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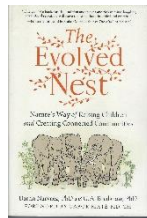
RATIONAL EVIDENCE-BASED COMMENT FOR THE GENERAL PUBLIC & HEALTH PROFESSIONALS. WE SAY EXACTLY WHAT WE THINK

Book Review (IV): The Evolved Nest. **Cultural Co-evolution:** Honeyguide Birds' calls are Culture Dependent. **Briefing:** Ketogenic Diets Revisited. **Hints:** Reduce Portion Sizes! **News Shorts:** Emulsifier/CVD link; Keto Diet helps Polycystic Kidney Disease (PKD); Diabetes at 30, early Death; Palm Oil Interferes with Memory; Chronic Constipation – Cognitive Decline; Daily Step Count and Dementia; Blueberries for Heart Health; Omega-3 fatty acids for Lung Health; Med Diet reduces Cognitive Decline in older People; Fruit & Vegetable Bacteria improve Gut Bugs.

Book Review (part IV)

'The Evolved Nest' by Dr Darcia Narvaez

Continuing from [last month](#): Babies (of many species) are born into an intricate web of support. Modern societies have largely lost this to the detriment of their children's well-being, and social integration.



Narvaez fingers the attitude that 'man has dominion over the animals' which she delicately avoids mentioning as coming from the book of Genesis. Again, perhaps as a sop to her university thought-police, be prepared for the sideswipes at the usual suspects of "European colonialism", "slavery", "the dominant culture", "capitalism", "the patriarchy", "globalization" and "forced migration". She even invents some quirky terms: the farming revolution "enslaved plants" and today we are practicing "plant genocide".

However, Narvaez goes on to opine with various homilies. For example, "industrialized humans adopted trauma-inducing lifestyle". "Humans need to bring their lives into alignment with Nature." "Thoughtful companionship, care and lifelong learning from wise elders have become rare." It is against Nature "that we tend to live in single generation households."

"The 'dominant human society' promotes individualism over community, competition over cooperation, relational detachment over connection". > p 4

Cultural Co-evolution

Honeyguide Birds' Calls are Culture Dependent



<https://bit.ly/3USpp1R>

Honeyguide bird and a Yao honey-hunter. Credit: Claire Spottiswoode

In: **Is Honey all right after all? Nov 2014** [1] I talked about the remarkable example of inter-species cooperation exemplified by the way honeyguide birds work with hunter-gatherers for mutual benefit.

The hunter calls the bird using various grunts, trills, and whistles. The bird leads the hunter to a bees' nest (usually high up in a baobab tree), where he smokes it out and opens it up, yielding honey for him and wax for the bird. This practice is widespread in various forager bands throughout sub-Saharan Africa.

Researchers wondered if the same hunter calls were used everywhere. The found not so [2]. The calls used by the Hadzas in Tanzania did not work with the Yao's honeyguide birds in Mozambique and vice versa.

Say the researchers, "This shows that birds have learned the specific calls made by their local tribe and this is passed down from generation to generation within each culture."

Briefing

Ketogenic Diets Revisited

The ketogenic diet has just one simple principle. It is to starve the body of glucose such that it resorts to burning fats ("ketones") for energy. This puts the body into a state known as "ketosis".

Classically this is achieved by consuming, quite indiscriminately, much protein, much fat and little else.

However, there are many ways to achieve ketosis: almost any diet will do (and some much more healthily than the traditional one) just by **ELIMINATING STARCHES AND SUGARS** – the so-called "fermentable carbohydrates". See: **Keto Diet helps PKD**, p 2.

Why would one want to go into a state of ketosis? For almost a century, it has been known that the keto diet suppresses epileptic fits.

More recently the keto diet has been used successfully to treat schizophrenia, bi-polar disorder, depression, Parkinson's, and ADHD.

The science also suggests that it reduces the risk of cancer, by a) suppressing inflammation [3], and b) by starving cancer cells of glucose to grow on (see: **Sugar lights up MRI scanners**, [Aug 2023](#) [4]).

Also, compared to the Standard Western Diet [5], Keto improves gut-bug health.

Mitochondria: What is going on? The latest theory suggests that the keto diet tricks the body into thinking it is in a state of fasting. In this state, mitochondria (see later) go into 'healing' mode where they eliminate defective cells and build new, >p 4

Hints & Tips

Reduce Portion Sizes!



<https://bit.ly/42UvRXR>

View of a large, modern portion size of potato with salmon and salad (left) and a smaller version (right) which was typical of the 1970s. Cr: Clara Molden, Daily Telegraph

Just in my living memory, our ideas of portion sizes have ballooned out of recognition. As a young man I had one soft boiled egg plus a slice of toast for breakfast (we didn't know about Paleo then!) Today, some (but not me!) are onto a three-egg omelette plus waffles and maple syrup.

Seriously, we have to think about the quantities we eat. One major principle is to cook at home and eschew convenience and take-away foods.

The second danger area is restaurants. They routinely provide much larger portions than those you would do for yourself at home.

Do not hesitate to: share a main dish; choose only from starters; or take away half the main dish in a 'doggy bag'.

News Shorts

Emulsifier/CVD Link

French scientists have associated high consumption of a whole range of common emulsifiers with an increased risk of cardiovascular disease [6].

Two of the most common are "carboxymethylcellulose" with the E-number "E466" and mono- and diglycerides of fatty acids, E-number "E471".

E466 is already suggested as a possible cause of inflammation of the gut, through alteration of gut bugs which triggers inflammatory bowel diseases such as ulcerative colitis and Crohn's disease [7].

E471 has been associated with increased risk of cancers, notably prostate (46%) and breast (24%) [8].

My View? This study followed 90,000 adults for some 7 years but relied on only a few days' food diaries over that time. So this is relatively low credibility and can only suggest correlation, not causation.

Even so it makes sense to avoid emulsifiers in general. This can be easy for us – just continue avoiding foods with an ingredient label!

Keto Diet helps Polycystic Kidney Disease (PKD)

PKD is a genetic disease of the kidneys. Cysts gradually grow slowly destroying the kidneys leaving the sufferer to resort to dialysis and ultimately a kidney transplant.

Now a study finds that a keto diet (see: **The Ketogenic Diet**, [April 2010](#) [9]) can not only halt the progress of the disease, it can even cause the cysts to shrink [10].

My View? The really interesting point of this study is the TYPE of ketogenic diet used. It is one focusing on plant foods and has only a modest level of protein.

This is because protein strains kidney health. Some authorities recommend that protein intake by kidney patients should be restricted to 0.6 to 0.8 grams per kg of weight. This is lower than the 1.2 grams per kg of bodyweight for healthy people. See: **Protein in focus**, [Jan 2016](#) [11].

The diet had the following characteristics: It focused on salads and low glycemic vegetables (e.g. no potatoes, carrots, beetroot...), it used healthy fats like olive and avocado oil, it had some blueberries (low in sugar and high in micronutrients) as the only fruits. Proteins were modest in quantity and avoided red meats (beef, pork, lamb).

As a nod to kidney health, the diet was low in sodium (salt), potassium, phosphorous and "oxalate". Oxalate is a compound common in many plants, especially spinach and rhubarb, and is implicated in the formation of kidney stones.

Overall, contrary to the standard western diet, the diet was 'alkaline' – a good thing, see: **Acid/Alkali Balance**, [Deadly Harvest](#), [Chapter 4](#) [12], page 108.

For more insights see: **Ketogenic Diets Revisited** page 1.

Diabetes at 30, early Death

An individual diagnosed with type 2 diabetes at age 30 years could see their life expectancy fall by as much as 14 years, an international team of researchers has warned [13].

Even a diagnosis at age 50 years – sees life expectancy falling by up to six years.

The main causes of death were cardiovascular disease and cancer. The researchers say that increasing levels of obesity, poor diet, and sedentary behavior are responsible.

My View? Just so! Adopt the Paleo lifestyle to make diabetes a non-issue. Especially eliminate starches and sugars from your diet. See also **Keto Diet Revisited**, p 1.

Palm oil Interferes with Memory

Saturated fatty acids like palm oil (palmitic acid) affect memory cells in the brain. The researchers focused on microglia, (cells in the brain that promote inflammation), and hippocampal neurons, which are important for learning and memory.

They found that palmitic acid, the most abundant saturated fatty acid in high-fat foods like lard, shortening (tallow), meat and dairy products, affects gene activation and mitochondria functioning (see: **Mitochondria in Ketogenic Diet Revisited**, p 1). The palmitic acid increased inflammation both in neurons and in "microglia" (see: **Dietary Fiber reduces Brain Inflammation**, [Oct 2018](#) [14]).

In contrast, the researchers found that DHA, one of two omega-3 fatty acids found in seafood, had a strong protective effect.

My View? This, rather convoluted discussion, can be simplified to this: "Palm oil bad for memory, oily fish (like salmon, sardine) good for memory. Nothing new here". See: **Palm Oil Replacement**, [Dec 2023](#) [15]

Chronic Constipation, Cognitive Decline

Those with bowel movements every three days or more are associated with a 73 per cent increased risk of cognitive decline, including deficits in memory and attention compared to those with one bowel movement per day [16]. This was equivalent to three additional years of cognitive ageing.

Gut health plays a role in dementia and related illnesses, such as Alzheimer's disease. Those with worse cognition and chronic constipation had fewer gut bacteria for digesting dietary fibre. They also had more gut bacteria known to cause inflammation compared with other participants.

"Eating well and taking care of your gut may be a pathway to reduce the risk of dementia," said Heather Snyder at the Alzheimer's Association, Chicago, USA.

My View? It's all part of a picture: live like we say and give yourself the best chance of good gut health and regular bowel movements. See: **What to Expect as you Change your Diet**, [Deadly Harvest, Chapter 7](#) [17], page 179.

Daily Step Count and Dementia

Yet another study finds that lack of physical activity is a factor in dementia [18]. It found that a cohort of Brits aged 40 – 79 years, who walked on average some 9,800 steps per day had the least risk of developing dementia. The more intense the walking the better the result.

Lower step counts still provided some benefit. 3,900 steps per day got 50% of the benefit of 9,800.

My View? The focus on walking and step count is fair enough – this was the primary form of physical activity for our forager forebears, see: **Paleo-conforming Physical Activity**, [Sept 2018](#) [19]. And it certainly helped them to have good brain function. See: **Pre-industrial peoples - low Dementia Rates**, [May 2022](#) [20].

But nowadays we have many other options including cycling, swimming,

gym workouts, participating in sports and so forth. See: **Racquet Sports best for staying alive**, [Sept 2022](#) [21].

The thing is to have a good session every day, do some strength work, and avoid sitting for long periods.

See: **How Geoff stays Paleo-fit**, [Feb 2021](#) [22], [March 2021](#) [23].

Blueberries for Heart Health

A study on 138 obese people found that eating one cup (150 grams) of blueberries per day resulted in sustained improvements in vascular function and arterial stiffness – reducing the risk of cardiovascular disease by up to 15% [24].

Blueberries are very rich in micro-nutrients called anthocyanins, which are the flavonoids responsible for the red and blue color in fruits.

Curiously, no benefit was found with only ½ cup (75 grams) per day.

My View? Blueberries are undoubtedly a valuable addition to our daily intake: they provide a rich source of essential micronutrients. Indeed, they were the low-sugar fruit of choice for the kidney-friendly keto program see: **Keto Diet helps PKD** p. 2.

So, eat them when you can and in whatever quantity is convenient. They will be doing some good somewhere.

Oh, and by the way, this study was funded by the "US Highbush Blueberry Council" (USHBC), a pressure group promoting the consumption of blueberries!

No worries: the researchers claim that USHBC had no influence on the conduct of the study, the results, or the conclusions.

Omega-3 fatty acids for Lung Health

In a "longitudinal study" where researchers followed participants for an average of seven years and up to 20 years [25], they found that higher levels of omega-3 fatty acids in a person's blood were linked to maintenance of lung function with age.

The strongest association was found with DHA (docosahexaenoic acid),

an omega-3 fatty acid that is found at high levels in fatty fish such as salmon, mackerel, and sardines.

The researchers say that the anti-inflammatory properties of omega-3 oils are responsible.

My View? Just so! But just as important is to restrict the intake of omega-6 oils (e.g. sunflower, safflower, peanut, corn) which are pro-inflammatory.

The omega-3/omega-6 see-saw used to be in balance in our paleolithic past. Just in my lifetime that see-saw has been solidly locked down on one side: omega-3 has been stripped out of our food supply and omega-6, with its seed oils, has taken over. See: **Fatty Acids and the Ancestral Diet**, [Deadly Harvest, Chapter 4](#) [26], page 105.

Med Diet reduces Cognitive Decline in older people

A French study finds that old people on a Mediterranean diet had a lower rate of cognitive decline compared to those on a standard diet [27].

My View? The interesting feature of this study is that adherence to the Mediterranean diet was determined not by unreliable food questionnaires but by an analysis of the subjects' blood.

So levels of omega-3 fatty acids confirmed intake of fatty fish, and levels of oleic acid confirmed intake of olive oil. In contrast, 'margaric acid' is a marker of dairy intake (bad). Levels of palmitic acid (see **Palm oil Interferes with Memory**, p. 2) also indicated non-adherence to the Mediterranean diet.

As for the Mediterranean Diet itself, as we never fail to point out, it is far better than the Standard Western Diet (see **Ketogenic Diets Revisited**, page 1) but our Paleo Precepts are best.

Fruit & Vegetable bacteria improve gut bugs

I was surprised to learn from a study in Graz University, Austria, that raw fruits and raw vegetables have their own complement of internal bacteria – the plant 'microbiome' [28].

Moreover, the study found that this microbiome colonizes the human

colon and improves its bacterial diversity. This happens particularly in early childhood.

My View? Baby's colon is first partially colonized by mother's vaginal microbiome at birth and then from breast milk (see: **Breast Milk Seeds Infant Gut Microbiome**, [June 2017](#) [29]). But this is not the whole story. Researchers were puzzled as to where other gut bugs are coming from. This discovery provides another serious source.

Moral? Feed your toddlers raw fruit and raw vegetables as soon as appropriate. And, as each species of fruit and vegetable has its own microbiome, introduce as much **VARIETY** as possible.

Continued from Page 1

Ketogenic Diets Revisited

... healthy ones, improving general mitochondrial function and clean up brain metabolism.

Mitochondria are known as the 'powerhouses' of cells but are also involved with many chemical processes including the production of neurotransmitters and hormones. They are also involved with switching genes on and off and can be dysregulated by "epigenetic" triggers, for example childhood trauma (see: **Epigenetic Effects**, [Aug 2017](#) [30]).

Dr Chris Palmer of Harvard Medical School is a pioneer in "metabolic dysfunction and mental health". In a fascinating YouTube interview with Dr Jordan Peterson (who is on a strict Carnivore diet to control his auto-immune pain), Palmer talks about how the Keto (and Carnivore) diets help mental disorders such as depression and schizophrenia, <https://bit.ly/3T3lqXu> [31].

Part II: [Next month](#): My View?

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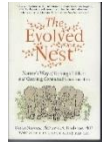
'The Evolved Nest' Review (IV)

"Self-development does not occur in a void."

"There is no 'being' without social relation – one lives with others in mind." "Developing independence is not the same as individuality."

"What may be a minor discomfort for an adult could be devastating for a baby who is helpless." For example, "Isolating babies in their own beds and rooms is cruel" (it can even initiate epigenetic changes in baby's genome). "Baby-initiated breast feeding is vital for optimal psychosocial development, self control, and motivation." It is distressing for "baby to put it on a rigid feeding schedule". The natural position for a baby is on his mother's breast facing his mother. At a practical level, even "strollers facing forward are scary for the baby."

Part V [Next month](#): Conclusion



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