



The Bond Briefing

The Science and Art of Living the Way Nature Intended

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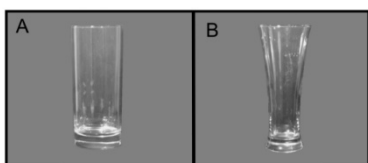
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Hints: Control Drinking by Wine Glass Shape. **Worthy Idiots:** Gluten-free Diet not for all? **Evolutionary Psychology:** Female Image Appeal Brands Political Party. **Antiageing Biology:** Dieting Monkeys Don't Live Longer. **Food Ideas:** Coconut & Chocolate Gateau. **Briefing:** Gestational Diabetes. **Sunlight is Human Food:** Sunshine Helps Beat Tuberculosis. **Evolutionary Psychology:** U.S. Presidents – Successful Psychopaths; Male Physique Brands Political Party. **Evolutionary Human Biology:** Costly Breast Milk Component; Gut Bugs Change in Pregnancy, Change Metabolism. **Web News:** New Video Clips. **Events:** USA CME Lecture Tour 2013.

Hints & Tips

Control Drinking by Glass Shape



Researchers find that drinkers quaff beer at HALF the rate from a straight sided glass (left) compared to a fluted glass (right) [1].

The researchers think the reason is that it is more difficult to accurately judge the halfway point of shaped glasses. As a result, drinkers are less able to gauge how much they have consumed.

Hint: Choose a straight-sided glass to control drinking.

Worthy Idiots

Well-meaning scientists sometimes draw silly conclusions

Gluten-free Diet not for all?

Roughly 1.8 million Americans have celiac disease, but around 1.4 million of them are unaware that they have it. Meanwhile, 1.6 million people in the United States are on a gluten-free diet even though they haven't been diagnosed with celiac disease. So says a Mayo Clinic study [2].

So far so good. But author Dr. Joseph Murray gets the 'Worthy Idiot' prize this month for opining: "There are a lot of people on a gluten-free diet, and it's not clear what the medical need for that is. It is important if someone thinks they might have celiac disease that they be tested first before they go on the diet."

Evolutionary Psychology

Female Image Appeal Brands Political Party



Slice the data how they might, researchers kept coming up with the same result: female politicians who have a 'feminine' face are more likely to be Republican [3].

Democrat female politicians' faces are consistently rated less feminine, even androgynous (having an ambiguous sexual identity.)

The researchers believe that branding plays a role. The Democratic Party is associated with social policies that belittle gender differences; the Republican Party is associated with conservative issues that celebrate traditional sex roles.

Now that you have read this, it is a no-brainer to identify, above, the Democrat (Rosa Delauro – Connecticut, District 3) and the Republican (Michele Bachmann, Minnesota, District 6.)

What would our hunter-gathers, with evolutionarily-wired brains, make of this? Both men and women admire feminine female faces. (See 'Symmetry is Beauty is Health', [June 2012](#).)

But there is a challenge for the Republicans: forager brains don't accept women in charge. Moreover, some women were witches! (Well – witch-doctors or shamans).

Antiageing Biology

Dieting Monkeys Don't Live Longer

Many studies on creatures like worms, mice and rats suggest that if they are calorie restricted they live much longer. In human terms it means less than a 1,000 calories a day.

Now a 20-year long prospective study on rhesus macaques (a species of monkey) is producing its first results [4].

It finds that the calorie restricted group compared to the control group didn't live any longer. However, they lived better: they suffered less from cancer, diabetes and cardiovascular disease.

My Comment: The 'monkey chow' used to feed both groups was "a natural ingredient diet containing 56.9% carbohydrate, 17.3% protein and 5% fat".

This is far removed from a normal macaque diet: see Dr Katherine Milton's remarks in *Deadly Harvest*, [Chapter 5](#), Page 126. See also ref [5].

On the contrary this has echoes of the typical American diet loaded with carbohydrates – and which is driving the epidemic of cardiovascular disease, cancer, diabetes and obesity.

So it is hard to see if this study is telling us anything new. The less you eat of a typical American diet, the healthier you will be! Well, we kind of knew that already.

Our view? It is healthy and normal to feel slightly hungry some of the time. That is what nature intended. But chronic state of starvation? Some groups are doing their own experiment...

Cont. Page 4.

Food Ideas

Last month follow-up: we hope to have news of Kim Lloyd's progress with Ugg Foods soon.

This month we offer this recipe which was a great success at the Bond Paleo dinner ([Aug 2012](#)) at [Archontiko Papadopoulou](#) restaurant, Kornos, Cyprus.

Coconut & Chocolate Gateau



- 4 eggs, omega-3
- 1 tablespoon vanilla extract
- 1 tablespoon olive oil
- 3-4 tablespoons diabetic orange marmalade, to taste (can be replaced by Xylitol)
- 2 cups unsweetened shredded coconut (about 5 ounces – weight may vary)
- 1 ½ cups coconut milk
- olive oil spray

Coating:

- 6 squares (of a 3.5-ounce bar) min 70% dark chocolate
- 2 tablespoons dark rum (or 2 tablespoons coconut milk)

1. In a large mixing bowl mix the eggs, vanilla extract, olive oil and the orange marmalade with an electric hand-mixer.
2. Add the shredded coconut and the coconut milk. Blend well.
3. Spray a round baking dish (approx 8-9-inch diameter) with the olive oil; spread the mixture.
4. Bake in a preheated oven at 340°F (170°C) for about 25 minutes. Check for doneness. Allow the gateau to cool down.
5. Coating: Meanwhile break the chocolate into small pieces and put into a small microwave-proof bowl. Stir in the rum.
6. Melt the mixture at half power (about 300 watts) in a microwave oven for approximately 2 minutes. Check and stir twice. The chocolate should be melted, but avoid overheating.
7. With a spatula coat the top of the coconut gateau with the chocolate.

Briefing

Gestational Diabetes

Gestational diabetes is one of many disorders that arise in the titanic battle going on between the mother's body and her fetus.

Fetus Manipulates Blood Sugar

Both mother and fetus need the glucose in the mother's blood -- but the fetus needs more of it than does the mother. The fetus therefore secretes ever higher levels of the hormone *lactogen*. This makes the mother less sensitive to insulin and raises her blood sugar levels to the benefit of the fetus.

However, high blood sugar threatens the mother with diabetes, so she escalates her production of insulin. By the end of the pregnancy, the output of lactogen is raised several thousand times. Insulin levels are sky-high.

Parent-child conflict

In the words of the evolutionary scientist, Dr. Christopher Badcock,

"Diabetes in pregnancy once seemed a simple case of illness. Now we see it as one of parent-offspring conflict over blood sugar, fought inside the mother's body with dangerous chemical weapons." [6].

When gestational diabetes occurs, the battle has been won by the fetus; it has taken over control of the mother's blood sugar levels.

Both the mother's body and her fetus are glutted with blood glucose. The mother can seize back the initiative by drastically reducing intake of sugars and starches (High blood sugar levels increase gestational diabetes risk by 460%). Other risk factors are animal fats, pre-existing diabetes, obesity, and high blood pressure.

Stay Natural Eating

Our ancestral diet, even for pregnant women, was extremely low in 'bad' carbohydrates. In other words, just continue to follow the Natural Eating precepts in the normal way.

Gestational diabetes usually resolves itself after pregnancy. However, the child will be at increased risk of autism, obesity and diabetes. **See:** '[Gut Bugs Change in Pregnancy](#)', page 3.

Sunlight is Vital Human Food

Sunshine Helps Beat Tuberculosis

"Where youth grows pale and spectre-thin and dies"

So wrote Romantic poet John Keats about his younger brother Tom who, in 1818, died age 19 of tuberculosis (TB) in a damp, gloomy, London hovel [7].

In those days doctors had no medication for 'consumption' as TB was called, but they did know one thing – sunshine helps beat it.

When Keats himself developed TB he staggered off to sunnier Rome. But it was too little, too late – arriving at the start of winter he succumbed a few months later. He was just 26 years old.

The wheel turns. TB researchers find that sunshine vitamin D dramatically reduces levels of the inflammatory chemicals that damage the lungs [8].

Moreover, sunshine vitamin D reduces by one third the time taken to knock out the TB-causing bacterium, *Mycobacterium tuberculosis*.

Our View? Tuberculosis was (and is) a disease of cattle. It hopped across to humans in the early days of cattle domestication, some 10,000 years ago.

About a third of the world's population is infected with TB but it only becomes active – and a problem – in about 5% of them.

What triggers activation? Clearly one factor is SUNSHINE STARVATION. See my video clip, '[Sunshine is Vital Human Food](#)':

<http://youtu.be/uLzbd8UqBQ>

Evolutionary Psychology

U.S Presidents: Successful Psychopaths

In '[Psychopaths Born That Way](#)', [June 2010](#), I explored why it is that such genes persist not only in human populations but also in chimpanzees, baboons and other social species. Answer: the psychopathic personality is good at ruthlessly clawing its way to the top – and making many babies on the way.

Psychopathic personality is defined by a constellation of traits such as Fearless Social Dominance, Self-centered Impulsivity, Superficial

Charm, Manipulativeness, Guiltlessness, Callousness, Dishonesty and Immunity to Anxiety.

Each of these traits lies along a continuum, and all individuals may exhibit one or more of these traits to some degree.

A new study has looked at American presidents in recent history [9]. It finds that Fearless Dominance, linked to Low Social and Physical Apprehensiveness, predicts Leadership, Persuasiveness, Crisis Management and Congressional Relations.

Examples in descending order: Theodore Roosevelt, John Kennedy, F D Roosevelt, Ronald Reagan and Bill Clinton.

Obama? As I write, he has just been reelected for a second term. The researchers didn't study him, stopping with George W Bush who came in 10th on these criteria.

In contrast, presidents' Impulsive Antisociality and related traits were linked to Congressional impeachment, unethical behavior, and negative character. Lyndon Johnson came in the top five for Self-centered Impulsivity.

Voters' Hard-wired Choice

Roger Newman-Norlund of University of South Carolina finds that the brain's hard-wiring largely decides how a voter votes.

In MRI tests of 'social connectedness', those who responded to 'broad connectedness' (friends, the world at-large) voted Democrat; those who responded to 'tight connectedness' (family, country) voted Republican.

Newman-Norlund says that neuroscience is in its infancy, but in future we can expect politicians and campaign strategists to exploit brain differences to better target their appeal to voters.

You have been warned!

Male Physique Brands Politics

Fighting ability, largely determined by upper body strength, continues to rule the minds of modern men, according to a new study [10].

Multiple research disciplines find that our male ancestors used physical aggression to compete for status. This competition led to the evolution of numerous physical and psychological sex differences.

These sex differences include ability to dissipate heat, perceive and respond rapidly to threats, estimate the trajectory of thrown objects, accurately intercept objects, and resist 'blunt-force trauma' (e.g. fisticuffs and cudgel bludgeoning).

The study shows how this fighting ability drives both male behavior and male attitudes to a range of issues, including political orientation.

Stronger men, compared to weaker men, were more likely to believe in the utility of political aggression as a means of resolving conflicts of interest.

The study finds that Hollywood actors are generally left-wing. However those selected for their physical strength, e.g. action stars like Charlton Heston, Arnold Schwarzenegger, Sylvester Stallone and Clint Eastwood, are more likely to support the Republican position, notably on the utility of warfare.

See: '*Strength and Fighting Ability Revealed In Male Faces*', [Dec 2008](#).

See: '*Warfare*', *Deadly Harvest*, [Chapter 8](#), page 200.

Evolutionary Biology

Costly Breast Milk Component

In '*Breast Milk's Fiber Feeds Infant Gut Flora*', [May 2012](#), we looked at breast milk compounds called 'oligosaccharides'.

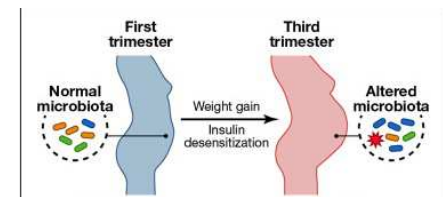
One such compound is called "2-fucosyllactose" (2-FL). We've known about it for some time, but it costs \$100 per milligram to make! It is far too costly for manufacturers to put in infant formula.

Now microbiologists have genetically engineered a strain of *E. coli* (of all things!) to manufacture bulk quantities of 2-FL [11].

Our View? Formula milk is getting better all the time. For those who cannot breast feed, this is good news. But it will take a while before 2-FL will be approved and available cheaply.

Meanwhile, there are still another few thousand breast milk compounds that we know little about and have no idea how to incorporate into infant formula.

Gut Bugs Change in Pregnancy, Change Mother's Metabolism



Legend

Yellow Bugs: *Firmicutes*

Green Bugs: *Bacteroidetes*

Blue Bugs: *Proteobacteria*

Red star: *Inflammation*

The above image shows how the proportions of the classes of gut microbes change from 1st trimester to 3rd trimester in a sample of pregnant women [12].

But the startling thing is this: those gut bug changes increase insulin resistance and increase inflammation. Normally that is unhealthy and a precursor to diabetes.

Says lead researcher Ruth Ley of Cornell University, USA, "However, this actually helps the fetus." In particular it triggers the high levels of blood sugar that the fetus needs.

See '*Gestational Diabetes*', page 2.

Evolutionary Behavior

Role of Punishment in Cooperation

Evolutionary scientists puzzle over three distinctive human behaviors:

1. Our readiness to cooperate with new people,
2. Our strong interest in tracking others' reputations regarding how well they treat others,
3. Our interest in punishing people for selfishly mistreating others.

Two theories are proposed:

1. Individual Cooperation. Our ancestors lived in small forager bands, where every newcomer encounter had a chance to develop into an ongoing relationship that yielded mutual gains from cooperation.

In such a world, paying attention to how they treat others helps zero in on those most likely to help you.

In addition, fighting back against bad treatment increases the chances you'd be treated well.

2. Group cooperation. Our ancestors lived in groups that

fought other groups. Groups with much dissension lose to those that have a group-wide culture of cooperation.

A new study specifically designed to tease out the differences between the two theories, comes down firmly on the first: *Individual Cooperation* [13].

Lead author Max Krasnow (with whom I lunched at [HBES 2011 Conference](#), See 'Events' [June 2011](#)), says:

"Human readiness to cooperate, our selectivity in whom we cooperate with and the reflex to punish when cheated, form an efficient package to forge and maintain strongly cooperative relationships...

They represent fundamental features of a universal human social nature."

Next Month: How this insight explains function and dysfunction in modern populations.

Criminal Class - in the Genes?

Sherlock Holmes spoke freely, even avuncularly of, 'The Criminal Classes'. That was all right to say in Victorian times but, since then, social science has asserted that criminals are victims of their upbringing. "Hey, I'm deprived on account I'm deprived", protests Riff in *West Side Story* [14].

Now criminologist Dr J C Barnes of Florida State University has stirred

up a hornet's nest by questioning this assumption [15].

His team finds that, with life-long criminals (the 'criminal class'), genetic factors play a 75% role; social factors only play a 25% role. It is an open secret that prisons contain a high percentage of 'people of sociopathic personality'. This is a euphemism for psychopaths.

In other words most criminals are 'unsuccessful psychopaths' - in contrast to 'successful psychopaths' like many corporate board members and most U.S. presidents - see *'U.S Presidents: Successful Psychopaths'* page 2.

Our View? But what would be the life of sociopaths in forager societies? On average, each forager band would have at least one, most likely male.

They were troublesome to get along with - but this is where Krasnow's study casts some light (previous article). Their fellows quickly learn not to trust them and to punish any cheating. On the other hand they are glad of their fearless conduct in warfare.

As Marlowe says in his study of the Hadza [16] (*'Hunter-gatherer Studies'*, [Jan 2012](#)), on their own, the misfits cannot do much against coalitions of other band members.

In modern societies the misfits can form an underclass to prey on the benign intentions of the mass of the population. Dr Barnes says our challenge today is to recognize this phenomenon for what it is if we are to find ways of dealing with it.

Web News

Latest Video Clips Uploaded

Evolutionary Medical Anthropology:

7. Naturally Adapted Feeding Patterns.

<http://youtu.be/GfexCktNn18>

8. Naturally Adapted Feeding Patterns (2) Glycemic Control

<http://youtu.be/SPC8kLB0h9w>

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Dieting Monkeys Don't Live Longer

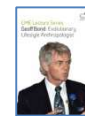
So we don't recommend the extremes promoted by some groups such as the Calorie Restriction Society which promotes a nutrient-rich diet of no more than 800 calories a day.

Foragers never lived like that (or only on rare occasions) and there is no need for us either.

See also: *'Lifespan Prolongation'*, [April 2004](#).

Forthcoming Events

Bond CME Lecture Tour USA



Geoff will be lecturing in California **January 13** to **February 9**. Download the [prospectus](#).

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email: admin@NaturalEater.com

Tel: +357 99 45 24 68 Skype: gvlbond

Twitter: www.twitter.com/savvyeater

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- 3 Appearance-based politics: Sex-typed facial cues communicate political party affiliation; Colleen M. Carpin^{II}; *Journal of Experimental Social Psychology*; Volume 49, Issue 1, January 2013, Pages 156-160
- 4 Impact of caloric restriction on health and survival in rhesus monkeys from the NIA study; Julie A. Mattison et al. *Nature*; 489, 318-321; 13 September 2012
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