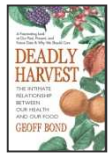




# The Bond Briefing

The Science and Art of Living the Way Nature Intended

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**Evolutionary Psychology:** Symmetry is Beauty is Health. **Spreading the Word:** Masters in Evolutionary Medicine; Authoring CRC Handbook. **Forthcoming Happenings:** Gourmet Chef to do Bond Paleo. **Question of Month:** Fructose: It's all in the Dose. **Evolutionary Child-Rearing:** Foragers Fed Pap to Babies. **Q&A:** Ketosis: Devoutly to be Wished? Rolling Back Alzheimer's; Fructose in Fruit; Sunflower Seed, Pumpkin Seed. **From the Labs:** Baby Food is Mineral Poor; High Blood Sugar Mischief. **Briefing:** Fructose – Liver Attack. **Book Review part IV:** Beyond Broccoli. **Behavior in our Genes:** Educated Women Find Men Scarce; Why Most Engineers are Boys. **Deadly Harvest Web Review:** "Radical and Unputdownable". **Deadly Harvest Update:** Kindle Friendly Best Seller.

## Evolutionary Psychology

### Symmetry is Beauty is Health



Many studies in evolutionary psychology find that *symmetrical* bodies and faces are more pleasing than those that are not [1]. What happens is this: the brain is wired to detect good genes in potential mates but, since it can't see genes directly, it needs a visible substitute. Symmetry fits the bill since it is tightly linked to good genes.

Moreover, certain 'golden ratios' are found throughout nature in what are known as the Fibonacci sequence. Our brains feel 'at home' with these proportions.

As Leonardo da Vinci discovered, faces are found to be most attractive when the space between the pupils is 45% of the face's width, and the eye to mouth distance is 33% of the distance from hairline to chin.

Florence Colgate (above) of Dover Grammar school, UK, has just won a competition to find the 'perfect' face. Afterwards, scientists found that her face perfectly matches this symmetry-and-golden-ratio blueprint. (See image page 4)

**Cont: page 4.**

## Spreading the Word

### Masters in Evolutionary Medicine



Durham University, UK has started one of the first courses in the world leading to a Masters degree in Evolutionary Medicine. More information here:

[www.dur.ac.uk/ev.med/](http://www.dur.ac.uk/ev.med/)

In many ways this parallels my subject matter when I give Continuing Medical Education lectures for in-house physicians.

I recently had the opportunity to visit Durham and speak to Professor Gillian Bentley to learn more about this course. There is a possibility that I could give a lecture for next year's intake.

This course is a terrific breakthrough for Evolutionary Medicine with its powerful and revolutionary way of dealing with today's major lifestyle diseases (cancer, heart disease, diabetes, osteoporosis, dementia, etc.)

### Authoring CRC Handbook Chapter

The eminent paleo-orthodontist, Dr Kevin Boyd ('*Your Jaws are What You Chew*', [Aug 2011](#)) and I are co-authoring a chapter for the *CRC Handbook of Nutrition and Food* [2]. The subject is: '*Oral Health and Chronic Disease*'.

The editors ask us to tackle the subject from an evolutionary perspective – they consider it a new and insightful approach to shake up the conventional but blinkered wisdom.

## Forthcoming Happenings

### Gourmet Chef to do Bond Paleo



We are delighted to announce that we are liaising with the chef of a gourmet restaurant to devise a Bond Paleo menu. It will be their theme cuisine for the month of August.

The restaurant, Archontiko Papadopoulou, is a fine-dining establishment located in a tastefully restored authentic village house in Kornos, Cyprus [3]. They have a philosophy of providing locally sourced, in-season, traditional Cyprus food. See my TripAdvisor review: <http://bit.ly/AP-Kornos>

This is very forward-looking of them and a terrific opportunity to showcase our back-to-origins way of eating. **Cont. Page 4.**

## Question of Month

### Fructose: It's all in the Dose

**Q.** I am surprised at the fairly extensive use of fructose as a sweetener in the recipes. I would substitute an artificial sweetener.

**A.** From my earliest writings I have warned that fructose is not a free lunch – an overdose has major harmful consequences. See '*Fructose*', *Deadly Harvest*, [Chapter 6](#), page 145.

**Cont: page 4**

## Evolutionary Child-rearing

### Foragers Fed Pap to Babies



The actress Alicia Silverstone was much chided after "pre-chewing" her baby's food, and offering it to him straight from her mouth.

However, this was standard practice throughout the course of human evolution. Mums fed pre-chewed pap to babies from about 6 months to 20 months when the molars came through. If this was the case for eons, then the body came to rely on it and if it doesn't, things don't work so well [4].

Pre-chewing exposes infants to their mothers' saliva, giving them an immune system boost that they can't get from sterile, pulverized baby food.

Rather than being unhygienic by exposing infants to traces of disease pathogens present in a mother's saliva, it gears up their production of antibodies, teaching their immune systems how to deal with those same pathogens later. It may also prevent the onset of autoimmune diseases, such as asthma, that are very common in industrialized societies.

See: 'Ready-made Baby food is Mineral Poor', this page.

## Questions

### Ketosis: Devoutly to be Wished?

**Q.** *There is no mention in *Deadly Harvest* of ketosis and so it is not clear whether you view this as a desirable state.*

**A.** Ketosis is induced by starving the body of starches and sugars such that it is forced to burn fat instead. See, 'The Ketogenic Diet', [April 2010](#).

I think it possible that hunter-gatherers slid into that state from time to time, but we don't have any data on the matter.

The hunter-gatherer diet (and my precepts) are not classic ketogenic

anyway. There is too much plant food and not enough fat for that. If anything, they are 'ketogenic light' as in my article, 'Ketogenic Diet Dangers', [April 2012](#).

With care, the ketogenic diet can be helpful in repairing diseases of the central nervous system (see next question). Even so it is really a medical intervention and, for anyone who does not need treatment, my view is that we should not be second-guessing our biochemistry. Just eat like nature intended and let ketosis happen or not as the case may be.

### Rolling Back Alzheimer's

**Q.** *Is Alzheimer's disease reversible?*

**A.** No one knows for sure, but there is hope. It **is** a lifestyle disease, so at the very least it should be possible to stop it progressing.

In *Deadly Harvest*, [Chapter 9](#), I enumerate the factors that drive us into this dementia. They are the usual suspects, a lifetime of: high glycemic diet, low omega-3, high saturated fat, micronutrient starvation, physical inactivity, high plant toxin intake (notably soy) and sunshine starvation [5].

We can be sure that if the patient stops these lifestyle errors, then there is no reason for Alzheimer's to progress.

There is even hope that it can be reversed. A study I reported in [Aug 2009](#), finds that immune system cells called macrophages can be persuaded to gobble up the amyloid plaque that clogs the brain's neurons [6]. The effect was achieved using a combination of *curcuminoid* (a plant micro-nutrient) and vitamin D.

**Moral:** No magic potions, no expensive pharmaceuticals – just eat up your greens and get a suntan!

See also: 'Alzheimer's and Ketogenic Diet' [April 2012](#)

### Fructose in Fruit

**Q.** *If I eat a lot of fruit I have gut problems – could it be the fructose?*

**A.** Yes. And the problem lies in the high levels of fructose in some modern fruits – much higher than present in hunter-gatherer fruits.

This is clearly a widespread concern. My schedule of fruit fructose content vs. GI is the most downloaded page on my website. You can get it here:

<http://bit.ly/Fruit-fructose>.

So focus on the low fructose, low GI fruits.

As a reassurance, even arch fructose demonizer, Dr Robert Lustig (See, 'Fructose: Liver Attack', page 3) thinks that fructose, when consumed as a natural component of fruit, is not health harmful.

### Sunflower Seed, Pumpkin Seed

**Q.** *What is your take on sunflower seed and pumpkin seed? Is their high omega-6 content a problem?*

**A.** I answered this question in detail in 'Sunflower Seed', [Sept 2010](#), and 'Pumpkin Seed', [July 2004](#).

Think of these seeds in the same way as nuts (which are also seeds). Most nuts are rich in omega-6 too but this drawback is outweighed by the various useful nutrients they bring.

You will be getting your balancing omega-3 from other sources – and anyway, how many pumpkin and sunflower seeds can you eat?

## From the Labs

### Baby Food is Mineral Poor



A study of four popular brands finds that the mineral content in ready-made baby meals contained less than a fifth of the recommended daily supply of calcium, magnesium, zinc, copper, selenium, and iron [7].

There is no legal requirement for baby food to have minimum nutrient content. But if the manufacturer wants to make a claim that it does, then it has to state the figures on the ingredient list [8]. Tellingly, none of the baby foods tested declared the mineral content.

**Our View?** All the more reason to prepare baby's food from basic ingredients – or even pre-chew adult food and feed it to baby like

Alicia Silverstone. See '*Foragers Fed Pap to Babies*', page 2.

### High Blood Sugar Mischief

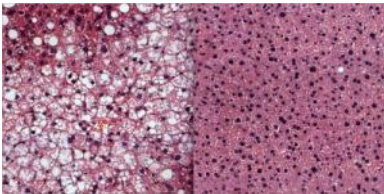
High blood sugar levels are notorious mainly because they bring on hyperinsulinemia which in turn disrupts many hormonal functions.

However high blood sugar can create mischief directly. Inter alia, it depletes levels of nitric oxide in blood vessels [9]. Nitric oxide is powerful 'vasodilator' (relaxer of blood vessels).

This shortfall increases blood pressure and narrowing of the blood vessels.

### Briefing

### Fructose: Liver attack



Left: Fatty liver. Right: Healthy Liver

The power-plant in every cell relies on an enzyme called 'ATP'. Now the conversion of fructose in the liver ALSO requires ATP.

Here lies the danger. If too much fructose is consumed, the excess fructose drains ATP from its primary duty – of powering the cell [10].

One result of ATP depletion is increased inflammation and scarring in the liver. Another is increased fatty acid synthesis leading to fatty liver (image above) and increased production of uric acid.

Too much uric acid is a factor in gout, high blood pressure, cardiovascular disease, type 2 diabetes, metabolic syndrome, and a form of kidney stones.

Much mischief, therefore, comes just from this aspect of overdosing on fructose. See '*Fructose: It's all in the Dose*', page 1.

Where does all this fructose come from? One source become all-pervading just in living memory is High Fructose Corn Syrup (HCFS) which is 55% fructose and which is used to sweeten soft drinks and a whole variety of processed foods. Plus of course there is ordinary table sugar which is 50% fructose.

Prof. Robert Lustig, MD of California University, San Francisco (UCSF) is an outspoken critic of fructose added to our diets, particularly for children. He explains the problem well in his YouTube video – which went viral – '*Sugar the Bitter Truth*'.

<http://youtu.be/dBnniua6-oM>

However, he thinks that fructose as a normal component of fruit is fine. See: '*Fructose in Fruit*', p. 2.

### Book Review Part IV

### Schenck: Recovering Vegetarian



Book: "**Beyond Broccoli**"  
by: **Susan Schenck** [11]

Continued from [last month](#)

... Schenck has some chapters on the morality, spirituality and sustainability of eating meat. On the first two, these are matters for individual conscience and reflection - so I pass them over.

With regard to sustainability, Schenck has some pragmatic things to say:

- "At the root of all sustainability issues is population";
- "I am not going to let my brain rot while I wait for politicians and corporations to get their act together";
- "If you are at less than peak health, forget about saving the planet, save yourself".

The particular value in this book is in giving the route map for vegans and vegetarians to find their way back: the route back to the diet which nature intended.

Do I have any quibbles? Just a minor one. Although Schenck provides copious references, they are largely secondary ones. Indeed, she cites my own book [Natural Eating](#), several times.

Now I "know" that my work is authoritative but Schenck's readers have to take it on trust - just as they do for most of the other citations. So, frustratingly, it is not possible to check the primary sources.

However, since she mostly comes to the right conclusions, I have no hesitation in recommending this book. See my review on Amazon: <http://www.amazon.com/review/R/SN99NNO2SE2D>

### Behavior in our Genes

### Educated Women find Men Scarce

In *Deadly Harvest*, [Chapter 8](#), page 205, I wrote:

"By the year 2003, 60% of American college graduates were women. This sounds good, but it means that, for every four women with a degree, there are only three men...

...She will find it harder to find a suitable man and when she does, her relationship with him will be bedeviled by his crises of esteem and identity."

Now a recent study confirms this finding [12].

"As women pursue more education... the ironic effect is that it only gets harder to find a husband. A woman's mating standards keep increasing as she becomes more educated."

"When men are scarce, women delay having children and instead pursue high paying careers."

"More than ever before, modern women are forced to choose briefcase over baby."

How will it all end? The authors don't opine. But in a study I reported in: '*Career Women Will Die Out*' [Oct 2007](#), the genes of career women who remain childless will, by that fact, disappear fast from the gene pool [13].

### Why Most Engineers are Boys

Why, on average, aren't girls interested in 'STEM' subjects (Science, Technology, Engineering, & Mathematics)?

The social engineers want us to believe that it is down to socialization. However, Professor Sheri Berenbaum at Penn University, USA, finds a different story.

In her studies she found a strong link between exposure to androgens (male hormones like testosterone) in the womb, and an interest in STEM subjects [14].

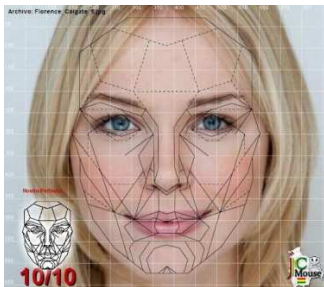
Male fetuses are routinely exposed to androgens – that is what makes them male – but it is rare for

females. But those females who, through some quirk of nature, are so exposed, also turn out to like STEM subjects.

More tellingly, Berenbaum finds that, just like boys, such women prefer "working with Things rather than People".

**Continued from Page 1**

### Beauty is Health, Health Beauty



Carmen Lefèvre, School of Psychology, St Andrews University, Scotland, said beauty is strongly linked to symmetry. 'Florence has all the classic signs of beauty. She has large eyes, high cheekbones, full lips and a good complexion.'

See: 'High Plant Intake, Healthy Glow', [March 2011](#).

**Continued from Page 1**

### Fructose: It's all in the Dose

...When teenagers consume four 12-ounce cans a day of Coke Classic (as very many do), they are definitely in the danger zone. See: *Fructose: Liver Attack*, p 3. However, when we used fructose or agave syrup in recipes, we felt that consumption of one serving of the dish in question was no more

than the equivalent of eating a small apple. And that is well within the range where fructose is normal and conforming to the forager levels of intake.

Nevertheless, we found that clients forget that fructose is to be rationed and were using it liberally to sweeten drinks, salad dressings and goodness knows what else.

So we have shifted priorities and in recent recipes we now use xylitol (see: 'Sweetener Xylitol Natural', [Sept 2011](#)). Our next cookbook, already well advanced, will reflect this change of emphasis.

The ideal of course is to avoid sweeteners altogether.

See: 'Fructose in Fruit' page 2.

**Continued from Page 1**

### Gourmet Chef to do Bond Paleo



The opportunity came thanks to the insight of Professor Demetris Vrontis, Dean of the Business School, Nicosia University, to whose business students I gave a lecture some years ago.

**More news:** [next month](#).

**Deadly Harvest Web Review**

### "Radical and Unputdownable"

"The first chapter of [Deadly Harvest](#) is available online in digital form and, for me, it was a book I could not put down."

"... In no uncertain terms, this is a radical book. Geoff Bond explores the underpinnings and history of processed foods in our culture and their origins from our learning to be farmers. He also explores the gross misinformation that is our governmental food guidelines."

"He suggests that for optimum health and happiness, one should adopt a diet similar to what our ancestors ate. But we have to learn to do this by choosing from foods we can find today..."

"...To be honest, it hasn't been that hard. I don't miss feeling bloated and miserable after meals, or the heart-burn, or feeling fat. Now I feel light (actually I am lighter), I have more energy, and no real cravings. Overall, I'm feeling pretty good [having] refactored my diet." – *the Bob Shankle blog*. Full Script:

<http://bit.ly/Bond-Shankle>

**Deadly Harvest**

### Kindle-friendly Best Seller

Still **NUMBER ONE** in 'Preventive Medicine' after **TEN** weeks.

The kindle content now has extensive hyperlinks for easier navigation and the tables are reconfigured to be more Kindle-friendly.

It also has links to printer-friendly versions of the lists and tables here: <http://bit.ly/DH-Tables>.

Get Deadly Harvest Kindle here: [www.amazon.com/dp/B004OL26GM](http://www.amazon.com/dp/B004OL26GM)

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