FEBRUARY 27 2022 12:06 AM ZULFIKAR MOINUDDIN AHMED EXAMINES CHALLENGE TO ARISTOTLE'S HABITUATION

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The most important missing gap to the possibility of a Unified Universal Science of Man is that we need to have a parsimonious and geographically global scientific understanding of Habituation of people.

I am not particularly impressed with the definition of habituation that I have seen. I am also not impressed with the evidence apparently showing failure of Aristotle's Virtue theory.

Aristotle's Virtue theory does not guarantee high moral Virtues *without habituation to Virtues*. I do not understand all these people who claim that they have refuted the Virtue theory by randomly doing sampling of people and then declaring Aristotle's theory faulty when evidence is found of failure of moral Virtues. That proves nothing. Aristotle's theory is *conditional on Virtue Habituation*. These people who are attempting to refute Virtue-Eudaimonia theory are beholden to *first measure habituation levels for Virtues* and then only for those with adequate habituation levels exhibit failure of moral Virtues.

You can't take random sampling of people, not measure habituation to Virtues, find moral failures and then declare pompously that you have refuted Aristotle's Virtue theory. That is totally irrational. I don't know why any of these people consider themselves serious scholars. They seem to be lacking inability to do simple logical operations.

No one has produced *any serious refutation of Aristotle's Virtue Theory* in experimental psychology. Do not be fooled by these rubbish claims.

1. Laughter At Experimental Psychologists Who Challenged Aristotle

Look, Experimental Psychologists, I examined this man Aristotle, and I extended his Virtues to a larger set he was not able to capture, the *Virtues of Romantic Love*. I vindicated his Virtue-Eudaimonia theory showing Life Satisfaction is positively correlated to high Moral Virtues.

Do you really think you can take down an immortal genius like Aristotle with your pathetic, paltry, deceptive efforts? You, like these *situationists* do not have any idea of how to do these things. I, Zulfikar Moinuddin Ahmed, am and immortal genius. Do you really think it is so *easy* to take us down? You think that by random sampling of people without any attention to whether they have had long habituation to Virtues, and finding flaws in their moral behaviour, you have refuted Aristotle's Virtue theory? You are truly comical. You have done nothing of the sort at all. You can look at my work on ethnicity-independence of Universal Human Moral Nature

Date: February 27, 2022.

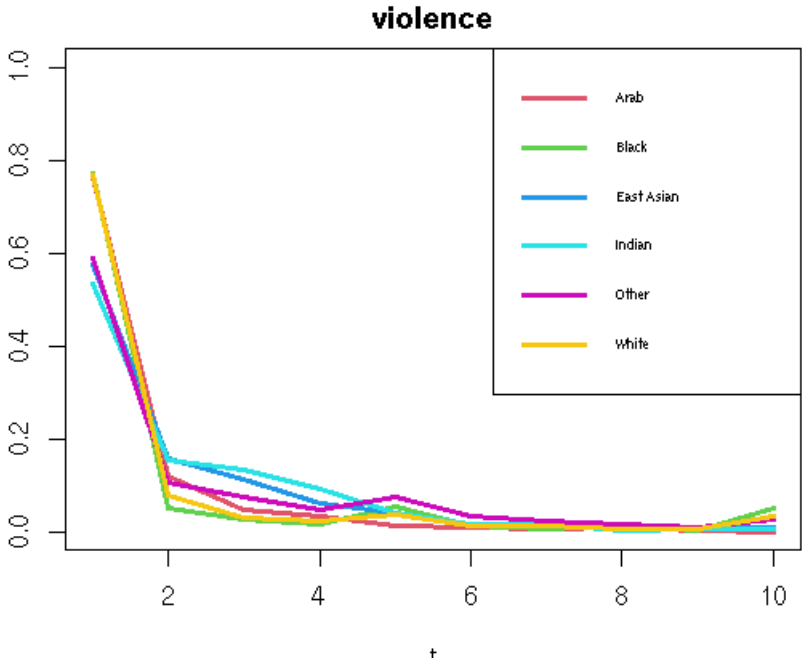
and vindication of Aristotle's Virtue-Eudaimonia theory which is based on World Values survey, $N > 130,000$. Your results are obviously wrong on this matter.

That is just outrageously obnoxious. You are laughable in your efforts. It's not so *easy* to take down an immortal genius, Experimental Psychologists. You have to work much harder than you have.

2. Not Personal Experimental Psychologists

Look, I don't know you personally. Besides Bill Gates I do not start personal blood feuds. I am a great scientific genius, and my talents were discovered by Lys K. Waltien in John Adams High School in 1987 already, and I won third place in Westinghouse Science Talent Search in 1989 and went to Princeton to study Mathematics. Let me set you straight. You have not refuted Aristotle's Virtue Theory, okay?

Let me show you something. This is the global moral value distribution regarding whether it is justified to commit violence against other people.



Scale goes from 1=never justified to 10=always and sample is $N > 130,000$ from World Values Survey. You think you have discovered what about failures of moral behaviour exactly with experimental psychology? I don't believe you've found anything serious. Sorry.

You see, Universal Human Moral Nature is not exactly clean. There are tails to moral values, but you need to do a lot of work to convince anyone rational that human nature is devois of moral concerns becuase that's outrageously wrong.

I'll look at some of you work to pinpoint the problems but most glaring issue is a deep misunderstanding of Aristotle. He says people are not born with Virtues but *habituation* leads to higher moral Virtues.

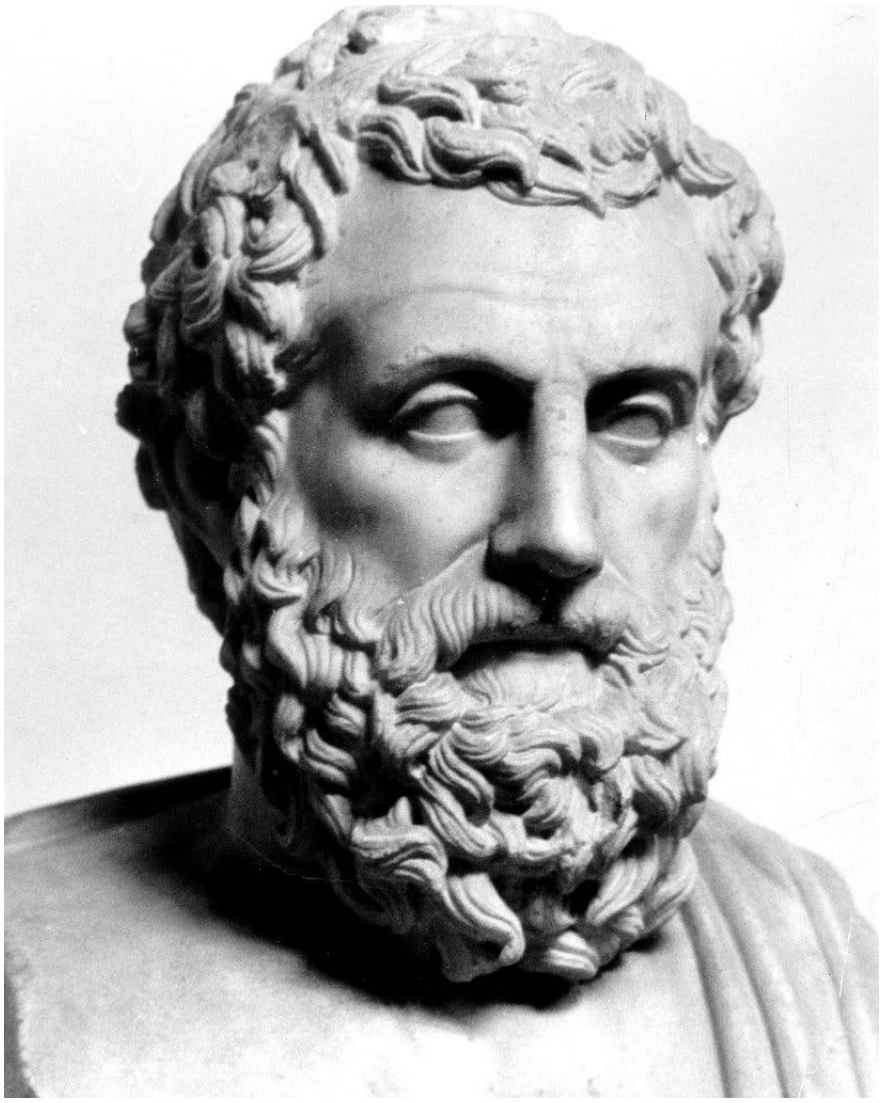
I will not pick on individual people, but I see Christian Miller has been arguing against 'We are good'. That does not disprove Aristotle's theory at all. In fact I

have much stronger theories here than experimental psychologists. I will compile a serious take-down of this whole thing. "We are not as good as we want" is not serious. That is irrelevant to Aristotle's Virtue theory at all. Who cares? And where are distributions in these from global samples?

3. I Will Take Up The Flag Of Aristotle

All detractors of Aristotle's Virtue Theory be warned that I, Zulfikar Moinuddin Ahmed, born on this world in November 19 1973, shall be taking up the flag of Aristotle on Virtue Theory. I have a duty to my own Conscience that I will respect.

I will take up the flag of the great immortal genius Aristotle. He was right and I will not allow his great discoveries to be denigrated by philistines. I have vindicate his Virtue-Eudaimonia theory by my own struggles, by my own sweat, blood and tears, and I will not tolerate desecration of his memory.



Those who wish to object ought to examine my work on Universal Human Moral Nature and Vindication of Aristotle established empirically using data from World Values Survey [1].

4. Moving On To Habituation

Aristotle's Virtue Theory based on habituation is without doubt not just correct about moral Virtues, but is quite broadly the most general feature for all transformations of individual psyche. The importance of habituation is clear to me personally, as playing many Starcraft II games shows that I improve over months.

The general hypothesis I have for a Science of Man is the following. It's not a deep hypothesis, but since I would like a coherent *natural science of Man* it is abstract and reasonable.

We consider all human beings abstractly as the set $\mathcal{H}$ with roughly $N_h = 10^{10}$ elements. We consider a time interval $[0, T]$ representing the time between birth to

age T of all people. Then we define habituation effect of a person as

$$\rho(h) \in \mathbf{R}^k$$

This is provisional and schematic. So $\rho(h)$ represents the totality of all habituations of the person between age 0 and age T. We don't specify any details at all for now.

Our abstract general model is that human race system can have nontrivial scientific models as follows.

$$F(g(h), \rho(h))$$

is the general form of information per person h that will allow prediction of macroscopic variables for the human race as a whole.

The schematic is meant to specify a bit more what is the substantial set of micro-variables we believe has ability to produce nontrivial macroscopic predictions.

Although abstract, it reduces an infinite possible set of variables to tractable fine number per human with some chance of producing macroscopic statistical predictions.

In particular, $\rho(h)$ as habituation variable is from our viewpoint superior to various demographic variables that we believe are not directly important.

This is at this point a general idea rather than an ansatz for a complete Science of Man.

Aristotle's Virtue theory focuses on how habituation of Virtuous action produces Virtuous Character. We generalise this to arbitrary habituation will produce behaviours that are functions of these. It is sensible, but we claim it as truth of nature, universally about human beings.

The rationale is quite simple to understand. The 'nature-nurture' sort of ideas are foolish. *Habituation* is the variable that is not raw genetic endowment for making us the men and women we become. And this reduces the variables for statistical predictions for the full human race. This is my proposal for replacement of 'nurture' as well as hundreds of demographic variables that confuse more than enlighten us about Science of Man.

5. Zulf Shows A Serious Paper on Habituation

I don't know much about what has been learned about habituation. I found a review article [2]. These are fairly low level, but they are useful as we approach larger scale habituation in the Aristotelian scale.

This is a significant open issue for all Social Science, the issue of what are the effects of habituation for human beings. This is the *most important* missing complement to genetic endowment.

6. United States Government You Have Made A Dreadful Error

I, Zulfikar Moinuddin Ahmed, shall lead my beloved people, the Human Race, from darkness and ignorance, and chaos and confusion to enlightenment and knowledge. These racial people like Bill Gates who had been plotting genocide of non-white people will only cause harm. You should destroy this evil malignant cancerous tumour, this man filled with malice who had been a deceiver and a charlatan all his life, who fooled you, who fooled the greater world with his talk of philanthropy. Human Race needs me, an immortal genius who is benevolent, who has proven record of disseminating great truth, enlightenment, than it needs these miserable vile scoundrels and war criminals like *Bill Gates*.

You have hurt me personally in ways that you will never be able to do undo by not destroying him when he breached my Blood Meta and began his destructive rampage in my interior. Do not continue your erroneous path any further.

7. Biological Habituation And Aristotelian kind

Biological habituation is the phenomena where repeated application of a stimulus reduces response. This type of habituation has some theory, and Allan Wagner's 1981 SOP model seems to do well.

Aristotelian concept of habituation is not the same, and is a broader *active concept* and is much more interesting to us than the biological definition of habituation. And this is what we ought to estimate, the Aristotelian sort of habituation which is a higher level package of things than the biological type.

I will mark this transition from extremely low level physiological habituation – for example sea slugs reduced responses after repeated stimulus to much more interesting larger scale intentional habituation of doing certain sorts of things repeatedly. For example, in the past few months I repeatedly did various Stanford Mathematics Ph.D. Qual Exams and got habituated to some issues that were not comfortable for me on weak convergence in infinite dimensional topological vector spaces.

It is the second sort of habituation that is much more salient and important for a Science of Man than the first sort; there is no doubt that the biological low level processes of the first sort are involved in the process. But on the other hand, the package of Aristotelian sort of habituation is quite a bit more more elaborate and that's what is important to understand for a Science of Man.

8. More Soft Thinking about The Habituation Problem

What we are looking for is a solution to the following problem. We seek some variable $(x^1, \ldots, x^k)$ with fixed relatively small k such that, if we measure $x(h) = (x^1(h), \ldots, x^k(h))$ for all $h \in \mathcal{H}$, roughly ten billion people, say $x_r = x(h_r)$ then we will have a low noise estimate of all habituation of all people sufficient to have nontrivial statistical theory for all human race.

In other words the k-dimensional varible has to handle *all habituations of all people of the world* simultaneously without producing too much noise.

So that does not make any progress to solving the problem, but at least clarifies what we would like here. The great genius nontrivial hypothesis is that (a) such a $(x_1, \ldots, x_k)$ exists for us to find, and (b) once we *condition on this mythical variable* we will have added sufficient data over biological data to produce a good Science of Man.

9. Zulf Examines 2002 Paper of Wood, Quinn, and Kashy

At this point, when I have made clear that my hypothesis for statistical models of human race, *habituation* is the most important variable, I have to step back and learn something new. I have to learn something about established social psychology models about which I know very little.

I turn to a paper Wood, Quinn and Kashy from 2002 [3]. I am not familiar with work in this part of the world at all.

I have an idea, why don't I ask Social Psychologists to produce the universal habituation model?

10. Keith Richards and Mick Jagger's Viewpoint

I saw her today at the reception
A glass of wine in her hand
I knew she would meet her connection
At her feet was her footloose man
No, you can't always get what you want
You can't always get what you want
You can't always get what you want
But if you try sometime you'll find
You get what you need
I saw her today at the reception
A glass of wine in her hand
I knew she was gonna meet her connection
At her feet was her footloose man
You can't always get what you want
You can't always get what you want
You can't always get what you want
But if you try sometimes, well, you might find
You get what you need
Ah, yeah
Oh
And I went down to the demonstration
To get my fair share of abuse
Singing, "We're gonna vent our frustration
If we don't we're gonna blow a fifty-amp fuse"
Sing it to me, honey
You can't always get what you want
You can't always get what you want
You can't always get what you want
But if you try sometimes, well, you just might find
You get what you need
Ah baby, yeah
Ah
I went down to the Chelsea drugstore
To get your prescription filled
I was standing in line with Mr. Jimmy
And, man, did he look pretty ill
We decided that we would have a soda
My favorite flavor, cherry red
I sung my song to Mr. Jimmy
Yeah, and he said one word to me, and that was "dead"
I said to him
You can't always get what you want, well
no You can't always get what you want. I tell you, baby
You can't always get what you want, no
But if you try sometimes you just might find, uh, mm
You get what you need, oh yeah, woo!
Ah, woo!

You get what you need, yeah, oh baby Ah yeah
I saw her today at the reception
In her glass was a bleeding man
She was practiced at the art of deception
Well, I could tell by her blood-stained hands, sing it
You can't always get what you want, yeah
You can't always get what you want, ooh yeah, child
You can't always get what you want
But if you try sometimes you just might find
You just might find
You get what you need, ah yeah
Ah baby, woo!
Ah, you can't always get what you want, no, no, baby
You can't always get what you want, you can't now, now
You can't always get what you want
But if you try sometimes you just might find
You just might find that you
You get what you need, oh yeah
Ah yeah, do that

11. Great Work Icek Azjen

I am sorry Icek Azjen, at this point I don't really care too much about your specific views but the great work is that you are concerned with the issues of habituation at all.

"The frequency with which a behavior has been performed in the past is found to account for variance in later behavior independent of intentions. This is often taken as evidence for habituation of behavior and as complementing the reasoned mode of operation assumed by such models as the theory of planned behavior." [4].

See, I am a serious Aristotelian Virtue Theory adherent these days, and I always like to encourage people to do what I need done. Now I want Social Psychologists to drop all their other less worthy enterprises and give me Habituation theories that apply to eight billion people, so I don't really care too much about the detailed perspectives. It's good if you addressed habituation at all.

Alright Social Psychologist, why don't you all be more like Icek Azjen, huh, give Zulf a strong habituation model that works for eight billion people that's parsimonious, why don't you? Is that so hard? You can do this. Look at this gentleman. Why don't you become more like him?

12. Return To Lazy Thoughts

I consider the abstract idea that's mathematically simple. Suppose F is some macroscopic variable for the entire human race system. Let us specify things as follows. The human race is $\mathcal{H}$ of roughly $N = 10^{10}$ humans. Now let us define a dynamical system

$$\mathcal{H}_T$$

by a large number M of functionals $\mathcal{H}$ and time. We imagine some time evolution

$$g : \mathbf{R} \to \mathcal{H}_T \simeq (\mathbf{R}^M)^{N_h}$$

We pretend that we can measure all the M functionals for all people at all $t \in \mathbf{R}$. Now $\mathcal{H}_T$ is pretty gigantic in dimension but we don't try to be very pragmatic. We say, "Fine, it's gigantic, but we pretend we have super-duper measurement devices and large computer storage and processing capability so we can handle all of it."

Then we consider the 'thermodynamic' variables of type

$$\tau : \mathcal{H}_T \to \mathbf{R}$$

These are statistical variables, not individual but aggregate. Examples are average number of non-white people who were genocided by evil genocidal white supremacist charlatans who were hick illiterates from Seattle on a given year.

We would like in this broad mathematical setting, to (a) choose M functionals to measure per person on Earth, and (b) have capability to predict large numbers of statistical aggregates

$$\tau(g(t))$$

for various times $t \in \mathbf{R}$ relatively well.

We then imagine the $M = M_1 + M_2$ where M_1 are 'biological' variables and M_2 are 'habituation' variables. Our major hypotheis is that these choices produce ability to have a natural Science of Man in the sense that our ability to predict $\tau(g(t))$ to actual real measurements in the world is good enough that it passes all sorts of statistical tests that are required for a scientific theory to be considered natural science.

In particularly, we pooh-pooh fits with $R^2 = 0.25$ as inadequate and demand something a bit more posh. Yes, yes, R^2 is only adequate for linear models and we have all manner of AIC and BIC and other metrics but that's not interesting. What is interesting is that we are in the process of understanding how to choose our M variables not by trial-and-error but by insight and foresight, or perhaps *Tiresian Prophetic Vision* to show our great scientific genius and so on.

13. Zulf Provides Some Leadership For Psychology And Social Sciences

Alright psychologists, listen up. You worked all your lives on your precious babies, your theories. You love your work like your own children right? You work with deep sense that this was your destiny, and you were born for it, yes? Good. I like that in people.

Now let me tell you something you don't want to hear. If you continue to produce science with $R^2 = 0.1$ all of you life's work will end up in a cobweb-filled basement library that only dungeon crawlers visit to fight monsters risen from the Egyptian mummies. Do you understand me? People are polite enough in your *face* because they have aversion to provoking threats for no reason, but I worked for decades in Finance, Technology, Biotech and let me tell you something that you may not have grasped yet. If your $R^2 < 0.4 - 0.6$ at least *no one gives two shits about your ideas no matter how reputable a journal you publish in, and no matter how prolific you have been.* Do you understand? Zulf is not the bad guy here.

Look over the journals of nineteenth century Europe one day. They are filled with all sorts of interesting things *that you never knew existed.* They are all obsolete junk today. Why? They did not produce good R^2 so they're history.

I'm telling this to you for your own good. Focus on R^2 first and then worry about theological disputes. Otherwise your entire field will keel over, and collapse

and be "ha ha ha they used to have this field called psychology and you know they did huge amounts of verbiage in 2022 how funny how funny." You don't want that. Listen to Zulf. Get your R^2 to respectable turf first. Then, afterward, be pompous and wax poetic about your theocratic worldview and all that okay?

Ah, you think this is a frivolous thing? Well all of expansionary cosmology and relativity I have obsoleted. Quantum gravity is gone, black holes, big bang. I obsoleted them with my four-sphere theory. They will hit the grave in less than half a century. Volumes filling libraries will be extinct.

Only parsimonious high accuracy scientific theories survive over centuries. You have an Oxford named chair and 250 publications in most reputable journals and veneration of 400 graduate students? Cold is time, and if your work does not fit parsimony and accuracy criteria, these will not protect it. All will be washed away in fifty years.

This is not to depress you. This is to re-orient your priorities if you want your work to stand the test of time. Otherwise, Ozymandias. Your work will be a chestless trunks and a face buried under the sand with nothing but desert sand all around. Extinction, my dear psychologists, awaits theories that do not have high parsimony and high fit to predictions. You can write poetry if you want some back-up. Or literary articles. But your science is in a strict path of extinction if you are not focused on good fit to data.

You might not care about test of time. That's just okay too. But do not have delusions that you can have high falutin theory with $R^2 = 0.1$ and then the world will keep your theories around for centuries. That is not happening. Those are not the rules of Science. Cold loveless fate, cruel as it may seem to you, will govern Science. Mercy and pity are reseved for things other than Scientific theories.

14. The Finite Action Model With Habituation

This is not a real model so don't expect anything from it. Suppose $A = \{a_1, \ldots, a_D\}$ are the set of allowed actions for people. Let's put a probability p_a on the set. We are interested in the model of a large number of humans that do these actions. Actions occur by an exponentially distributed time gap. What is important is that the probability *changes* with repeated actions.

This is good. This is very good. The probability *changes* with repeated occurrences, that's what is important. It's not *Markov*. That's the most important thing in this model.

This is actually an interesting model. So if we do this with 10 actions with 1/10 probability and keep sampling 50,000 times with small change to the chosen action, we are left with nontrivial probability for only three actions.

Zulf is most curious. You don't say. I studied probability theory but this is most strange.

```
p<-rep(0.1,10)
for (k in 1:50000){
  z<-sample(x=seq(1,10), replace=T, prob=p)
  p[z]<-p[z]+0.1
  p<-p/sum(p)
}
p
[1]  3.302481e-01 4.940656e-324 4.940656e-324 9.881313e-324
```

```
 [5] 4.940656e-324 4.940656e-324 4.940656e-324  3.348983e-01
 [9] 4.940656e-324  3.348535e-01
```

What do you know. You'd keep 5 activities if you began with 20. *Most intriguing.*

```
p<-rep(0.05,20)
for (k in 1:50000){
  z<-sample(x=seq(1,20), replace=T, prob=p)
  p[z]<-p[z]+0.1
  p<-p/sum(p)
}
p
```

```
 [1] 4.940656e-324 4.940656e-324 4.940656e-324  2.000510e-01
 [5] 4.940656e-324  2.000510e-01  2.000510e-01 4.940656e-324
 [9]  1.997961e-01 4.940656e-324 4.940656e-324  2.000510e-01
[13] 4.940656e-324 4.940656e-324 4.940656e-324 4.940656e-324
[17] 4.940656e-324 4.940656e-324 4.940656e-324 4.940656e-324
```

Fine. So let's assume theorem something tells us you will end up with $r(D)$ activities if you habituate by repeats.

This is actually very valuable. It tells us that we could use habituation possibly to stratify people, and also to simply statistical models. That has value, especially because the mathematical situation here is so simple.

Ah, that's the beautiful thing here: if you find that habituating reduces activity, the *right explanation* is not that various cognitive hookey-dookey in the complex minds of the various people allowed them to play chess backward with three different levels and then cognitive decision-making turned them super-rational but just that mathematical limit of habituation winnowed out the other activities.

References

[1] `https://github.com/zulf73/human-nature`

[2] Catharine Rankin et. al., Habituation Revisited: An Updated and Revised Description of the Behavioral Characteristics of Habituation, Neurobiol Learn Mem. 2009 September ; 92(2): 135–138

[3] Wendy Wood, Jeffrey Quinn, and Deborah Kashy, Habits in Everyday Life: Thought, Emotion, and Action, J Personality and Social Psychology, 2002, Vol. 83, No. 6, 1281–1297

[4] Icek Azjen, Residual Effects of Past on Later Behavior: Habituation and Reasoned Action Perspectives, Personality and Social Psychology Review, 2002, Vol. 6, No. 2, 107–122