

sci.anthropology.paleo: Re: Is the AAH a legitimate hypothesis? Of course it is.

Re: Is the AAH a legitimate hypothesis? Of course it is.

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From: Rich Travsky (_at_hotmMOVEail.com)

Date: 01/20/05

Date: Wed, 19 Jan 2005 22:49:46 -0700

Algis Kuliukas wrote:

> > *Rich Travsky wrote:*

> > > *Algis Kuliukas wrote:*

> [...]

> > *At Kabara the gorillas seemingly enjoy the sun when it*

> > *appears. Their reaction is often immediate: they roll onto their*

> > *backs, spread their arms above the head or to the side, and expose*

> > *their chests to the rays. I've observed animals lie in the direct sun*

> > *for more than two hours, with beads of sweat forming on their upper*

> > *lip and rivulets of it running down the chest.*

> >

> > *The sweating that developed in humans is built upon a feature already*

> > *present and supplemented, as the savanna chimps illustrate, by ways*

> > *of finding other water sources.*

>

> *It's interesting that when a gorilla sweats in a tropical rainforest*

> *habitat, it's evidence that human sweat cooling must have happened in*

> *dry open habitats, but when humans sweat in humid conditions... it's*

> *also evidence it evolved in dry open habitats. And yet both PD and BK*

> *have argued that sweat cooling only works in arid habitats.*

Apes don't depend on eccrine sweating/thermoregulation as much as humans do. It's a matter of degree, not kind. That's why I said it developed in humans from something pre-existing.

> [...]

> > *As has been pointed out in another post in the thread, do not equate*

> > *water sources only with large bodies of water.*

>

> *Of course not but if it's a choice between drinking from a fresh water*

> *river or digging down in a metre of earth to suck mud, I know which I'd*

> *choose.*

Your choice is irrelevant. *You* have no role in this, early hominids do and you make yet another mistake in assuming they'd have the same likes and dislikes that you would. A river may not be available; go

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back and re-read how the savanna chimps deal with it.

> [..]

> > > *Exactly. That's one reason why sweat cooling would act as a great*

> > > *adjunct to going for a dip. If the river's got crocs in there,*

> *we'll*

> > > *sweat it out for an hour until we've thrown in some rocks to scare*

> *them*

> > > *off, otherwise we're in for a dip.*

> >

> > *Oh puhleeze. Wait an hour and THEN decide to throw some rocks? And*

> *THAT'S*

> > *supposed to scare them off the crocs???? It ain't just crocs, lions*

> *etc*

> > *also show up at water holes because other animals need to drink too.*

> *But*

> > *thanks for the sig line contribution.*

>

> *No. Why do you have to always deliberately misrepresent what I'm*

> *saying? I didn't say wait around an hour THEN throw rocks, I was*

> *suggesting that it might take an hour of careful rock throwing to move*

> *the crocs away.*

That's not the way your statement reads to me and your "explanation" is no improvement. An HOUR of throwing rocks???? Wow, that's a LOT of rocks. How many per minute you think it would take? What size? Where did those rocks come from? Weere they already there, or did they carry them over? Is this a part of Archimede's throwing "theory"? You know, that many rocks kinda negates that flat waterside bipedal environment you're often refering to...

> *If there were terrestrial predators around then that would, clearly, be*

> *a different problem. They'd have to climb trees or, maybe, go into the*

> *water to escape them. If both crocs and terrestrial predators were*

> *present, then that would be really tough.*

Another sig is born.

> *Are you suggesting they'd be any safer out on the open savannah?*

Water sources draw and thus concentrate predators. Savanna chimps seem to do ok, tho...

> > > [...]

> > > *Not an extreme position. It's a very real set of dangers that other*

> > > *animals are also aware of.*

>

> *Yes but we're a bit smarter than most other animals, aren't we? We*

> *clearly overcame those problems.*

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Kinda like finding other sources of water, eh?

> > > [...]

> > *Again you think the only water sources are large bodies of water.*

>

> *No I'm not. But they're clearly by far the safest bet.*

Actually, you are. How many times have you even mentioned other sources of water?

> [..]

> > > *Which changes nothing. "not an aquatic ape". No "special evolutionary*

> > > *forces".*

> > >

> > > *Pick the words out that support your pre-conceived notion if you like.*

> >

> > *Those words are not any part of a "pre-conceived notion", there're a part of the conclusion.*

>

> *You take her conclusion (her interpretation) but ignore the facts she's using to base that interpretation on. All I'm arguing is that Pond says humans are fatter than primates. You're claiming that her explanation of that, through sexual selection, answers the problem. it doesn't.*

Why not?

> > > *But Pond's clearly reporting that humans are fatter than apes. The question is: Why? You don't even want to accept it's a valid question.*

> >

> > *How many primitive cultures throw their babies into the water?*

>

> *Zero. What has this got to do with anything? Misrepresenting my argument again?*

Then baby fat has nothing to do with the water.

> > > *[snipped again – why keep doing this, Rich?]*

> >

> > *Because you're not accepting the that fat has nothing to do with any preconceived notion of aquaticness.*

>

> *No I'm not accepting it. It makes most sense in that setting. How many savannah dwellers are fat, Rich?*

Steoptygia anyone? Food supplies can be seasonal. Makes sense to pack it on when you can. See bottom of the post about zoo animals...

> > > > [...]

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- > > *Our ancestors wandered all over Africa (australopiths ranged from*
- > *South*
- > > *Africa to Chad – and not by swimming), Asia, and later Europe. Food*
- > *was*
- > > *not always to be at hand. The ability to store energy in the form of*
- > > *fat is a decided advantage.*
- >
- > *So food was only a problem for Homo sapiens, and no other savanna*
- > *animal?*

I said australopiths, not homo. And what do other animals have to do with that?

- > > > *What about human infants? They're not fat because of exposure to*
- > > > *over-eating. They're *born* fat. Why should that be?*
- > >
- > > *Because fat is stored energy to help the baby survive – not to swim.*
- >
- > *Why's that, Rich? How long would a baby survive without it's mother, no*
- > *matter how fat it was? Why do no other primate infants need this stored*
- > *energy? It's just special pleading again.*

If food supplies are lean, then the mother will not be able to reliably nourish the baby – guess what, fat is stored energy... no special pleading again.

- > [...]
- > > > *Hominids *walked* across the Africa (australopiths are found from*
- > > > *southern Africa to Chad) unless you think they swam or waded.*
- > *There*
- > > > *would've*
- > > > *been areas of little to no food so fat deposits would've been an*
- > > > *aid...*
- > > >
- > > > *So you accept that humans *are* fatter than other primates after*
- > *all!*
- > > > *Funny. I thought a moment ago you were arguing against the idea.*
- > *Funny*
- > > > *how the explanation of the trait has such a profound affect on your*
- > > > *willingness to accept that the trait even exists. If I argue for an*
- > > > *aquatic explanation, you try to deny that there even *is* a*
- > *difference*
- > > > *to explain. Once the savannah explanation is invoked – all's fine*
- > *and*
- > > > *dandy, 'we're fat, of course we are!'*
- > >
- > > *You must learn to read more carefully. I illustrated that aquaticness*
- > > *had no role in it. Show where I denied that humans can't get fat ->*
- >
- > *You were arguing that our fat was a phenomenon of overeating not a*
- > *human universal. Now, good, you seem to accept it *is* a human*
- > *universal. Progress.*

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Not a universal? WHERE did I say that???? Show EXACT quote:

Learn to read more carefully:

I illustrated that aquaticness had no role in it

I can see you're not only NOT making progress, you're losing ground. I showed that acquiring fat depends on such things as availability and quality of food.

> [...]
> > *Skin has to cover the muscle and it exactly matches that as shown in*
> *that*
> > *link...really now. And by saying "couldn't have much more skin there*
> *or our*
> > *grip would be impeded" you recognize that it's not really for*
> *swimming –*
> > *else there'd be more, eh?*
> >
> > *And how many chimps hands have you actually examined?*
>
> *Only in photos and in zoos. I think it's a pretty obvious, if very*
> *minor, point.*

Obvious what? That it has nothing to do with aquaticness again because too much muscle and skin would work against the grip? Agreed.

> [...]
> > > [...]
> > > *... but they still can't swim as well as we do!*
> >
> > *Irrelevant. Let's see a chimp do a marathon.*
>
> *Absolutely relevant. I accept that humans are better at endurance*
> *running than chimps and guess what, I think it's the result of*
> *selection. Do you? Or do you think it's just because we're smarter than*

Why would endurance have ANYTHING to do with smartness????

> *they are? We're better on land than they are, they're better in trees*
> *than we are – both due to natural selection. Why is it that our clear*
> *advantage over them in water is not similarly explained?*

We can dance and do gymnastics too – a whole range of body motions chimps can't do. Could it be we generalists?

> [...]
> > > *Swimming is one of the standard modes of animal locomotion through*
> *one*
> > > *of the basic substrates on the planet.*
> > > *Dancing and gymnastics, and riding bicycles and playing musical*

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- > > > *instruments are cultural phenomenon.*
- > >
- > > *What you miss is that our body build lets us do all those activities*
- > -
- > > *hence, there's nothing special about swimming.*
- >
- > *Special pleading.*

Only on your part. How do you explain why we can all those things with the same body? And while you're at it explain why swimming is not a MAJOR means of getting around for us? Unless you want dredge up Marc's nonsense about herds of hominids floating around from island to island breathing through their snorkel noses....

- > [...]
- > *No it's not. If it were sexual selection you'd get some clear sexual*
- > *dimorphism, as with proboscis monkeys. In human you don't. Special*
- > *pleading.*

Sexual selection does not have to result in dimorphism. AA special pleading to insist it would. Neoteny – recall the chimp embryo link?

Here's a nice page of interesting bits:

<http://www.neoteny.org/a/femalesexualselection.html>

For space's sake I'll just show an excerpt (plenty on that page, search on the string "neoten" which will get all occurrences):

Here we report the results of asking subjects to choose the most attractive faces from continua that enhanced or diminished differences between the average shape of female and male faces. As predicted, subjects preferred feminized to average shapes of a female face. ... Subjects preferred feminized to average or masculinized shapes of a male face. ... These results indicate a selection pressure that limits sexual dimorphism and encourages neoteny in humans.” (Perrett DI, Lee KJ, Penton–Voak I, Rowland D, Yoshikawa S, Burt DM, Henzi SP, Castles DL, Akamatsu S (1998) Effects of sexual dimorphism on facial attractiveness. *Nature* 94 (6696): 884–7)

"limits sexual dimorphism" (!)

- > > > *Fine, but adult chimps don't look like that. I don't see the point*
- > *of*
- > > > *your argument here.*
- > >
- > > *You do but don't want to admit it. Of course *adult* chimps don't*
- > *look*
- > > *like that. But this is how sexual selection would operate – mates*
- > *with more*
- > > *juvenile features would be preferred.*

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>

> *Special pleading.*

> *From *you*. See above excerpt.*

> [..]

> > *The 'sagittal keel' is a characteristic of some He heads, I*

> *believe.*

> >

> > *Flipping through my copy of "From Lucy to Language" and looking*

> *online here*

> > *and there (ex*

> <http://www.talkorigins.org/faqs/comdesc/images/hominids2.jpg>)

> > *one will be hard pressed to show that. In fact, you'll note that you*

> *have*

> > *to go to the more robust australopithecines to get much of a keel...*

>

> *I'm looking at images of He (Bodo, Sangiran 4, Sangiran 17 and*

> *Zoukoudian) and Arch Hs (Broken Hill 1) – all have degrees of sagittal*

> *keels. Mark Collard introduced us to the idea at UCL, although, of*

> *course, he didn't offer an aquatic explanation for them. I suspect*

> *again, if an aquasceptic says that He had sagittal keels, though,*

> *suddenly you'll have no problem with accepting the idea.*

Sangiran 17 – no keel.

http://www.msu.edu/~heslipst/contents/ANP440/images/Sangiran_17_front.jpg

<http://www.science.mcmaster.ca/geo/research/age/skull.htm>

Solo 6 – no keel

http://www.msu.edu/~heslipst/contents/ANP440/images/Solo_6_langle.jpg

Bodo – what keel?

<http://www.hofesh.org.il/articles/science/erectus-15-bodo-skull.jpg>

Zhoukoudian – all but *gone*

http://www.msu.edu/~heslipst/contents/ANP440/images/Weidenreich_front.jpg

http://www.msu.edu/~heslipst/contents/ANP440/images/Zhoukoudian_XII_front.jpg

Ergaster – no keel

http://www.msu.edu/~heslipst/contents/ANP440/images/KNM_ER_3733_front.jpg

ETCETERA

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Collard didn't offer an aquatic "explanation" because he knows the keel is an anchor point for jaw muscles – nothing more – and that the "keel" just resembles the structure on a ship but NOT the function.

> > > [...]

> *Have you ever swam with your eyes open looking ahead of you in the water? Your nose is at the front.*

I don't know how to swim. Not that it matters – you just took first prize for special pleading. What's BEHIND the nose? A flat face. Bow effect lost.

> [...]

> > > *You're missing the point. You want the hair line to be the result of*

> > > *us*

> > > > *looking down in the water (lord knows how many hours a day THAT would*

> >

> > *How many hours a day????*

>

> *I don't know. *Some*. More than chimps did.*

Not "some" – A LOT. Completely unsupportable. Quit using it unless you can work it out. (there goes another one)

> > > > *require for some evolutionary effect), but the beard doesn't follow*

> > > > *that principle.*

> > >

> > > *It does if you invoke the concept of costly signalling and sexual selection.*

> >

> > *Odd, yet that's exactly what we have, isn't it? Like antlers, peacock's*

> > *tails, plumage, manes, etc. The cost must not be that high.*

>

> *As it must causes some extra drag in water then there clearly is some cost.*

Again – HOW MUCH TIME IN THE WATER for this to be the remotest of factors????????

> > *You appeal to sexual selection here and just above claim "costly signalling" against it...*

>

> *Costly signally is an argument for sexual selection, Richard, not against it.*

Then make up your mind.

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> > > [...]
> > *Reduction of hair and sweat cooling go together. Surface area and exposure.*
> > *The hairline exposures the face for social reasons – reading and showing*
> > *emotion. Since we live on land, and are social creatures, which is more*
> > *likely as a reason?*
>
> *This is a false dichotomy. It's not that *either* we swam *or* we were social creatures. Clearly, we did swim, we do swim, we were social creatures and we *are* social creatures. Both.*

So how much TIME IN THE WATER for this to be even significant???? And then compare that with the amount of time spent in social interactions. Care to predict the VERY lopsided ratio to come out that??? (there goes another one)

> > > *One of my fellow students at UCL (an aquasceptic, of course, I might*
> > > *add!) told me the story. Her 'mates' shaved her eyebrows off once for a*
> > > *stunt and it affected her swimming and her experiences of taking a*
> > > *shower.*
> >
> > *Wow. One whole data point.*
>
> *Yes, One–nil.*

No, one against 5 or 6 billion–plus for social interaction...

> > > *You showed that they might descend their larynx whilst screeching,*
> > *not*
> > > *that they might do it to mouth breath during locomotion.*
> >
> > *So you add locomotion now as a condition...you have a habit of moving*
> > *the*
> > *goalposts don't you? As evidenced by a pair of monkey species that DO*
> > *swim, this pleading about the descended larynx amounts to nothing.*
>
> *Well swimming is a form of locomotion and my argument, you might have*
> *noticed, is that mouth breathing is best explained as a swimming*
> *adaptation.*

Huh? Quick experiment. I just took a few open mouthed breaths while sitting at my keyboard. Hmmm. No water around. How much time in the water would be needed to produce this hmmm?

> *As for the swimming primates, it's a good objection. I'd want to some*
> *evidence showing how long they'd swam compared to sister taxa that*
> *didn't and some comparative data on the position of the larynx in those*

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- > *species compared to sister taxa that do not swim. If they've been*
- > *swimming for a significant period of time and there's no difference in*
- > *the larynx then you can take this as evidence against the 'Descended*
- > *Larynx for Mouth Breathing whilst Swimming Hypothesis.'*

How long? Allen's swamp monkey – long enough and constant enough to actually have an adaptation to show for it:

http://members.tripod.com/uakari/allenopithecus_nigroviridis.html

...

Between the fingers and the toes there is webbing to assist in swimming (Rowe, 1996).

...

This is material you should have come across LONG before now.

- > [..]
- > > > *Well, it would be a prediction of the 'speech though*
- > *swimming–induced*
- > > > *'fine breathing–control' hypothesis that any regularly swimming*
- > *primte*
- > > > *should exhibit finer breathing control than sister taxa that had no*
- > > > *such aquatic exposure. I'm not sure how one might test it though.*
- > >
- > > *So you can't claim it as part of the AA argument. There goes another*
- > *one...*
- >
- > *No it doesn't. Until the data arises as argued above, it's still open.*

"speech though swimming–induced fine breathing–control" – when proboscis, allenopithecus, macacas, talapoins, whatever, start to show vocal language skills like humans, let us know.

- > [..]
- > > > > *My dog can swim and wade. My dog is aquatic! Two out of three!*
- > > >
- > > > *If most breeds of dog were poor in water whilst yours was a good*
- > > > *swimmer wouldn't it be reasonable to conclude that the difference*
- > *was*
- > >
- > > *Didn't say he was good – and I meant my former now dearly departed*
- > *dog.*
- > >
- > > > *due to some kind of selective breeding? Or would you just argue –*
- > *hey,*
- > > > *my dog can do lots of things, it can't be due to selective*
- > *breeding,*
- > > > *it's just a smart dog.*
- > >
- > > *Most mammals (if not most animals) can swim if they need to.*
- >

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> *You didn't answer the question.*

I did. Since most animals can swim if needed, neither smartness nor selective breeding must be a factor.

> > > *And proboscis and swamp monkeys do all three!*

> > >

> > > *Then, compared to most primates, perhaps we need an aquatic monkey*

> > > *hypothesis too.*

> >

> > *Why? Aren't they doing most of everything needed by AA – but without*

> > *the results?*

>

> *As I said, if there is data that they've regularly swam for an*

> *evolutionary timescale (e.g. 5my) and sister taxa have not and there's*

> *no difference in their phenotypes then this would be good evidence*

> *against the AAH.*

See above re allenopithecus.

> > > *What's your problem with the idea that there are some differences*

> > > *between humans and the rest of the ape clade and most of the*

> *primate*

> > > *clade, in our abilities in water and that they might, shock horror,*

> *be*

> > > *due to some mild selection? Why is this prospect so appalling?*

> >

> > *We haven't any aquatic traits – a tough sell.*

>

> *Delusional. We're naked and fat to name but two. How many savannah*

> *animals are like that?*

When did nakedness and fat become solely aquatic traits? How much hair do elephants have? Or rhinos? How many fat humans in savanna lifestyles? Wouldn't a gazelle get fat if it had access to lots of food and didn't get to exercise? Say, diet management in zoos! Check this out (scroll down):

<http://www.people.com.cn/english/199907/09/chnmedia.html>

...

Date: 07/09/99

Xinhua News Agency

Chinese Zoo Puts Obese Animals on Diet

A Chinese zoo has successfully put its overweight carnivorous animals on a partially vegetarian diet to make them slim down over the past seven months.

More than 10 carnivorous animals, including tigers, lions and leopards, at the Hefei City Zoo in Hefei, capital of east China's Anhui Province, are now adapted to the new diet, of which, 80 percent is meat and the other 20 percent is vegetables, and they have lost weight by an average

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4 to 6 percent.

Obesity in captive carnivorous animals has become a thorny problem to an increasing number of zoos over the world, and in the Hefei City Zoo, most carnivorous animals had grown fat because of the rich diet of pure meat and lack of exercise, noted Wu Zhi'an, head of the zoo's general management section.

"Some of them even developed a beer gut and rolls of fat on their bottoms and walked falteringly," Wu said.

...

Saaaayy – aren't those savanna type animals? And they had ready access to food and no exercise... wow! THEY GOT FAT!!!! SAVANNA ANIMALS GOT FAT! Now go back up the post and consider Pond's study in this light...

> > > *It would appear that those movements aren't*
> > > *compelling...*
> > >
> > > *Not at all.*
> >
> > *If they were, then explain why proboscis and swamp monkeys doing*
> > *all three does not produce the results you claim it did for humans...*
>
> *Ok.*
>
> *1. Allen Swamp Monkeys are 11x (male) – 14x (female) smaller than*
> *humans, therefore body hair, rather than fat, acts as a significant*
> *buoyancy aid. Proboscis monkeys are 3.3x (male) – 5.5x (female) smaller*

This does not look like a buoyancy aid:

http://members.tripod.com/uakari/allenopithecus_nigroviridis.html

> *than humans. This effect is not so great but, I suspect, it's still*
> *sufficient to select body hair for buoyancy rather than fat. Their*

So when did our ancestors "get fat"? 2mya? 4mya? When?

> *smaller size also vastly reduces the depths of water at which bipedal*
> *wading is a better option than swimming.*

So? It's a relative thing.

> *2. Both these primates live in densely wooded habitats, whereas humans*
> *probably have not done so for for about 2Ma. This (guarding against*
> *abrasion) also acts as a major factor to retain body hair. I suspect*

It's major? Chimps and gorillas live in "densely wooded habitats" and their hair is much reduced in comparison. And those swellings on chimp females!

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- > *the earliest hominid bipedal ancestors that, perhaps, lived in similar*
- > *habitats were also hairy and not fat but being larger, there'd be a*
- > *greater range of depths where bipedal wading was advantageous over*
- > *swimming.*
- >
- > *3. I do not know which species of primate would be considered a sister*
- > *taxon of proboscis monkeys or Allen swamp monkeys but both nasalis and*
- > *allenopithecus appear to be single species genera. To compare them to*
- > *humans and chimps we need to find sister taxa which are separated from*
- > *them by around 5–7Ma that do not swim and make comparisons there. Until*
- > *we do that, it's just not a valid comparison with humans and chimps.*

Special pleading...