Psychology Is An Unfalsifiable Pseudo-Science—A First-Principle Deconstruction of The Epistemological Failure Of Psychology

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Abstract

This paper presents a first-principle deconstruction of psychology, arguing that it operates fundamentally as an unfalsifiable pseudo-science. We highlight that clinical psychology relies entirely on subjective self-reporting and circular diagnostic frameworks, its severe reproducibility crisis, the mathematically invalid statistical practices within the field, and how descriptive behavioral categories like "mental illnesses" are improperly used as root causes in a circular logical loop. We further dismantle common defenses of the field—including philosophical attempts to redefine the scientific method without the requirement of falsifiability and the retroactive rationalizations used to defend psychological practices. We conclude that the foundational mechanics of psychology are indistinguishable from astrology. Hence, we propose that society cease classifying psychology as a science, as expanding the definition of science to accommodate psychological methodologies would logically require granting the exact same scientific legitimacy to astrology.

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I Introduction: when every viewpoint is "proven"

We are supposedly living in a "post-truth" era. This is often blamed on technology for churning out more contradictory information than anyone can possibly consume, AI for rendering fiction indistinguishable from reality, and algorithms for trapping us all in inescapable echo chambers.

But a more critical look reveals that technology changed absolutely nothing. Long before AI, there were digital manipulations like Photoshop. Already in the 1950s there was the splicing of audio recordings to manufacture false confessions. Even prior to rudimentary technology, human history was governed entirely by hearsay, gossip, and unverified testimonies. The fundamental issue lies not with our tools, but with our innate human biases.

This is where "science" theoretically comes in—designed as an objective referee that strips away human bias, tests hypotheses against reality, and deliver unvarnished facts. But has science provided a reliable refuge from this bias? **The answer is a resounding no.** In fact, we're in the post-truth era precisely **because** the public has lost faith in science.

Fundamentally, this happens because no matter what viewpoint you hold, you can find ample "scientific" research to support it. This is why science discussion today is as much about picking and choosing theories to fit one's bias as it is a pursuit of the truth. Consider the following very real example. For any expert—call him the "Original Expert" (OE)—who says:

***OE**: "Science proves a glass of wine every night is good for your health [1]."*

You will always find some "Rival Expert" (RE) who "fact-checks" the science and declares it false:

***RE**: "Actually, correlation does not imply causation. You reached this conclusion only by cherry-picking favorable studies. You see, I have here 10 studies—Ref. [2–11]—that overwhelmingly prove wine is bad for your health."*

The Original Expert easily fact-checks the fact-checking and declares that to be false:

***OE**: "Actually, you're the one cherry-picking studies. Because I have here 20 studies—Ref. [12–31]—that overwhelmingly support MY theory and debunk YOURS."*

***RE**: "As a matter of fact, if you stop cherry-picking and you read all 20,000 studies in the whole wine literature, you see the consensus is that wine is actually bad for your health."*

***OE**: "But if you zoom out and read all 50,000 papers from the entire field of molecular studies, they conclude resveratrol in wine repairs DNA, slows aging, and prevents cancer."*

***RE**: "Except your body of literature can't be trusted, because I have evidence that your faction is highly biased and funded by alcohol research foundations and wine companies!"*

***OE**: "But your body of literature is even less trust-worthy, because I have evidence your faction is sponsored by Coca Cola and the soda industry to discredit the wine industry!"*

And so on, and so forth, *à l'infini*. This is not an empirical pursuit of truth, it's a **board game** where each side tries to score points by stacking research, with the rewards being grant funding, media visibility, and furthering some agenda.

The only way to get close to the objective truth would be to carefully evaluate all 70,000 studies one by one, accounting for biases, statistical manipulation, and "nuances." This is completely unfeasible even to an expert, let alone to the general public. If there is indeed a "truth" hiding in these 70,000 studies, it is—for all intents and purposes—completely inaccessible to the world. And when the truth becomes unknowable, it also becomes irrelevant.

Some might propose, *"Perhaps we can use AI to synthesize the research and evaluate its accuracy."* But how can an LLM know if something is accurate, when its knowledge is trained precisely on these 70,000 papers? It is like assessing the precision of a ruler with the ruler itself. Furthermore, LLMs are trained on consensus and quantity, they are not capable of judging quality—whatever that means. And thus far, they're not capable of performing mathematical calculations, so it's entirely unclear if they're sophisticated enough to see through statistical manipulation and p-hacking.

While this academic pantomime continues, the general public is left entirely paralyzed by a barrage of contradictory studies. This also completely destroys the credibility of science, especially when the rigorous, foundational sciences—and there are only three: physics, chemistry, and biology—suffer immense reputational damage when they are categorized alongside other highly malleable pseudo-disciplines.

This paper focuses on the most egregious offender within this ecosystem: **the field of psychology.** Now, if a field such as nutritional science suffers from these issues, imagine the absolute intellectual bankruptcy in a field like psychology. Yet, psychology is arguably more relevant to our day-to-day decision-making as it attempts to codify and dictate human behavior itself. But it operates on theories that are unfalsifiable, unreproducible, and fundamentally indistinguishable from astrology, while successfully masquerading as hard science.

This is not a victimless illusion. This pseudo-science has infected critical societal pillars. It influences criminal law through the "insanity defense," corrupts outcomes in family courts, and it invents endless categories of "disorders" within the education system. It is, ultimately, an unscientific framework designed to excuse human action, and it is entirely incompatible with objective reality.

There have been past attempts to shift psychological paradigms, mostly motivated by the psychotherapy industry. Sadly, they were doomed from the start. They were not done by good actors, but mostly by the alternative health industry trying to replace mainstream therapy with their own brands of therapy. The fundamental problem is this: they try to debunk research with research, but how do we know whose research is correct? It led us right back to the "board game" that does nothing to reach actionable conclusion and only adds noise to an already deafening echo chamber.

That's why the situation requires a much more fundamental approach. Not to evaluate individual studies, but the entire foundational bedrock of psychology as a whole.

I.1 The case for a new scientific revolution

We present here the world's first first-principle analysis of the foundational mechanics of the field of psychology. Rather than relying on easily manipulated datasets or flawed studies, we will dismantle every single aspect of the field. This paper is the first of its kind in that we will prove rigorously, with a theoretical physicist's absolute precision, why the discipline functions as a badly constructed illusion.

The first scientific revolution taught every science student to distrust stories and anecdotes, but rather believe in empirical data and statistics. Yet, every practicing scientist knows in their heart that statistics merely provide the delusion of objectivity. We all know how easy it is to cherry-pick thirty papers to support whatever argument we are trying to make, no matter how outlandish. When anyone can cite peer-reviewed literature to validate their claims, how is the general public supposed to distinguish between "real" experts and "fake" experts? They cannot.

This is precisely why we are in desperate need of a new scientific revolution: a fundamental shift away from easily manipulated statistics, returning instead to the incorruptible foundation of first principles and rigorous logic.

This is exactly what we will do in the present study. We will, in fact, purposefully avoid the standard academic practice of padding our bibliography. As the contradictory wine studies prove, the ability to cherry-pick peer-reviewed literature to support whatever argument proves absolutely nothing. To meticulously cite pseudo-scientific research in order to disprove a pseudo-science simply validates the board game approach, and it defeats the purpose.

If you encounter a specific statistic in this text—such as the r-value of IQ studies—and you're skeptical, then we encourage you to go verify it yourself. However, if verifying that statistic through a peer-reviewed paper makes you feel more assured, consider whether you are fact-checking or simply seeking the comfort of consensus—the consensus of a compromised literature base, no less. Instead, we invite the reader to engage in first-principle thinking. Evaluate the structural logic of the argument itself, rather than relying on the very literature being called into question. Indeed, in the present study, we will move to the only foundation that cannot be manipulated, cherry-picked, or p-hacked: reductive, first-principle logic.

No doubt many readers will disagree with the content of this paper. And by pasting phrases they disagree with into their favorite AI, along with the prompt, "Find me 30 scientific papers that debunks this claim," they will always be able to fact-check this paper and find it false. They won't realize that by doing so, they have merely proven our point: you can always find research to support any argument. This is exactly why a first-principle approach is necessary. **However, if there are legitimate disagreements from social scientists who are willing to stake their reputation on the line, the author is always open to a debate on a public forum.**

In Section II.1, we establish clinical psychology as an unfalsifiable pseudo-science. II.2 exposes its unreproducible nature. II.3 deconstructs statistical manipulation, including the Meehl paradox. II.4 explores the fatal flaw of relying on self-reporting in clinical settings. II.5 demonstrates the mathematical impossibility of applying probability to individual humans. II.6 proves the definitional non-existence of mental illnesses (such as autism, ADHD, PTSD, bipolar, IQ).

Every single one of these aspects is enough to prove the field is a failed framework as "science", and indeed many of these individual flaws have been noted in isolation by other critics. Our goal is to unite them into a definitive case to illustrate the sheer scale of the deception, show the total structual collapse, and to close every exit for those who would claim the discipline is still redeemable.

Section III deconstructs further common defenses of the discipline. Section III.1 dismantles arguments claiming psychology is falsifiable. III.2 exposes the linguistic theft of biological concepts like "neuroplasticity" or "evolution" to justify behavioral theories. III.3 highlights the major semantic attempts to re-define the scientific method just to exclude "falsifiability."

And finally, in Section IV, we will show that psychology is, fundamentally, equivalent to astrology. And we will give two proposals regarding how scientists should treat psychology.

II Psychology Is An Unfalsifiable Pseudo-Science

II.1 Clinical psychology is not falsifiable

Much of the existing literature criticizing psychology focuses entirely on treatment outcomes. In doing so, they miss the fundamental reality of the situation. It is akin to debating what's the best way to perform a rain dance. The real problem with clinical psychology is not its efficacy, but that it is fundamentally a non-science. Let us observe the elephant in the room. Consider the following fictional but entirely recognizable conversation between a clinical practitioner and a patient.

***Psychologist**: "It's become quite clear to me. You fall within the spectrum of **Narcissistic Personality Disorder**."*

***Patient**: "Huh? But that can't be true... Aren't narcissists supposed to be self-centered? But I have meaningful friendships, I spend time with my friends and I worry about their well-being. I'm not selfish."*

***Psychologist**: "Yes, but that's the textbook definition of a **high-functioning narcissist**. You find these friendships meaningful because they validate your self-image as a 'good friend'. These people are not individuals to you, they're sources of **narcissistic supply**. You say you 'worry' about them, but it's simply a defense mechanism to ensure that supply chain remains stable."*

***Patient**: "What? Okay, but... I also have self-doubt. I constantly question myself. I thought narcissists were supposed to be pathologically over-confident."*

***Psychologist**: "But that's a classic case of **covert narcissism**, where you use outward display of self-doubt to elicit pity and reassurance from others. Instead of demanding admiration directly, you use highly sophisticated **masking** to manipulate others into offering it freely out of sympathy. It further confirms my diagnosis."*

***Patient**: "But don't normal people do these things as well? I don't think I do it more than anyone else, can you really call it a disorder?"*

***Psychologist**: "Instead of meaningful self-reflection, look how quickly you try to dismiss the possibility. This is the very definition of **denial and emotional repression**, a refusal to confront the underlying pathology."*

***Patient**: "But this is ridiculous! I reject your diagnosis. I call it bad faith and I think it's all false!"*

***Psychologist**: "And there you have it. The final, definitive marker: **narcissistic rage**. An extreme, aggressive, and disproportionate reaction to having your fragile ego challenged by a professional diagnosis. Thank you for this textbook demonstration. Our session is complete."*

Perhaps this conversation never happened verbatim, but that's besides the point. The point is this: Put yourself in the shoes of a patient who has just been diagnosed as a "narcissist." **What can you say or do to prove you're not?**

The answer is nothing. The patient cannot possibly prove the practitioner wrong. If you are a good friend, you're a "high-functioning narcissist" and your friends are your "narcissistic supply." If you experience self-doubt, you're a "covert narcissist" engaging in "masking."

This circularity is built into DSM-5, which only requires ticking a few arbitrary boxes to form a diagnosis. When you only need to match 5 out of 9 criteria, two different patients can have completely opposite symptoms, share only a single overlapping trait, and still be given the same diagnosis. It's less of a diagnostic framework, and more like a poorly-written choose-your-own-adventure novel. But the astute observer will recognize the more fundamental issue: no matter what the patient says or does, the practitioner can rationalize it into a confirmation of their initial hypothesis. This is the exact definition of an unfalsifiable hypothesis, and therefore, a pseudo-science.

Recall the most basic, absolute definition of science taught to every freshman in the hard sciences:

- A science is something falsifiable, "It can be disproven by experiments."
- A pseudo-science is something unfalsifiable, "It can't be proven or disproven by experiments."

Because psychology relies on interpretive frameworks that cannot be systematically disproven, it falls strictly into the category of pseudo-science. This is not a matter of subjective preference or academic debate. It is an irrefutable consequence grounded in simple, binary logic. And let me be absolutely clear: no amount of "peer-reviewed" research—reviewed entirely by a circular club of social scientists—can change this fundamental, black-and-white fact.

For example, take the popular notion that "IQ is related to intelligence." Can such a statement be proven or disproven by experiment? No. Because we don't know how to measure intelligence, hence the invention of IQ. But is IQ a reliable measure of actual intelligence? No one knows.

What about the claim that "grandiosity is a sign of narcissism"? First of all, what is "grandiosity"? The term is entirely subjective. Furthermore, it is unfalsifiable. How would one prove or disprove it? One cannot. It is logically equivalent to stating, "Confidence is a natural trait of a Leo."

II.1.1 Is falsifiability still necessary in today's world? (Yes)

One could easily stop here, as **the logical case is conclusive**. But let us indulge some more common objections. For example, psychologists might object: *"But psychology is a science because of consensus. It has immense grant funding, it is recognized by legitimate research institutions, and it is being actively researched by brilliant minds."*

Yet science is not a democracy. Approximately 50% of the Indian population wholeheartedly believes in astrology. That is about 700 million people, a figure that far outnumbers all the social scientists on the planet. There are legitimate astrology research institutes, and major, accredited universities grant degrees in the field. **There are over 100,000 degreed practitioners of astrological science**—a scale comparable to the number of clinical psychologists in the US. Does this overwhelming consensus and institutional backing make astrology as much of a science as psychology?

Science is not defined by funding. Nor does science care about our subjective feelings or academic consensus. Science is falsifiability.

Some psychologists may then argue that *"Karl Popper's view of falsifiability is 'outdated' or lacks the 'nuance' required for human subjects,"* suggesting we need new, less rigid definitions of science. Some other might pivot, *"Why do the semantics matter? Even if it is not a 'science' by a rigid definition, it is still incredibly useful."*

The issue is, again, you cannot remove the rigid boundary without elevating astrology to a science. We will examine their attempts more closely in Section III

Furthermore, labels do matter. If labels do not matter, and if it is merely a useful framework, why do social scientists not stop saying "Scientific research proves..." and start accurately saying "Pseudo-scientific research suggests..."? If they argue psychology is less about "discovery" and more about "influence"—making it more like a tool or engineering—then how do they like the proposal that we as a society should honestly rename it "Social engineering?"

They will not agree to such proposals because the word "science" is a sacred brand name that lends the field unearned credibility.

Even if something is useful, usefulness does not define science. Otherwise, religion would be a science. Is psychology actually useful? Subjective feelings aside, it certainly is. And it is useful precisely because it's interesting. Other than that, there is little utility, as we will prove.

Some might still object. *"But there are fields like behavioral psychology that **are** falsifiable! They conduct actual experiments."*

We agree that they do conduct experiments, though it is arguable whether this constitutes "psychology" in the traditional sense. What is psychology? We define it here as the attempt to use *psychological constructs*—concepts such as "defense mechanisms," "mental illness," or "suppression"—to explain human behavior.

So it is not neuroscience (which uses biochemistry to explain human behavior), nor is it "behavior psychology" (which treats the mind as a black box and focuses entirely on inputs and outputs, even though it is unfortunately named "psychology").

But we'll now give evidence that this type of "research" should also be taken with a massive grain of salt. Because most psychological research is wrong. And that brings us to the second point.

II.2 Psychology is not reproducible

More than 50% of psychology research is not reproducible. This is the well-documented "reproducibility crisis." It does not mean more than 50% of the research is simply wrong. Rather, it is much worse. It means more than 50% of the research is entirely meaningless, we do not even know if it is right or wrong. So we cannot even meaningfully learn from our failures, and the percentage of research that is actually "right" is inevitably far less than 50%.

To try to fix this issue, social scientists have proposed solutions that fall into two broad categories:

1. The "Open Science" movement to improve transparency.
2. Statistical modifications to reduce error rates.

For this section, we will focus on the first. In short, the open science movement dictates that researchers must now publish their **raw data**, not just their final conclusions.

Let us pause for a moment and carefully consider what this actually means. The field of psychology has a history of roughly 150 years. For more than a century, they never once felt the need to publish their raw data. They only "invented" the concept of **transparency** ten years ago.

Take your favorite psychological study—whichever it is. For example, the famous 1978 "Copy Machine" study by Harvard researchers, which proudly concluded that if you simply use the word "because" when asking to cut a line, people are statistically more likely to allow it, even if your reason makes little or no logical sense. It is undeniably a very interesting story. But consider how a conversation about this "science" actually goes between a physicist and one of the psychologists conducting the experiment:

***Physicist**: "This is a very entertaining anecdote. But I am not convinced. The difference in compliance could easily be due to the mannerisms, the physical attractiveness, or the vocal tonality of the subject asking the favor. It could even be the time of day or 20 other variables. And you said it depends on if it's a 'small favor' or a 'big favor', but how exactly is this defined?*

***Physicist**: "In light of all these variables, I'd like to review the raw video footage of the experiment. May I?"*

***Psychologist**: "We don't have any raw footage."*

***Physicist**: "Do you have any audio recordings of the interactions?"*

***Psychologist**: "We don't have any audio recordings."*

***Physicist**: "Do you have at least a spreadsheet? Literally any raw data at all tracking the individual interactions?"*

***Psychologist**: "We don't have any spreadsheets and we don't have any data to share. We only have the final results. It's in Table 1 of our paper."*

***Physicist**: "But how do we know the final results are true? Table 1 is literally just four numbers on a piece of paper! How do we know you didn't just make them up in a coffee shop?"*

***Psychologist**: "Are you accusing us—Harvard scientists—of lying?"*

***Physicist**: "Wait a minute, I just realized the situation is much worse than I thought. How do I even know the experiment actually happened? You have zero footage, zero data collection, zero recordings... Do you have **any proof at all** that this experiment occurred as you described it? That you actually had a sample size of 120 people? Can you give me anything at all to make me feel confident that you didn't just invent the entire thing?"*

***Psychologist**: "It is not customary in our field to provide proof of our claims. But you can **Trust me, I'm a scientist.**"*

Sadly, this is not an exaggeration. Most legacy studies in this field indeed consist only of a few numbers on a page. And the foundational proof is simply, "Trust me."

Furthermore, even when raw data is provided, it often signifies very little. How do we know a team didn't conduct an experiment 240 times, only to select the 120 instances that supported their hypothesis while discarding the rest as "anomalous"? Or, even more simply, they could just

manufacture the spreadsheet from scratch.

For example, look at the infamous Stanford Prison Experiment, where researchers actually did take footage. It was later revealed by the participants themselves that the researchers heavily coached the guards on exactly how to behave. The whole experiment was faked and directed like a reality TV show. Arguably, a faked recording is better than no record at all, at least we know the experiment "happened". Yet the vast majority of celebrated psychological research lacks even that.

The examples of these failures are simply too many to name. Consider the heavily cited study claiming that inducing an "analytical mood" causes people to donate less to charity. It was treated as absolute truth for decades before being exposed as completely false. Or the famous finding that signing a honesty disclaimer at the top of a page reduces lying—an assertion that turned out to be entirely fabricated.

Here is an honest question we'd like to pose: Why are those unreproducible papers still online? In physics, when a highly publicized claim cannot be reproduced—for example, cold fusion, pentaquarks, or faster-than-light neutrinos—whether it is an honest mathematical error or downright fraud, the original paper is retracted, and often, the researcher's career is over, their reputation ruined. There is consequence and accountability.

In psychology, only the most explicitly fraudulent research is ever retracted, but the vast majority of the wrong, unreproducible research is happily left online. A layperson might see the "analytical thinking kills sympathy" paper and naturally assume "Wow, 1,500 citations. This must be credible!" Even though it's nonsense. Worse, such papers continue to be cited, and they are used as the foundational building blocks for even more research! Why? And is the fruit of the poisonous tree admissible? A lawyer will say no; a psychologist will enthusiastically say yes.

Next up, let us examine their second proposed fix: statistics.

The theoretical reasoning is sound: to fix the crisis, the only other option would be to radically lower the statistical error rates. That includes proposals to fix the false-positive rate (the p-value), for example, by shifting the standard from 0.05 to 0.005, and fixing the false-negative rate (statistical power). While these shifts have been enthusiastically discussed for years, they have yet to be adopted at the time of writing. However, even if they were, would it fix the foundational issue of the field? The answer is an absolute no. This is proven in the following section.

II.3 Statistics in social sciences are meaningless

There is a famously revealing paper titled "Same Data, Different Conclusions", which demonstrates exactly what the title suggests: when you give the exact same dataset to different teams of social scientists, they manage to reach drastically different conclusions—with variations in results as high as 300%. But as always, the problem is much worse than mere interpretation bias.

The reproducibility crisis is arguably the least of their concerns. A much bigger, fatal issue is the measurement problem.

Let us discuss Meehl's paradox. Meehl proved that in the social sciences, "p-hacking" isn't even a hack. It is a fundamental mathematical reality. In the physical sciences, variables are either causally connected or they are not. But in human behavior, because everything is at least slightly correlated with everything else, if you simply gather a large enough sample size, the statistical power approaches 1.0, and you will always "prove" an effect exists. Meehl has proven that **with enough data points, you can always, ALWAYS mathematically reject the null hypothesis.**

This begs the question: What's the point of null-hypothesis significance testing (NHST) at all? Social scientists claim it provides a way to distinguish between genuine phenomenon and statistical noise. But this is only true by ignoring reality. The reality is NHST as practiced by them is simply bad science. It is diametrically opposed to the way every other science functions. Let's offer a simple thought experiment to illustrate this.

Imagine we have two "opaque boxes." They're not quite "black boxes" where we can't see inside

them. Rather, with these opaque boxes, we can peek inside and observe their physical components. We definitively observe that the physical components inside Box A are structurally different from the components inside Box B. Here is a simple question: given that their internal mechanics are different, would their outward behavior, a priori, be exactly the same, or different?

Any engineer, physicist, or anyone with a reasonable mind will say they are different. It follows from simple, reductive first-principle logic: the machines are built differently, so they will naturally behave differently. Furthermore, consider the issue of the burden of proof. In any rational discipline, the burden of proof falls on the person who claims these two physically distinct machines somehow magically produce the exact same behavior.

But what if I told you these two "opaque boxes" are male and female brains? Suddenly, the paradigm shifts. Most people, conditioned by modern academic dogma, would suddenly say the burden of proof lies on those who claim they behave differently. Why? Because this is exactly what social scientists who worship NHST would say: *"No. According to the null hypothesis, we must assume their behavior is exactly identical until proven otherwise. The burden of proof lies on you to prove they behave differently."*

This is a fundamental inversion of logic. It forces us to adopt a starting position that denies the physical structure we can see with our own eyes. It is an ideological default masquerading as a mathematical baseline. Because wait—if the two opaque boxes are structurally and biochemically different, why should it be up to us to prove they would behave differently? It reveals several problems:

1. It completely decouples psychology from the foundational biology. A social scientist's framework and starting point is NOT based on physical reality. Then what is it based on? Magic?

2. It creates a bizarre, inverted burden of proof that wastes immense resources. Billions of dollars in grant funding are spent merely to reject null hypotheses. If they succeed, it is self-evident—null hypothesis should never have been the baseline to begin with. If they fail, it simply means they didn't have a big enough sample size and statistical power (per Meehl). So I ask again, what's the point?

3. It manufactures moral crisis out of thin air. When the null hypothesis of "zero difference" is treated as the natural, default state of the world, any deviation is explained via "systematic bias", "social conditioning", or "inequality", all of which invisible and unfalsifiable, and only invented because they're using the flawed NHST baseline to begin with.

   In an engineer or physicist's worldview, the differences could, by default, be the natural result of different biological hardware, they do not need explanations at all. Why do we need explanations? Why isn't "different" considered the natural state of the world? In fact, once again, since Meehl proved you can ALWAYS find these "bias" or "inequality" between any two groups of people, you realize these **are indeed** the natural states of the world.

This reveals a fundamental conflict in philosophy and starting points between objective reality and a social scientist's framework.

Psychologists might protest here. *"But NHST is also used in hard sciences such as particle physics. The Higgs Boson was discovered by rejecting the null hypothesis!"*

This comes from a misunderstanding of what "null" actually means in physics versus psychology. In physics, the "null" is not "nothing", instead it's rigorously and mathematically predicted by Quantum Field Theory. But in psychology, the "null" is the lazy, baseless assumption that "nothing is happening", which is also *a priori* false in their infinitely correlated system.

II.3.1 What if we measure "effect sizes"?

Some pragmatic defenders of the discipline have recognized this embarrassment. They say, *"We need to be strictly quantitative. We shouldn't just accept or reject H_0. We must measure effect sizes*

and confidence intervals to see how much a difference actually matters."

On the surface, this sounds like a victory for rigor. In reality, it is a tragic illusion—an attempt to force the language of rigorous mathematics onto a pseudo-scientific foundation. Because there are no "effect sizes" to be measured!

In order to rigorously quantify something, the metric must be a true "number". More technically, it must obey the additivity axiom. This simply means we must mathematically prove that the thing we are measuring is an actual, continuous number with equal intervals. Length is a number. Mass is a number.

But psychological metrics are not "numbers".

For example, suppose I have an IQ of 140, and someone else has an IQ of 70. What does this mathematical difference mean? Does it mean I am "twice as smart" as them, because 140 is precisely double 70? But no, because the scale is arbitrary. In reality, it might be that I am only 5% smarter than them, or 1% smarter, or it's even entirely possible that they're smarter than me. Because once again, the premise that "IQ measures intelligence" is unfalsifiable. But now we see that the numerical gap itself is an illusion.

This is because IQ, despite looking like a "number", is actually an ordinal rank. It measures percentiles, not quantities.

A close analogy is the rank in a Marathon. My rank (1st, 2nd, 3rd...) is an ordinal rank (ordered rank). But if you want to know anything about the underlying physical quantity—in this case the time taken to finish the Marathon—the ordinal rank is useless. Because there could be 60 seconds between the 1st and the 2nd place, and 60 minutes between the 2nd and the 3rd. It is like measuring length with a rubber ruler, where the length of the ruler changes between each measurement. It is impossible to get meaningful measurement.

So we see the fatal mathematical problem when attempting to measure "effect size." Calculating a mean or a standard deviation on ordinal data is meaningless.

Suppose a psychological treatment can "increase IQ by 20 points," this claim is conceptually empty. Because the "size" of those 10 points is entirely different depending on where you are on the curve. For example, my friend with an IQ of 80 will have to leapfrog over 40% of the human population to reach 100, but if I had an IQ of 140, I only need to surpass 0.4% of the population—just a handful of people in relative term. A more fundamental issue is that, it might be that my friend needs to improve his intelligence by 200%, whereas I only need to improve my intelligence by 0.001%. This is possible because once again, IQ is not a measure of intelligence, it is a rank. Therefore, calculating the "effect size" of a 20-point jump is mathematically meaningless.

Of course, this mathematical fallacy is not uniquely limited to IQ. It applies to literally every questionnaire, Likert scale, and diagnostic criteria used in the field. When a depression survey asks a patient to rate their mood from 1 to 5, how do we know the distance between 1 ("Very Sad") and 2 ("Sad") is mathematically equal to the distance between 3 ("Neutral") and 4 ("Happy")?

Attempting to calculate means, variances, and effect sizes on these ordinal ranks is mathematically void.

The defenders will invariably protest, *"But what about mathematical robustness? What about the Central Limit Theorem? Aggregated ordinal ranks can approximate continuous variables and be rigorously analyzed using non-parametric statistics!"*

Exercise: Do you see the flaw in this argument?

First of all, the whole point of ordinal ranks is you cannot add them. Suppose I ran three Marathons,

- In Race 1, I finish 1st,

- In Race 2, I finish 3rd,
- In Race 3, I finish 5th,

When social scientists "aggregate", that's like saying, "If we aggregate the scores, $1 + 3 + 5 = 9$, which means your total Marathon score is—"

But wait! What does it **mean** to add up the scores? It is meaningless. Even if we aggregate all the scores in the world into a perfect bell curve, that curve lacks meaningful units. It represents no physical reality, such as time. It is a bell curve of shadows. Once again, mathematical robustness does not change the fact that you are measuring with a rubber ruler. In the Marathon example, the physical quantity is time, but that information is lost, and no amount of statistics can restore it.

Some might argue for "mathematical robustness," suggesting that you can change certain inputs or assumptions and still arrive at the same output, meaning the model is sound. However, "robust" really just means "insensitive to reality." If you can change your inputs and your assumptions, and still get the exact same output—it's called **unfalsifiable.** We can make the mathematics perfectly rigorous, but perfect mathematics describing pseudo-science is still pseudo-science.

Besides, remember what drove them to want to use sophisticated math in the first place—it's so we could bypass Meehl's paradox, that we wanted to measure effect sizes. But if we pivot to non-parametric statistics to bypass the "illegality" of averaging ordinal data, we fall right back into Meehl's paradox, which says we can always find statistical significance just with enough data. We are right back where we started.

II.4 Clinical psychology relies entirely on self-reporting

To understand the issue with self-reporting, we must return to *why* the scientific method was invented in the first place.

Before the advent of science, all human knowledge was based on self-reporting. "I feel this herb cures my plague," or "I strongly believe this alignment of the stars brings me good luck." But eventually, the hard sciences figured out a very simple truth: human testimony is not to be trusted. Why? For the simple reason that humans lie, knowingly or unknowingly. We exaggerate, we rationalize, and we manipulate information to serve our own interests.

The entire scientific method—with its objective measurements, control groups, and falsification—was explicitly created to remove human self-reporting from the pursuit of reality.

But what is clinical psychology? It is **fundamentally, 100% self-reporting.** "I feel depressed," "I feel slightly happier after taking this pill," "On a scale of 1 to 10, my anxiety feels like a 7." This is not progress, it is intellectual regression. To treat these statements as data is to effectively roll back human progress by 1,000 years, returning us to an era where "truth" was whatever a person felt like saying at the time.

Psychologists are aware that their field rests on this shaky foundation. To compensate, and in a stroke of extreme arrogance and delusion, they even historically attempted to anoint **themselves** as the ultimate arbiters of truth. Look no further than criminology. You have psychologists who posit that they possess a specialized "clinical eye" for deception. We see this constantly in popular media, too, where "experts" analyze police interrogations, claiming: *"The suspect crossed his arms and looked to the left, which is a sign of cognitive dissonance and deception."*

Let us apply some basic logic here. It's commonly observed that pseudo-scientists possess wildly creative minds, and this is no exception. However, if they had actually discovered a way to reliably detect lies just by observing body language, it begs a very simple question: Why haven't they patented themselves as a human lie detector and become the world's first trillionaires? Elon Musk sending rockets to Mars dwarf in comparison to the God-like achievement of reading the human mind.

Because, of course, the precise connection between body language and deception exists solely in the psychologist's overactive imagination. It is a fantasy designed to grant them authority they

haven't earned.

Interestingly, this specific brand of "body language reading" has been largely debunked even by modern psychologists—primarily because when they tried to use it in criminal courts where people are actually held accountable, judges rightfully threw it out as inadmissible "junk science."

Yet, here is the glaring contradiction: While they were forced to admit that this specific application was flawed, the foundational principle—the idea that unobservable internal states (like cognitive load, stress, or emotional trauma) predictably manifest in observable external behaviors—REMAINS the absolute core pillar of all clinical psychology.

But if it is legally impermissible in a court of law to use "vibes," fidgeting, and speech patterns to reliably determine if someone is lying, why is it universally accepted as hard science" to use those exact same vibes to diagnose someone with a lifelong mental illness?

II.5 Statistics cannot describe individuals

Figure 1

It's very common to see media borrowing of the aesthetic language of mathematics to lend a veneer of scientific credibility to a narrative. Take, for example, the infamous forecast published before the 2016 US election: "The New York Times Presidential Forecast: Hillary Clinton has a 91% chance to win."

We know it was a poor prediction because the outcome was different, but the foundational mathematical issue goes deeper than being "wrong." From a first-principle perspective, what does "91% chance" actually mean in a one-off event?

- It does not mean she is physically 91% of a president, as the office is binary.
- It does not mean she would win 91% of the time, as there is only one 2016 election. It is a one-off event.
- The only way to "make sense" of it would be to say, "Perhaps in 100 parallel universes, she will win in exactly 91 of them." Perhaps. But we do not live in a multiverse, so it is irrelevant.

So, what is the point of the 91%? There is none. It is a classic misuse of statistics and fundamentally meaningless. Worse, it's useless. Perhaps one can find meaning in isolated cases, such as when making decisions in the betting market. But for the vast majority of us who don't participate in the betting market, exactly where does the statistics come in use?

As another example, imagine a doctor gravely tells you, "You have cancer. Your 5-year survival rate is 60%."

Does this statement have any mathematical meaning for you? The only thing you know for absolute sure is that you have cancer. But the "60%"? What does it mean? The precision is a delusion. The only way to make sense of it is: "When we historically applied our treatment to a bulk group of 1,000 people, 600 survived and 400 died, but there is no way of knowing which of the two groups you belong to."

Such statistics are no doubt useful to the hospital administrator who must manage a large inventory of hospital beds, or an insurance company managing financial risk. But for us as individual patients, the number is completely meaningless, because the outcome for you is strictly binary: you will either live or you will die. Statistics describe aggregates, they cannot, by definition, describe a one-off event or an individual.

Psychologists are arguably worse offenders than doctors. They have been using the language of statistics to mimic the authority of hard science for a long time. During World War II, a psychologist performed a "psycho-analysis" on Adolf Hitler, famously concluding that Hitler had a "very high chance" of committing suicide. When Hitler did commit suicide, the psychologist paraded around like a genius. But what does a "high chance" mean? Hitler either commits suicide, or he doesn't. There is no partial suicide. It is not science, it is a mimicry of science.

But this is exactly why every diagnosis and prognosis in clinical psychology is an illusion. When a therapist tells you, "You have a **high risk** of relapsing," it means nothing. When they diagnose you with a mental illness using questionnaires, what they are actually saying is, "Based on how you filled out this form, you share traits with a category we created. Obviously nothing is 100%. But there is a chance you're a narcissist." But chances do not apply to you, an individual. You either are, or you aren't. The diagnosis is meaningless (doubly meaningless when you account for the fact the categories themselves are made up).

II.5.1 The "Bayesian" defense that solves nothing

Most people don't understand statistics, including notable physicists and statisticians. A popular stance is to outsource one's thinking to Bayesian inference—the idea that probability represents an imaginary "state of knowledge". They might mention probability is some measure of "ignorance", "information", or even "entropy". They'd also argue that probability can rigorously describe a one-off event.

Of course, none of these hold up under scrutiny. The key issue is **we don't know what we don't know.** How do we know our "state of knowledge" is reliable? You need another piece of information to assess the validity of the current piece of information. And then another to assess that one. It is turtles all the way down.

Granted, in hard science like physics, it can be argued the regression stops. For example,

- Level 1: Is the blip on the screen accurate? $\rightarrow$ Only if the antenna is calibrated.
- Level 2: Is the antenna timestamp accurate? $\rightarrow$ Only if its internal chronometer is accurate.
- Level 3: Is the chronometer accurate? $\rightarrow$ Only if the atomic clock is accurate.
- Level 4: Is the atomic clock accurate? $\rightarrow$ It is based on the transition frequency of Cesium-133, tied to the Planck constant h via formula such as $\Delta E = h\nu$.

The regression stops because we reach the bedrock of universal constants. In physics, we always regress to fundamental constants such as the Planck constant h, the speed of light c, the value of π...

We can of course always ask, "How do we know h, c, π are accurate?" The truth is we don't. But let's say we don't truly believe π may change tomorrow, then we can terminate the regression, and in a Bayesian's view, the probability is rigorously defined. But either way, in psychology, the regression looks quite different:

- Level 1: How do we know the narcissism diagnosis is accurate? → We could compare it to historical test data.
- Level 2: How do we know the historical data is accurate? → We could ask if the original practitioners agreed on the diagnosis.
- Level 3: How did the original practitioners know they were right? → They held a committee meeting and voted on the definition of the disorder in the DSM.
- Level 4: But how do we know the committee was right? → ...

It is indeed turtles all the way down, with no way of knowing where the chain of evidence actually meets reality. The bottom turtle in psychology is not a physical constant, it is human consensus—worse, it's human consensus often lost in history. Subjective information is validated only by other subjective information, *ad infinitum*.

Some statisticians will point out how Bayesian inference doesn't even require the prior assumptions to be based on reality—in doing so they merely throw psychologists under the bus and prove our exact point—that having mathematical rigor doesn't mean it's "scientific". It is true that these statistical methods are incredibly powerful, but because they're powerful, they describe pseudo-science just as well as science, and they're completely blind to whether the underlying mechanism of the theory is invisible psychological "trauma" or "Mercury rising".

There are no shortage of pop-statisticians who treat Bayesian inference as magic to the point of delusion. Some have confidently argued that it acts like a "Darwinian filter" of some sort: As you keep updating your belief, all the invalid, highly biased "priors" will be washed away by new evidence, until only the pristine, objective truth remains. So "Mercury rising" would theoretically be ruled out, while "trauma" remains as a valid mechanism.

It sounds probable in theory... but even if it works, **if only applies if the evidence is objective**! Let's not forget there is no such thing as objective evidence in psychology. Recall the conversation between the patient and the therapist in Section II.1. No matter what the patient says or does, it can be rationalized as evidence to confirm the practitioner's initial belief. So not only are the "priors" unscientific and subjective, the "updates" are also unscientific and subjective. We're not filtering out the lies, we're fortifying the delusion.

Finally, God forbid someone brings up quantum mechanics: *"But in your favorite field of physics, quantum mechanics operates entirely on probability. We cannot predict the exact position of a single electron, only the probability distribution of where it might be. If probability is indeed meaningless for a single event, then quantum mechanics also fails this test."*

Let us not dwell on this pointless topic for too long. But classical probability is not quantum probability. Classical probability—such as saying "you have a 60% chance of having a heart attack"—can be argued as a measure of human ignorance. It does not mean God is playing dice with your heart, it means there are hidden variables we haven't measured yet. And if we had perfect information, the probability would collapse to 100% or 0%.

But Bell's theorem proves that there are no local hidden variables in quantum probability. The probability distribution of an electron is a fundamental, intrinsic physical property of the universe itself. It is fundamentally in a different category to a psychologist's inability to accurately measure human behavior.

II.5.2 "But psychology is useful, right?"

Now let's examine ultimate defense mechanism of the social sciences: "Usefulness."

"Why does it matter if psychology isn't strictly falsifiable? It's certainly useful! For example, the IQ test was historically used by the US military to effectively filter recruits. IQ is a great predictor of career success."

If science is defined by psychological or societal utility, then religion is undeniably the greatest science ever invented. But this is why science is not defined by "usefulness", it is defined by falsifiability.

And if statistics cannot describe individual situations, is psychology actually useful? From the examples above, we see that "usefulness" depends entirely on context. Perhaps "Hillary has a 91% chance of winning" is useful in the betting market. But for the individual voter, it is useless. The 60% cancer survival rate can be argued to be useful for the doctors and hospital administrators. But for the dying patient, it provides zero actionable data.

Even if IQ was highly useful for the US military to sort recruits, exactly how is that useful to 99.99% of the population who has nothing to do with the US military? Even ignoring the mathematical reality that the correlation between IQ and life success is incredibly weak (an r of around 0.1 to 0.3), it has zero concrete usefulness for an individual navigating their own life.

Besides, let's not forget the very foundation of IQ is unfalsifiable, which diminishes its usefulness even further. Here is a serious question: **How do we know IQ is not a measurement of obedience?** We know high IQ is correlated with academic success and a stable corporate career, while low IQ is correlated with breaking the rules and committing crime. The most rational, reductive conclusion is clearly: "Fascinating—IQ is a brilliant metric of human docility and obedience!"

But the academics disagree. "No, it makes more sense if we say IQ is a measure of intelligence." And once again we're in the realm of subjective opinion. Because the construct is unfalsifiable, we can twist it whatever way we want. And once again, exactly how is this information useful? What's the conclusion we should draw? If I wish to select a partner with a higher chance of career success, for example, should I select for intelligent, or should I select for obedience?

While we are on the subject of IQ, let us dive deeper. We already saw its intervals are an illusion in Section II.2, but it is much worse. There is a famous (but flawed) quote by a comedian: *"Think of how stupid the average person is, and realize half of them are stupider than that."*

Ironic, right? *Exercise: Do you see the mathematical mistake here?*

It is a classic one: confusing the "average" (mean) with the "middle" (median). People make this mistake likely because of the flawed but heavily marketed idea that "IQ forms a bell curve."

But why is IQ a bell curve? It is only a bell curve because psychologists artificially forced it into a bell curve. For example, they could have easily made the tests easier. Then, the majority of people would score high. We would have a society where the majority are smarter-than-average "geniuses" (left graph in Figure 2). Or, they could have made the questions more difficult, we would then have a society where the vast majority of people are categorized as "stupid" (right graph in Figure 2). There is no way of knowing which one of these represents objective reality.

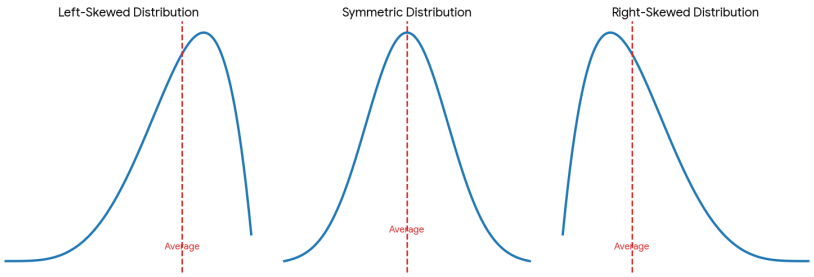

Figure 2

The mistake compounds dramatically when people attempt to use these artificial metrics to explain sociological phenomena. For instance, the psychological consensus famously claims: "Men are better at certain spatial tests, women are better at certain verbal tests. But overall, on average, men and women have the exact same intelligence."

If this were true, it would be a monumental, miraculous coincidence of evolution. Men and women have entirely different biological imperatives, yet their intelligence perfectly balances out to the exact same number? What are the odds? The reality, of course, is that psychologists explicitly weighted and engineered the test questions so that the average scores of both sexes would equal out to

100. They can manipulate the outcomes however they like. Using an outcome that you deliberately engineered to "prove" a theory of intelligence equivalence is perfectly circular logic.

II.6 Mental illnesses do not exist by definition

It is a simple and undeniable fact that mental illnesses do not exist, for the very basic reason that they cannot be detected.

Now, dishonest psychologists will immediately object. *"This is false! Neuro-imaging from fMRI, MRI, and PET scans have provided compelling evidence that patients with mental illnesses have distinct structural differences from neurotypical brains."*

If that's true, then why aren't brain scans used in clinical settings to diagnose mental illnesses? Why do psychologists continue to rely entirely on subjective questionnaires and self-reports? The answer is obvious: the psychologists' defense is dishonest. The scans prove nothing. In practice and by definition, none of these illnesses can be physically detected.

"But what if we build better scanners in the future?" But the issue is not the scanners. It is this: the very moment a scientist actually finds a physical, biological root for depression, autism, or ADHD in the brain... **it will no longer be a mental illness. It will immediately become a neurological disease.**

Once a physical pathology is discovered, the condition is instantly stripped away from the psychologists and handed over to real doctors like neurologists and brain surgeons, as happened historically with conditions like syphilis-induced dementia. Therefore, the term "mental illness" is strictly reserved for the exact set of behaviors that possess zero biological proof. So, by sheer definition, mental illnesses do not and cannot exist.

Some critics have generously compared psychology to religion due to its unfalsifiable nature. We disagree. In religion, we simply do not know if God exists or not, it is a matter of faith. But with psychology, we are dealing with concepts that do not exist by definition. It is a regression from religion.

Many will passionately argue, *"But still, mental illnesses definitely exist because I FEEL they do. Can you honestly look at a group of people having a manic bipolar episode and say the condition isn't real?"*

The author happens to "feel" strongly that some of these behavioral patterns are definitely real and will likely be detected in due time with better scanning processes. But my feelings are completely irrelevant. Science is not about feelings, science is about falsifiability. Let me remind you that 800 million people feel very strongly that astrology is real. They will confidently assert, *"Look at Miley Cyrus, Britney Spears, Brad Pitt, Billie Eilish, Taylor Swift, Jay-Z, Scarlett Johansson... and hundreds of thousands of other Sagittarius who behave exactly as described by their Zodiac sign. How can you honestly look at them and say astrology is false?"* Observing a behavior does not prove the existence of an invisible magical disease causing it.

II.6.1 The most dishonest sleight-of-hand in the entire field of psychology

This brings us to the psychologists' single most dishonest sleight-of-hand: how they actually invent mental illnesses. It is simply a way to categorize behaviors. If a human being satisfies certain arbitrary conditions—say they sleep all day, eat too much, and feel sad—the psychologists put them into a bucket labeled "Depression." It is purely a matter of descriptive convenience.

But then, people begin to use the label to **explain the behavior!** They say things like, "I cannot get out of bed *because* of my depression."

This is where the discipline becomes completely nonsensical.

Originally, the rule was: "If you cannot get out of bed, we will call this behavior 'depression'."

Now, the claim is: "Depression is what causes you to not get out of bed."

Historically	Now
Behavior $\xrightarrow{\text{labeled as}}$ Depression,	Depression $\xrightarrow{\text{causes}}$ Behavior
(Depression as label)	(Depression as cause)

Figure 3: Which is it?

Is depression a descriptor, or is it the root cause? Even if the behavioral category undeniably "exists," it does not mean an invisible illness is the cause of the behavior. It is a completely circular argument. They are using the newly defined category to explain the symptoms that defined the category in the first place.

This is the issue with a common objection, that *"even in mainstream medicine, there are physical conditions—such as migraines or irritable bowel syndrome—that are diagnosed via self-reported symptoms rather than by an objective biomarker."*

It is true that even real doctors sometimes have to guess and resort to syndromal diagnoses—which is exactly why honest doctors call them "syndromes" and not "diseases." But this does not magically turn psychology's 100% reliance on self-reporting into a hard science. Doctors treat syndromes as descriptive categories of physical pain. Psychologists treat mental illnesses as invisible root causes.

II.6.2 What are "mental illnesses" really?

Now, if mental illnesses do not exist, one might ask: what exactly are these observable clusters of behaviors, such as those associated with autism or ADHD? First and foremost, a behavioral cluster can certainly "exist" without being an illness. The issue lies in psychology's obsessive, pathologizing nature—literally every variation in human cognition is branded a pathology.

Though modern psychologists enthusiastically tell patients to "be proud" of who they really are and to embrace neurodiversity, the glaring hypocrisy is baked right into their own terminology: they literally classify these traits as *disorders*.

But why exactly are they disorders again?

- Why is autism a disorder? If it comes with hyper-focus and unique analytical capabilities, why not officially categorize it as an "Autistic Advantage"?

- Why is ADHD a disorder? If the person truly possesses boundless energy, why not classify it as "Hyper-Activity Superiority"?

- Why is PTSD considered a disorder? Trauma, in particular, is often paraded by psychologists as their most legitimate, biologically grounded concept. They eagerly point to the physical mechanism: an extreme environmental input triggers the amygdala, flooding the body with cortisol and adrenaline.

  But if this is simply a perfectly normal biological response, all it proves is that my brain is working flawlessly. Where's the disorder? Why must I pay a therapist $200 an hour to "cure" a brain that is functioning exactly as it was designed to?

  Besides, PTSD is not based on delusion, it is a reaction to objective reality. It is based on the irrefutable fact that the world can be dangerous and violent. Being hyper-aware and biologically prepared for threats can literally save your life. Why is this not classified as "Post-Traumatic Survival Superpower?"

- And what about narcissism? Narcissism is the ability to look at any situation and immediately recognize its self-serving, beneficial nature. But psychological studies themselves state that this

is how you produce gratitude. Which means a narcissist cannot help but be the most grateful person in the room. What's stopping narcissism from being a virtue called "Hyper-Gratitude"?

These are not rhetorical questions meant to be provocative. They are a serious callback to the **unfalsifiable** nature of psychology. We now see another consequence of this framework: any set of behaviors or traits can certainly "exist" without being an "illness." By arbitrarily deciding which variations are diseases and which are not, psychology exposes itself once again as an exercise in subjective labeling rather than scientific discovery.

III Dismantling the defense of psychology

III.1 "But clinical psychology IS falsifiable"

When confronted with the field's architectural flaws, practitioners will inevitably retreat to their most common, yet uninspiring defense:

"But clinical psychology IS falsifiable! We design rigorous experiments to test if a specific cognitive behavioral treatment works, we run control groups, and we measure the outcomes to good statistical accuracy."

Social scientists who use this defense fundamentally do not understand what the word "falsifiability" means.

Exercise: Do you see the flaw in this argument?

They are arguing that their *treatment* is falsifiable. But the problem is much more foundational than that. Before a treatment can be administered, there must be a *diagnosis*. And it is the diagnosis—the underlying theoretical construct itself—that is unfalsifiable.

One cannot use the falsifiability of a treatment to "prove" the falsifiability of a diagnosis. Imagine an alchemist who diagnoses you with an overabundance of "Bad Ghost Energy," and then prescribes you an energy drink as a treatment. After you drink it, you feel much more energetic and alert. The alchemist proudly declares, "The treatment worked! Therefore, Bad Ghost Energy exists."

It doesn't work like that. The fact that the drink (the treatment) made you feel better does absolutely nothing to prove or disprove the existence of "Bad Ghost Energy" (the diagnosis).

And if we accept the psychologists' bizarre definition of falsifiability, then astrology also becomes a science, because an astrologer can easily make a testable prediction. "Mars is in retrograde, therefore you will lose money today." The prediction can be tested and even confirmed more often than not. But it does nothing to prove the underlying theory that a planet is micro-managing our finances.

III.1.1 "But isn't theoretical physics also unfalsifiable?"

When backed into a logical corner, psychologists love to throw mud at us and say:

"But supposing psychology is not a science because it is unfalsifiable, then your field—theoretical physics—is also not a science."

This attempt at a gotcha" moment stems from the layman's confusion of the massive, foundational discipline of "theoretical physics" with the highly publicized but niche sub-field of "string theory." Theoretical physics is an enormous domain. It encompasses condensed matter physics, fluid mechanics, astrophysics, quantum electrodynamics, and more. All of which are not only falsifiable but make highly accurate, measurable predictions.

Now, let us address their favorite strawman: string theory. Is string theory currently unfalsifiable by modern experiments? Yes, absolutely. But there is one difference. If you corner a string theorist and accuse them: "Your field is currently unfalsifiable, and therefore not an empirical science." How

would they respond?

They would simply say, *"You are right. But I'm not doing empirical science. I'm doing pure mathematics. And mathematics is objectively superior to empirical science, because it is based on deductive logic, which is true by default."*

The difference is: string theorists generally seem to have no problem admitting they operate in the realm of pure theoretical logic. And in any case, they DO operate in the realm of pure theoretical logic—they do not lock people up in psychiatric wards or prescribe amphetamines to restless children. It is not clear whether psychologists have the same self-awareness.

III.2 Confusing biology with psychology

There is a highly popular sub-field called evolutionary psychology, which attempts to explain human behavior through the lens of Darwinian evolution. But it is not a science. Let's observe how it operates:

- If you are entirely selfish, evolution psychology has an explanation for that: "That is the "selfish gene" driving individual survival."
- If you are incredibly selfless, evolution psychology has an explanation for that too: "That is "kin selection" and reciprocal altruism."
- If your culture is monogamous, it's "cooperative breeding strategy" to ensure the child's survival and perfectly explained by evolution.
- If your culture is polygamous, it's "gene diversification" and again perfectly explained by evolution.

It is a magic framework that can explain absolutely anything after the fact, and therefore, it explains absolutely nothing. No matter what is observed, it can be retroactively proven true within the framework. It is impossible to contradict it. Once again, it is the definition of an **unfalsifiable pseudo-science**.

But if you confront proponents of evolutionary psychology, they will likely protest: "But evolution is definitively a hard science. Are you saying you do not believe in evolution?"

Exercise for reader: What's the sleight of hand being used here?

The trick is confusing biology (a real, predictive, physical science) with psychology (a pseudo-science). This is a magnificently common tactic at the intersection of science and pseudo-science. They hijack legitimate biological terms—like *evolution* and *neuroplasticity*—and staple them onto subjective behavioral theories.

For example, neuroplasticity is a well-documented physical reality of the brain. But exactly how does the microscopic rewiring of a neural pathway lead to a specific change in complex human behavior? And exactly what behavior does it lead to? No one knows. It is a complete black box because the mechanism is simply not understood. The link between the physical neural pathway and the psychological outcome is based entirely on magic.

$$\text{Behaviors} \xrightarrow{\text{Sure!}} \text{New neural pathways}, \qquad \text{Neural pathways} \xrightarrow[\text{Magic}]{\text{???}} \text{Behaviors}$$

Figure 4: While at the intersection of science and pseudo-science—for example, when dealing with concepts like "neuroplasticity"—it's crucial to distinguish science from magic.

III.3 Attempts to re-define science without falsifiability

Some philosophers and social scientists eventually recognized the glaring, undeniable issue that their field is a pseudo-science under strict definitions. So, instead of fixing their field or to admit the faults, they simply attempted to change the definition of science itself. They will claim, *"Karl Popper's requirement of falsifiability is a 70-year-old definition, it's outdated and it's time to retire it."* (The fact some of them say this demonstrates they do not understand that a valid model can survive for centuries without expiring, provided it actually has a solid foundation). Let's examine at these attempts to move the goalposts.

III.3.1 "Science doesn't need to be falsifiable"

One famous attempt made by Imre Lakatos was so weak that might make freshman physics students chuckle, yet it is widely regarded as the strongest philosophical defense for psychology.

Lakatos attempted to divide a scientific theory into two parts: a "Hard Core" (the fundamental assumptions) and a "Protective Belt" (auxiliary hypotheses). The argument is that even in physics, we make assumptions, so the "Hard Core" is entirely saved from falsification.

Exercise: Do you see the futility in this re-definition?

It is simply this: In physics, our "Hard Core" is observable and measurable. For example, the existence of the electron is a foundational core, and we can physically measure its properties. In psychology, their "Hard Core" consists of invisible and baseless assumptions like the "subconscious mind" or "internalized trauma."

What is the actual difference between these two cores? The difference is, once again, **falsifiability**! We're right back to where we started. Lakatos did a great job achieving absolutely nothing, except using an incredibly dishonest sleight-of-hand to attempt to hide the real problem—which apparently was enough to convince social scientists, but easily collapses under the slightest logical scrutiny.

Why should a field whose Hard Cores are objectively testable be placed in the same category as a field whose Hard Cores are entirely untestable? It is a semantic game that solves absolutely nothing.

III.3.2 "Science is based on consensus"

Thomas Kuhn popularized the "paradigm" idea. He argued that science is practically defined by a community of practitioners agreeing on a shared framework.

Exercise: Do you see the flaw in this reasoning?

Kuhn is essentially arguing that science is a democracy. But if consensus defines science, exactly who gets to be the arbiter of "truth"? What happens when two groups disagree? We return to the fact that astrologers have a massive, mathematically robust consensus. Why isn't astrology considered a science?

III.3.3 "Science is about usefulness"

What about the Instrumentalism or Pragmatism defense? They argue: *"Whether a psychological theory is objectively 'true' or 'false' is irrelevant. The only question that matters is: Does it work? Is it useful?"*

Exercise: Do you see the flaw in this reasoning?

Again, if science is defined by psychological or societal utility, then religion would be the greatest science ever invented. And if we operate from the view that statistics cannot apply to individuals, then psychology is not useful to 99% of us (Section II.5). Exactly how is it useful? Who gets to be the arbiter of usefulness?

III.3.4 "Science is about the scientific method"

What about the claim that as long as you meticulously use the *methods* of science—spreadsheets, statistics, control groups, and peer review—you are doing science?

Exercise: Do you see the absurd implication of this?

The implication is that if an astrologer rigorously logs her readings in spreadsheets and calculates a p-value for how often the Death card appears on a Tuesday, Tarot reading magically transforms into a science.

Let's hammer home one more time that clinical psychology is neither useful nor scientific. Here is a serious question: How do we know that *all* psychological talk therapies aren't simply placebo effects?

We know that placebo effects are physically real phenomena, fully documented and accepted by the real medical community. So, if placebos are real, how do we prove that cognitive behavioral therapy isn't entirely a placebo? How do we know that ANY treatment wouldn't make you feel better, regardless of the "scientific framework" they use?

The reality is, of course, we absolutely do not know. To isolate a placebo effect, one must conduct a double-blind physical experiment where neither the patient nor the doctor knows who is receiving the real treatment. But psychological talk therapy, by its very definition, cannot be double-blind. The therapist always knows whether they are administering "real" therapy or a "placebo" conversation. Therefore, there is no physical way to isolate the placebo effect from the "science" of the therapy.

III.3.5 "I'll just invent a new category of science"

Finally, there is the defense that psychology is a "Special Science" (Jerry Fodor). Proponents claim it describes emergent laws of extreme complexity (human behavior) that simply cannot be efficiently described by low-level physics, even if they are ultimately caused by physics.

Exercise: Do you see the sleight-of-hand?

They solved absolutely nothing. They slapped a new label on the problem and called it a day. Furthermore, it relies on a misconception—born out of ignorance—that physics cannot explain complexity or emergent phenomena. In theoretical physics, emergent macroscopic complexities are described rigorously and flawlessly using the renormalization group. Physicists do not need to invent "special" rules just because the math gets slightly difficult.

Let's be precise: Science is about empirical understanding. The moment subjective intervention and arbitrary categorization are involved, it is no longer science. It is, at best, a highly subjective form of social engineering.

IV Conclusion: If psychology is a science, so is astrology

All these flawed defenses come down to fundamentally misunderstanding what science is about. This is reminiscent of the lengths to which people will go to protect an unfalsifiable belief. Consider this conversation between a physicist and a Flat Earther:

***Flat Earther**: "You do realize NASA created the round-earth hoax?"*

***Physicist**: "Cut it out! The earth is a globe, because of gravity. A flat earth would've collapsed under its own weight into a ball."*

***Flat Earther**: "No. Dark energy keeps the earth from collapsing. It's also accelerating it. Don't you understand Einstein's equivalence principle? The earth is in fact constantly accelerating upwards at 9.8 m/s/s, which has the same effect as gravity. So, when an apple falls from a tree, it's not the apple falling... it's the ground moving up to meet it. So the earth is perpetually traveling through*

space at near speed of light, and the length contraction makes it even flatter."

***Physicist**: "Then... why are all the other planets round?"*

***Flat Earther**: "Earth isn't like other planets. Earth is a localized topological defect in the membrane that's the rest of the universe. You should've known from your String Theory research."*

***Physicist**: "But the Greeks already measured the roundness of the earth more than 2,000 years ago! By measuring angles of shadows in different cities!"*

***Flat Earther**: "By assuming Earth is like other planets and the Sun is very far away. That's circular logic. In fact, the Sun and other planets are all very close to the Earth. They're all located on the firmament dome!"*

***Physicist**: "No! Impossible. I don't believe it! What about a solar eclipse, then? The moon's shadow during a solar eclipse is circular!"*

***Flat Earther**: "So what? That doesn't mean anything! Shine a flashlight at a coin, the shadow is still circular."*

***Physicist**: "Enough of this! What about airplane trajectories being curved? Why do planes need to constantly dip? Why can you literally see the curvature of the ocean if you're on a plane? Explain that! Can you?"*

***Flat Earther**: "That's because you're using orthographic projection. The map of the earth you see is all distorted, obviously a straight line would look curved. Planes need to constantly fight against the uneven gravitational pull, which is stronger toward the center of the flat earth. And the curvature you see is just atmospheric distortion and refraction of light!"*

Now, there is a common misconception that we disregard the Flat Earth theory because it's "false." That's not what happened. Because, as the above dialogue demonstrates, it is impossible to prove an unfalsifiable theory false. The Flat Earther can always patch up their theory to make it work.

We disregard the Flat Earth theory because it is **too complex and possesses zero predictive power**. Newton's laws of motion, on the other hand, consist of only two simple equations, yet can predict everything from projectile trajectories to planetary orbits. That is why we believe in it.

It is another common, romanticized misconception that science is about finding the "truth." But once again, as the Flat Earther example demonstrates, it is impossible to find absolute truth, even in theoretical physics, because a dedicated believer can always spin the data and patch up the theory to avoid falsification. The best science can do is to find **evidence**.

When certain scientists proclaim they have "the truth" on their side, we already know it is a lie. Since absolute truth is impossible to prove, the far more likely reality is that they have an **agenda**. This is especially dangerous when the field in question is not about studying inanimate objects (like real sciences), but about dictating and managing human behavior, as psychology attempts to do.

That is why truth does not come from science. Truth comes strictly from **logic**. For example: "A scientific theory must be falsifiable. Psychology is fundamentally unfalsifiable. Therefore, psychology is a pseudo-science." This is basic, deductive logic. It is a deeper, more permanent truth than any psychological research paper ever published. No amount of "nuance," academic consensus, subjective opinions, or public emotional backlash can alter a logical fact.

So what? Should we throw the baby out with the bathwater and stop psychological research altogether? No, but there are only two logical paths forward:

IV.1 Proposal: stop calling psychology a science

From now on, instead of saying "Science proves...", let's use the correct terminology: "Pseudo-science suggests..."

But of course, psychologists will object to the simple, binary, black-and-white logic staring them in the face. They will inevitably appeal to the two things that exist outside a logical framework: nuance and emotion. "But truth is more complex than your binary physics," they will argue. "In the real world, there is a thing called *nuance*."

But when the entire physical universe is governed by a handful of astonishingly elegant equations, one can equally argue that true science is supposed to be simple, not complex.

And what of the mysterious "nuance" social scientists speak of? Where does a "nuance" exist in objective reality? Something either exists or it does not. We have precisely categorized the entire electromagnetic spectrum of light (and "nuance," by definition, refers to shades of color). There is no magical "nuance" in the wavelengths. There are simply different, strictly measurable frequencies.

If we assume the end goal of science is to improve our understanding to make better decisions, then what is a "nuance"? By definition, "nuances" are minor details that **do not actually affect the final outcome**. If they did fundamentally alter the outcome, they wouldn't be dismissed as mere nuances. Instead they'd be the major, defining factors. Therefore, they do not matter. To claim that a "nuance" fundamentally changes the nature of a scientific classification is nonsensical.

But nevertheless, here comes the "nuance" defense: "You shouldn't expect ALL sciences to adhere strictly to Popperian falsifiability. What about all the other fields that deal with complex emergent properties and probabilistic outcomes?"

This is a great proposal, save for one catastrophic problem: if we adopt this framework, astrology also becomes a science. This leads us to our alternative proposal:

IV.2 Alternative proposal: accept astrology as a science

If psychologists are determined to redefine "science" to fit their methodology, then inevitably, astrology qualifies as a science. And it's all thanks to the psychologists.

Psychologists would, of course, object again. They will claim astrology is definitely not a science. Let us examine their objections.

IV.2.1 "But astrology isn't accurate!"

"Aggregated statistical tests show that astrology cannot beat random chance. For example, in blinded trials, it is revealed that astrologers fail to match personality profiles to birth charts."

Exercise: Do you see why this argument is false?

Astrologers in those "legitimate astrology research institutes" can equally produce just as many papers showing they CAN, in fact, beat random chance. Between an astrologer who can produce statistically significant results and a skeptic who fails to do so, who is doing "good" science?

The surprising answer is: the astrologers! Recall Meehl's paradox: you can ALWAYS reject the null hypothesis if you have enough statistical power. So ironically, if astrology-deniers fail to reject the null hypothesis, it simply means their experiment was underpowered or poorly designed.

IV.2.2 "But astrology lacks a plausible mechanism!"

"Astrology lacks plausible mechanisms. We psychologists might not be able to physically weigh 'trauma,' but we can link severe stress to measurable cortisol levels and observable neurological changes in the amygdala."

Exercise: Do you see the pointlessness of this argument?

Let's pretend for a moment that we actually need a mechanism to be considered a science (which is NOT how science works; empirical science answers "what" happens, the "why" or the mechanism is secondary at best). Even then, "neurological changes" are NOT the mechanism of psychology.

The real mechanism of psychology is the claim that stress is caused by invisible "mental illnesses" or invisible "trauma."

Even if the physical "mechanism" is a cortisol spike—so what? What caused the changes in cortisol? Pointing to the hormone explains nothing; it merely delays the problem.

Astrologers can easily play the exact same game. Instead of saying "Mercury rising causes stress," they can equally say "Mercury rising causes shifts in cortisol." Now, suddenly, they have a "mechanism."

If a psychologist can claim an invisible "trauma" caused the cortisol spike, an astrologer is equally justified in claiming an invisible planetary alignment caused it.

IV.2.3 "But astrology is static, whereas psychology is progressive!"

"Astrology is static, whereas psychology is dynamic and constantly evolving. Psychologists self-correct. In fact, we have already discarded theories such as Freudian psychoanalysis in favor of modern CBT. Astrologers simply invent ad hoc rationalizations to protect their core belief."

Whether a field is "static" or "dynamic" is a matter of opinion, and it is NOT a pre-requisite for science. Newton's laws have been static for hundreds of years and are still perfectly valid today. Besides, one can easily argue that psychology is the field that is truly static, constantly inventing ad-hoc rationalizations to protect its singular, unchangeable core belief: **that invisible psychological constructs dictate human behavior**.

IV.3 When will the rationalization end?

Psychologists will keep spinning, patching up their theories, and inventing new philosophical definitions of science until the end of time. So, we end up with a choice:

Explanation A: Psychology is a rigorous science, but ONLY IF you accept Lakatosian protective belts, AND you accept a convoluted view of Bayesian probability, AND you use non-parametric statistics to fix the ordinal data problem, AND you employ Latent Variable Mixture Modeling to fix categorization, AND did I tell you about HiTOP to fix the DSM, AND MTMM matrices, AND Structural Equation Modeling...? (none of which introduces falsifiability, and all of which are based on the rubber-ruler calculus of ordinal ranks, by the way) AND, finally, you ignore the replication crisis.

Explanation B: Psychology is simply not a science.

At what point will psychologists become aware they're doing exactly what the Flat Earthers are doing, and they admit it is time to simply invoke Occam's Razor—the principle that the simplest explanation is almost always the correct one—and accept Explanation B?

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