Phenotypes vs genetic statistics

Posted on May 19, 2014 by gcochran9

Lewontin started <u>it</u>, but responsibility is infinitely divisible, so that's no excuse. Later practitioners are just as guilty.

He tried to argue away the possibility of phenotypic differences between different human populations using the magic of genetic statistics. Looking at overall genetic variation in humans (why?) most is within-group, rather than between groups. That's true of dog breeds, as well, which is why they're all really the same, even though they may seem to vary wildly in size, appearance, lifespan, and behavior.

Which is why Pygmies aren't really short: they're faking it.

This whole approach is just nonsense. First, you can sometimes see big between-population phenotypic differences driven by a single SNP: the east-Asian <u>EDAR</u> variant causes many of the morphological characteristics you see in East Asians, and it's almost fixed. Naturally, that one SNP accounts for an infinitesimal fraction of overall genetic variation.

Selection can also create big phenotypic differences between populations through moderate frequency changes in many alleles of small effect, and that doesn't result in much between-group genetic variation either. Those tamed foxes aren't going to be wildly genetically different from their source population, in terms of overall variation. They differ in the genes that influence their tameness, that plus drift from the domestication bottleneck. Mostly this means that the frequencies of alleles that favor tameness has increased: I wouldn't bet on many hard sweeps, although there would eventually be some, given time. But fox domestication didn't take much time: true human-symp foxes, ones that jump into your lap, showed up by generation 10. This is a behavior that you never, ever see in wild foxes. Except, sometimes, when they have rabies.

Height is highly polygenic, almost as much so as IQ. Pygmies are about six standard deviations shorter than Europeans or Bantus: what magic principle says that you couldn't see comparably large differences in IQ? There is none. Although the evidence we suggests that average population IQ doesn't vary quite that much – probably ranges over something like 3 std, from low to high.

If we knew the alleles that influence height – a fair number, not necessarily all of them – we could probably determine the extent to which genetic differences causes the difference in height between two populations, say between southern and northern Europeans. Height-favoring alleles are definitely more common in northern Europeans, so at least some of the difference in average height is genetic. At any rate, this approach works if the populations are not too divergent.

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>

For example, a quite recent<u>study</u> indicates that SNPs associated with height in Europeans contribute to adult height in Pygmies, but a number of other local alleles (not found in Europeans) do as well. I would guess the Pygmy variants affecting growth hormone metabolism are not found in Europeans.

Pygmies are diminutive, obviously, but not in exactly the same way that Europeans are. If you tried to estimate Pygmy height using only the alleles that influence height in Europeans, you'd predict that Pygmies were short, all right, but in real life they'd be a good deal shorter than your estimate – because you're not counting the private height alleles. You would need to supplement your list of height variants with a huge GWAS study of Pygmies, in order to find those local variants. If you want to find small-effect variants, you'll probably need to include all living Pygmies.

Assuming that you do your original GWAS study in Europeans, in what other populations would your predictions work decently without local supplementation? Hard to be sure, since there might be local variants of strong effect – but I'd guess that it would probably work on everybody outside of Africa (OK, maybe not Melanesians), might work with the more common kinds of sub-Saharan Africans (Bantus and Nilotics, say) and would be least likely to work with Pygmies and Bushmen, who are the most divergent.

I started out this piece with the aim of kicking Lewontin's idiotic heirs, but then got interested in the details, how to actually figure something out. When will I learn?

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>

Share this:



Related

How to be different With 45 comments **Lewontin wins the Crafoord Prize** With 79 comments Such a thing With 157 comments

This entry was posted in Uncategorized. Bookmark the permalink.

66 Responses to Phenotypes vs genetic statistics



The fourth doorman of the apocalypse says:

May 19, 2014 at 5:59 pm

But fox domestication didn't take much time: true human-symp foxes, ones that jump into your lap, showed up by generation 10.

If it took only 10 generations before foxes became that friendly, how many generations would it take before humans became Christianity, Buddhism, Confucianism, etc friendly?

<u>Reply</u>



What you have to bear in mind, though, is that large populations evolve much more slowly than small ones as it takes longer for new genes to spread throughout them. A ship takes longer to turn than a boat.

<u>Reply</u>



gcochrang says: May 19, 2014 at 7:50 pm

Go talk to Fisher about that.

<u>Reply</u>



The fourth doorman of the apocalypse says:

May 19, 2014 at 11:34 pm

I don't think we are talking about new genes, simply selecting from existing variation.

I suspect that they are all variations on a small number of themes ... Notice that China is set to become the largest Christian nation, but is it the Christianity of Constantine?

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>

@ gcochran9

What's the problem with I said? Can you mathematically show that I'm wrong?

@ The fourth doorman of the apocalypse

But surely the principle is the same. It would take longer for a gene variant, whether new or not, to spread throughout a large population than a small one. Why would it not?

<u>Reply</u>



gcochrang says: May 20, 2014 at 12:15 pm

Standing variation is pre-existing in the whole population. If you put the whole population under some kind of selection, the whole population would change at the same rate, considering just pre-existing variation. Population size wouldn't make any difference at all.

Sometimes adaptation requires new variants. A new advantageous variant spreads out as a Fisher wave, a nonlinear wave with a velocity proportion to the square root of the selective advantage and the rms gene displacement – roughly, the distance between your birthplace and that of your parents. That Fisher wave certainly takes time to spread through a big population – but if you work it out, the time required is proportional to the square root of the population size. Works like this: speed of the wave is proportional to 1/sqrt(population density), radius of the deme is proportional to sqrt(population size/population density), time required (in generations) is proportional to radius/velocity.

A big population also produces more advantageous variants (proportional to population size), so there would be a number of different Fisher waves spreading at the same time, all involving adaptation to the same selective pressures.

And those Fisher waves run into each other and interfere with each other. Moreover, if the selective advantage is big enough, you may well have population movements and replacements, which can go much faster than a Fisher wave.

<u>Reply</u>



Bumface says: May 20, 2014 at 12:56 pm

@ gcochran9

I see now. Thanks for the explanation.

If we're talking about the frequencies of existing gene variants changing in response to selection pressures the whole population changes as a block and its size doesn't matter. New gene variants, on the other hand, do take longer to spread throughout larger populations. These are two mathematically different kinds of adaptation.

A question that comes to mind then is how much of the variation in the human race is due to one kind and

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>

1 . .1 .1 0

But artificial selection for a trait is presumably much stronger than natural selection in most cases so a comparable behavioral change in humans would probably take longer.

But 50,000 years since Out of Africa should be enough time for a lot of divergence in genetic behavioral dispositions.

Pingback: Roundup of Book Reviews of Nicholas Wade's A Troublesome Inheritance | Occam's Razor



<u>JayMan</u> says:

May 19, 2014 at 7:16 pm

"First, you can sometimes see big between-population phenotypic differences driven by a single SNP: the east-Asian EDAR variant causes many of the morphological characteristics you see in East Asians, and it's almost fixed. Naturally, that one SNP accounts for an infinitesimal fraction of overall genetic variation."

I recently referenced that same variant to make a similar point.

Added this post to my HBD Fundamentals page, by the way.

<u>Reply</u>



Reader says:

May 19, 2014 at 8:05 pm

Genetics genius Agustín Fuentes has a new post up today on how "race is a social construct":

 $\underline{http://www.huffingtonpost.com/agustin-fuentes/the-troublesome-ignorance-of-nicholas-wade_b_5344248.html$

<u>Reply</u>



420blazeitfgt says: May 20, 2014 at 12:08 am

>So while different populations vary in some of that 0.1 percent of the genome, this variation does not represent biological "races." For example, when you compare (as Wade does) people from Nigeria, Western Europe and Beijing and Tokyo, you do get some patterned differences, but these populations do not reflect the entire continental areas of Africa, Europe and Asia, respectively. If you compare geographically separated populations within the "continental" areas, you get the exact same kind of variation. Comparing 60 Nigerians, 60 Americans of European descent and 89 people from Beijing and Tokyo gives us the same kind of differences in patterns as does comparing people from Siberia, Tibet and Java, or from Finland, Wales and Yemen, or even from Somalia, Liberia and South Africa — and none of these comparisons tells us anything about "races."

So you can break people of the same "race" up into identifiable populations. I don't know how problematic this is. Just because Europeans, one "race" are formed of identifiable populations doesn't mean there can't be height differences between them. Maybe use of the term "race" causes too many problems and just using "population" is better.

<u>Reply</u>

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>

Race is real. No reason not to use word race because some liberal creationist waves his magic wand. Fuentes is either incredibly dense or is deliberately being dishonest. Haven't figured out which yet.

<u>Reply</u>

Toddy Cat says: May 20, 2014 at 7:30 am

"So you can break people of the same "race" up into identifiable populations. I don't know how problematic this is. "

Of course you can, and it's not problematic at all. These identifiable populations have traditionally been called "nations". No one ever said that races were homogeneous, any more than are species or breeds of dog or cat. For some reason, when people are talking about race, they insist on splitting hairs that are almost never split when talking about anything else.

"Fuentes is either incredibly dense or is deliberately being dishonest" The two are not mutually exclusive.

<u>Reply</u>



Bones and Behaviours says:

May 20, 2014 at 12:39 pm

Populationism is not opposed to racial labelling. and in any case race means population (see Coon, Garn, Birdsell etc.) The disagreement over race concepts seems based on an aesthetic objection not to the recognition of low level human biodiversity (local races,) but to broadly defined 'major' or 'geographical' races that are equivalent to the classic races of physical anthropology. Though there may be no fixed numbers of races to be recognised, groups such as 'subsaharan African' and 'west Eurasian' are nonetheless important, verifiable clusters within species Homo sapiens. And whether you call these macro-clusters races or something else, is irrelevant to the data. The shifting choice of language (especially as used by popularisers such as Montagu) was politically motivated.

In purely scientific terms there was no paradigm shift between classic 'scientific racism' and modern population thinking. You can trace the history of ideas from then to now via the maligned 20th C physical anthros inbetween. People who misrepresent the history of physical/genetic anthropology as involving a 20th C paradigm shift are being dishonest so as to present figures such as Coon as belonging to an 'old' anthropology, contrasted as though black-and-white against the 'new' version.

When people talk about or hint at 'paradigm shifts' they are either politically radical or generic kooks. In both cases, they are seeking followers.

Not surprisingly in countries like Russia and China, that lack an equivalent political shift to that in the USA which is attributable to the New Left, bioanthropology has not been stuck in a time warp by missing out on another countries academic politics. Rather, no one reckons there as having been such a disconnection. <u>Reply</u>

<u>110pi</u>)



Chris Bond says: May 20, 2014 at 1:56 pm

When in trouble – revert to Continental philosophy and ontology in particular. What is race?

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>



When people adopt philosophical skepticism in an argument it's a sign that they have no rational argument. No one argues from philosophical skepticism if they think they have any other remotely plausible argument. Of course if one takes philosophical skepticism seriously science of any sort is impossible. But no one really takes philosophical skepticism seriously. It's just the final rhetorical gesture of someone whose other arguments have collapsed. Like knocking over the chessboard in the face of one's opponent's announcement of checkmate.

<u>Reply</u>



marlowe says: May 20, 2014 at 11:47 am

"Genes don't do anything by themselves; epigenetics and complex metabolic and developmental systems are at play in how bodies work. The roundworm C. elegans has about 20,000 genes while humans have about 23,000 genes, yet it is pretty obvious that humans are more than 15-percent more complex than roundworms. So while genes matter, they are only a small part of the whole evolutionary picture. Focusing just on DNA won't get you anywhere."

Dear God in Heaven.....

Reply



L says: May 23, 2014 at 12:54 am

And we wonder why the social sciences get so little respect these days.

<u>Reply</u>



Bones and Behaviours says:

May 20, 2014 at 3:24 pm

"He would not provide a definition for what he meant by "race" or a specific number of races that we have (he goes back and forth between three, five and seven)."

Notice how Fuentes presents himself as more scientific, and Wade as less scientific, because Wade cannot be precise about a concept that is supposed to be fuzzy. In biology race means population and no one asks precisely how many populations exist in the world because its kind of silly. No one can properly define what a language or a culture is, but it doesn't stop the words – or the word 'race' – from having utility in conceptualising diversities.

A bit further down, he starts to rebut Wade's hyperbolic claims of suppression, by presenting Wade's 'side' as similarly polemical. This is what it has come to, use of the 'you also' fallacy instead of demonstrating one's own innocence of a bias that the radical school of American anthropologists wear in public view, like its something to be proud of rather than something to question for themselves. No one believes in objectivity anymore.

I can't really bother rebutting the rest, the discussion (not just the Fuentes vs Wade show, but generally) is just pedantic and repetitive. I do however have a problem with academics repeating fallacies.



Times reader says:

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>

Greg's comments (although in saying that, IIRC Greg did have a post about 'The 10,000 Year Explosion in the Huffington Post 🙂

* <u>http://www.psychologytoday.com/blog/busting-myths-about-human-nature/201405/things-know-when-talking-about-race-and-genetics/comments</u>

http://www.psychologytoday.com/blog/busting-myths-about-human-nature/201204/race-is-real-not-in-the-way-many-people-think/comments

<u>Reply</u>



Bones and Behaviours says: May 21, 2014 at 7:43 am

I'll also point out there actually are few demonstrations of a genetic basis for the observed psychological differences between human populations, but that isn't really the point.

The question, really, in about the assumption of null. Is null that there are no genetically-based differences between populations in personality or intelligence? Or is it more likely that heredity plays a role?

Considering that human population diversity parallels that of livestock landraces, and no one questions a biological basis for psychological diversity between canine populations (even where a genetic link has not been demonstrated,) assuming the opposite for Homo sapiens means asking for a special exception (special pleading fallacy.)

<u>Reply</u>



gcochrang says: May 21, 2014 at 8:28 am

"no one questions" – sure they do. Of course they're nuts. Reply



Bones and Behaviours says:

May 21, 2014 at 9:25 am

OK Gregory, who has questioned the assumption that hereditary differences influence the difference between dog (or other domestic) landraces?

I see people claiming a special exception for humans, or confusing the absence of evidence with evidence of absence, when it comes to just one bipedal species without feathers. But with other species the influence is nonetheless assumed whilst not downplaying non-hereditary factors.

In other words, were it not for the politicisation, and implicit human exceptionalism, speculations like those made by Nicholas Wade would not be controversial in the first place and because of that he wouldn't have written his book.

<u>Reply</u>



Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>

Sardinians and Japanese who are shorter seem to live longer, due to associated genetic variants

http://medicalxpress.com/news/2012-05-sardinian-men-height-factor-longevity.html

http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0094385

This might explain height-longevity trends in Southern Europeans in general compared to Northern Europeans in general. Populations that fit that lower height, higher longevity, lower cancer, lower heart disease trend (indigenous Mexicans, East Asians, as Henry has previous remarked here) compared to Europeans might tend to share the same architecture, while those with no particular advantage on those trends might have evolved different variants?

<u>Reply</u>



dearieme says: May 20, 2014 at 3:46 am

If Southern Europeans live longer because of genetics, what does that say about the keen advocacy of the Mediterranean Diet for us Northeners?

Reply



Sandgroper says: May 20, 2014 at 3:49 am

It's crap. Reply



JayMan says: May 20, 2014 at 6:01 am

What Sandgroper said.

<u>Reply</u>



<u>Ian</u> says:

May 21, 2014 at 5:14 am

I agree.

<u>Reply</u>



JayMan says: May 20, 2014 at 6:06 am

Longevity in Europe correlates with EEF vs. Indo-European ancestry (longer -> shorter). Which may not be causal (may both be correlates of true causes) or may be.

<u>Reply</u>



Endre Bakken Stovner says: May 20, 2014 at 1:24 am

"That's true of dog breeds, as well, which is why they're all really the same"

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>



Endre Bakken Stovner says: May 20, 2014 at 4:42 am

Genetic Structure of the Purebred Domestic Dog, Science 21 May 2004 http://www.sciencemag.org/content/304/5674/1160

From the abstract: "We used molecular markers to study genetic relationships in a diverse collection of 85 domestic dog breeds. Differences among breeds accounted for ~30% of genetic variation."

Gets pat on head, treat

<u>Reply</u>



Josh says: June 16, 2014 at 5:16 am

Thanks for finding that. That's really useful.

<u>Reply</u>



James Thompson says: May 20, 2014 at 1:58 am

As you said last October, it is very odd that some people won't look at visible differences, but prefer to play with a model, even a broken one.

http://drjamesthompson.blogspot.co.uk/2013/10/loci-and-genetic-groups-keyhole-problem.html

<u>Reply</u>



John Harvey says:

May 20, 2014 at 2:34 am

It is important to remember that Rottweilers are not really more aggressive than Labradors. It is just that the Labradors are prejudiced against the colour of the Rottweiler's fur.

<u>Reply</u>



kai says: May 20, 2014 at 3:25 am

Right. And Chihuahua would be perfectly competitive if they trained as hard as the greyhounds. But they don't because they have an easier time resting on the lap of all the paris hilton wanabees. Greyhounds have a tougher time and dog racing is their only choice at having a good life, hence their over representation in this sport...

Reply



panjoomby says: May 20, 2014 at 6:43 am

Chihuahua privilege.

<u>Reply</u>

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>



I realize that this is completely anecdotal, but I see a lot of young, Westernized men of Oriental descent who are fairly tall (around six feet). A friend hosted an 11 year old Chinese exchange student (he was probably part of the Chinese middle class) who was pretty tall for his age, even by Western standards.

I wonder how much taller East Asians will get as their diet Westernizes?

<u>Reply</u>



Toddy Cat says: May 20, 2014 at 7:35 am

> Lots of Northern Chinese have always been reasonably tall, compared to Japanese and SE Asians. When the Japanese invaded China in the 1930's, the Chinese called the "Yellow Dwarves" (Rayciss!). But you're probably right, as nutrition improves, more Chinese will probably reach their full genetic potential with regard to height. <u>Reply</u>



Patrick L. Boyle says: May 20, 2014 at 8:30 am

Lewontin isn't an idiot. But he is a Marxist. That seems to be the relevant factor. It isn't a secret that he's a Marxist – he writes about it all the time. You don't mention it but he's not reluctant to say it in public or write it. Of course Gould was also a Marxist but he seemed to want to keep a little meore under wraps.

I think you should concentrate less on what Lewontin says and more on why he says it. What are the genetic underpinnings of political position? I have scoured the Web for references and have found little. I read two books this year purportedly on the genetics of politics and both were very disappointing.

As Private Willis clearly stated more than a century ago – political position is inborn. But how? What are the SNPs that make you vote Democratic?

Reply.



Toddy Cat says: May 20, 2014 at 8:41 am

Being an intelligent Marxist, like Lewontin, has got to induce tremendous cognitive dissonance, which might account for some of his somewhat odd pronouncements on many subjects. Gould was, I believe, less intelligent, (and on the evidence, less honest) so it probably wasn't as much of a problem for him.

Reply



Foxy says: May 21, 2014 at 12:07 am

He is not a marxist.

Reply

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: Cookie Policy

Who, Gould or Lewontin? Gould flat-out said that he was. And as for Lewontin, here's a description of Lewontin take from a festschrift published in his honor a few years ago:

"This is the second volume of a festschrift for Lewontin, the leading evolutionary geneticist, Marxist, and critic of genetic explanations of human behavioral characteristics".

If Lewontin is not a Marxist, it's news to his fans, the folks who published his festschrift, and probably to him as well.

<u>Reply</u>



unladen swallow says:

May 21, 2014 at 11:08 am

Lewontin co-authored a book titled " The Dialectical Biologist " which he and his co-authors dedicated to Friedrich Engels. Proof enough?

<u>Reply</u>



a very knowing American says:

May 20, 2014 at 10:45 am

"If you tried to estimate Pygmy height using only the alleles that influence height in Europeans, you'd predict that Pygmies were short, all right, but in real life they'd be a good deal shorter than your estimate – because you're not counting the private height alleles."

Of course this can work the other way around, overpredicting rather than underpredicting group differences. If you tried to estimate Chinese skin color using only the alleles that influence skin color in Europeans, you'd predict that Chinese were a lot darker than they really are, because you're not counting the private (more precisely East Asian / American) skin color alleles that are rare or absent in Europe.

Both over- and underprediction of group differences is possible as we start to discover IQ genes within particular populations and extrapolate to other populations (a possible issue with Davide Piffer's recent work). Lesson: more research needed.

<u>Reply</u>



gcochrang says: May 20, 2014 at 9:14 pm

Right. I have to invent that damn glyph.

Pingback: linkfest: A Troublesome Inheritance | hbd* chick



Greying Wanderer says:

May 20, 2014 at 1:20 pm

"I started out this piece with the aim of kicking Lewontin's idiotic heirs, but then got interested in the details, how to actually figure something out."

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>



Good epitaph for any scientist: I got interested in the details.

Reply



David Epstein says: May 20, 2014 at 2:31 pm

Not exactly on topic, but I didn't know how to contact you guys otherwise.

I got into a discussion about celiac disease. Apparently there is an identified genetic factor and it's quite prevalent (1/100 to 1/300), and found in many places. The numbers may be hinky because it's underdiagnosed, the docs say.

My question is this: untreated, as it had to be until recently, it would have to lower reproductive success. One would expect that in wheat and barley growing places, the gene would be selected out, like lactase deficiency in dairying countries. But in fact, it's very common. It's immune-system-related, so there might be an adaptive polymorphism at work (single gene protects against some prevalent and lethal disease, balancing out the reduced reproduction from those who get ill), but I don't know.

Or does it not manifest with older forms of bread and other wheat products; or is the hygiene hypothesis at work?

I'm puzzled, so I am turning to two guys whom I respect. Any thoughts?

Reply



Pincher Martin says: May 20, 2014 at 11:41 pm

Are you the David Epstein who wrote The Sports Gene? If so, I've got to tell you that's a helluva book. Reply



David Epstein says: May 21, 2014 at 5:57 am

Nope. I'm not that guy.

<u>Reply</u>



Greying Wanderer says: May 21, 2014 at 11:08 am

"One would expect that in wheat and barley growing places, the gene would be selected out"

some places may have had less time to select it out than others

<u>Reply</u>



David Epstein says: May 21, 2014 at 11:15 am

True And nossibly the wheat and the bread-making techniques have changed enough to affect prevalence

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>



mindfuldrone says: May 21, 2014 at 9:34 am

Isn't a lot of the explanation for pygmy height to be found in life history theory—rather genes per se? Migliano, A. B., Vinicius, L., & Lahr, M. M. (2007). Life History Trade-Offs Explain the Evolution of Human Pygmies. Proceedings of the National Academy of Sciences of the United States of America, 20216-20219. Its that they are on a accelerated life history curve—early maturation and reproduction rather than being directly selected for height per se?

<u>Reply</u>



Richard Sharpe says: May 21, 2014 at 12:25 pm

I guess genes play no part in life histories.

<u>Reply</u>



mindfuldrone says: June 1, 2014 at 5:04 pm

Richard –Not sure what your point is. The plasticity of life history's response to ecology is contained in the genes, of course.

<u>Reply</u>



Bones and Behaviours says: May 21, 2014 at 9:46 am

Can anyone upload this for us? DOI: 10.1002/ajpa.20792

<u>Reply</u>



TWS says: May 22, 2014 at 11:27 am

Can't the 'more within than between' argument be used in any subspecies or most anyway? Lewontin owns that fallacy and deservedly so. As the late great Richard Pryor said, "Who are you going to believe, me or your lying eyes?" Anyone and everyone knows that there are differences.

Evidence shows that no matter what scientific evidence is presented for something politically unpalatable that evidence will be ignored or denigrated forever or until it simply goes away. No amount of evidence will ever change the msm, academia, and elite's mouthing. They will always toe the party line.

So what will change the 'huffpos' and blank slate types?

<u>Reply</u>



gcochran9 says:

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>



TWS says: May 22, 2014 at 1:03 pm

I can see I just wasn't thinking outside the box. Let's hope it doesn't quite come to that!

<u>Reply</u>

Pingback: Lewontin wins the Craaford Prize | West Hunter



Joseph Ratliff says:

October 24, 2017 at 10:10 am

Reblogged this on <u>Quaerere Propter Vērum</u>.

<u>Reply</u>

Pingback: Jayman's HBD Reading List | Propertarianism

West Hunter

Create a free website or blog at WordPress.com.

Privacy & Cookies: This site uses cookies. By continuing to use this website, you agree to their use. To find out more, including how to control cookies, see here: <u>Cookie Policy</u>