Psychiatric Fallacies

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Psychiatric Fallacies: Introduction

When approaching the complexities of psychiatry, I've noticed that many people bring with them assumptions about how closely related fields, such as psychology and biology, should apply. These assumptions are often fallacious, leading to mistaken attitudes in psychiatry. Here, I want to expose some of those psychological and biological fallacies and suggest another way of thinking that provides a perspective that can be psychologically and biologically valid.

The Psychological Fallacy

Some critics of psychiatry, especially among sociologists and psychologists, take a seemingly erudite position that psychiatry simply diagnoses everyone with such conditions as depression, while ignoring the many "causes" in life that produce those symptoms. How many times do we hear the redundant and overworn critique that psychiatry has medicalized everyday life?

The critique is not false; it's more than half true. We do overpathologize, and always have, even before the claims of today's biologically reductionistic psychiatry: For a century, psychoanalysts overpathologized even though they were anything but biologically reductionistic.

The problem with these critiques and beliefs is that they reflect a deep fallacy in psychology and psychiatry, a far deeper fallacy than the oft-repeated claim of biological reductionism. There is no worse risk in psychology/psychiatry than the psychological fallacy.
How many times has a patient told me when I ask about depressive or manic symptoms, "Yes, but I was depressed because of x, y, and z"? Or, "I get manic when I get really interested in things"? How many times have I seen mental health clinicians downplay a mood illness diagnosis because they were associated with many psychosocial stressors?

These psychological judgments are essentially made on the basis of common sense. But if common sense were enough to explain things, then our patients would have convinced themselves, or been convinced by their friends and family. If a patient crosses the threshold of a clinician's door, then common sense has failed -- no need to keep using it. What is needed is scientific sense, which is quite different than common sense.

**Do Life Events "Cause" Depression?**

A huge literature base on life events and depression shows that the vast majority of depressive episodes occur with a preceding life event that "causes" that depression. What are those life events? Trouble with a spouse, a boss, or a child; financial problems; medical illness. So those life events cause depression. And who doesn't have those life events? The question should not be why those life events cause depression, but why they don't cause depression in the 90% of the population that never experiences a severe clinical depressive episode.

Obviously, something else is at work. Contrary to all the hopes and wishes of psychologizers, there is such a thing as biology. The ultimate proofs of the psychological fallacy are the split-brain experiments.

In the 1970s and 1980s, some patients with severe epilepsy were treated with corpus callosotomy, so as to prevent spread of seizure activity from one hemisphere to the other and thereby prevent generalized convulsions. This surgery allowed some interesting neuropsychological research. By showing a picture, such as a woman talking on the telephone, to the left visual field of a right-handed split-brain patient, one could test how the patient would report that knowledge. The information could not be transmitted from the right cerebral hemisphere to the left, where the language areas mainly are in right-handed persons.

In such a test, the patient would say that she saw something different, such as a boy playing with a ball. But if asked to show what she saw, she would pick up a telephone with her left hand. She got the information, but she couldn't say it.

More important, instead of simply admitting that she couldn't say it, she made something up. The patient confabulated. That is what the human brain does. As Michael Gazzaniga, the main researcher on this topic said, the brain is a rationalizing machine. We come up with reasons for everything. Sometimes we're right, sometimes we're not, and we don't know which is which in any one case. The mere fact that we can come up with a coherent, logical, explanation for any experience means quite little; of course we can, we always can.

But sometimes common-sense explanations are false, especially when something else is at work -- for example, biology, or a disease of the body. Psychosocial life events can influence the timing of a depressive episode, but if someone has repeated depression, biology is the underlying
cause of the predisposition to those episodes. That's why 10% have episodes with the same life event that doesn't cause episodes in 90%.

That's why we have to take disease concepts seriously in psychiatry, and we have to accept biology and not constantly write it off as reductionism. Psychological reductionism exists too, and we seem to biologically hard-wired for it.

**The Biological Fallacy**

Frequently, when I express some skepticism about the diagnostic validity of such constructs as adult attention-deficit/hyperactivity disorder (ADHD) or borderline personality, I receive variations on the following rejoinder: "But they cause changes X, Y, and Z in the brain, as shown in neuroimaging. How can you ignore that? Isn't that proof that they are 'real,' that they are biological diseases?"

I suppose that would be the case if we also accept that I have just caused in you, reader, the "Medscape disease" of reading Nassir Ghaemi. Because I have just caused changes in your brain which, if you were now hooked up to a functional MRI machine with radioligand binding, would show changes in your brain blood flow and maybe even in your dopamine system activity.

Because of our eclectic absence of conceptual clarity in psychiatry, we confuse the term "biological" with "disease." All things biological are not disease, even though we can define disease in such a way that all diseases are biological.

This matter is obvious once pointed out. A few assumptions that seem either patently true or very likely: All human psychological experience is mediated by the brain, and each person only has one brain; therefore, the brain will always be biologically changing as we have psychological experiences. Reading a blog post about the brain is a psychological experience. Having delusions from schizophrenia is a psychological experience. The first brain change does not reflect disease; the second does.

So showing MRI changes with adult ADHD or borderline personality does nothing to demonstrate that those conditions are diseases. If you watch television and play video games inordinately, you will have changes in your brain, and you might also develop clinical symptoms of ADHD. If you are repeatedly sexually abused, you will have changes in the brain, and you might also develop clinical symptoms of borderline personality. But those changes in the brain do not have the same causal role as the neuronal atrophy that happens with trisomy 21, or with schizophrenia, or bipolar illness -- all of which are completely, or almost completely, genetic in origin.

In the case of diseases, biological changes are etiologic; they cause the clinical symptoms. In the case of borderline personality or inattention symptoms in someone without bipolar illness, biological changes are the effect, not the cause, of the other etiologies for the clinical syndrome (eg, sexual abuse).
Biology does not mean disease, because it often reflects pathogenesis, not etiology. All things are mediated by the brain; the brain is the final common pathway of all experience. But changes in the brain are not the ultimate cause of those experiences; they are always the proximate cause, but not the ultimate cause.

This leaves us in the unusual position where so many psychiatrists are more biological than the most extreme cardiologists. We psychiatrists want to emphasize biology in ADHD so that we can feel good about handing out amphetamines (which are neurobiologically harmful); we want to emphasize biology in borderline personality so we can feel good about diagnosing it, and not diagnosing other bona fide diseases, such as bipolar illness, and then refusing to hand out mood stabilizers. For our varied ideologies, we recruit biology as a rationale. Even psychoanalysis -- long the bastion of anti-biological thinking -- has turned to "neuropsychoanalysis" to justify itself.

But because the brain is the final common pathway, all things are biological, including this article. This is a truism; it doesn't prove that something is a disease. For that claim, the further step must be taken of extending the realm of the biological from pathogenesis, which is trivial, to etiology, which is diagnostically meaningful. This has been done in the many definitive genetic studies of schizophrenia and bipolar illness, and it has been disproven in the extensive evidence of psychological and social, but not biological, etiologies for the syndrome of borderline personality-like symptoms (or post-traumatic stress disorder [PTSD], formerly known as "hysteria"). And for adult ADHD, etiologic evidence is simply weak. (Readers should not cite the few genetic studies that make major claims to a highly genetic cause. Those studies did not correct at all for other conditions on which ADHD could be "comorbid," such as bipolar illness; they are thus invalid, as I've reviewed elsewhere.)

So let's put aside biology, unless we are willing to distinguish etiology and pathogenesis.

The Solution

It's easy, in the abstract, to deny or denounce reductionism, whether biological or psychological; and it's easy, in practice, to keep doing it. The most common claim, when one is pressed, is that everything matters. So let's be "biopsychosocial." Let's try to combine all approaches. The problem with this eclecticism is that in practice, it ends up meaning that clinicians choose whatever they want to do, which usually means enacting whatever predilection they had to begin with. We pay lip service to biology, but we engage in psychological reductionism again, or vice versa.

This easy eclecticism is the theory of current psychiatry, if it can be called a theory. The practice of current psychiatry is the anarchic dogmatism which I've outline above in its biological and psychological forms.

Is there any solution which is neither anarchic nor eclectic? I've outlined my solution at length elsewhere[1,2]; I cannot fully convince readers here in a few hundred words more, but I hope the prior 1600 or so words convince them that my proposed solution deserves more careful attention.
I can only provide the conclusions, without the documentation of the premises. So with that apology to the careful reader, I'll state my simple solution: science.

Now that may seem too simple, but let me clarify what I mean by science. Science doesn't mean biological reductionism, as many assume. Nor does it mean adding everything together in some holism. Science is by nature reductionistic; it takes something complex, and tries to test one aspect of it. It accepts only theories that are testable, preferably refutable, and not just confirmable.

In the case of psychiatry, scientific research might teach us that some diseases are basically biological (eg, schizophrenia, bipolar illness, and severe recurrent depression), and we are justified in being biologically reductionistic about them. And some clinical pictures are basically psychological in etiology (such as what used to be called "hysteria," today's PTSD), and some are social (for example, perhaps, "ADHD" in children raised in poverty who are neglected and have no behavioral structure in their lives).

These are not matters of opinion, which is not something you or I can decide. Scientific research will determine what is biological, psychological, and social, and here and there, that research might identify that 2 of those etiologies are almost equally relevant (as with personality traits in genetic studies); in those cases, we will be justified in being biopsychological.

In other words, our main problem in psychiatry is that we don't really submit to science; we just pay lip service to it, or we even disparage it. This is not surprising, given that our larger culture has developed an excessive distrust of science. In psychiatry, the matter may be worsened by the fact that many persons (including me) are attracted to the mental health field because of personal humanistic predilections. Yet this is another cultural problem: We don't understand how one cannot be humanistic unless one is fully scientific. The 2 are treated as opposites, whereas they need each other. To be humanistic with persons who have psychiatric problems, it would be good to know whether they have diseases or not.

Either way, they deserve humanistic empathy and understanding as human beings. But it would be a terrible doctor who is extremely nice and misses a curable disease -- or one who diagnoses "diseases" that do not exist and prescribes drugs that then harm more than they help.