

# Re: A critique of the BBC aquatic ape programme and the transcript.

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*Source:* <http://sci.tech-archive.net/Archive/sci.anthropology.paleo/2005-07/msg00335.html>

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- *From:* "Lee Olsen" <paleocity@xxxxxxxxxxxx>
  - *Date:* 19 Jul 2005 07:57:53 -0700
- 

Marc Verhaegen wrote:

> "Lee Olsen" <paleocity@xxxxxxxxxxxx> wrote in message  
> [news:1121443327.666435.147750@xx](mailto:news:1121443327.666435.147750@xx)

>  
> (sorry, in a hurry)

>  
>  
>>> Starting points: IMO the real hard evidence on our past is our  
>>> behaviour, physiology, anatomy & DNA (compared to other mamals), which  
>>> IMO leave no doubt that our ancestors once (after the H/P split) were  
>>> littoral & until very recently still waterside. You think bones & stones  
>>> are hard evidence of our past, but IMO these are just (sometimes poor)  
>>> indications of how these populations lived there.

>  
>> Poor indications are better than none at all, those become the null.

>  
> Yes, but our anatomy, physiology, behaviour & DNA is not poor at all. It's  
> extremely rich, but unfortunately insufficiently used by paleontologists &  
> archeologists (because these scientists' work is to dig, not to study  
> anatomy).

Quite the contrary (besides being multi-disiplinary). In order to find early human fossils at all, mostly done by careful survey (until one is found, then the digging starts) amongst thousands of other surface bones, one has to know skeletal anatomy very well.

>  
>  
>  
>  
>  
>> The LCA ancestor wasn't the issue. I clearly stated: "It seems like soon  
>> after the LCA there would be a period of time where the creature on our

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>> branch would be indistinguishable from something like a chimp." AFTER  
>> being the key word.  
>  
> I fully agree with this. But what is your point?

MV: "No, no: this is a common mistake."

It wasn't a mistake.

>  
>  
>  
>  
>>>>> And those meet your definition by the traits you gave. This is fine  
>>>>> for 2.4 My ago. It is not fine for ~6 My ago. You don't know if any  
>>>>> of the traits you listed (H features were, eg, thick enamel, low  
>>>>> ilia, flatter feet, 5 lumbar vertebrae, no very long arms, absence of  
>>>>> KWing...) were in place at ~6 My.  
>  
>>>>> See  
>>>>> [http://allserv.rug.ac.be/~mvaneech/Fil/Verhaegen\\_Human\\_Evolution.html](http://allserv.rug.ac.be/~mvaneech/Fil/Verhaegen_Human_Evolution.html)  
>>>>> . If you think they were not, I'd like to hear why you think that. –  
>>>>> thick enamel: most Miocene apes  
>  
>>>>> Most Miocene apes? Later variation shows this information doesn't help  
>>>>> much.  
>  
>>>>> Later variation? you mean thick & superthick enamel?  
>  
>>>>> No. I'm talking about how quickly enamel thickness can change (in a  
>>>>> relative or derived sense). Chimps and gorilla both have thin enamel (you  
>>>>> say chimps intermediate) compared to us. G & P are closer to us than  
>>>>> "Most miocene apes," which means comparative data of most Miocene apes is  
>>>>> irrelevant.  
>  
>>>>> Miocene apes are not irrelevant at all: G & HP and possibly even H & P split  
>>>>> during the \*Miocene\*! Orrorin, eg, was a \*Miocene\* ape with thick enamel,  
>>>>> and it had everything to be an ancestor of P as well as of H.

We are genetically closer to P & G. Yet our enamel thickness is  
closer to  
Pongo. This is contradictory to what you are arguing.

Paragraph title from Verhaegen (2002:213): "Were australopiths wetland  
waders?"

<http://www.archaeologyinfo.com/australopithecusrobustus.htm>  
"The increase in postcanine tooth size includes an increase in enamel  
thickness, and while this has been interpreted in various ways, the

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idea that robustus was an herbivore/frugivore that subsisted on hard gritty nuts and plants (J.T. Robinson's dietary hypothesis) seems to be in serious doubt, with an eclectic omnivorous diet seems to be more likely due to recent work determining low strontium/calcium ratios, and C4 contribution (likely from eating grazing animals)."

C4 is more conducive to savannah than wetland.

>

>

>

>

>> You cannot have it both ways. If KWing is proof of adaptation, then so is

>> tooth– enamel thickness or else you have oranges closer to us.

>

> No, no: evolution is mosaic: some features change, some remain.

Yes, yes, I agree. But you simply can't cherry–pick though all the derived features that meet your forgone conclusion and reject as adaptations those that falsify your thinking. Picking one side of an argument that is in dispute (in the literature) and citing that side as fact and ignoring the other side because it conflicts with your opinion is omission, not evidence.

>

>

>

>

>>>> We have to discern between an IMO extremely well–established theory  
>>>> based on our anatomy & behaviour (AAT = our ancestors were littoral  
>>>> once) & different detailed hypotheses about how & where exactly this  
>>>> could have taken place. We know that Homo fossils & tools are  
>>>> "suddenly" (due to geological processes? eg, sea level changes?) found  
>>>> in Algeria, Iran, Java, Georgia, Kenya & other places ~1.8 Ma. These  
>>>> places were coastal or lay near large paleo"lakes" (R.Dennell 2003 JHE  
>>>> 45:421).

>

>>>> Sterkfontein, Swartkrans, and Kromdraai do not seem to be associated  
>>>> with large lakes or seas (but I will check).

>

>>> Well possible: these apiths have nothing to do with Homo evolution.

>

>> Yep, so even if apiths could be proven to be waders and swimmers, it would  
>> prove nothing about Homo evolution (in the Indian Ocean) except that the  
>> wading/swimming lifestyle leads to an evolutionary dead–end :-).

>

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> ?? dead end? and what about us?

You defined \*us\* as a line, Homo.

why can we dive & chimps can't? why our  
> reduced olfaction? etc.etc.

Chimps can't talk either, I doubt that our vocal cords developed  
underwater.

>

>

>

>>> StF was (gallery?) forest

>>> <http://allserv.rug.ac.be/~mvaneech/outthere.htm> ; SwK & KrD were

>>> wetlands with reedbeds (parrots etc.).

>

>> Your citation said: "These places were coastal or lay near large

>> paleo"lakes" (R.Dennell 2003 JHE 45:421)." Yep, just as I suspected, not

>> coastal or large paleo lakes. Thank you.

>

> You're not following I'm afraid:

> – StF etc. is about apiths.

What is StF etc.?

> – Dennell is about Homo.

Homo= The Lake Baringo hominids and hand-axe site were found on a  
plateau 6 km from the lake (Leakey 1969). Not exactly seaside or  
large-lake side. Same for Olororgesailie, Olduvai. A lake in the vicinity  
doesn't prove Homo was living anywhere near it.

>

>

>

>

>

>>> Do you believe they didn't ate coconuts there??

>

>> Not before there is hard evidence of them eating savannah based Bovids.

>

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> Orangs eat nuts...

And 399 other things.

>

>

>

>

>

>> I see no reason why chimps can't be trained to dive and hold their breath.

>> When you show me a chimp that can kick a 63-yard-field goal, I will show

>> you one that can dive 30 meters.

>

> :-D

> - Fr.deWaal: apes are excellent throwers.

An archer fish is an excellent thrower. You are confusing short distance accuracy with long distance accuracy. Apes are amateurs in the throwing game.

> - No ape dives.

If crocs are in the forest rivers, I can understand why.

> - Human children can swim & dive before they can walk (eg, Moken).

We play pianos today, doesn't mean we were 2 My ago.

Throwing and flintknapping require a large brain. Swimming and diving do not. So naturally babies can be trained at an early age to dive. You say chimps can't dive, but who has actually tried to train one to dive?

>

> For some reason we evolved diving skills (BTW breath hold = preadaptation to

> speech).

Some people can talk all day and not hold their breath (or even take a deep breath for that matter).

> We know early Homo 1.8 Ma lived from Algeria to Georgia to Iran to Java to

> Kenya (Dennell).

The Java date has not been corroborated. This is what I mean by picking

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one side of an argument.

> I see no reason why they had not followed the coasts to reach these places.

I see no reason they didn't follow herd animals to reach these places, there is a trail of broken bones as evidence.

> No reason why their diet would not have included sea food.

At some point that is correct. No reason we couldn't get to the arctic or the moon eventually. Doesn't mean we lived in these places in the mio/pleistocene.

Later on (during the late Acheulean ), like cattails, one would not need to get their feet wet to collect coconuts or seafoods.

> No reason why our diving skills could not have evolved there.

Can't disprove a negative.

>  
>  
>

>>> I just got started on this paper and ran into this: "Studies of dental  
>>> enamel microwear provide other details. In the early australopithecines  
>>> of Garusi–Laetoli and Hadar (*A. afarensis* 4–3 Myr BP), the cheekteeth  
>>> enamel has a polished surface and the microwear looks like that of the  
>>> capybara *Hydrochoerus hydrochaeris* and that of the mountain beaver  
>>> *Aplodontia rufa* (Puech et al., 1986). These animals are semi–aquatic  
>>> rodents that feed mainly on sappy marsh and riverside herbs, grasses and  
>>> bark of young trees." <http://allserv.rug.ac.be/~mvaneech/Verhaegen.html>

>  
> Yes, eg, M.Burton New Larousse Encyclopedia "Animal life" (the first I  
> find): p.530: *Aplodontia rufa* is a good swimmer

Labrador retrievers are good swimmers, that doesn't make them semi–aquatic as you claimed in your 2002 paper.

& lives near streams

Your encyclopedia is wrong, they are not dependent on streams in any way.

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in damp

> wooded country,

Correct.

feeding chiefly on vegetable matter.

But not waterside vegetable matter.

We think the early

> apiths could have eaten +-the same in waterside woods.

"Waterside" has nothing to do with the area that a mountain beavers select for their homes.

>

> ...

>

>>> Aplodontia rufa is not semi-aquatic, they live in holes dug into dry

>>> ground 4-8 in diameter just like big gophers.

>

> Excellent. Change "semi-aquatic" by "waterside" if you like.

I used to trap mountain beavers when I was a kid. We lived 2 ½ miles from the nearest creek and ca. 6 miles from the nearest lake. They don't require living any closer to "waterside" than a prairie dog (basically a savannah animal), they get all the water they need from the plants they eat.

The point it

> that early apiths might have eaten +- the same as capybaras &

> mountain-beavers. And that the polishing on the molar enamel in afarensis

> suggests wet plants (P-F.Puech).

Apiths could not have eaten same foods as mountain beavers because apiths never lived in the Pacific Northwest of North America.

>

>>> <http://snohomish.wsu.edu/garden/vertchap.htm> "The Mountain Beaver

>>> becomes a pest when it begins feeding in reforestation units, Christmas

>>> tree farms and home yards and gardens. It generally destroys much more

>>> vegetation than it eats. In home gardens, the Mountain Beaver is

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- > >> primarily a pest of rhododendrons. It usually damages the plants by
- > >> clipping off stems and branches, leaving 2 inch stubs. They will also
- > >> occasionally gnaw the bark from the bases of larger trees." Christmas
- > >> trees and rhododendrons are NOT aquatic plants. Conclusion: afarensis was
- > >> eating Christmas trees and rhododendrons.
- >
- > No problem if their diet included such plants (although I don't think the
- > apith environment had a lot of Christmas trees)

Exactly right, that is why apiths tooth wear can't possibly match that of mountain beavers.

- : our TREE paper argues that
- > early apiths were herbivores of aquatic & waterside vegetation.

That has nothing to do with mountain beavers.

- >
- >
- > >> 3) This has nothing to do with Homo, of course: it's about how apiths
- > >> lived: they're found in wetlands, their enamel microwear resembled that
- > >> of frugi-herbivores like mountain beavers, their broadened face +
- > >> premolar molarisation paralleled that of pandas.
- >
- > > No, not like semi-aquatic mountain beavers, that is an error.
- >
- > ?? What is an error?

- 1) Mountain beavers are not semi-aquatic.
- 2) Mountain beavers do not feed "mainly on riverside herbs"(Vehraegen 2002:214).
- 3) Therefore, if apiths have tooth polish from waterside plants, they could not have the same tooth polish as mountain beavers because neither ate/eats the same thing.

DuBrul on pandas?

What do pandas have to do with mountain beavers??

- >
- >

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> >> >> It may well be that a lot of these hypotheses will eventually appear  
> >> >> to be completely wrong, but so far nobody has been able to provide  
> >> >> sensible counter-arguments... :-)  
>  
> >> > And of course what is sensible to one worker, may not be sensible to  
> >> > another :-)  
>  
> >> Luckily I'm not responsible for the sensibility of dry savanna believers  
> >> :-)  
>  
> > Savannahs are not always dry everywhere, that is a common mistake. When I  
> > see an ostrich in a swamp, you will make a believer out of me.  
>  
> Savanna theorists believe we lost our fur to run over the plains, got  
> abundant sweat glands there, etc. This is the view I contest.  
>  
>  
> >> >>> Maybe I'm not seeing something. Is AAH taking claim for the evolution  
> >> >>> of both bipedalism  
>  
> >> >> No! Where do you get this?  
>  
> >> > All the pictures of chimps and gorillas standing up in the swamps?  
>  
> >> 1) Lowland gorillas, yes, of course, but chimps standing in swamps?  
>  
> > Probably a poor black and white reproduction, hard to tell rain-forest  
> > swamp from what he was standing in. Does it matter? Wading is wading.  
>  
> Fine, but what is the relevance to our locomotion IYO?  
> Again: AAT does not claim for the evolution of bipedalism  
> <http://www.onelist.com/community/AAT>.

OK, some AAT think one thing, others think something else. I'll wait until some consensus is reached on this matter before drawing any conclusions.

>  
>  
> >> 2) G & P can hardly be called bipedal AFAIK.  
>  
> > OK, "bipedal-like" (your words) will do, but I'm not sure why this was  
> > included in your TREE paper.  
>  
> We tried to describe the evolution of the possible diets & locomotions of  
> apes & humans.  
> We schematically discerned 3 groups:  
> a) mid-Miocene hominids-pongids (peri-Tethys? mostly durophagous frugivores?  
> swamp forests?)  
> b1) apiths (predom. herbivorous? vertical climbing-wading in swamp forests

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- > (graciles) & later wetlands (robusts?)
- > b2) Homo (littoral diaspora along Afr.& Ind.Ocean coasts? omnivorous?).
- >
- >>> 3) What is the connection to littoral Homo?? Homo is no P or G, Lee!
- >
- >> That's what I was going to ask you: then why all the references to G in
- >> your 2002 paper? G isn't Homo Marc!
- >
- > See above. If we want to know how the early hominids lived 10–5 Ma, we have
- > to work back from the living hominids (HPG).

Too many assumptions for too little evidence to suit me.

- >
- >>>> What mammal that spends a lot of time in water is bipedal IYO??
- >
- >>>> An animal that spends a lot of time standing up in the swamps? OK, I
- >>>> simply didn't have that part correct.
- >
- >>> Yes. Confusing me with Algis?
- >
- >> You made the reference to gorilla in swamps and noted what they ate there
- >> accounted for 2% of their diet. So yes, it is all a little confusing. Like
- >> you said, "Homo is no" G Marc!
- >
- > It's not confusing when you start from the evolutionary tree:
- > – H/P LCA 6–4 Ma.
- > – HP/G LCA a bit earlier.
- > – hominid/pongid LCA some 15 Ma.
- > By comparing the anatomy etc. of H, P, G etc. with other animals we can try
- > to reconstruct how these LCAs lived.
- > Fossils have to be placed somewhere in this tree as sidebranches.
- >
- >
- >
- >
- >
- >
- >>>> You have to analyse our locomotion into its elements: bipedality =
- >>>> 2-leggedness (kangaroo, birds...), long legs (heron, ostrich vs
- >>>> penguin on land), erect trunks (vs bipeds like ostriches),
- >>>> plantigrady (vs digiti- or unguligrades like all mammal cursorials),
- >>>> aligned body (vs kangaroos, bipedal dinos, birds except penguins)
- >>>> etc. Comparative arguments suggest the HPG LCA was partly bipedal
- >>>> with frequently erect trunks & possibly plantigrady. But an aligned
- >>>> body seems to have been later, and long legs are probably much later.
- >
- >
- >
- >

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>  
>  
>>>>... Other peer-reviewed anthropol.journals have no problems in  
>>>>accepting AAT papers (eg, R.Bender cs.1997 "Der Erwerb menschlicher  
>>>>Bipedie aus der Sicht der Aquatic Ape Theory" Anthropol.Anz.55:1-14).  
>>>>TREE is peer-reviewed. The PA reviewers tried to reject it, but the  
>>>>biologists managed to get it accepted. :-) AAT is a biological rather  
>>>>than an anthropological hypothesis.  
>  
>>>> Hope there is nothing on mountain beavers in the paper :-)  
>  
>>>> Have you read it?  
>  
>>>> Have now, and I think you need to correct the mountain-beaver error before  
>>>> writing another paper. One always wants to improve the product.  
>  
>>>> OK, in a next edition I'll change "semi-aquatic" by "waterside". This  
>>>> doesn't change the conclusions AFAICS.

No, you need to drop the reference to mountain beavers. Capybaras  
tooth polish may not change the conclusion as you noted, I'm not  
directly familiar with that animal.

>  
>  
>  
>  
>  
>  
>  
>  
>  
>>>> Humans do, then why do you think the chimp-orang-human LCA did for  
>>>> some reason not use tools?  
>  
>>>> OK, forgetting for the moment hard evidence is lacking:  
>  
>>>> Behavior, anatomy etc. are much harder evidence than pieces of bones &  
>>>> stones without clear relation to living animals.  
>  
>>>> IYO.  
>  
>>>> Yes IMO. But also objectively: living animals can be studied how & where  
>>>> they live, their anatomy, behaviour, DNA etc.

Times change. You don't have a clue as to where P & G were living or  
what they were doing 5 My ago.

Bones & stones OTOH are just

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> pieces of unclear relation to us or apes, without soft tissues.

And comparative anatomy is even less clear.

You vastly

> overestimate the importance of fossils etc. for reconstructing how our  
> ancestors lived. You can try to reconstruct how these fossils lived (very  
> difficult already), but then you still don't know much about our ancestors.

The null is exactly as the on-the ground-evidence dictates. Fish have two eyes, and we are not fish. That doesn't tell you much about our ancestors either.

>

>

>>> > 1) If one accepts the fact that the LCA used tools, then one could also  
>>> > argue that the LCA of the LCA also used tools. Where does this stop,  
>>> > jellyfish?

>

>>> I think you didn't follow well: orangs, chimps & humans,

>

>> You were talking about LCA using tools. Some orangs don't. You have no  
>> clue about when C&G started to use tools. What exactly is there to  
>> follow?????

>

> AFAIK, all orangs use tools.

The URL I posted says different.

And as I said: early hominids-pongids seem to

> have been durophagous frugivores (thick enamel as well as stones are for  
> hard objects).

No, stone tools make hard objects soft.

So it's not unlikely that the early hominids-pongids already

> used (stone?) tools.

>

>>> but not in hylobatids or OWMs: how far does this lead us?

>

> I'll answer my own question: presumably the hominid-pongid LCA already used  
> tools (eg, to open nuts or mangrove oysters as capuchins do).

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If tool use has such time depth, why did they fail to develop as we did. Seagulls can open clams with a rock, but they do not rely on complex tool use as we do. Same with the rest of the apes, no need, no time depth. For some reason tools dominate our lives, we can't live without them, the rest of the creatures can take them or leave them. You just don't need tools at the beach, at least anytime more complicated than a hammerstone.

>  
>>> 2) Lots of animals can be trained to use tools but do not do so in the  
>>> wild.  
>  
>> No, not \*all\* and that is the clue that it is a very recent phenomenon.  
>  
> ? These were your own words, not mine, Lee... I woun't interfere in "your"  
> discussion... ;-) I don't see the relevance to our scenario.

That's because yours is not the only scenario.  
Darwin (1871) Descent of Man: "hands and arms could hardly have become perfect enough to have hurled stones and spears with true aim, as long as they were used for supporting the body."

>  
>>> The above ones do so in the wild.  
>  
>>>> 3) Once tool use started with Homo, it was a continuous unbroken thread  
>>>> where ever Homo is found, this suggests time depth. This is not so  
>>>> even with chimps today. Some fish for termites, others make hats, but  
>>>> there doesn't seem to be much in common or fixed as in Homo's tools.  
>>>> This suggests a lack of time depth.  
>  
>>> Time depth 2.5 Ma is not far from H/P.  
>  
>> You also mentioned orang and LCA. To guess orang used tools 10 Mya when  
>> those on Borneo do not today is pretty weak. Even if one did, doesn't  
>> prove they all did, which leaves out LCA.  
>  
> (Borneo orangs don't use tools at all??)  
> H & P split ~5 ma or so. Both use stone tools today. No reason why the H/P  
> LCA would not have used tools. G could easily have lost these skills  
> (subsequent more herbivorous specialisation). At least some orangs use  
> tools in the wild. Early hominids–pongids (Griphopith), early pongids (all  
> AFAIK) & most early hominids were thick– or supertick enameled, this  
> suggests most were durophagous, IOW, likely to use tools.  
>

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> ...  
>> be etched into all their brains (as in Homo). Tool use is part of all  
>> homo, we are totally dependent on them. To try and slight this and make  
>> comparisons to P&G& orang& LCA and claim what they are doing is even  
>> remotely equivalent to homo tool use is, as you put it, a common  
>> misunderstanding.  
>  
> OK. I'm only arguing that tool use "arguments" are often relative, but I  
> don't think Olorgesaillie was not Homo.  
>  
>  
>  
>  
>  
>  
>  
>> Darwin (1871) Descent of Man: "hands and arms could hardly have become  
>> perfect enough to have hurled stones and spears with true aim, as long as  
>> they were used for supporting the body."  
>  
> In "Voyage of the Beagle" (Henry Colburn 1839) he noticed how Tahitians  
> "dive and fish like otters" and "have the dexterity of amphibious animals in  
> the water".

That was just an expression, not science.

These amphibious animals are not very bipedal... :-) Nor are  
> the chimps in zoos, who are excellent throwers.

Short distance throwers just aren't a threat to adult Homo.

>  
>>> the best tool-using mammals besides humans are sea-otters...  
>  
>> Like comparing an ant hill to the great pyramid.  
>  
> If you want to build a pyramid you have to start from the ground.

Then why didn't all the beach tool users develop further skills,  
assuming they have been continual tool-users for 10 My?

>  
>  
>  
>>> I'm counting throwing missiles as tools.  
>  
>>> In that case, P & G are excellent tool-users, see Fr.deWaal.

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- >
- >> For what? Where is his peer reviewed data???
- >
- > Ask him. His description is enough for me.

He might be a chimps watcher, but I can see he has spent little time watching modern humans throw.

- But I don't see how P being
- > throwers or tool users or not would seriously change our scenario?

You don't need complex tools at the beach, you need a hammerstone at best. You have mentioned coconuts. How do these fit into a seaside life and how do you think these aquatic apes obtained them?

- >
- >> In that case the very fact that P&G are much stronger (2X or 3X??) than we
- >> are, one would predict that they should be able to throw 200 MPH fast
- >> balls 900 feet in distance. Since they can't it means they flunk
- >> tool–anatomy and throwing 101.
- >
- > ?? You keep using these arguments (from some sport I guess?) but these don't
- > tell me anything.

You don't need to throw very far at the beach, in fact if you are diving for food, why throw at all? Distance throwing is an inland activity where you can't approach closely to weary prey. How close do you need to get to throw at a clam?

- > ...
- >
- >> Ah, I think you were the one to bring LCA into these discussions as a tool
- >> user.
- >
- > (as possible tool users)

OK, as above, seems like a dead end to large brain evolution in the swamps and at the beach. Just what you see with G today. Capuchin and sea otter tool use level is all the complexity one needs at the beach.

- >
- >> Flintknapping (is tool using) and throwing can use basically the same
- >> motion, depending on what's being done, and I think most feel that
- >> throwing started early on our line (judging by our comparative–superior

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- >> anatomy built-in for it :-) If throwing and tool using started back in the
- >> Miocene, why can't chimps, G & others touch their little finger with their
- >> thumb?
- >
- > Because their thumbs reduced of course: they became more suspensory. Humans
- > hands are generally more primitive than ape hands, eg, humans & monkeys have
- > rel.longer thumbs than apes.

Yes, standing semi-bipedal in a swamp one does not need to throw far, nor does that creature need a large brain.

- >
- >>> Throwing harpoons? And if you believe knapping=throwing, see shellfish...
- >
- >> With oysters and clams breaking is elementary and many animals can do it
- >> (even seagulls and your seaotter). I have argued on this list some time
- >> ago that to do elementary flintknapping, Kanzi (the flintknapping chimp)
- >> does not have to have opposable thumbs or a flexible wrist. Breaking open
- >> a large basalt boulder is quite a different story and takes skills not
- >> needed on the beach. Our ancestors left behind cores as large as 30
- >> pounds. This means the parent rock was considerably larger before flakes
- >> were driven off and it was abandoned. To do what Toth or our ancestors
- >> were doing simply requires skills and anatomy chimps don't have. As I
- >> said before, there is a lot more involved in spalling a large-tough rock
- >> than required to throw feces around a cage. This is reflected in our
- >> ability to throw 400 foot. By the way, the best toss for a woman is nearly
- >> 300 foot. Lets see your P&G do that.
- >
- > I don't know (don't know anything on toss & foot), but even if so (no
- > problem for me), what is your argument? Does this IYO contradict our
- > scenario, eg, in TREE??

As above, I just don't see swamp life or wading/diving generating a large brain.

- >
- >>> MV: "..... humans capable of breath-holding several minutes & diving
- >>> tens of metres deep." The man doesn't do much besides training for
- >>> diving I guess?
- >
- >>> SE.Asian sea people swim before they walk. Breath-hold diving for several
- >>> minutes is more natural to them than running & throwing. All humans
- >>> easily learn to swim & dive. Can't be said of chimps...
- >
- >> Without training, I doubt it, and particularly if no chimps have ever been
- >> through the swim-training program. Wonder why, if swimming was so
- >> important in our remote past, why we ever needed to go beyond that point.
- >> Why is our maturity time so long? It really doesn't require much of a
- >> brain to pick an oyster or a clam off the beach or dive for it. An oyster

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>> catcher or an otter can do that.

>

> Yes. You do know that it's now believed that Hn & certainly He had shorter

> maturation than Hs?

I suppose that is because he didn't have to dive for cattails?:-)

>

>> Human males, long before they can walk, also demonstrate hammering, yet

>> they have to mature for many years into developing these skills to get to

>> the adult level. Skill levels required for swimming are really elementary,

>> if you can wave your arms, you can swim.

>

> :-D A simplistic view of swimming, but I don't see your argument.

>

>> Throwing takes a much larger brain to do well.

>

> Oh, the Calvin nonsense?

Nice flame job. Care to name your papers published in the Journal of Neurophysiology?

Praying mantis throw themselves upon a prey.

> Kameleons throw their tongue on insects... Big brains those mantis.

The LCA was not a mantis.

>

> Lee, you think big brains = complex tool use?? Not impossible, but

> difficult to know, since there are no good animal models. IMO, at best,

> part of the explanation.

Out of all the many animals that use tools, ie, several birds, capuchins, apes, sea otters etc., none can throw long distance or break a rock using the principles of conchoidal fracture. We also don't have fangs for a threat as our nearest kin do. Throwing can make up for this deficiency and suggest a long history.

>

>

>>> >> d) There's no reason to omit the anatomical & behavioural evidence.

>

>>> >Well, good luck with the testing aspect.

>

>>> I think you have to see the difference between empirical & historical

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>>> sciences (eg, NC Arens 2002 "Testing hypotheses in historical sciences"  
>>> TREE 17:206). It's obvious that the anat.+behav.data prove our ancestors  
>>> did not live in dry savanna. And no fossil or archeol."testing"  
>>> disproves this.  
>  
>> Well, since it's obvious at 2.6 Mya our ancestors were living in habitat  
>> similar to a savannah (Roche 1999),  
>  
> 1) Our \*ancestors\*?? :-) Your grandgrandgrandmother? How do you know  
> this?

Don't, but since no other creature besides Homo has been proven to use  
tools understanding the principles of conchoidal fracture, it doesn't  
leave too many other suspects. Call it process of elimination.

> 2) How IYO does these people living there contradict our view in TREE?

Swamp/seaside life just doesn't require conchoidal fracture as proven  
by G in the swamps.

>  
>> there is no need to posit any other lifestyle. The facts are the null  
>> hypothesis. The burden of proof is on those who wish to change that  
>> obvious fact.  
>  
> The real facts about our ancestors are that humans have evolved features  
> that are never seen in typical savanna mammals.

Yep, conchoidal fracture is the major switch. Brawn to brains. Sad as  
it is, the 400 pound gorilla with his nasty fangs standing up in the  
swamp is just about to go the way of A. boisei.

If your savanna included a  
> lot of water, there's no problem.

What's a lot? As I noted above, savannah animals are found in many  
places other than just the savannah proper. The savannah has edges.

If you claim there was no water, I'd like  
> to see your evidence.

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Never claimed no water. There are plenty of water sources that are not deep enough to dive in.

>  
>  
>  
>  
>  
>  
>

>>> >Broken bones for a start, not broken coconuts. Meat polish on tools at  
>>> >FxJj 50 at Koobi Fora (Isaac 1983:11). Where is your swamp grass  
>>> >evidence? Yes I know, on the teeth of mountain beaver :-).

>

>>> Are apiths = Homo IYO?? Please be relevant.

>

>> 1) I don't understand, FxJj 50 \*was\* a Homo site, so what do you mean?

>

> Not following?

> – FxJj50 = Homo

Yes, I have evidence for meat polish for Homo.

> – capybara & mountain beaver evidence = apiths

Capybara (but not mountain beaver) may equal apiths.

You don't have riverside herbs polish for Homo, only apiths, which may be dead ends. Further doubt is cast by the "low strontium/calcium ratios, and C4 contribution (likely from eating grazing animals)."

Again see:

<http://www.archaeologyinfo.com/australopithecusrobustus.htm>

Homo was eating bovids etc., not clams. Meat polish in Kenya, seeds and animals at Terra Amata, and deer at Zhoukoudian

>  
>  
>  
>  
>  
>  
>  
>

>> Savannah (or savannah-like) is not coastal.

>

> Any reason to believe that the fossils or tools found in your "savanna"

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- > could not have had coastal ancestors?? eg, the retrovirus data suggest our
- > ancestors were not in Africa 4–3 Ma.

Even \*if\* 4–3 Ma is correct (highly doubtful), there still is a large gap for bone breaking tool use to develop in northern Africa. The first tools show up in the Awash, so the burden is on those to demonstrate this bit of evolution happened somewhere else if that is what is being proposed.

On-the-ground-evidence is the null. So maybe our ancestors learned to break bones in Asia, this doesn't change the fact that all the evidence says seeds and bones, not clams. If you can find an early shell midden somewhere it will help to give credence to your argument. Fossils, stone tools, comparative data or whatever needs corroborating backup.

- >
- >
- >
- >
- >

- >>> Again: my starting-point is living animals. DNA suggest H & P split ~5
- >>> Ma. Whether you could discern them anatomically in the beginning is
- >>> irrelevant here: our branch = Homo, the chimp's = Pan. Simple. No fossils
- >>> needed, no archeology needed. Simply the living evidence.

>

- >> So simple it tells you exactly nothing about AAT or life on the Indian
- >> Ocean.

>

- > 1) about AAT: it tells everything: H & P differ, you know: H got poorer
- > olfaction, better tool use, larger brains, more SC fat, more nakedness,
- > plantigrady, more dependence of Na, I, water, PUFAs etc.etc.
- > 2) about Ind.Ocean: OK.

>

>

- >>> I would not be very surprised if Orrorin happened to be in the H line.
- >>> But whether it was an early P or H or even G, this is of no relevance to
- >>> our view, which is based on comparing living animals. Now, somewhere on
- >>> the line from the LCA 5 Ma towards us, we acquired our typical features:
- >>> very long legs (possible already early, but tibia lengthening rather late
- >>> IMO), external nose (whether this was in H.rudolf. or only in He is not
- >>> relevant, but possibly ~2 Ma), masticatory reduction (myosin-16 –
- >>> possibly 2 Ma? again not so important), very large brain (probably
- >>> (completely?) Pleistocene). It seems that the typically Homo features
- >>> evolved during the Pleisto– or perhaps late Pliocene.

>

- >> So simple it tells you exactly nothing about AAT or Homo life on the
- >> Indian Ocean.

>

- > 1) about AAT: it tells a lot: longer legs than P, masticatory reduction,
- > ext.nose, v.large brain. All never seen in savanna mammals. No reason why we
- > should hypothesise a savanna scenario, while a littoral scenario would

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- > easily explain these features.
- > 2) about Ind.Ocean: Java is not the Ind.Ocean IYO?
- >
- >
- >
- >
- >> We finally got to living in the arctic also, that fact tells you nothing
- >> about where we evolved.
- >
- > That's exactly why we have to compare our features with those of chimps.

One of those differences is lack of fangs in Homo as a defensive–threat measure.

Homo made tools and throwing work. Manuports are in evidence also.

- >
- >
- >
- >
- >
- >>> – we have archeol.+fossil evidence some Homo populations lived in
- >>> savannas,
- >
- >> Some??? You mean \*all\* early evidence 100% there and late most it.
- >
- > :-D
- > Terra Amata, Mojokerto, Zhoukoudian...

<http://www.mnsu.edu/emuseum/archaeology/sites/europe/terraamata.html>

"The coprolites found in and around the dwellings were analyzed to determine the components of the diet of the occupants of Terra Amata. There were many seeds found in these samples that grow in the late spring to early fall."

And: "Judging from the size of the bones found, the smaller, less dangerous of these animals were most frequently taken. In addition to these larger food sources, there was an abundance of smaller, but more agile animals. Remains of deer, stag, rabbit, and wild boar were all found at the site."

Notice especially, no sea food mentioned.

Mojokerto,

No shell middens?

Zhoukoudian

<http://www.unesco.org/ext/field/beijing/whc/pkm-site.htm>

Deer on the menu, not clams.

all savanna??

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Same type animals one finds on the savannah. Elephants and rhinos at Terra Amata.

> Early evidence on our ancestors?? What do you mean?

No reason clams wouldn't have been preserved at the above 3 sites, all seeds and bones.

remember the retrovirus

> data suggest: not in Africa 4-3 Ma...

So they were hunting African savannah-game in Spain.

> Whatever, if some populations lived in "savanna" they did not run over the  
> plains there as savanna theorists like us to believe.

You don't have to be physically \*on\* a savannah to find savannah-like animals.

(See your Terra Amata example).

If they butchered

> animals at "savanna" rivers, this confirms our view: how did we become  
> different from savanna chimps?

Savannah chimps were probably pushed there recently by modern man. If chimps spent much time on the savannah in the distant past, we would be finding their fossils there, and we don't.

>

>

> --Marc Verhaegen

> <http://www.onelist.com/community/AAT>

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• *Follow-Ups:*

◆ *Re: A critique of the BBC aquatic ape programme and the transcript.*

Re: A critique of the BBC aquatic ape programme and the transcript.

Re: A critique of the BBC aquatic ape programme and the transcript.

◇ From: Marc Verhaegen

• **References:**

- ◆ **Re: A critique of the BBC aquatic ape programme and the transcript.**  
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- Next by Date: **Re: Monsoon/mosaic**
- Previous by thread: **origins of bipedalism (Re: A critique of the BBC aquatic ape programme and the transcript.**
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