



The science & art of living the way nature intended

The Bond Briefing

www.thebondeffect.com | Subscribe: \$18 for 12 monthly issues



RATIONAL EVIDENCE-BASED COMMENT FOR THE GENERAL PUBLIC & HEALTH PROFESSIONALS. WE SAY EXACTLY WHAT WE THINK

Human Mentality: Savanna-bred brains subverted by Western reductive thought (5). **Human Mentality:** Hadza kids mental health. **News Short:** Cold water immersion. **Q&A:** Carnivore diet? **News Shorts:** Processed red meat for dementia; Spacecraft too sterile; Carrageenan causes leaky gut; Digital screen time & Myopia. **Hints:** Mussels for Omega-3.

Human Mentality

Savanna-bred brains subverted by Western reductive thought (5)



<https://bit.ly/41kzbey> <https://bit.ly/3BORhwB>

Continuing insights from psychiatrist & neuroscientist, Dr McGilchrist's (cr [1]) majestic work [2]

Last month we saw how male and female brains have structural differences and how this translates into sex differences in a variety of skill-sets and traits. We continue:

Many lines of evidence show that males process more globally, females more locally. The first is Right Brain dependent, the second more Left Brain dependent. In women, global choices are slower than local choices, whereas in men they are faster. For example, it has been repeatedly demonstrated (to the chagrin of arguing couples) that men tend to remember the **GIST** of an emotional story more strongly than women, while women tend to remember the **DETAILS** of the same story more strongly than men.

In a study of male and female musical composers, the compositions that were most highly rated came from subjects who had smaller Left-Brain advantage in verbal processing. In other words, >p3

Human Mentality

Hadza Kids' Mental Health



<https://bit.ly/3DZMNEq>

The worldwide incidence of psychiatric disorder in children is 13.4% [3]. Now a pioneering study heroically assessed the incidence of psychiatric disorder in Hadza forager children [4]. "Heroic" since the researchers had to apply psychological testing designed for Western populations whose lives are totally at odds with the forager way of life.

Nevertheless, the study did find that 3.6% of Hadza children met the criteria for just one mental upset: mild autism spectrum disorder (ASD). Even so, say the researchers, it is possible that behaviors which would be considered impairments in a Western society could be viewed as neutral or valuable in Hadza society e.g. high physical activity or fighting.

The study found no evidence of depression, psychotic disorders, angst, self-harm, or of eating disorders. "Questions about eating disorders were met with smiles and incredulity. The concept of a distorted body image appears entirely unfamiliar to them." >p4

News Short

Cold water immersion

Cold-water immersion is increasingly popular as a well-being aid but how effective is it?

It involves immersing the body at or above chest level, for a minimum of 30 seconds, in temperatures ranging from 10-15 °C. It includes cold showers, ice baths and cold plunges.

Researchers found that cold-water immersion may lower stress, improve sleep quality, and boost quality of life [5]. It also causes a short spike in inflammation which is healthful since it triggers muscle repair.

In one sample, participants who took regular cold showers experienced a 29% reduction in sickness absence from work.

My view? Cold was very significant for foragers. Not wearing clothes, their body temperature dropped dramatically as they slept around the embers of a fire in sometimes freezing temperatures. When it got too bad, they woke up, see: **Sleep in a State of Nature, October 2015** [6]. See also **Cold Changes Gut Bacteria, Dec 2015** [7]

So, whilst foragers did not take cold dips there is no doubt that feeling darn cold was a regular feature of Paleolithic life, that our bodies came to expect it, and that it tuned up many bodily functions.

Questions

Carnivore Diet?

Q. What do you make of the Carnivore Diet?

A. I discussed this briefly in “**Nose to Tail**” **Carnivore Diet**, [Oct 2020](#) [8]

In summary, the diet is limited to only eating meat, bone marrow, lard, offal, seafood, and eggs. No fruit, vegetables, salads, starches, sugars, nuts, or seeds.

With the partial exception of sugars (honey), this is clearly contrary to the regimen with which our species evolved. But supporters say that Eskimos survive this way, why shouldn't we too?

On the plus side, The Eskimos did not suffer from vitamin C deficiency (scurvy) or from vitamin D deficiency (rickets); nor did they suffer from cardiovascular disease, multiple sclerosis, diabetes, appendicitis, arthritis, cancer, or dental caries (cavities). See **Eskimo Health**, [Deadly Harvest, Chapter 4](#) [9], page 91.

On the downside, Eskimos suffered from bone demineralization, osteoporosis [10], inflammation, and accelerated ageing.

For us all, a high protein diet strains the kidneys (**High-protein Diet: Kidney failure**, [Jan 2014](#) [11]), and provokes kidney stones and gout.

The diet is highly acidic (a major factor in osteoporosis) - see: **Acid/Alkali Balance**, [Deadly Harvest, Chapter 4](#) [12], p 108.

The diet is inflammatory - see: **Red Meat Inflammation Molecule**, [Jan 2015](#) [13] and, **Anti-inflammatory Diet**, [Sept 2014](#) [14]

Finally, the carnivore diet is deficient in fiber and plant micronutrients.

Conclusion? Avoid!

News Shorts

Processed Red Meat for Dementia

In yet another study on the subject, researchers found that eating more processed red meat (bacon, hot dogs, sausages, salami, bologna etc.) was associated with faster brain aging [15].

For each additional serving per day 1.61 years were lost in 'global cognition', and 1.69 years in 'verbal cognition'.

Moreover, when one serving per day of processed red meat was replaced by fish the risk of dementia was **REDUCED** by 28%. Replacing by nuts and legumes reduced risk by 19% and by chicken by 16%

Unprocessed red meat (beef, lamb, pork, hamburger) also increased dementia risk but to a lesser extent. See:

Red Meat and Game Mammals, Deadly Harvest, Chapter 3, [16] page 58.

Red Meat Intake Generates Heart Disease Molecule 'TMAO', [May 2019](#) [17].

Death-Dealing Processed Meat, [March 2013](#) [18].

Is Venison OK? [Oct 2021](#) [19]

Red Meat Inflammation Molecule, [Jan 2015](#) [20]

Spacecraft too Sterile

The strategy of keeping spacecraft as clean and sterile as possible to ensure astronauts don't become ill may be a mistake.

"Our immune systems may need stimulation from certain kinds of molecules and microbes to stay healthy", say researchers who have been studying the International Space Station (ISS) [21].

The team thinks this lack of exposure to the usual wide array of molecules and microbes could be one reason

why there are significant changes to the immune system in space.

On the space station, astronauts often get rashes, unusual allergies, fungal or bacterial infections, as well as activation of latent viruses such as Epstein-Barr (herpes).

The researchers say we need to make the space station "dirtier, but without introducing any infection-causing pathogens".

Ways to do this include:

a) applying bacteria such as *Bacillus subtilis* to surfaces instead of disinfectants. (*B. subtilis* is already widely used for its antifungal activity) and, b) growing a range of plants: plant molecules reduce risk of asthma and allergies. See:

Urban Indoor Gardening boosts Immune System [May 2024](#) [22]. Currently there are no plants at all on the ISS.

My View? These findings support the "Hygiene Hypothesis" which blames over-cleanliness on the outbreak of autoimmune disorders (such as allergies, MS, and asthma) due to new immune system cells failing to mature properly. See: **Allergies: Hygiene Good, 'Old Friends' Germs, Good**, [Nov 2012](#) [23].

Carrageenan causes leaky gut

The food additive carrageenan (E 407) can be responsible for chronic inflammatory bowel disease, ulcers, and increased blood sugar levels. Researchers found increased permeability of the small intestine ("leaky gut"), most likely due to intestinal inflammation [24].

Carrageenan is extracted from red seaweed. It's commonly used to thicken foods, but it has no nutritional value.

My View? As a general principle we try to avoid foods with an ingredient label. But if you don't, then do at least

avoid carrageenan. See also: **Emulsifier/CVD Link**, [Jan 2024](#) [25]

Digital Screen Time & Myopia

In **Outdoor Life for Eyesight**, [Aug 2013](#) [26], I reported on an Australian study which found that ethnic Chinese children in Singapore had **10 TIMES** the frequency of myopia compared to their compatriots living in Australia. It concluded that the Australian outdoor life is the main factor.

Now a Korean study of studies finds, perhaps unsurprisingly, a strong connection between screen time and myopia [27]. Each 1 hour per day of screen time increased the risk of myopia by 21% up to a maximum of 4 hours. The safety threshold is less than 1 hour.

My View? Many other studies link myopia to a lack of sunlight exposure, see: **Sunlight-starved Myopia**, [May 2016](#) [28].

Abundant UVB – Sharp Eyesight, [Nov 2016](#) [29]

But it all boils down to the usual conclusion: that we are designed for life on the wide-open spaces of the African savanna and the closer we can get to that way of life (like the Australians?), the better we will protect our eyesight. Foragers typically have sharp eyesight to the very end [30,31].

Hints

Mussels for Omega-3

We often speak about the importance of omega-3 oils in the diet and that oily fish like salmon, sardine, and mackerel are major sources.

However, we are in danger of overlooking more modest sources of omega-3 oils. One such is from mussels.

Farmed mussels contain some 300-800 mg of fish oils per 100 grams in a "highly bio-

available form" [32]. This compares favorably with official recommendations to consume a minimum of 250-500 mg per day of omega-3 fish oils.

However, just note that this is an underestimate: data shows that, ideally, our daily intake of omega-3 fish oils should be at least 1-2 grams per day [33].

See: **Omega-3 good for Heart Health**, [Oct 2020](#) [34]

Even so, 100 grams (3½ oz) of mussel-meat is easily served at a sitting: it corresponds to just 7 medium mussels – and omega-3 from each modest source adds up!

See also: **Fish Roe best for Omega-3**, [Aug 2019](#) [35]

What about omega-3 vegetable oils like flax-seed and Canola (rapeseed)? It comes in the form of alpha-linolenic acid (ALA) which the body cannot use directly – it has to convert it into something useful, namely the 'fish' oils DHA and EPA. The extent of this conversion is modest and controversial. For example, one study finds that, compared to omega-3 oils of vegetable origin, oils of fish origin are **EIGHT TIMES** more potent. See: **Fish Oils best Fight Cancers**, [Feb 2018](#) [36]

Continued from Page 1

Savanna-bred brains subverted by Western reductive thought (5)



the Right brain could freely deploy its creative powers without Left Brain interference.

In male composers this feature was always greater than for non-musicians. In female composers the opposite was the case. In other words, female and male composers converge

on this trait. This chimes with the finding that male musical talent is associated with high spatial test scores, whereas with women there is no such association.

Overall, as McGilchrist avers, "the situation is undoubtedly complex". But the "two most reliable sex-differences, neuro-psychologically speaking, are that females in general have greater verbal facility, and males better visuo-spatial skills, and that this is related to testosterone."

Reasoning and Judgement

Reasoning used to be thought of as an exclusive Left-Brain function but we now know that the Right Brain also plays a vital role. Subjects who have Right-Brain damage, lose the ability to infer complex, ambivalent, or implicit meaning, to infer what is going on in the other person's mind, and to know how to understand the situation as a whole.

Schizophrenics, (who, by definition, have some kind of Right-brain deficiency) without the **CONTROLLING CONTEXT** given by the Right-brain, take logic to absurd conclusions (as we saw in the porcupine syllogism in part 2, [Nov 2024](#) [37].)

In the prescient words of the thinker G.K. Chesterton: "If you argue with a madman, you will probably get the worst of it; for in many ways his mind moves all the quicker for not being delayed by the things that go with good judgement [Right Brain]... The madman is the man who has lost everything **EXCEPT** his reason."

[Next Month](#): Why two brains? Plus more to come on: Psychedelics, Autism, Schizophrenia, Meaning, Beauty, Wisdom, Truth, Consciousness, Ultimate reality...

Continued from Page 1

Hadza Kids' Mental Health



Hadza men display a preference for women with a lower profile waist-to-hip ratio (**Low Female Waist-to-Hip Best**, [May 2010](#) and [38]). Hadza consider an overweight man unlikely to be a good hunter or tree climber.

The researchers opine that Hadza children's excellent mental health could be due to several factors including the "extraordinary community support" that youngsters receive, more active lifestyles, and differences in gut microbiome (**Hadza Diverse Gut-bugs**, [May 2023](#) [39] and [40]).

Say the researchers, community support is one of the strongest known predictors of good mental health in young people. (See: **Hunter-gatherer Socializing**, [Jan 2018](#) [41] and **Lessons for Today**, [Deadly Harvest](#), [Chapter 8](#), p. 225 [42]).

My View? Just so! Daniel Everett, missionary to the Pirahã tribe of the Amazon jungle, came to believe that the Pirahã way of bringing up children was so much more wholesome. "One gets no sense of teenage angst, depression or insecurity". See: **Childhood: Forager Indulgent or Modern Discipline? Part II**, [Oct 2011](#) [43]

And as the researchers suggest, high social connectedness is a major feature of forager society where the children are embedded in a forager band of some 40 to 50 people all of whom act as 'alloparents'. See:

Childhood: Forager Indulgent or Modern Discipline? Part I, [Sept 2011](#) [44], **Childhood Social Life**, [Feb 2018](#) [45] and, **Social well-being and the idea of Human Nature**, [Deadly Harvest](#), [Chapter 8](#) [46], p 190.

Moreover, we live in an alarmist society which imposes innumerable anxieties on us all but which particularly affect children in their naïve and unskeptical innocence.

Finally, forager children are living the rich cultural and creative life driven by the Right Brain, whereas we and our children, according to McGilchrist (see: **Savanna-bred brains subverted by Western reductive thought (3)**, [Dec 2024](#) [47]) are living in a soulless, alienating world driven by the "servant turned master" – the Left Brain.

Paleo in a Nutshell: Geoff's latest work encapsulates, concisely and easily, current thinking on living the way nature intended. www.paleo-nut-shell.com

email: admin@NaturalEater.com



Paleo Harvest Cookbook: Over 170 delicious, Bond Precept conforming recipes www.paleo-harvest.com



mob +357 99 45 24 68 Skype: gvlbond

1 Rebel Wisdom, CC BY 3.0, <https://commons.wikimedia.org/w/index.php?curid=76267498>.

2 The Matter with Things, 2023, ISBN: 978-1-914568-25-1

3 Polanczyk, G. V. Worldwide mental disorders in children. J. Child Psychol. Psychiatry 56, 345–365. DOI: 10.1111/jcpp.12381 (2015).

4 Ougrin D. Behavioral Symptoms and Psychiatric Disorders in Hadza Children. Sci Rep. 2023 Dec 12;13(1):22061. doi: 10.1038/s41598-023-48114-4.

5 Ben Singh. Effects of cold-water immersion on health and wellbeing: PLOS ONE, 2025; DOI: 10.1371/journal.pone.0317615

6 <http://bit.ly/1QvIFG>

7 <https://bit.ly/20QrPta>

8 <https://bit.ly/3xXN9Ds>

9 <http://bit.ly/1omEi2m>

10 Mazess RB, Mather W. Bone mineral content of North Alaskan Eskimos. Am J Clin Nutr. 1974 Sep;27(9):916-25. doi: 10.1093/ajcn/27.8.916.

11 <https://bit.ly/1BH21ll>

12 <http://bit.ly/1omEi2m>

13 <https://bit.ly/3nRugwn>

14 <https://bit.ly/3C8t1VZ>

15 Yuhan Li, Red Meat & Dementia Risk. Neur, 2025; DOI: 10.1212/WNL.0000000000021028

16 <https://bit.ly/3hJqZqu>

17 <https://bit.ly/2GnA1i3>

18 <https://bit.ly/1Nltvke>

19 <https://bit.ly/3FI5H5A>

20 <https://bit.ly/3nRugwn>

21 Salido RA, The ISS has a unique and extreme microbial & chemical environment. Cell. 2025 doi: 10.1016/j.cell.2025.01.039.

22 <https://bit.ly/4bu6wql>

23 <https://bit.ly/2KQNXla>

24 Robert Wagner, Carrageenan and insulin resistance. BMC Medicine, 2024; 22 (1) DOI: 10.1186/s12916-024-03771-8

25 <https://bit.ly/3UXWkqn>

26 <https://bit.ly/1NbWBuU>

27 Ha A. Digital Screen Time and Myopia. JAMA 2025. doi: 10.1001/jamanetworkopen.2024.60026.

28 <https://bit.ly/3VOJeoF>

29 <https://bit.ly/2n6Eqlr>

30 The Hadza: Marlowe, F; 2010. ISBN 978-052025342.

31 Kalahari Hunter-Gatherers, RB Lee, 1976. ISBN: 978-0674499805

32 Hamilton DL. Farmed Mussels: Rich in Omega-3 Fatty Acids. Nutrients. 2021 Mar 29;13(4):1124. doi: 10.3390/nu13041124.

33 Kris-Etherton PM. Fish consumption, fish oil, omega-3 fatty acids, & CVD. Arterioscler

Thromb Vasc Biol. 2003 Feb 1;23(2):e20-30. doi: 10.1161/01.atv.0000038493.65177.94.

34 <https://bit.ly/3xXN9Ds>

35 <https://bit.ly/3uShiSK>

36 <https://bit.ly/2lkq5oO>

37 <https://bit.ly/3Ph74Y8>

38 F. Marlowe, Men's preferences for women's waist-to-hip ratio, Evol & Hum Behav, DOI:10.1016/j.evolhumbehav.2005.07.005.

39 <https://bit.ly/3pDd3x6>

40 Schnorr SL, Gut microbiome of the Hadza. Nat Commun. 2014 Apr doi: 10.1038/ncomms4654.

41 <https://bit.ly/2DqWFaf>

42 <http://bit.ly/ch-8>

43 <https://bit.ly/2xED0gN>

44 <https://bit.ly/1sX4iH2>

45 <https://bit.ly/2lkq5oO>

46 <http://bit.ly/ch-8>

47 <https://bit.ly/4qjAoZ8>