measles and bubonic plague the appearance of large cities.'[15]

'Tuberculosis (TB) remains the most prevalent infectious disease and the major leading cause of death worldwide, accounting for more than 9 million new cases and 1.4 million deaths.'[16] Schizophrenics are also more easily infected: 'Our nationwide study included a total of 60,409 schizophrenics and controls with a median follow-up duration of 6 years. After adjusting for underlying diseases, schizophrenics had a higher incidence of newly-diagnosed TB, but comparable outcomes to the general population.'[17]

Schizoid behavior

If low immunity is a healthy adaptation to life without overcrowding, folk with schizoid traits should also have a healthy aversion to social gatherings. Indeed their 'discomfort generally arises because they are surrounded by people and are forced into being part of a team,' and they 'may have paranoid delusions and believe that others are trying to harm them, such as by cheating, harassing, poisoning, spying on, or plotting against them or the people they care about'.[18] In other words they value their privacy and are adapted to small communities typified by honesty, tact, welfare and symbiosis.

Being fond of 'all aspects of nature – plants, animals, countryside, mountains',[19] they might rather be called leprechauns or naturists. Their favored occupations include 'drawing, music, literature... night doorman, watchman... researcher, archivist, librarian.' As the librarian of Babel, Jorge Luis Borges may be a noteworthy example.

The schizoid personality is typified by the American Psychiatric Association as follows:

1. Neither desires nor enjoys close relationships, including being part of a family.
2. Almost always chooses solitary activities.
3. Has little, if any, interest in having sexual experiences with another person.
4. Takes pleasure in few, if any, activities.
5. Lacks friends or confidants other than first degree relatives.
6. Appears indifferent to the praise or criticism of others.
7. Shows emotional coldness, detachment, or flattened activity.

In line with the premiss that this is a personality 'disorder', the traits are presented in negative terms but could easily be presented in positive ones such as 'in need of no supervision and continual

15 Diamond, J. The Worst Mistake...
16 Lawn SD, Zumla AI: Tuberculosis. Lancet 2011, 378:57-72
17 Te-Li Chen et al. Incidence and outcome of newly-diagnosed tuberculosis in schizophrenics: a 12-year, nationwide, retrospective longitudinal study, BMC Infectious Diseases, 20 07 2013, 13:351 http://www.biomedcentral.com/1471-2334/13/351
18 National Institute of Mental Health What is schizophrenia? www.medicinenet.com/script/main/art/.asp?articlekey=151148
19 Special working environment, Employment solution, 5 - Hobbies http://www.schizoids.info/uneasiness-at-work.html

encouragement'.

The Health Guide of the New York Times adds that naturists fear they are monitored by government agencies. They may be right to suppose so and equally right to resent it, since they seldom impose themselves on society so are averse to being imposed on.

Lao Tzu is depicted in China as having been such a person: Shih-ch'êng Ch'i is shocked by his frugality in saving the remains of one meal to serve as part of the next and gives him a dressing down to no effect. The next day he comes to him once more: 'Yesterday I found fault with you. How was it that you remained completely indifferent and did not even reply?' 'The titles of clever, wise, divine, holy,' said Lao Tzu, 'are things I have long ago cast aside, as a snake sheds its skin. Yesterday, if you had called me an ox, I should have accepted the name of ox; if you had called me a horse, I should have accepted the name of horse..'[20]

The snake, ox and horse all appear in the Chinese version of the zodiac, a leprechaun invention, so Lao Tzu is pleasantly saying that anyone is welcome to call him a naturist or leprechaun.

Creativity

A study from the Karolinska Institutet has shown that naturists are also more creative:

'"The study shows that highly creative people who did well on the divergent tests had a lower density of D2 receptors in the thalamus than less creative people," says Dr Ullén. "Schizophrenics are also known to have low D2 density in this part of the brain, suggesting a cause of the link between mental illness and creativity."

The thalamus serves as a kind of relay centre, filtering information before it reaches areas of the cortex, which is responsible, amongst other things, for cognition and reasoning.

"Fewer D2 receptors in the thalamus probably means a lower degree of signal filtering, and thus a higher flow of information from the thalamus," says Dr Ullén, and explains that this could a possible mechanism behind the ability of healthy highly creative people to see numerous uncommon connections in a problem-solving situation and the bizarre associations found in the mentally ill.'

The 'link between mental illness and creativity' may be coincidental. The fact that the more creative are more likely to succumb to schizophrenia does not imply that madness and creativity are akin: 'There is overwhelming support for a positive relationship between creativity and schizotypy... yet several studies using retrospective analyses of birth records found support for increased creativity in the relatives of schizophrenics rather than in the probands themselves.'[21]

In other words schizophrenia and creativity are not akin. Folk with leprechaun forebears may be more often creative or schizophrenic, but schizophrenia offers no insights into creativity. A further correlation with schizophrenia and creativity is less bias towards either hemisphere of the brain:

'While lefties make up about 10% of the overall population, about 20% of people with schizophrenia are lefties.. People with schizophrenia, for instance, exhibit more symmetrical activation of their brain hemispheres than those without the disorder, studies show..'[22]

'While he (Einstein) was certainly right-handed, autopsies suggest his brain didn't reflect the typical

20 Waley, A. Three Ways of Thought in Ancient China, George Allen & Unwin Ltd, London, fourtth impression, 1963, p. 35

21 Folley, B.S, Park, S. Verbal creativity and schizotypal personality in relation to prefrontal hemispheric laterality: a behavioral and near-infrared optical imaging study, Schizophrenia Research 80 (2005), p. 272 www.vanderbilt.edu/parklab/Folley_Park_NIROT_2005.pdf

22 Wang, S. & Tsue, C. The Health Risks of Being Left-Handed, Wall Street Journal, 06 12 2011 http://online.wsj.com/news/articles/SB10001424052970204083204577080562692452538

left-side dominance in language and speech areas. His brain's hemispheres were more symmetrical —a trait typical of left-handers and the ambidextrous... People with schizophrenia are significantly more likely to be left-handed or ambidextrous...

A 2007 paper in Journal of Mental and Nervous Disease (Vol. 195, No. 10) found that musicians, painters and writers were significantly more likely to be left-handed than control participants... Also, equating left-handedness with creativity glosses over the fact that 20 percent of left-handed people do have strongly lateralized brains and are probably no more creative than right-handers. The idea of lefties as creative types "probably refers to the subgroup of [left-handers] who lack clear dominance in the hemispheres," Corballis says.'[23]

Low tolerance of heat

Since folk more likely to become schizophrenic have a lower standby level of immunity, the number of antibodies is likely to catch up with the number of microbes later, by which time the levels of infection and reaction have become higher. This implies that they are more likely to suffer from fevers and inflammation. Unfortunately they also have a low resistance to heat as shown by research in Tel Aviv:

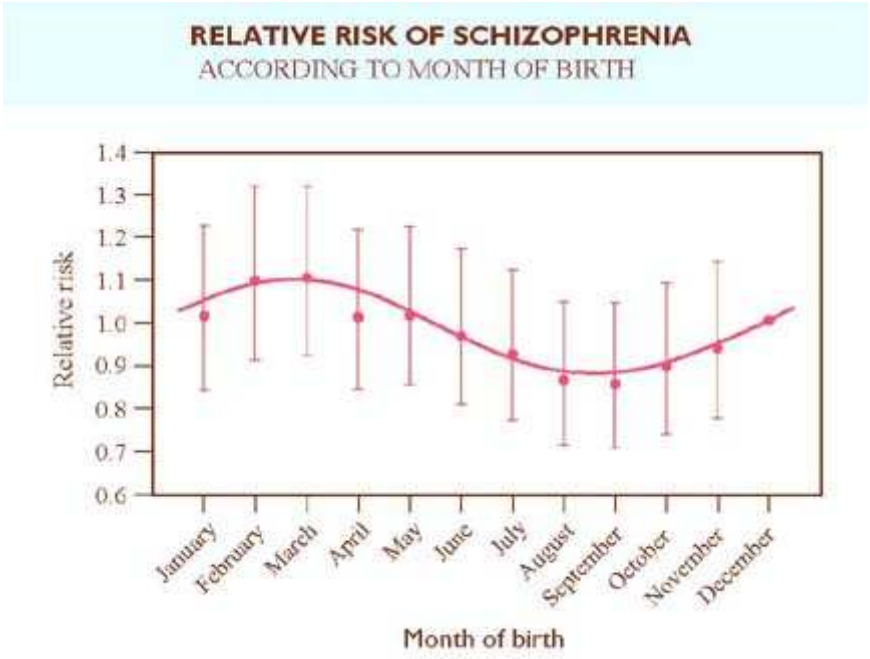
'Data on admissions of schizophrenics and schizoaffective disorder patients to Tel Aviv's seven public psychiatric hospitals during 11 consecutive years were obtained along with relevant meteorological information. Mean monthly admission rates were significantly higher during the summer (for schizophrenia patients) and fall (for schizoaffective patients). Schizophrenia patients' mean monthly admission rates correlated with mean maximal monthly environmental temperature... The present study may indicate that persistent high environmental temperature may be a contributing factor for psychotic exacerbation in schizophrenia patients and their consequent admission to mental hospitals.'[24]

There is also a correlation between schizophrenia and the month of birth: 'Research suggests people who develop schizophrenia in Europe and North America are more likely to be born in the winter or early spring (February and March in the northern hemisphere).'[25]

23 Price, M. New research explores how brain lateralization influences our lives, American Psychological Association, Vol. 40. No. 1, p. 60, 2009 http://www.apa.org/monitor/2009/01/brain.aspx

24 Shiloh, R. et al. Effects of climate on admission rates of schizophrenia patients to psychiatric hospitals, PubMed, 20 01 2005 www.ncbi.nlm.nih.gov/pubmed/15642446

25 Season of Birth – Low sunlight exposure/Vitamin D deficiency is associated with a higher risk of schizophrenia www.schizophrenia.com/prevention/season.html



These researchers surmise that the ailment may be due to low exposure to sunshine and a tallying vitamin D deficiency in winter, but this can hardly explain the correlation with the level of solar activity. It is simpler to assume that a fetus relies on two cues in 'resolving' whether to adopt the ice-age or the interglacial phenotype, one being the level of solar activity and the other the outside temperatures affecting the mother's body. The effects of adopting the former are greater in folk with leprechaun forebears.

'Neanderthal ancestry is increased in genes affecting keratin filaments. This fibrous protein lends toughness to skin, hair, and nails and can be beneficial in colder environments by providing thicker insulation, said (David) Reich' of the Harvard Medical School.[26] If low resistance to heat is typically neanderthal, schizoid traits like honesty, consideration and a need for privacy may be neanderthal too.

On the whole there is a higher percentage of leprechaun genes in east Asians than in Europeans,[27] so in east Asia a higher percentage of schizophrenia should be due to these and a lower percentage to the season of gestation. Indeed among Japanese the correlation between schizophrenia and the season of birth is slighter.[28]

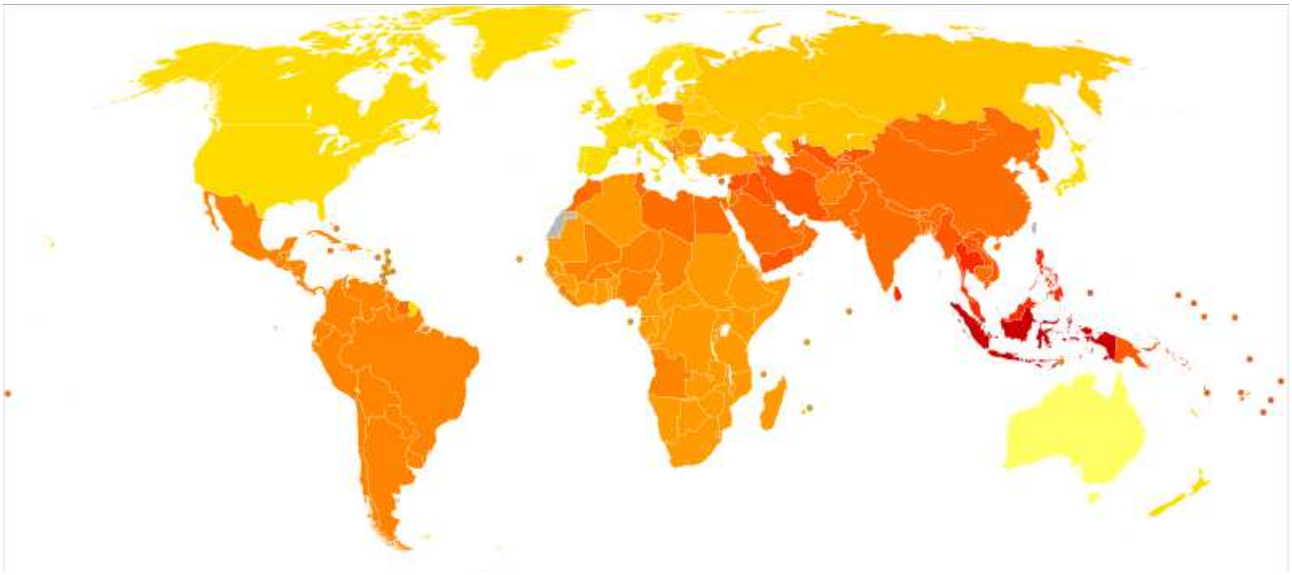
The correlation with leprechaun forebears can be checked in terms of the global distribution of schizophrenia. If schizophrenia tallies with heat on the one hand and leprechaun forebears on the other, it should be more common in the tropics than in temperate zones and in the east more than in the west. The distribution is shown below, where light yellow shows the regions affected least and red shows the regions affected most. Schizophrenia is more common in Melanesia than in Africa.[29]

26 Dutchen, S. Neanderthals' DNA legacy linked to modern ailments, Harvard Gazette, 29 01 2014

27 Wall, J.D. et al. Higher levels of neanderthal ancestry in east Asians than in Europeans, Institute for Genetics and Department of Epidemology and Biostatistics, University of California, and Department of Arizona Research Laboratories, University of Arizona, Tucson, Ariozona, www.genetics.org/content/194/1/199.full.pdf

28 Tatsumi, M. et al. Season of birth in Japanese patients with schizophrenia, PubMed, 01 04 2002, www.ncbi.nlm.nih.gov/pubmed/11950545?dopt=Abstract

29 Epidemiology of schizophrenia, Wikipedia



About 3-5% of Melanesian mitochondrial DNA comes not from Neanderthals but Denisovans, a related species named after the Denisova cave in Siberia. In it was found part of the finger-bone of a young female, who lived there about 41,000 years ago.

Low resistance to smoking

Schizophrenics and leprechauns share a leaning towards addiction: 'Studies across 20 countries show a strong association between schizophrenia and smoking.'[30] 'In the United States 80% or more of people with schizophrenia smoke, compared to 20% of the general population in 2006.[31] The above-mentioned research by the Harvard Medical School also revealed that genes tallying with addiction to smoking and type 2 diabetes come from leprechauns.

Loss of brain volume

'Individuals with schizophrenia, including those who have never been treated, have a reduced volume of gray matter in the brain, especially in the temporal and frontal lobes. Recently neuroscientists have detected gray matter loss of up to 25% (in some areas). The damage started in the parietal, or outer, regions of the brain but spread to the rest of the brain over a five year period. Patients with the worst brain tissue loss also had the worst symptoms, which included hallucinations, delusions, bizarre and psychotic thoughts, hearing voices, and depression.'[32]

But 'although patients with schizophrenia have reduced brain size, there is no conclusive evidence that they have reduced head size.'[33] If the former were due to reversion to the ice-age phenotype, not to a resulting ailment, the latter should be affected equally.

'Brain size, of course, is also environmentally sensitive. For example, rats raised in complex environments have thicker cortices and larger brains than rats reared in impoverished environments (Diamond, 1988). This suggests that the direction of causality is bidirectional and complicated by gene–environment correlations and interactions.'[34] To a naturist towns and cities are impoverished,

30 De Leon, J; Diaz, FJ. A meta-analysis of worldwide studies demonstrates an association between schizophrenia and tobacco smoking behaviors, Schizophrenia research, 76 (2-3), 135-57

31 Keltner, N.L.; Grant J.S. Smoke, smoke, smoke that cigarette, Perspectives in Psychiatric Care, 42 (4), 256-61

32 Torrey E.F. Schizophrenia is a disorder of the brain. www.schizophrenia.com/disease.htm#significant

33 Friedman, L. If patients with schizophrenia have small brains, why don't they have small heads? PubMed 16 03 2000 www.ncbi.nlm.nih.gov/pubmed/10706980

34 Ankney, C.D & Rushton J.P. Whole brain size and general mental ability, The International Journal of Neuroscience http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2668913/ with reference to

so at some stage he may lose interest altogether; moreover low immunity may lead to fever, and brain damage be caused by a rise in body temperature above 42° C,[35]

Small brains are not typically leprechaun, as shown by the figure below.[36]

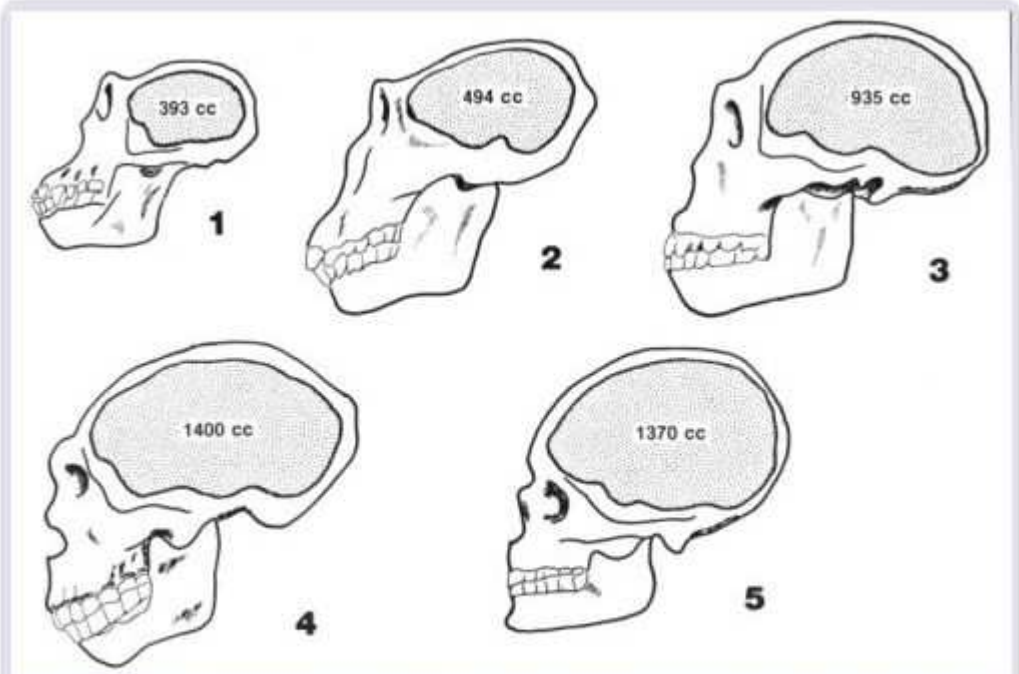


Figure 1. A typical illustration in textbooks showing the supposed evolution of man's cranial capacity. 1. Chimpanzee 2. Australopithecine 3. *Homo erectus* 4. Neanderthal 5. Cro-Magnon

'Three-dimensional computer-assisted reconstructions of Neanderthal infants based on fossils found in Russia and Syria suggests that our closest human relatives had brains as large as ours at birth and larger than ours as adults.' Moreover: 'Brain size reduction in modern humans over the past 40,000 years is well-documented.[37]' A reversion of the brain to its paleolithic state would entail no decrease in size but an increase.

Schizophrenia is said to be an auto-immune disease: 'Studies documenting the transfer of Ig from patients with schizophrenia to other humans and a study involving the in vitro assay of mAChR antibodies from patients with schizophrenia provide direct evidence that schizophrenia is an autoimmune disease.'[38] But the correlations with the season before birth, the climate and leprechaun forebears imply that problems with heat regulation and fever are more basic.

The link between leprechauns and schizophrenia seems to have been widely known up to recent times, as shown for instance by the phase-shift of King Lear. His drama takes place in the zodiac and moves along its heliocentric axis from Leo to Aquarius. Beginning as a warlord beside his daughters in Cancer, he ends up on a heath, 'fantastically dressed in wild flowers'.

Damond M. C. Enriching Heredity: The Impact of the Environment on the Anatomy of the Brain. New York: Free Press; 1988.

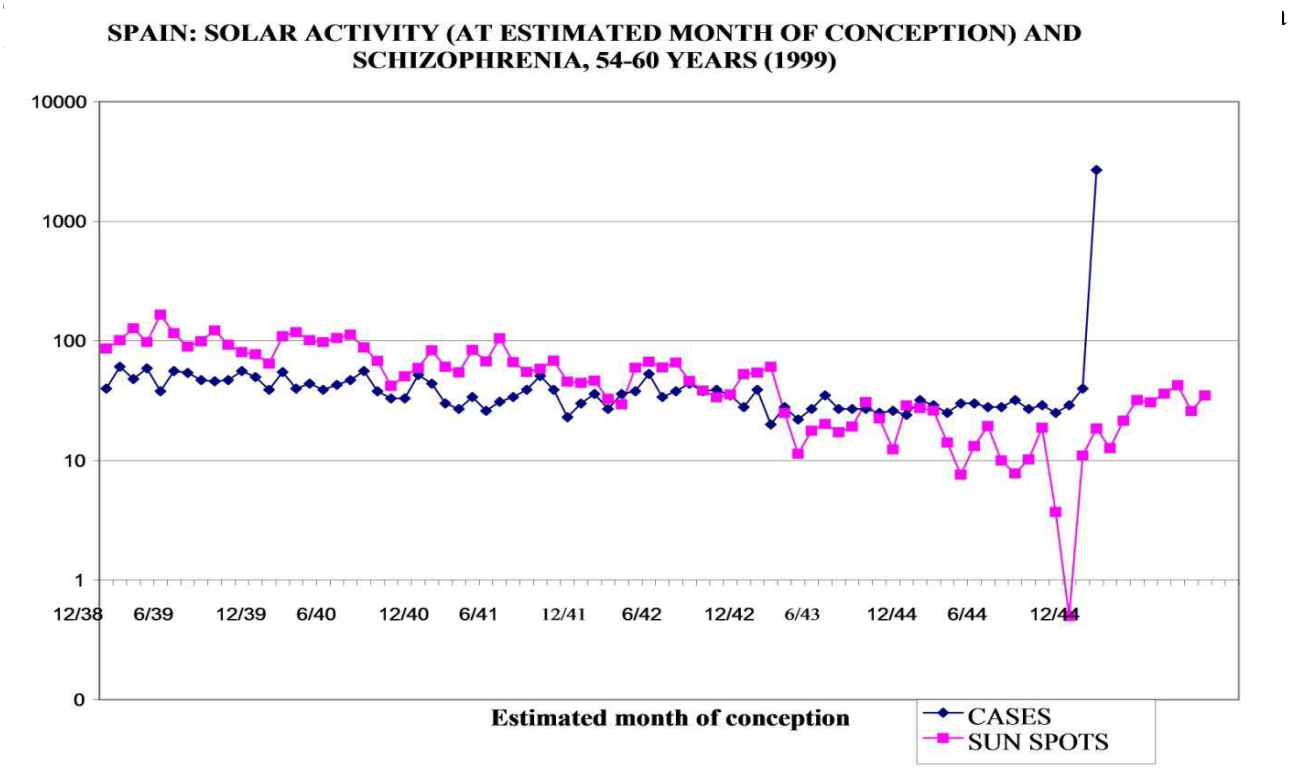
35 MedlinePlus, Fever www.nlm.nih.gov/medlineplus/ency/article/003090.htm

36 Tarko, V. Neanderthals were too smart to survive, Softpedia, 21 12 2005 http://news.softpedia.com/news/Neanderthals-were-too-smart-to-survive-15264.shtml

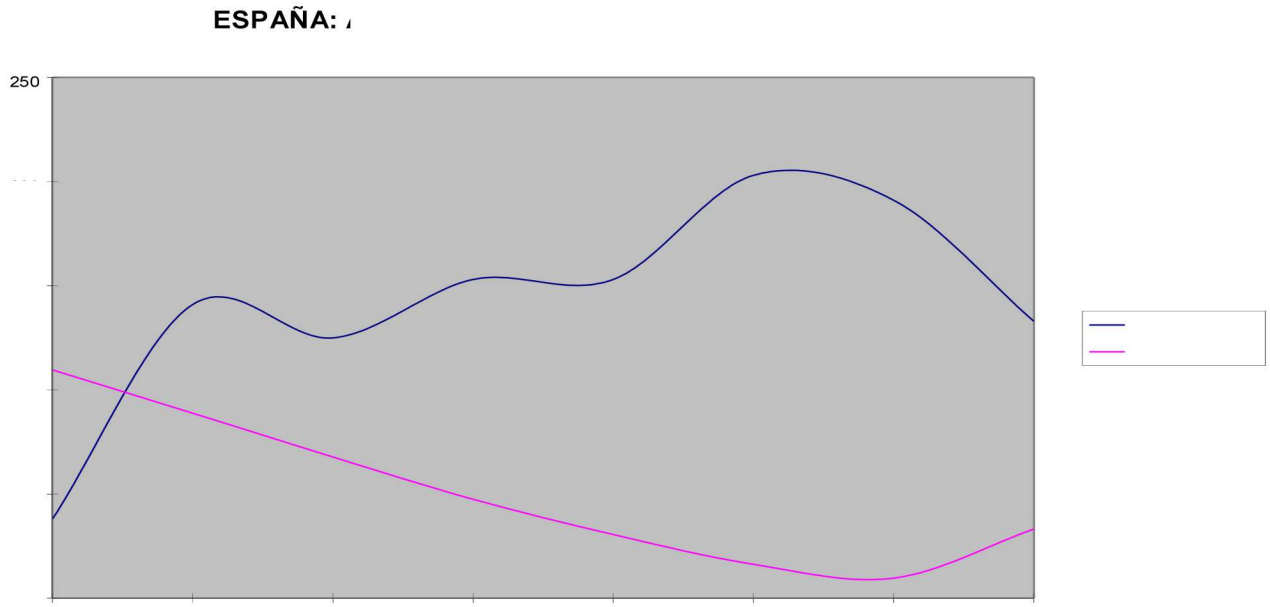
37 Braun, D. Neanderthal Brain Size at Birth Sheds Light on Human Evolution, National Geographic 09 09 2008 http://newswatch.nationalgeographic.com/2008/09/09/neanderthal/

38 Richard, M.D., Brahm, N.C. Schizophrenia and the immune system, American Journal of Health-System Pharmacy, 2012 69(9), p. 757 www.medscape.com/viewarticle/763338_3

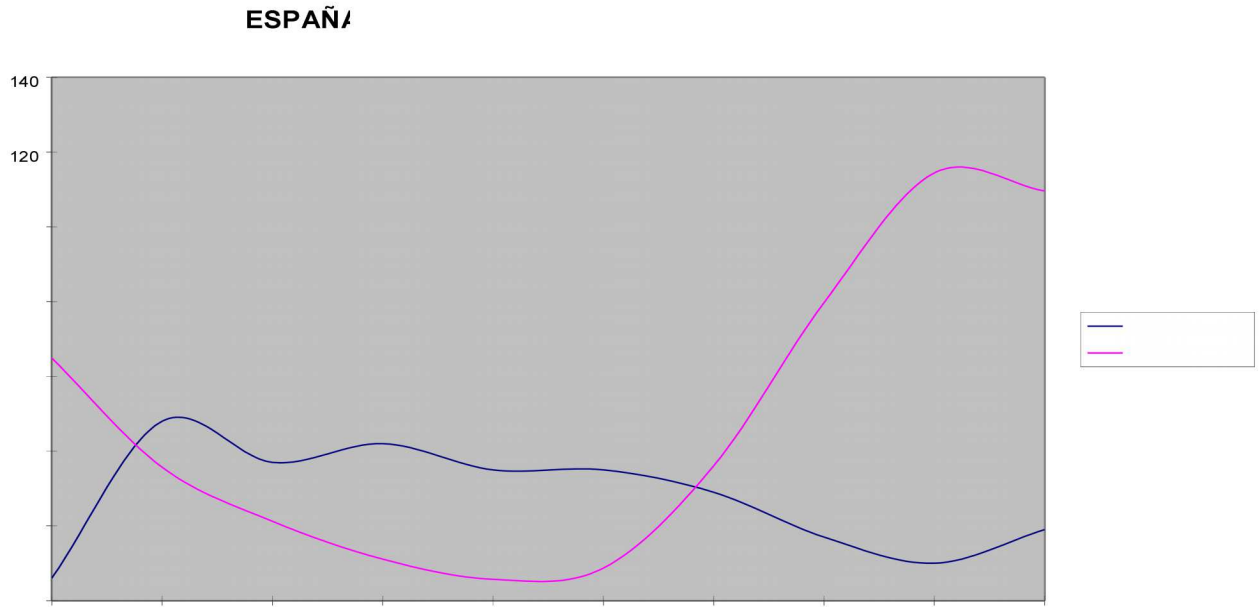
Discrepancies



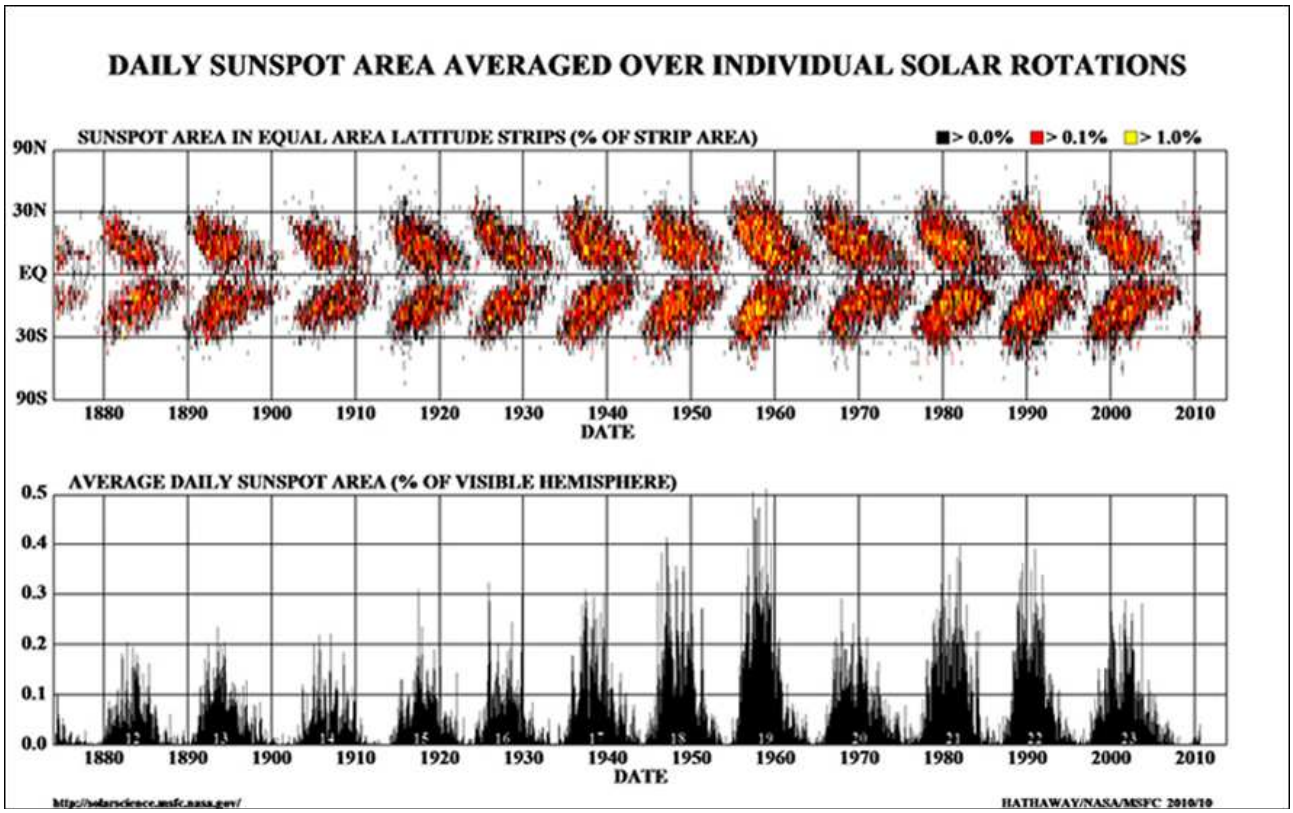
The numbering of months and years is inconsistent and the blue line suddenly breaks off. Here are results for the same period from his 'Radiaciones atèrmicas y enfermidades de transmisiòn hereditaria' (23 02 2010).



The blue lines on the two graphs seem to have nothing in common. On the second graph the blue line no longer peaks at about 3000 cases for instance. Here are results for Alzheimer:



In this case there is inconsistency within the graph itself. The two lines tally directly from 1931 to 1935 but inversely before and after this period. This implies that effective solar activity may depend on not only the *number* of spots but also their latitude. Only those near the sun's equator may have a notable effect, and spots appear near the equator only half way through an 11-year cycle. The period covered on the graph is also shown on the Maunder diagram below.



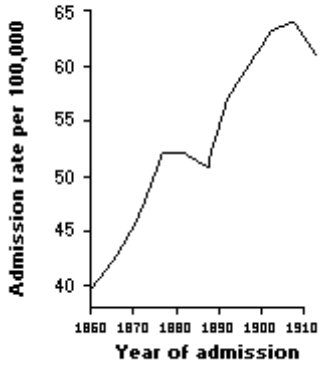
The number of cases of Alzheimer shown on the graph rises swiftly to a peak in 1931, when sunspots reach the equator, then slowly falls, as the cycle of activity fades. The line showing solar activity then rises to a peak in 1938, when the number of spots is greatest, but they reach the equator only in 1939, when the number of cases of Alzheimer begins increasing again. If indeed

only sunspots near the equator have a notable effect, the number of folk affected is likely to rise less swiftly than expected in the first half of a cycle then to fall less swiftly than expected in the second.

Medium-term trends

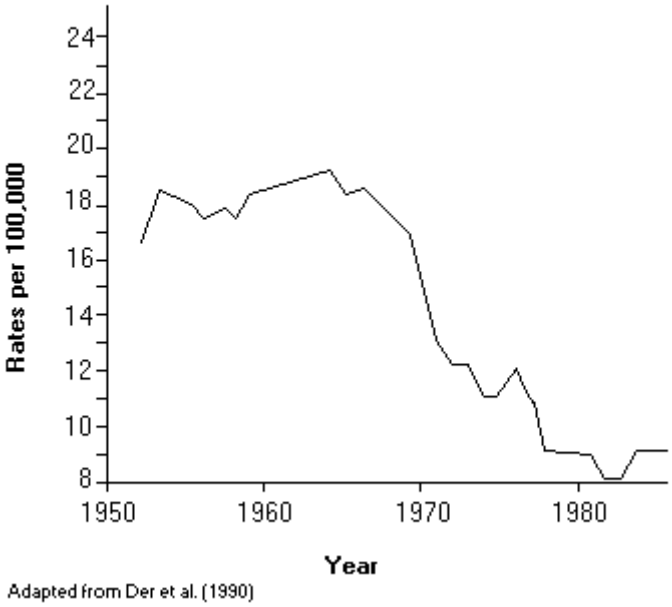
The above findings can be checked by observing trends over several decades. As a rule the number of sunspots seems to tally not with the number of ailing but an increase or decrease in the number, as shown by the numbers of schizophrenics in the late 1800s and in the late 1900s. During the first period the level of solar activity was fairly low and during the second fairly high.[39]

Figure 1. Asylum admission rates for England and Wales, 1859-1914: Five-year periods



Adapted from Hare (1983).

Figure 2. Male adjusted first-admission rate for schizophrenia and paranoia in England and Wales

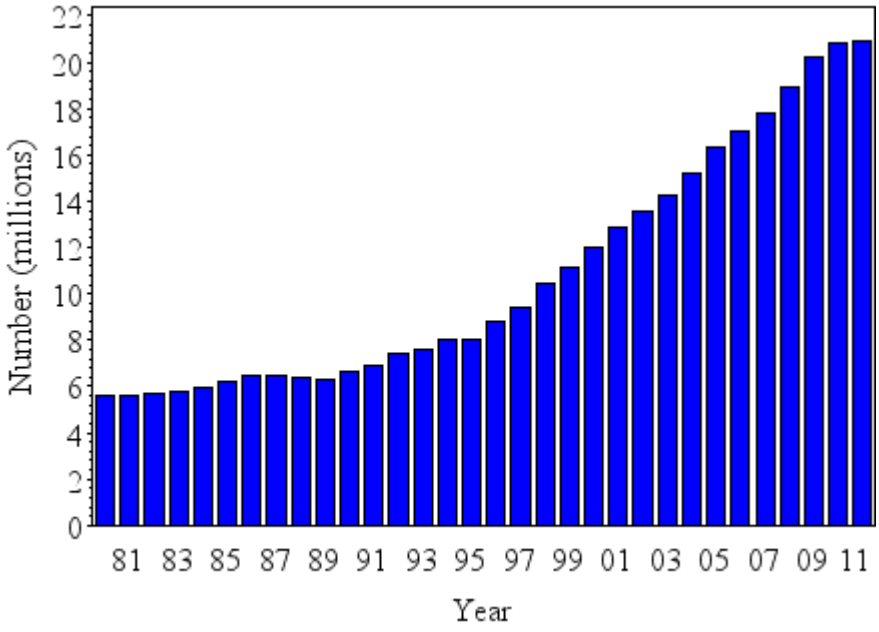


Adapted from Der et al. (1990)

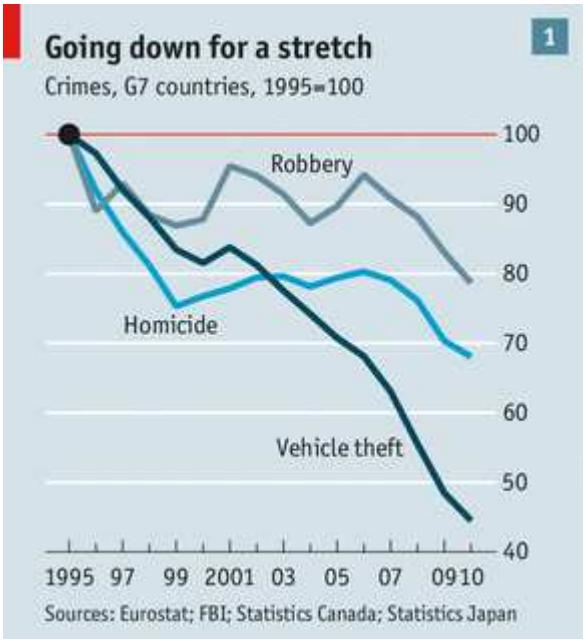
Below a certain level of solar activity there is an upward trend, and above this level a downward, showing a phase shift between two distinct phases. Since not all diabetics are schizophrenic, and not

39 Warner R. Time trends in schizophrenia: changes in obstetric risk factors with industrialization , Schizophrenia Bulletin, Vol. 21, No. 3, 1995, National Institute of Mental Health, http://www.mentalhealth.com/mag1/scz/sb-time.html

all schizophrenics are diabetic, the level may vary from person to person and organ to organ. 1980 seems to mark a turning point, after which the number of schizophrenics again increased, together with an increase in the number of diabetics, as shown by the figure below.[40]



From 1989 to 2009 the number of diabetics rose by more than 300%., whereas the US population rose by only 24%. During the same period there was a world-wide drop in the number of crimes, especially in the theft of vehicles.



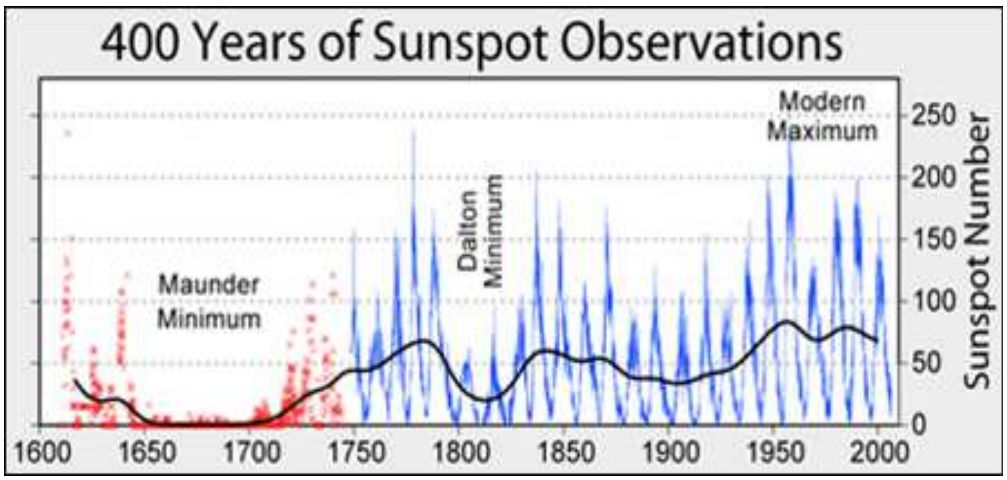
'In the 1990s, John Dilulio, a conservative American academic, argued that a new breed of "superpredators", "kids that have absolutely no respect for human life and no sense of the future", would terrorize Americans almost indefinitely... Even as he wrote. America's crime wave was

40 Number (in millions) of civilian, noninstitutionalized persons with diagnosaed diabetes, United States, 1980-2011 http://www.cdc.gov/diabetes/statistics/prev/national/figpersons.htm.

breaking. Its cities have become vastly safer, and the rest of the developed world has followed. From Japan to Estonia, property and people are now safer than at almost any time since the 1970s. Confounding expectations, the recession has not interrupted the downward trend.'[41]

The Maunder minimum

Medium-term variations in the level of solar activity are shown on the following diagram.



The Maunder minimum tallied with the fall of the monarchy in Britain, the founding of the Royal Society of London for Improving Natural Knowledge, the golden years of the Dutch republic and the birth of Johann Sebastian Bach. It also tallied with a fall in temperatures, causing the Thames and Dutch rivers to freeze, as if ice-ages were due to lengthy periods of lesser solar activity.

The role placed by solar activity in climate change is presently controversial, but the controversy seems to be fueled more by politics than by science.[42] The realistic assessment may be that solar activity is the main cause of ice ages and interglacial periods but that the short-term effects of greenhouse gases are much greater.

Creative associations

The following text was penned by George Fox, the founder of the Society of Friends, during the Maunder minimum.[43]

'Then was I commanded by the Lord to pull off my shoes. I stood still, for it was winter; and the Word of the Lord was like a fire in me. So I put off my shoes, and left them with the shepherds; and the poor shepherds trembled, and were astonished. Then I walked on about a mile, and as soon as I was got within the city, the Word of the Lord came to me again, saying, "Cry, 'Woe to the bloody city of Lichfield!'" So I went up and down the streets, crying with a loud voice, "Woe to the bloody city of Lichfield!" It being market-day, I went into the market-place, and to and fro in the several parts of it, and made stands, crying as before, "Woe to the bloody city of Lichfield!" And no one laid hands on me.

As I went thus crying through the streets, there seemed to me to be a channel of blood running down the streets, and the market-place appeared like a pool of blood.

41 The curious case of the fall in crime, The Economist, 20 07 2103, www.economist.com/news/leaders/21582004-crime-plunging-rich-world-keep-it-down-governments-should-focus-prevention-not-

42 Lockwood, M. Solar Activity and the so-called “Little Ice Age”, The Carbon Brief, 01 11 2013 www.carbonbrief.org/blog/2013/11/solar-activity-and-the-so-called-%E2%80%9Clittle-ice-age%E2%80%9D/

43 Fox G. Autobiography, Ch. 5, 1650-52

When I had declared what was upon me, and felt myself clear, I went out of the town in peace, and, returning to the shepherds, I gave them some money, and took my shoes of them again. But the fire of the Lord was so in my feet, and all over me, that I did not matter to put on my shoes again, and was at a stand whether I should or no, till I felt freedom from the Lord so to do; then, after I had washed my feet, I put on my shoes again.

After this a deep consideration came upon me, for what reason I should be sent to cry against that city, and call it the bloody city! For, though the Parliament had had the minster one while, and the King another, and much blood had been shed in the town during the wars between them, yet that was no more than had befallen many other places. But afterwards I came to understand, that in the Emperor Diocletian's time a thousand Christians were martyred in Lichfield.'

The passage seems to be schizophrenic in being subjective: 'Hallucinations are things a person sees, hears, smells, or feels that no one else can see, hear, smell, or feel. "Voices" are the most common type of hallucination in schizophrenia. Many people with the disorder hear voices. The voices may talk to the person about his or her behavior, order the person to do things, or warn the person of danger.'[44]

But Fox's experience was subjective only in the sense that he alone saw the blood. He rightly sensed that many of his ilk had been killed there years before and altruistically made this known at his own risk. Likewise a squirrel may scream at a predator's nearing, risking its own life for the sake of its kin. This kind of experience challenges the notion that the creative associations of naturists are limited to the processing of information sensed in a given sequence, since even the sequence seems to become more flexible and purposive. Events taken to have happened at different times are sensed as happening at the same time, as centuries-old blood is seen pouring down present streets.

A further example may be taken from my own family. My mother was born during a minimum, and ssked when she had first experienced something odd in this sense, my mother replied that it was during a spell in hospital soon after her marriage. She was visited by a young man dressed as a soldier, who chatted with her for about twenty minutes, told her his name and said that it was his birthday. She took him to be a friend of my father's, but he was equally puzzled, as was the hospital staff. Later he mentioned it to his own mother, who recalled that a friend of hers had a son with the same name. She went to see her and was told that the day of the visit had indeed been the young man's birthday, but he had died in the war.

Apart from these changes in chronology, both Fox's and my mother's experiences were orderly, and these changes in chronology were useful. This implies that 'hallucinations' or unusual juxtapositions of space-time are typical of leprechauns, not of schizophrenics. Likewise a dizzy pianist may hit a few wrong keys, but the disorder consists not in hitting keys but in hitting wrong ones

Conclusions

As research in Tel Aviv has shown, human fetuses tend to adapt to the climate in the last three months before birth by reacting to two cues:

* Temperatures in the surroundings, through the mother.
* Level of solar activity.

This implies that not only the actual temperatures but also the level of solar activity is a guide to climate and that schizophrenia is due to a disparity between the adaptation and the actual climate found. This also tallies with the finding that schizophrenia is more common among folk with more neanderthal genes, which explains the correlation between brain-size, creativity and schizophrenia.

44 National Institute of Mental Health, What is schizophrenia? http://www.nimh.nih.gov/health/publications/schizophrenia/index.shtml

The fact that slight changes in the overall level of solar activity lead to steep rises or falls in the number of ailing may imply that there are basically two distinct phenotypes, adapted respectively to the ice-ages and interglacial periods.

A problem in the near future may lie in the decoupling of the level of solar activity from the climate. The level of solar activity is presently falling, but global temperatures are rising due to industrial emissions, so more and more humans are likely to adopt the phenotype adapted to the ice-ages while facing rising temperatures. This may lead to a huge increase in schizophrenia.

Another problem is persistent overcrowding. Tokyo has a population of 13,000,000. 'A swarm of locusts can devour as much food as 2,500 people,[45] so the inhabitants of Tokyo are as voracious as 5,200 swarms of resident locusts. If they revert to their ice-age phenotypes, how are they to cope with the frenzy of activity and infections, especially as microbes overcome antibiotics?

Projects – High tech

1. The relevant genes

Schizophrenia tallies with creativity, but if the present theory is right, the correlations are primarily between leprechaun genes on the one hand and brain-size, creativity, clairvoyance, ambidexterity, independence, emotional stability and low heat tolerance on the other, so results could be improved by focusing on the primary correlations.

2. The planets' timbre

A whole range of technical questions remains open, such as whether solar activity affects the health through Schumann resonance and the sodium-potassium pump, as Alvarez believes, or through other channels. There is also the question of how the rising of one planet creates atmospherics with a different range of frequencies to the rising of another. After all, apart from the moon, they all have the same basic 24-hour cycle, to which cell resonators are attuned.

Projects – Low tech

1. Ailments and solar activity

Alvarez' work needs to be checked and rounded off in various respects. For instance in his recently published article in English the correlations with Alzheimer by year are positive and by month negative, whereas in his earlier article in Spanish both are positive. It is also unclear whether the estimated year of conception alludes to the calender year or the estimated first 12 months of life. There is also a huge discrepancy between the graphs correlating solar activity with schizophrenia in the two articles, which leaves the question open as to whether the effective level of solar activity depends on the total number of sunspots or mainly or on the number near the sun's equator. If the latter, his estimates of effective solar activity are unreliable. The question could best be answered by plotting the number of ailing over 11-year periods, the length of a sunspot cycle, to see to what extent the number tallies with the two alternative counts of sunspots. Only then will it be possible to foresee changes in the number of ailing over several years, enabling medics to plan facilities better and to assess more reliably whether any changes in patients' health are due more to treatment or the natural course of events.

45 Lowings, B. Cannibal theory for locust swarms. http://news.bbc.co.uk/2/hi/science/nature/7395356.stm

2. Naturist education

If humans, like locusts, have basically two distinct phenotypes, the healthier of which is adapted to a low population density, few interactions, woods, lakes and mountains, it is counterproductive to subject them to the same kind of education. Crowded classrooms, routine and emphasis on the spoken word are unlikely to appeal children in the solitary and independent phase. They learn by exploring ideas and skills for themselves. My mother, for instance, took organ lessons for three years then taught herself the piano and won a prize in a national competition. Libraries and the Internet may be cheaper and more effective than teachers.

3. Naturist retreats

Alvarez lives out in the countryside in Galicia and regrets the depopulation also affecting parts of France. Other creatures are less likely to regret it, but this offers naturists a chance to go back to nature without having to pay so much for the land and housing. Instead of producing costly status symbols, they can produce quality ones. Hariprasad Chaurasia's flute is made of swift-growing bamboo but is still a first rate instrument.

4. Planets and ethnic temperaments

Various ethnic groups tend to favor various planets, according to their temperaments and abilities. It would be interesting and useful to classify ethnic groups in these terms, so there is simply a need for data to be gathered in various lands, and this could be done most easily by researchers already there.

5. Website

Alvarez was thinking some time ago of creating a web of specialists like astronomers and biophysicists to further the research into effects of the sun and maybe the moon, but for this purpose a team might be better than a web, since the project would be small and focused. The same is less true of my own research into organisms' use of planets as timers and regulators of epigenetic change, which leads to leprechauns' cosmology and science and to the mentality and culture behind them. Further research might easily diverge into various disciplines such as anthropology, art history, astrophysics, evolution, medicine, cell communication and so on, and the leprechaun link be lost. With it would be lost an awareness that these achievements were due to global thinking and sustainable economics, so a website keeping a birds-eye view on developments would do the leprechauns justice and draw more attention to findings.