

Imperialism, Racism, Darwin – and Vitamin D:

**a 'Solar' Hypothesis on the
Evolution of Homo Sapiens**

Revised 30 November 2011

Imperialism as a Universal Evil

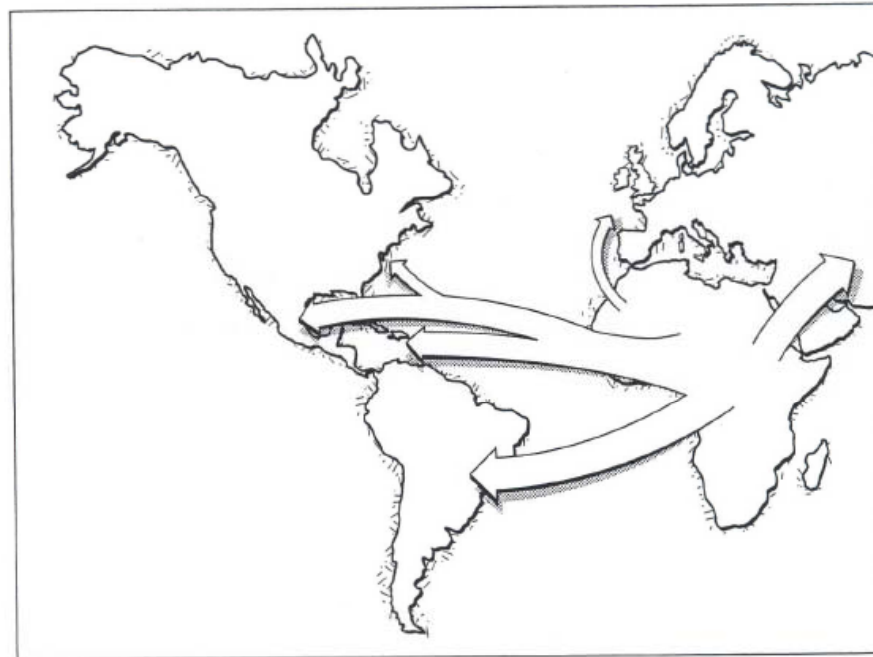
- 1) **Portugal introduced into the world a new, more evil form of Imperialism:** in inaugurating Europe overseas explorations, colonization – **esp. European slave trade**
- 2) **What does Imperialism mean?**
 - - **necessarily: the subjugation of one people (conquered or not) by another, foreign nation:** or by that nation's ruling authorities
 - - **rarely do any subjugated peoples meekly submit to foreign imperialist rule**
 - - **their resistance ultimately provoke the occupying imperial power into violent suppression – to crush all resistance, thereby ensuring continuous resistance**

Imperialism as a Universal Evil-2

- 3) **How did European seek to justify Imperialism - and Slavery?**
- a) **note the historic role of the Church in opposing slavery:** while tolerating (and institutionally practising serfdom) – even though slavery had been accepted in ancient Judaism and in contemporary medieval-early modern Islamic societies.
- b) **recall also the origins of Venice in 8th century:** exporting Slavic slaves to the Islamic world – but ‘out of sight, out of mind’ for Europeans
- c) **One of first ‘fruits’ of Portuguese overseas commercial expansion was reintroduction of the slave trade into western Europe** → a major moral dilemma

Map of the African Slave Trade

AFRICA / 58



Approximately 10 million African slaves traveled to the New World between the early 1500s and 1870, with the largest numbers (as indicated by the size of the arrows) going to Spanish America, the Caribbean, and Brazil. An estimated 5 million enslaved Africans were sent to the Old World.

Imperialism and Racism: 1

- (1) Imperialism (in this historic fashion, in my view) produced and disseminated European RACISM
- - how did Europeans justify both imperialism and the slave trade:
- - by the specious contention that the victims were not Christians (and not Europeans!!) and thus not protected by European moral values
- - that they were somehow biologically inferior
→ and morally 'inferior'

Imperialism and Racism: 2

- (2) **The Western World before the 15th century:**
- - **Note that such racism, in purely biological terms, was absent in ancient societies** (so far as I know), in the Roman Empire, in the Carolingian Empire, and medieval Europe
- - **consider the Memling portrait below:**
Adoration of the Magi, in which one of the Three Kings is African
- - **thus the European ‘turning point’ was the Portuguese African slave trade**

Memling: *Adoration of the Magi*



Imperialism and Racism: 3

- (3) **The Justification for 19th century Imperialism: 'The White Man's Burden':**
 - The Christian 'duty' to spread both Christianity and European civilization to supposedly 'backward' peoples?
- (4) **How does this differ from Western intervention in Iraq and Afghanistan?**
- (5) **Need we stress the evils, horrors of racism in the 20th century??**



ANJA NIEDRINGHAUS/AP

U.S. Marines arrest Iraqi council chairman Taha Rasheed following a raid in the Abu Ghraib district of Baghdad yesterday.

Council members arrested in Iraq

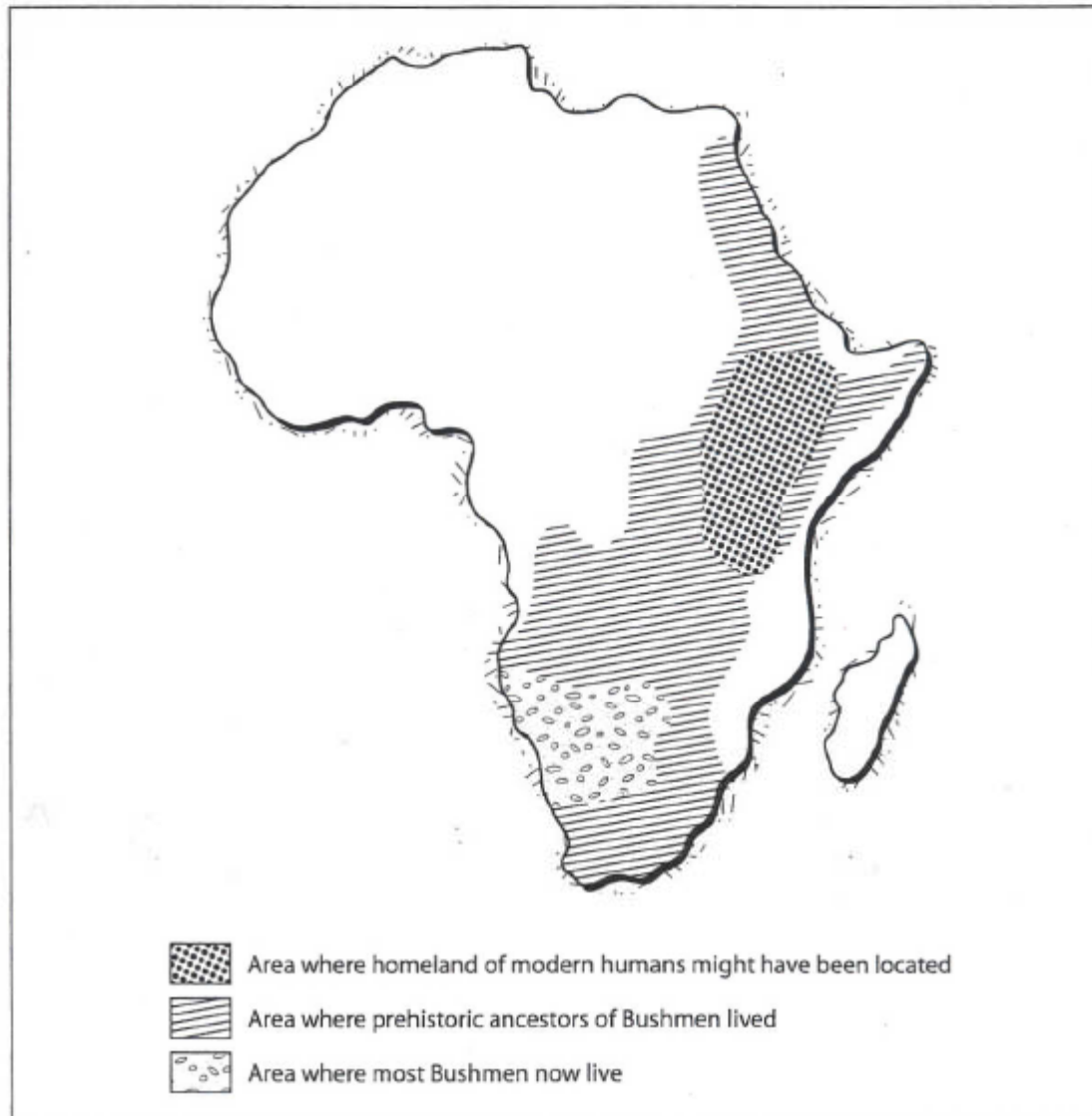


-AP

U.S. Marines arrest Iraqi council members following a raid in the Abu Ghraib district of Baghdad yesterday. The Marines arrested the city council chairman of Nasar Wa Sulaan, Baghdad, and other council members, just ahead of a major

Why Racism is Biologically Invalid

- (1) **How do Human Beings differ from all other forms of animal life on this earth?**
- - **Our species, *homo sapiens*, exists in only one unique form: us → all other hominid species are long extinct**
- - **There are no races: NO biological justification** for viewing any humans, past and present, as ever having any essential differences (in intelligence, etc).
- (2) **Our species has one unique origin: eastern Africa** - in the vicinity of Kenya/Uganda: from earlier hominid species, ca. 400,000 years ago
- (3) **Genetic traces: by mitochondrial DNA** (from female Y-chromosones): African 'Eve' ca. 150,000 BCE

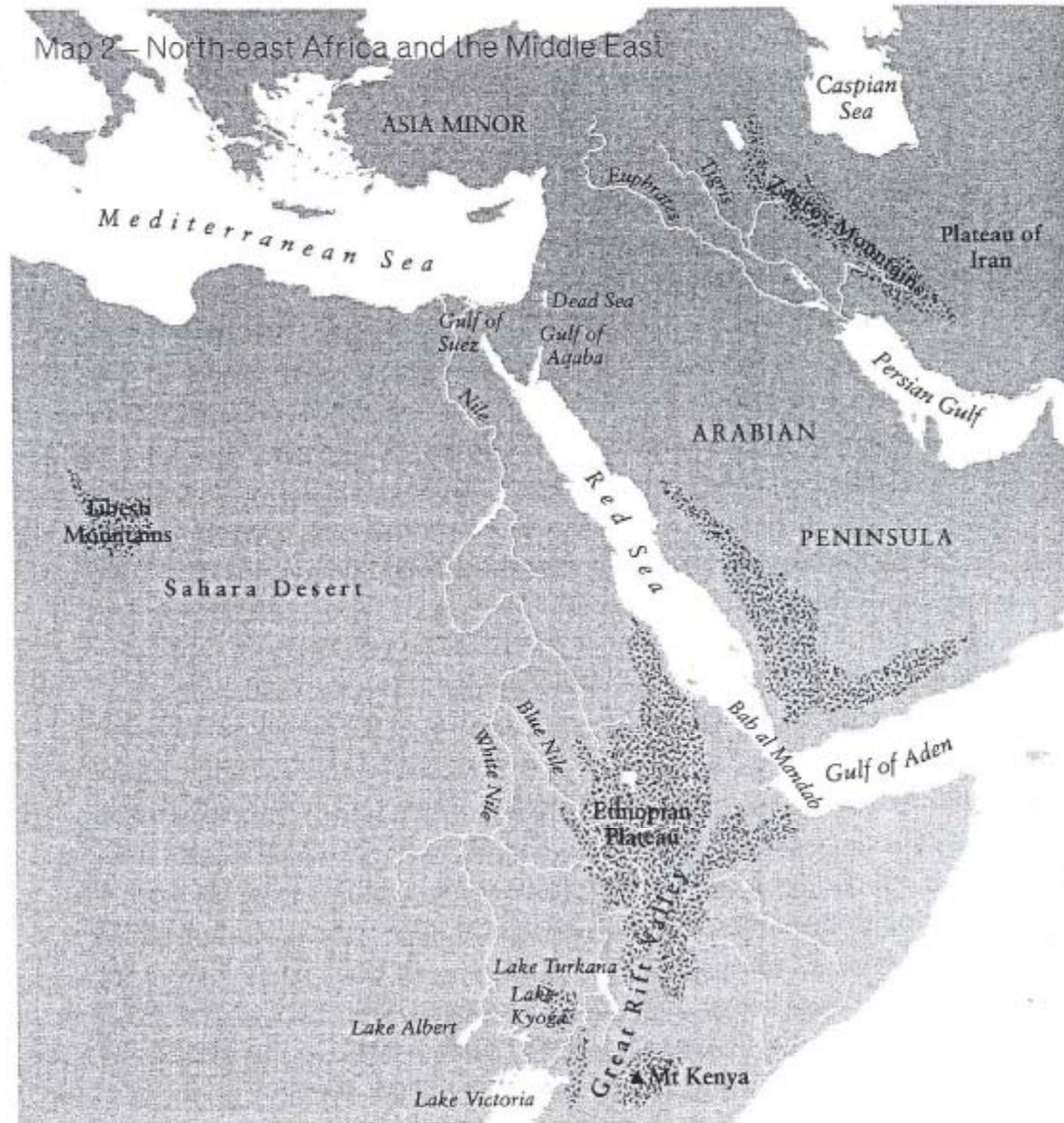


After the appearance of modern humans, the ancestors of the Bushmen expanded to occupy large portions of eastern and southern Africa. Today the Bushmen live almost exclusively in arid regions of southwestern Africa.

Racism is Biologically Invalid - 2

- (3) **Our ancestors left Africa, perhaps 50,000 – 60,000 years ago: probably because a severe Ice Age → aridity → reduced food supplies**
- - left Africa, crossing via Red Sea → Arabia
- - **followed a route along the southern Asian coast: some to Australia, while others branched north through India → into Central Asia**
- - **from there, one branch went west into Europe (Cro Magnon men), about 35,000 years ago**
- **while others went east → and some into North and then South America (via Bering land bridge)**

Map 2 – North-east Africa and the Middle East



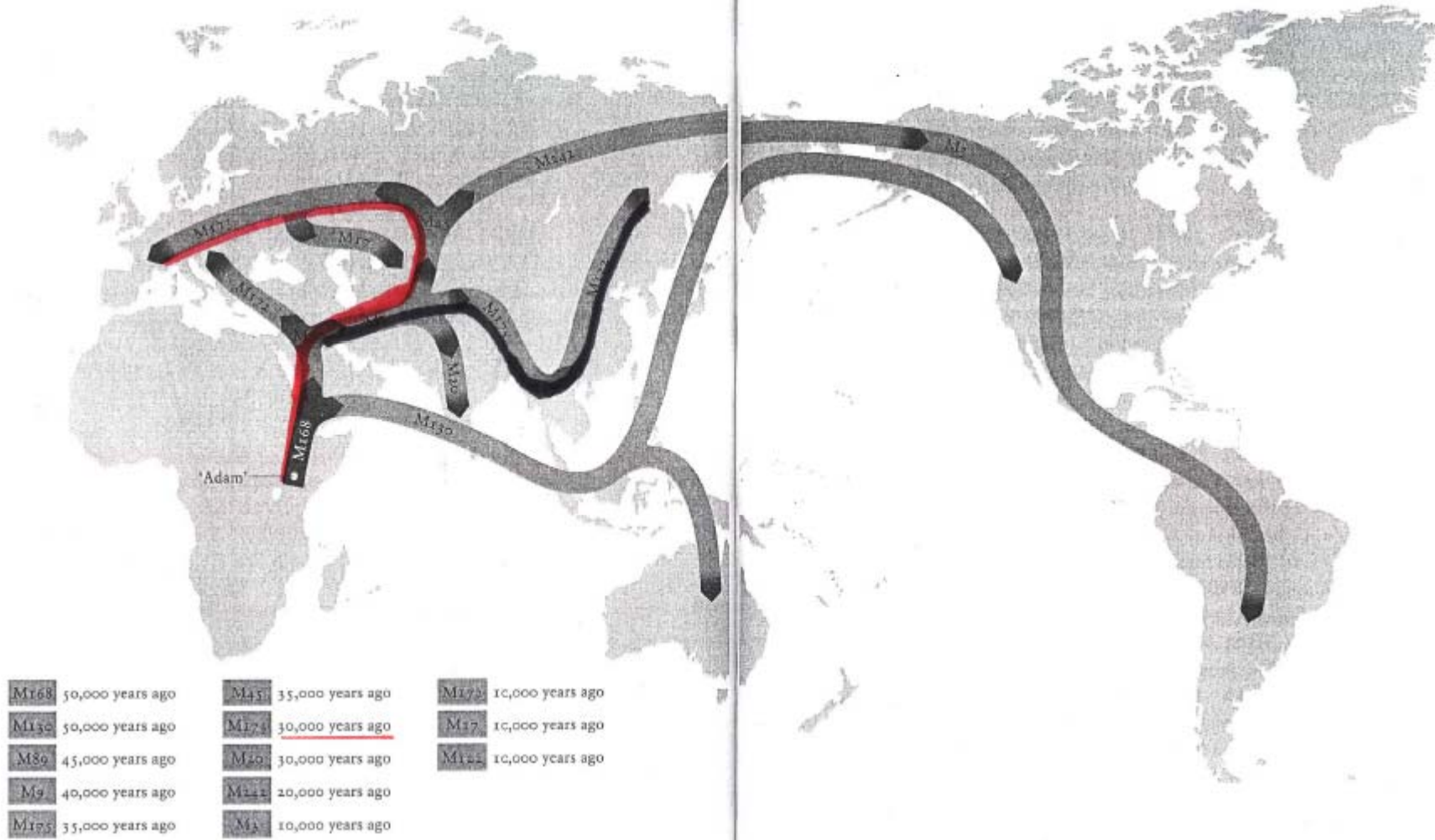
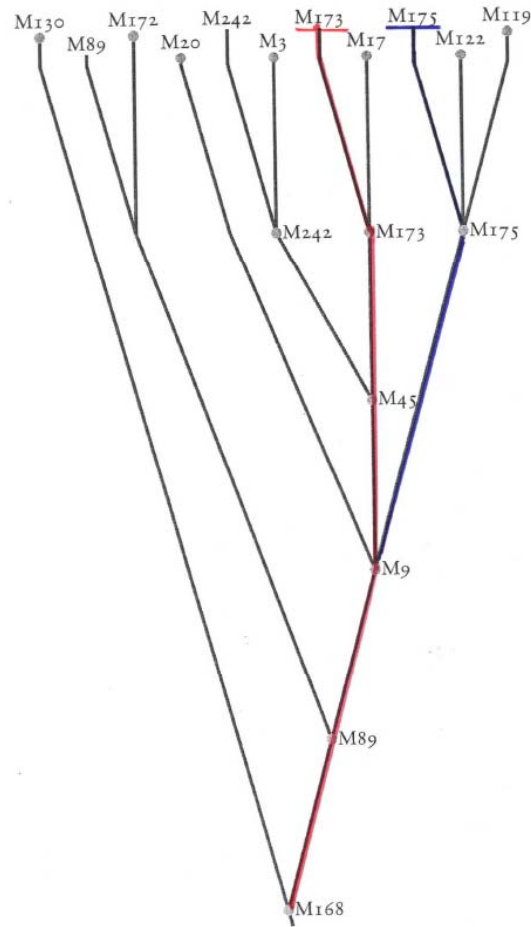


Figure 10 The spread of Y-chromosome lineages around the world

African Origins of Homo Sapiens: by Mitochondrial DNA



Skin Pigmentation: evidence of race?

- (1) **My response to the still common, ignorant, stupid view that differing skin pigmentation is evidence of racial differences** -- not just because skin colour is irrelevant →
- (a) **subsequent differentiations by skin pigmentation were a natural Darwinian evolution to protect humans:**
 - - either to protect humans from the ill effects of sunlight (melanoma: skin cancers): **with melanin**
 - - or to bestow its benefit, in the form of Vitamin D,
 - - to protect them from many cancers and other illnesses, and to protect (harden) the bones

Skin Pigmentation: evidence of race? (2)

- (b) **We must assume that the origins of our species in NE Africa**, evolved from prior forms of hominoids, all with dark skins
- i.e., **only those with sufficient MELANIN, and thus with sufficiently dark brown skins, could have survived harsh ultraviolet rays of the African sun → producing melanomas**
- **i.e., we are all, universally, descendants of dark skinned Africans**

Human Migrations & Vitamin D - 1

- (2) *As our species, homo sapiens, migrated from Africa to southern Asia, Central and northern Asia, Europe, North & South America*, they underwent further evolutions in terms of skin pigmentation: **with trade-offs**
- a) **the cost of melanin protection against the sun**: → **to prevent absorption of Vitamin D**: or its chemical synthesis in the skin from absorption of ultra-violet B rays

Human Migrations & Vitamin D - 2

- b) **The 'vital' importance of VITAMIN D:**
- - **to provide far better protection from a very wide variety of other cancers (as recently discovered):**
- **cancers of the breast, ovary, uterus, prostate, bladder, rectum, esophagus, kidney, lung, pancreas: also from Hodgkin's lymphoma**

Human Migrations & Vitamin D - 3

- 3) **Migration, Vitamin D, Darwinian Natural Selection:**
- a) **as our ancestors migrated from southern Asia into more northern climates** → genetic mutations favoured those developing lighter skin pigmentations → better able to absorb Vitamin D from the sun
- - and did not need melanin for protection against the sun
- b) **Darwinian 'survival of the fittest':** those with pigmentation better able to absorb Vitamin D → **better able to survive cancers & many other diseases**
- + **less likely to break bones** (Vitamin D preserves bones)
- c) **'survival of the fittest' → passed on genes** with lighter skin pigmentation in more northern climates only → displacing those with darker, Vitamin-D inhibiting genes

Your brother was right – you really are a Neanderthal

BY ANNE McILROY

Neanderthals may have died out 30,000 years ago, but their genetic legacy lives on. The sequencing of our closest relative's genome has revealed that anyone of non-African ancestry currently carries 1 to 4 per cent Neanderthal DNA.

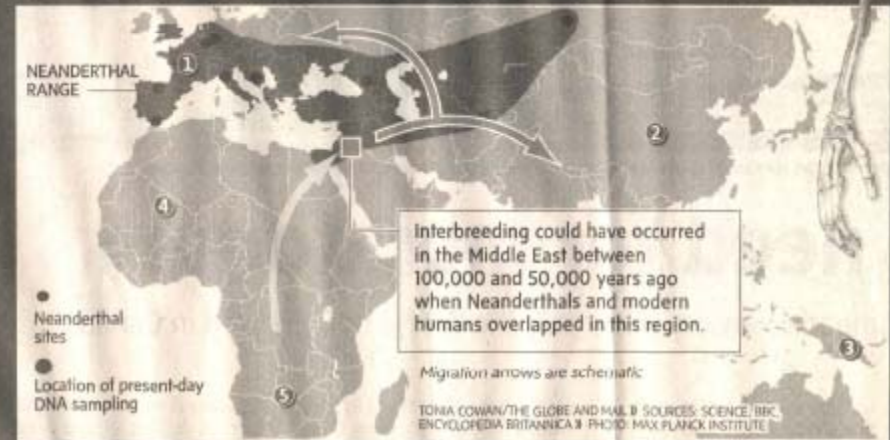
After a small group of Homo sapiens left Africa thousands of years ago, they interbred with Neanderthals in the Middle East, new research suggests. These early modern humans moved on to Europe and Asia, and the genetic evidence suggests they were the ancestors of all modern humans from outside of Africa.

Although Neanderthals and early modern humans lived in the same parts of the world at the same time, until now the evidence has suggested there was no interbreeding, says Svante Pääbo of the Max Planck Institute for Evolutionary Biology in Germany.

But when he and an international team sequenced the Neanderthal genome and compared it with the genetic material of five people from Europe, Asia and Africa, they could see the "cave man" legacy in the non-Africans.

The findings were reported in the journal *Science*, published by the American Association for the Advancement of Science.

Researchers found that Neanderthals share more genetic variants with present-day non-Africans than with Africans, suggesting that the gene flow between Neanderthals and modern humans occurred prior to the divergence of European and Asian populations.



TONIA COWAN/THE GLOBE AND MAIL; SOURCES: SCIENCE, BBC, ENCYCLOPEDIA BRITANNICA; PHOTO: MAX PLANCK INSTITUTE

THE NEANDERTHAL:

- Larger brow
- Larger nose
- Lower, larger cranium
- Larger shoulder joint
- Larger, broader rib cage
- Larger elbow joint
- Broader hips
- Shorter forearm
- Larger and thicker kneecap
- Shorter and more flattened tibia

Skeleton of a Neanderthal as compared to a modern human

More evidence of Vitamin D benefits

The Toronto Star

Aug 12, 2008

04:30 AM

Megan Ogilvie

Health Reporter

Adults with low blood levels of vitamin D face a 26 per cent higher risk of death than those with adequate levels of the sunshine vitamin, say U.S. researchers.

The study, published yesterday in the *Archives of Internal Medicine*, is the latest to show the health benefits of vitamin D. Earlier research found it can guard against osteoporosis and may offer protection from breast and colon cancer, heart disease and dementia. This study analyzed health records of more than 13,000 Americans and found those with the lowest vitamin D blood levels had a 26 per cent higher risk of death over eight years than those with the highest levels. Reinhold Vieth, a nutritional sciences professor at University of Toronto, said this is one more study "to show that higher vitamin D nutrition increases life expectancy."

People produce vitamin D when ultraviolet light from sunshine hits their naked skin. The nutrient, important for cell growth and boosting the immune system, is also found in some fish, fortified dairy products and nutritional supplements.

Vieth, a top expert in vitamin D nutrition, said adults may want to consider taking a daily supplement to boost their levels.

In winter, Canadians average a vitamin D blood level of about 17.8 nanograms per millilitre – the same level considered to confer an increased risk of death in this study, said Vieth.

According to Dr. Erin Michos, study co-author and assistant professor of medicine at Johns Hopkins School of Medicine, the study provides additional evidence for health officials to consider adding vitamin D deficiency as a distinct risk factor for heart disease.

"We found that even after you take into account roughly 30 different factors that are risk factors for heart disease, such as age, high blood pressure, cholesterol, diabetes, smoking, body mass index and kidney disease, that having low vitamin D levels independently conferred a 26 per cent increase risk of dying from any cause over and above all of these known cardiac risk factors," Michos told the Star.

She cautioned the results do not prove taking a vitamin D supplement could prevent a heart attack or that low levels caused death from heart attack. Of the 1,806 study participants who died, 777 died of heart disease, of whom about 400 were deficient in vitamin D.

TORONTO STAR: 29 November 2011

Vitamin D Studied as a Flu-Fighter

Elvira Cordileone

As fall marches into winter and hauls us deep into flu season, some experts suggest a big dose of Vitamin D could help sidestep that lurking virus.

Vitamin D, also known as the sunshine vitamin, has a well-established role in helping to maintain strong bones. It's now under the microscope for role it plays, when in short supply, in a range of illnesses, from heart disease to cancer, to autoimmune disorders and infections, including influenza.

Our bodies make their own vitamin D when we expose the skin to the sun's UVB rays. But our long winters provide minimal sunshine and weak UVB rays, erasing the opportunity to synthesize this important vitamin for many months.

Health data released by Statistics Canada in 2010 reported about 10 per cent of the population, or 3 million people, had inadequate blood concentrations of vitamin D, and within that group, 1.1 million were outright deficient in vitamin D.

The U.S. Endocrine Society stresses the importance of vitamin D in maintaining health. It points out nearly every cell in the human body interacts with the vitamin, and that the activity of many genes — up to a third of the entire human genome — is affected by vitamin D.

To compensate for the lack of sunshine during the cold season, we can increase our intake of the few foods containing the nutrient, such as fatty fish, and those fortified with vitamin D, such as milk and orange juice, or we can take vitamin D supplements.

But although the Endocrine Society says evidence suggests vitamin D deficiency may increase the risk of many diseases, it stresses in a news release published last year that no hard evidence currently exists showing that taking vitamin D supplements prevents or treats illness beyond those that related to the bones.

“Why is there so little data on vitamin D and non-bone diseases?” the society asks.

It speculates the answer has to do with the fact that only recently have researchers realized that vitamin D is not harmful at new, higher doses, and few studies used enough vitamin D to raise blood levels to the required level.

In fact, how much vitamin D people should take is a controversy raging between policymakers and vitamin D advocates.

Last year, the Institute of Medicine (IMO) issued new guidelines based on the recommendations of a panel of experts in the field. The study, funded by both the Canadian and U.S. governments, tripled the daily dietary allowance to 600 international units (IU) a day from 200 IU a day, and set a daily ceiling of up to 4,000 IU.

These are also the current Health Canada recommendations.

The IMO’s report says evidence supports a role for vitamin D and calcium in bone health, but not in other health conditions. It says emerging evidence indicates too much of these nutrients may be harmful and challenges the concept that “more is better.”

Reinhold Vieth, a clinical biochemist at Mount Sinai Hospital, who has studied the nutrient for some 20 years, says whether we synthesize the vitamin in large doses via sunshine on the skin or we swallow a supplement makes no difference to how the nutrient behaves in our bodies.

Zoltan Rona, an MD who practices complementary and alternative medicine in Thornhill and author of *Vitamin D, the Sunshine Vitamin* (Alive Books) recommends 10,000 units a day to his adult patients.

In fact, with so little sunshine in our winters, adults won't get much response from supplementation without taking at least 5,000 units a day, Rona says.

Vieth points out medical organizations such as Osteoporosis Canada, the Canadian Pediatric Association and the Endocrine Society recommend a daily dose of 1,200 units to 2,000 units.

Vieth recognizes policymakers have to take a cautious, conservative course, because their recommendations cover a spectrum of people and their guidelines stay in place for a long time.

"Canada is relatively aggressive," Vieth says. "In the U.K., for people under age 60, there's no policy, because, according to the government, there's enough sunshine in Britain to provide sufficient vitamin D."

The Vitamin D Council, a U.S. non-profit organization whose stated aim is to end the worldwide vitamin D deficiency "epidemic" through awareness and research, advises a two-pronged approach to guard against influenza.

It suggests taking on average 2,000 to 5,000 IU a day of vitamin D3 (the form of vitamin D produced by UVB rays on the skin) and getting a flu shot.

"Vitamin D may also reduce symptoms of influenza and reduce the risk of developing pneumonia following influenza. Vaccines strengthen the body's ability to fight infection. Therefore, combining high levels of vitamin D and anti-influenza vaccines provide the best protection," according to the Council's web site.

Vieth agrees with the council's approach.

"Vitamin D is likely to make a difference; a flu shot is likely to make a difference. The public wants to know in black and white, but you can only go by probabilities."

Harvard Health Publications

VITAMIN D

By JANE E. BRODY

The New York Times

Published: February 19, 2008

The so-called sunshine vitamin is poised to become the nutrient of the decade, if a host of recent findings are to be believed. Vitamin D, an essential nutrient found in a limited number of foods, has long been renowned for its role in creating strong bones, which is why it is added to milk.

Now a growing legion of medical researchers have raised strong doubts about the adequacy of currently recommended levels of intake, from birth through the sunset years. The researchers maintain, based on a plethora of studies, that vitamin D levels considered adequate to prevent bone malformations like rickets in children are not optimal to counter a host of serious ailments that are now linked to low vitamin D levels.

To be sure, not all medical experts are convinced of the need for or the desirability of raising the amount of vitamin D people should receive, either through sunlight, foods, supplements or all three. The federal committee that establishes daily recommended levels of nutrients has resisted all efforts to increase vitamin D intake significantly, partly because the members are not convinced of assertions for its health-promoting potential and partly because of time-worn fears of toxicity.

This column will present the facts as currently known, but be forewarned. In the end, you will have to decide for yourself how much of this vital nutrient to consume each and every day and how to obtain it.

Where to Obtain It

Through most of human history, sunlight was the primary source of vitamin D, which is formed in skin exposed to ultraviolet B radiation (the UV light that causes sunburns). Thus, to determine how much vitamin D is needed from food and supplements, take into account factors like skin color, where you live, time of year, time spent out of doors, use of sunscreens and coverups and age.

Sun avoiders and dark-skinned people absorb less UV radiation. People in the northern two-thirds of the country make little or no vitamin D in winter, and older people make less vitamin D in their skin and are less able to convert it into the hormone that the body uses. In addition, babies fed just breast milk consume little vitamin D unless given a supplement.

In addition to fortified drinks like milk, soy milk and some juices, the limited number of vitamin D food sources include oily fish like salmon, mackerel, bluefish, catfish, sardines and tuna, as well as cod liver oil and fish oils. The amount of vitamin D in breakfast cereals is minimal at best. As for supplements, vitamin D is found in prenatal vitamins, multivitamins, calcium-vitamin D combinations and plain vitamin D. Check the label, and select brands that contain vitamin D3, or

cholecalciferol. D2, or ergocalciferol, is 25 percent less effective.

Vitamin D content is listed on labels in international units (I.U.). An eight-ounce glass of milk or fortified orange juice is supposed to contain 100 I.U. Most brands of multivitamins provide 400 a day. Half a cup of canned red salmon has about 940, and three ounces of cooked catfish about 570.

Myriad Links to Health

Let's start with the least controversial role of vitamin D — strong bones. Last year, a 15-member team of nutrition experts noted in *The American Journal of Clinical Nutrition* that “randomized trials using the currently recommended intakes of 400 I.U. vitamin D a day have shown no appreciable reduction in fracture risk.”

“In contrast,” the experts continued, “trials using 700 to 800 I.U. found less fracture incidence, with and without supplemental calcium. This change may result from both improved bone health and reduction in falls due to greater muscle strength.”

A Swiss study of women in their 80s found greater leg strength and half as many falls among those who took 800 I.U. of vitamin D a day for three months along with 1,200 milligrams of calcium, compared with women who took just calcium. Greater strength and better balance have been found in older people with high blood levels of vitamin D.

In animal studies, vitamin D has strikingly reduced tumor growth, and a large number of observational studies in people have linked low vitamin D levels to an increased risk of cancer, including cancers of the breast, rectum, ovary, prostate, stomach, bladder, esophagus, kidney, lung, pancreas and uterus, as well as Hodgkin's lymphoma and multiple myeloma.

Researchers at Creighton University in Omaha conducted a double-blind, randomized, placebo-controlled trial (the most reliable form of clinical research) among 1,179 community-living, healthy postmenopausal women. They reported last year in *The American Journal of Clinical Nutrition* that over the course of four years, those taking calcium and 1,100 I.U. of vitamin D3 each day developed about 80 percent fewer cancers than those who took just calcium or a placebo.

Vitamin D seems to dampen an overactive immune system. The incidence of autoimmune diseases like Type 1 diabetes and multiple sclerosis has been linked to low levels of vitamin D. A study published on Dec. 20, 2006, in *The Journal of the American Medical Association* examined the risk of developing multiple sclerosis among more than seven million military recruits followed for up to 12 years. Among whites, but not blacks or Hispanics, the risk of developing M.S. increased with ever lower levels of vitamin D in their blood serum before age 20.

A study published in *Neurology* in 2004 found a 40 percent lower risk of M.S. in women who took at least 400 I.U. of vitamin D a day.

Likewise, a study of a national sample of non-Hispanic whites found a 75 percent lower risk of

diabetes among those with the highest blood levels of vitamin D.

Vitamin D is a fat-soluble vitamin that when consumed or made in the skin can be stored in body fat. In summer, as little as five minutes of sun a day on unprotected hands and face can replete the body's supply. Any excess can be stored for later use. But for most people during the rest of the year, the body needs dietary help.

Furthermore, the general increase in obesity has introduced a worrisome factor, the tendency for body fat to hold on to vitamin D, thus reducing its overall availability.

As for a maximum safe dose, researchers like Bruce W. Hollis, a pediatric nutritionist at the Medical University of South Carolina in Charleston, maintain that the current top level of 2,000 I.U. is based on shaky evidence indeed — a study of six patients in India. Dr. Hollis has been giving pregnant women 4,000 I.U. a day, and nursing women 6,000, with no adverse effects. Other experts, however, are concerned that high vitamin D levels (above 800 I.U.) with calcium can raise the risk of kidney stones in susceptible people.

The rise of hatred in Europe

WILL HUTTON

This year, the Asian Cup was pock-marked by an ugly racism. The Japanese football team was consistently and extraordinarily abused by Chinese fans. Racist chants during the final went unheeded by 12,000 Chinese police and security forces.

Besides this, events in Madrid's Bernabeu stadium, where part of the Spanish crowd at last Wednesday night's fixture monkey-chanted at England's black players, look rather less extraordinary.

There is a new and ugly sentiment abroad and it's not just in Europe. In Asia, Russia and even the U.S., despicable prejudices about "the other" held by the majority of the indigenous population are never far from the surface, but after a period of decline and apparent cultural agreement that they are unacceptable, they are re-emerging.

But the larger question is why the feelings are there and why they seem to be mounting in so many EU member states. Spain accepts five times more immigrants than Britain; Madrid's booming economy has needed its immigrant population to quintuple to 14 per cent over the last four years. But anti-campaigners warn that racist reactions are less and less subterranean. Spain is not alone.

In France, especially in Corsica, racist and anti-semitic attacks are on the rise; there have been more in the first nine months of this year than in the whole of 2003.

But it is Belgian and Dutch societies which are most convulsed by racism. Both have large Muslim populations concentrated in their ports of Antwerp and Rotterdam but now spreading be-

yond; a simmering racist reaction has been raised to fever pitch by the murder of film-maker Theo van Gogh by an Islamic fundamentalist.

Racist acts against Muslims are growing explosively, reciprocated by Muslim death threats against prominent politicians; Belgian socialist Mimount Bousakla, who criticized senior Muslim figures for not condemning the murder, is in hiding while Dutch conservative Geert Wilders, who wants the closure of radical mosques and a ban on non-Western immigration while better education and employment opportunities for Muslims are found, is under permanent police protection.

Immigrant and indigenous Dutch and Belgians are redrawing the moral circle to exclude the "other." Opinion poll support for parties and politicians claiming to speak honestly about the situation — in other words, those who say that Muslims are the problem — is climbing to new highs. It is a tinderbox.

The question is what to do about it. Part of any response must be to tackle rootlessness, fragmentation and disassociation, which is easier said than done in societies where geographical mobility is rising and mass employment in manufacturing, once a fundamental underpinning of community and neighbourhood, is declining with deindustrialization.

Globalization and the rapid pace of change are removing the anchors of societies; rapid immigration of the type seen in Holland, Belgium and Spain only adds to the brew. The exposed and marginalized communities in host societies feel under threat; they respond by putting up a moral fence against the outsider, the threatening, free-riding "other."

And if the "other" is part of the same race and culture as the targets of the "war against terror," then there is further legitimization of rank prejudice. Here, some strains of radical Islam have raised the temperature by effectively excluding non-Muslims from their moral circle, in some cases even appearing to endorse the beheadings and revenge killings we have witnessed in recent months. White and Islamic racism clash head to head; the result is a potential calamity.

Majorities on both sides of the divide must resist the pressure to join the closing moral circle. Protestant and Catholic extremists in Northern Ireland have touched depths of inhumane depravity in their long war, as have Basque and Corsican separatists; majorities in Britain, France and Spain have understood that the depraved, quasi-racist behaviour of extremists is not representative of all Northern Irish Catholics and Protestants, Basques and Corsicans. But then they were white. Precisely the same rule applies to Muslims.

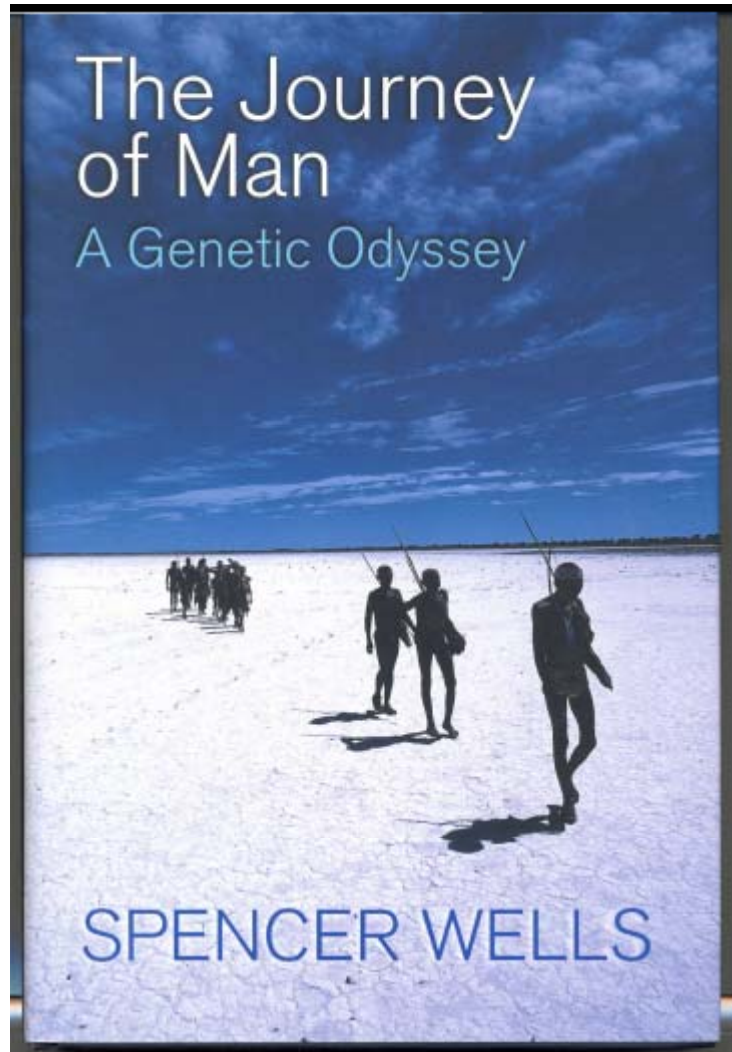
We cannot allow there to be any cherry-picking about who falls inside and outside our moral circle; monkey chants at black footballers are as dangerous as Nazi insignia on synagogues or accusations that Islam is a religion disposed to murder.

Every individual warrants moral respect; any qualification can only challenge that general truth. Down that route lies perdition. European societies, our own included, are being put to the test, as are others worldwide. Europe must not be found wanting again.

Will Hutton is a columnist with The Observer, London.

The Journey of Man

A Genetic Odyssey



SPENCER WELLS