

Author: Tio

Review: Ray

Proofread: Ray

Design: Tio

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Summary:

You might often hear about depression, ADHD, or any kind of 'mental disorders' as being a properly defined 'thing', and that there are even 'cures' for them. In our book on psychology, we argued that mental 'disorders' may not be a properly defined and understood aspect of psychology, but let's suppose that they are.

Even if it proves true and they are shown to be similar to biological diseases, there are big problems with the way humans currently approach this situation today. I will try to exemplify this focusing on cancer.





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Even if it proves true and they are shown to be similar to biological diseases, there are big problems with the way humans currently approach this situation today. I will try to exemplify this focusing on cancer. Cancer is nothing more than your body's own cells going 'rogue'. It is 'evolution' in action, where cells mutate and become harmful to you. We then call them cancerous.

There is still no cure or standard treatment for cancer. The way these cells mutate and behave inside your body is so varied and unpredictable across so many different types of cancer that there is no one single solution to get rid of them all. If someone has lung cancer, the doctors can't give them the exact same treatment that was given to another human being with a similar type of cancer, because each cancer is (mostly) unique, so a generic treatment either won't work or it's likely to be very inefficient. Doctors take a sample of the cancer tissue and carefully analyze it to understand its uniqueness. They sometimes put the cancerous tissue into lab rats, growing it inside their bodies so that they can test new drugs and see the results on a living creature.

The entire story of cancer is one of trial and error, that led doctors to understand that every cancer patient is unique. Even if the same treatment works for killing two similar types of cancer in two different patients, they may experience different side effects from that treatment. So keep in mind that this is a very tough task. Watch this documentary series to better understand this aspect.

Now here's the issue with the categorisation and medicalization of human behavior: if we can't provide the same treatment to people with similar cancer cells because we understand how complicated cancer is, even though we're in a situation where we can see the 'thing' (the cancer) and study it in a lab, how can we dare to think that one treatment approach can work for something that we cannot even properly define, let alone isolate, like 'depression'?

Smoking and certain types of foods or chemicals are all strongly correlated with a bunch of <u>cancer types</u>, but even this correlation is hard to properly determine, even after yearslong studies with millions of subjects. The same goes for genes that are correlated with a risk of heart diseases, diabetes, or other kind of diseases: the correlation is not properly understood because it also depends on the environment that the human experiences, e.g. if they smoke, exercise, get stressed, what they eat, etc.. Each of these variables exerts more or less effect on the potential development of cancer (or other diseases) and are very difficult to spot, if they can be accounted for at all.

Now consider how many influences affect one's behavior. Countless! Parents, school, friends, pets, tv, internet, conversations, dreams, sex, food, exercise, etc., and then add to that ALL of one's interactions, experiences and thoughts. There is no gene that is properly associated with any so-called 'mental disorder', so if you can't make a strong (if any) correlation between genetics and certain types of behaviors, it's quite unscientific to try to define some behaviors as 'illnesses', and then try to 'cure' all of the ones that seem similar with the same treatments.



Let me exemplify: there are some genes that seem to be correlated with so-called violent behavior and we discussed this in a <u>previous article</u>. To update the information on it a bit, there are some studies that highlight how certain specific neural activity patterns (brain configurations) and the presence or lack of certain genes are found in many violent murderers.

So, they are describing physical 'markers' that were found in violent criminals, and how there seems to be a correlation there. But what they also found is that the same kinds of brain structures and 'patterns', or genes, are also found in 'normal' people, too; people with no violent background. More than that, these brain structures are thought to be the result of an abusive environment (the most likely explanation right now).

Their conclusion is that no one is born a criminal or violent or with a specific brain structure, even if they later on show some biomarkers that are associated with such behavior. You can explore the latest science on genes and behavior through this 2015 BBC documentary reviewing more than 50 years of research, which shows that the environment is always a defining factor when it comes to violent behavior, and that the environment is capable of shaping the brain's structure.



I strongly suggest that you contemplate how a science like medicine is managed, with rigorous methods and lab tests, and where assumptions are not accepted. When some people try to define human behavior, they seriously oversimplify it and make a lot of inaccurate assumptions.

When it comes to cancer, you are likely to look for a few very influential habits, such as smoking or exercise, to see if they may be related to the condition or not. On the other hand, when it comes to analyzing human behavior, not only do you have to look for trauma, but also for all of the environment one is exposed to, which is, I know, unrealistic to do. But you should not ignore that fact, nor suppose it is not important. One's behavior may have been significantly influenced by a four-minute exposure to a horror film back in their youth, or a dream, or any number of other influences that you or the patient may never be able to identify.

To say that you know what depression is (or any kind of 'mental illness') in a scientific and medical manner is purely unscientific. The only way to realistically deal with human behavior is to apply the new approach to cancer: individual 'treatments'. But it's important to look at it as 'individual care'. I may be depressed because I lost my dog, someone else may be depressed because she is not happy with some aspects of her appearance, and so on. You cannot provide the same 'treatment' for everyone and think that you understood their behaviors, not even when there are signs that such a generic treatment is 'improving' their moods. Why?



Around seventy years ago, radiation and chemotherapy were used to treat cancer in a blind way, messing up people's bodies and always leaving them feeling much worse than before treatment. Some were indeed 'cured', for a while, but then the cancer reappeared. Simply put, they did not understand cancer at all. A few years later, they observed how a specific type, lung cancer, was dramatically increasing among the population. They tried the same methods to 'cure' it, largely unsuccessfully, until they realized the correlation between the environment (smoking habits developed during that period of time) and the cancer increase.

More studies were performed and the correlation became even stronger. Once they more fully understood that and managed to reduce smoking among the population (following a_strong fight with the money-motivated industries that produced and marketed cigarettes), the prevalence of lung cancer dropped among the people. They had uncovered an environmental causation for a particular cancer and, instead of relying on historically ineffective methods of killing cancer inside people's bodies, they prevented it from happening in the first place by reducing smoking among people.

It is thought that such 'cancer prevention' approaches will save far more lives than cancer treatments. So, prevention is very strongly preferred over treatment!



That level of scientific inquiry should also be applied to psychology that deals with behaviors: to try to understand how the environment affects human behavior and what produces certain harmful behaviors. If you then want to try to 'cure' those behaviors by preventing them, we will likely need to 'fight' the current establishment system in order to change the environment, like the medical researchers did for reducing the smoking habit.

It is indeed a very tough challenge, but it's the only one that make sense, and it has been proven to work across many medical fields.

If you study human behavior, but ignore environment from the equation or only consider it slightly, it's like restricting yourself to studying cancer in a petri dish without having a clue how that cancer reacts with one's body, what effects it produces within the body, and what environmental 'forces' can also trigger it or affect it in different ways (growth, severity, spread, etc.).



Because of the widespread, irresponsible use of sensationalistic or otherwise meaningless words, many news sources create a significantly distorted view of the world, and this contributes to confusion concerning 'mental illnesses'. This may be a direct cause of why so many believe that some people are born violent, or that depression is a genetic disease.

To give you an example: this title recently made its debut on the World Wide Web: "Depression Can Physically Alter Your DNA". The title looks like it is saying something exact. But is it?

I decided to read the actual scientific study that was published in 2015, instead of the news article describing it. So what does the experiment really show? Well, they define 'depression' as stress, whatever that means. For instance, if you force a rat to swim, deprive it of sleep, or do other nasty stuff to it, each of those counts as stress (they actually did those things for the experiment). So, about 11 thousand human 'rats' (people participating in the experiment), where half were 'diagnosed' with Major Depression (through observational behavior) and half were not, were analyzed deep down, looking at the DNA inside their cells.

What they found was a correlation between this stressed Major Depression 'situation'/mood that many were experiencing and some DNA variations. If some had been sexually abused or if they had experienced a severe trauma in their past, but they were not in a depressed state at the time of the experiment, they didn't exhibit this alteration. Consider, then, that these study results may only be uncovering a simple biomarker for the current state of mood one happens to be in at any given time.



Meaning, if you get fired from a job and become 'depressed' (deprived of sleep, do not eat well, feel sad, etc.) for a few weeks and they do this test on you during that period, then you will exhibit those biomarkers. But if you find a new job the next day and that elevates your mood significantly, the study suggests that your DNA alterations will likely reverse within a few days.

The entire study shows that a stressful situation may produce a marker on some, but not all, cells' DNA, and to various degrees. This variation may or may not trigger other health issues, but they did not write much about that aspect. This finding is similar to how you may lose weight, experience headaches, or cry more frequently when you are stressed. You might then ask whether the tears are supporting the 'depression', or is it the other way around? Well, the study also mentions, and shows very clearly, that the opposite is not true: if you artificially make these changes to one's DNA, the person will not become "depressed". In other words, they found no causality for depression in the DNA.

Another interesting thing to recognize is that they call the rats 'stressed' and then describe what they mean by that (sleep deprivation, forced swimming, etc.), but then said that some of the people in their study are 'depressive'? Imagine it the other way around, with them trying to call the rats depressive, and the humans stressed, by whatever factors you may identify. That way, you might learn what environmental factors caused the stressing of the human's moods and then 'fix' that to 'cure' the 'depression'. Right?

If you were a scientist rat and observed this experiment performed by humans on your fellow rats, would you diagnose those stressed rats as 'depressed' and try to provide medication to cure it? Or would you try to stop the humans from stressing the rats in the first place? That's a big contrast in focus that could significantly improve people's mental health: look at the environment.

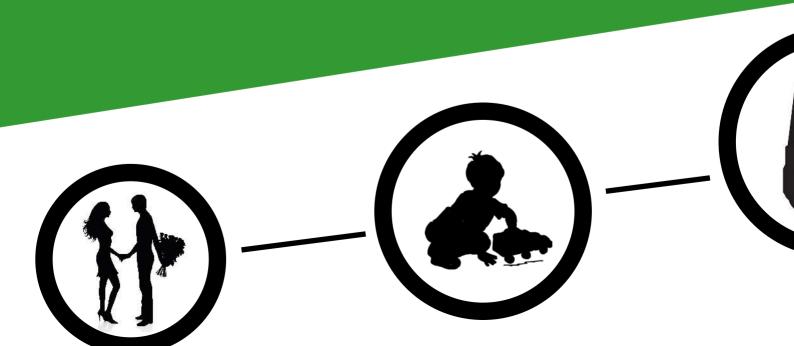
If someone commits suicide and you say they took their own life because of 'depression', you will never, ever understand why they committed suicide. That is as nonsensical and absurd as saying they committed suicide because of tears. Suicide does not happen BEcause of the depression, but rather from THE cause of the depression.

If you want to understand the world in general, you have to dig deep into the science (human body, atoms, cells, the universe, experiments). If you read the actual study on stress and DNA alterations entirely, it shows how science is done, although their choice of some words (like depression) should have been chosen more carefully. But the hurried interpretation of such studies by many news sources clearly shows that when you oversimplify or hype the science, you can very easily create mass confusion.

One very popular_website (20 millions followers on Facebook) that published this study said "This study has exciting potential for future treatment of depression. Since the molecular changes in the DNA are reversible, there is now the possibility to assess how successful treatment is on a molecular level."

But the study clearly says something completely different: "We emphasize that the molecular changes we observe are neither risk factors nor causes of MD (Major Depression). The correlation between stress, mtDNA, and telomere length is contingent upon MD; we could find no evidence that stressful life events act via changes in mtDNA or telomere length to increase the risk of MD. Thus, our data provide no support for a role of changes in the amount of mitochondrial DNA or length of telomeres in regulating mood."

So, pay close attention to news sources, trying to find and read the actual studies they are derived from, even though they can often be more difficult to comprehend (long text and complex words). Or perhaps wait for a smarter A.J. that can simplify these studies for an easier read, without interpreting them in erroneous ways. :)



When it comes to defining, understanding and modifying human behavior, think of how complex it is to understand and try to cure cancer, so that you might better understand that 'behavior' is much more complex, and simple definitions cannot possibly encapsulate the multitude of interactions that create individually unique behaviors.

Unlike cancer. which is a byproduct of multiple cell divisions and some environmental influences, human behavior seems to be solely a byproduct of the environment, providing us with a path towards 'curing' harmful behaviors by altering the environment. We need to take advantage of that, but it's not always so easy to do. We detailed how this should be approached in a previous article, and we highly recommend that you read it.





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