

Brain, Body and Environment:

A Consideration of Externalist Psychiatry and the Gaps Caused by an Internalist Bias in the Biomedical Model

Abstract:

Have we brought our philosophical biases into psychiatry? There has been a prevailing dominance of the biomedical model and its emphasis on pharmacological treatment in psychiatry. By solely focusing on mental disorders as brain disorders, the biomedical model's approach hinges on medical facts. Yet, the validity behind the model's sole focus on eliminating presumed biological abnormalities like chemical imbalances in the brain is questionable. Using case studies of mental disorders, thought experiments and growing externalist psychiatry literature, this paper argues that the biomedical model's notions of neurological dysfunctions are necessary, but insufficient for clinical assessments. The implicit internalist bias in the biomedical model focuses exclusively on neurological dysfunctions and ignores certain external contexts. This disregard for critical external factors behind mental disorders potentially leads medical practitioners to ignore a holistic approach and prescribe a more generalised drug-based treatment. Without acknowledging externalism and maintaining an overly internalist paradigm, there is a significant risk of reducing individuals to their neurological dysfunctions and ignoring the context in which mental illnesses exist. This paper proposes to look at externalism not as a threat to the current biomedical model, but as a rejection of the harmful internalist bias within current psychiatry. Ultimately, there is a need to widen psychiatry's mindset to regard external considerations. Developing a more comprehensive perspective reduces the risk of medicalisation and the negative side effects of heavy pharmacological approaches. Furthermore, it opens the possibility of supporting a 'biopsychosocial' approach to psychiatry.

The prevailing dominance of the biomedical model and its emphasis on pharmacological treatment has caused an overly internalist bias in psychiatry. Focusing exclusively on neurological dysfunctions causes a significant risk of reductionism that ignores the context in which mental illnesses exist. To mitigate this conceptual oversight, a consideration of externalist psychiatry is needed, as mental disorders may possess external conditions or symptoms unable to be explained neurologically. Despite objections regarding how externalist psychiatry requires further empirical support and is conceptually vague, such arguments are limited as biological abnormalities require external considerations and operational frameworks have been developed. This paper thus argues that the biomedical model's notions of neurological dysfunctions are necessary but insufficient for clinical assessments, and a dimension of externalism should be included to form a 'biopsychosocial' model.

The dominant biomedical model of psychiatry assumes that mental disorders like schizophrenia, major depressive disorder, and oppositional defiant disorder are biologically based and arise out of neural dysfunctions or abnormalities in the brain. There are three main assumptions of this model: mental disorders are caused by biological abnormalities in the brain, there is no significant difference between mental disorders and physical diseases like arthritis or cancer, and lastly, biological treatment such as pharmacological treatment and psychosurgery should be emphasised (Deacon, 2013, p.847). The biomedical model is inherently internalist in nature, as internalism, in this case, holds that the nature of an individual's mental state depends metaphysically on facts intrinsic to the individual, including biological factors (Davies, 2016, p.290). For example, the biomedical model proposes chemical imbalance theories, whereby disorders like depression are caused by lowered serotonin or another brain chemical imbalance (Ang, Horowitz and Moncrieff, 2022, p.1). With its internalist nature, the biomedical model believes that biological features are sufficient for the clinical assessment and treatment of all mental disorders. Hence, other external factors, like individuals' social or physical environment, should not be focused on (Davies, 2016, p.291). As such, the ultimate treatment goal is 'magic bullets' that precisely target the disease process without harming individuals, "like penicillin for bacterial infection" (Deacon, 2013, p.847). The ascendancy of the biomedical model and its continued popular support has thus seen the model to be heavily dominant.

Yet, the internalist biomedical model has been argued to be epistemically and metaphysically reductionist. The model appears to reduce individuals to only their biological issues as treatments only focus on the patient's bodily parts in isolation, potentially ignoring external sources of mental disorders (Anjum, Copeland and Rocca, 2020, p.78). Thus, this paper proposes to add a dimension of externalism, which holds that a comprehensive understanding of mental disorders cannot be achieved unless we attend to factors that lie outside of the body, such as an individual's social or physical environment (Roberts, Krueger and Glackin, 2019, p.51-52). The current biomedical

model has conceptual oversights in terms of understanding certain mental disorders with external conditions and causes. A more comprehensive 'biopsychosocial' model (Ongaro, 2024, p.270) can be made by combining externalist theories with certain core tenets of the biomedical model, such as its deep understanding of biological abnormalities and dysfunctions. This development can thus mitigate gaps in the biomedical model.

One such issue is that certain mental disorders require externalist considerations to be classified and understood. Identifying any biological abnormalities, if evident, is not sufficient to understand some mental disorders. Certain disorders can be classed as externalist due to their necessary social manifestations or environmental antecedents (Davies, 2016, p.2). Such disorders can be distinguished between contemporaneous constitutive or historical constitutive conditions. The former refers to external conditions that must be fulfilled at some time during which the mental disorder is exemplified. For example, oppositional defiant disorder (ODD) is a behavioural condition which manifests in pathological, uncooperative and occasionally hostile behaviours against authorities (Cleveland Clinic, 2022a). To diagnose ODD, multiple acts of defiance against authority figures need to exist. If the patient had not instantiated such social relations, the classification of ODD would not apply. A mere disposition to behave defiantly is insufficient to diagnose an individual with ODD (Davies, 2016, p.5). The prolonged manifestation of defiant behaviour against authority is necessary. This entails the presence of some authority figure, meaning that a diagnosis of ODD commits itself and requires consideration of the patient's social environment and relations. Other disorders, such as selective mutism and factitious disorder, all similarly require a consideration of the patient's social environment (Davies, 2016, p.6). Accounting for biological abnormalities is insufficient to understand such disorders as they directly manifest and are diagnosed through the patient's social environment.

Similarly, disorders with wide historical constitutive conditions require externalist considerations. For example, according to the Diagnostic and Statistical Manual of Mental Disorders II (DSM-II), major depression manifests as an excessive reaction to depression due to an internal conflict or an identifiable event, such as the loss of a loved one or cherished possession (American Psychiatric Association, 1968, p.40). This crucially involves states which are excessive, unwarranted or disproportionate to historical events in the patient's life. The condition of depression cannot be conceived in the absence of such environmental factors (Horwitz and Wakefield, 2007, p.87). By divorcing depression from its context, feelings of sadness or hopelessness are insufficient to distinguish pathological depression and normal sadness. In a dystopian context with no reason to be happy, the severest depressed mood may not qualify as pathological depression (Davies, 2016, p.4). Thus, identifying depression must include facts about the patient's environment. However, it is important to note that the depression used in the aforementioned case study is only depression with a historical

cause. There exists a range of depressive disorders with biological causes, such as postpartum depression (Cleveland Clinic, 2022b) or depression that occur with no apparent historical cause. As such, rather than only choosing one model, externalist psychiatry, in combination with the biomedical model, may be able to better explain different mental disorders with both external conditions and biological dysfunctions.

A consideration of externalism needs to extend further into disorders which have no obvious biological markers or abnormalities. The biomedical model relies on biological cues and manifestations of physical diseases to diagnose and treat patients. However, cases where patients experience medically unexplained symptoms do not fit into the existing framework of the biomedical model as there is no such obvious organic basis (Rosendal, Olesen and Fink, 2004, p.4). As such, many do not receive a correct diagnosis, if at all, and may undergo numerous futile investigations and treatments. Furthermore, being diagnosed with medically unexplained symptoms incurs the risk of harm by stigmatising patients. Patients may face public stigma through negative moral judgements made by others and discrimination in housing and employment. They may also face self-stigma as individuals internalise and accept negative moral judgments about themselves (Tolchin, Tolchin and Stein, 2021). A recent modern example is burnout, which was not accepted as a medical diagnosis until declared so by the World Health Organisation in 2019 (WHO, 2019). The lack of biomedical cause meant patients with burnout faced the stigma of being thought of as “not really ill, but just lazy” (Anjum, Copeland and Rocca, 2020, p.78). Patients may also not qualify for economic compensation for long-term sick leave without a medical diagnosis (Engebretsen, 2018, p.1151). Other similar disorders with medically unexplainable symptoms or no biological markers include chronic fatigue syndrome and chronic pain syndrome (Anjum, Copeland and Rocca, 2020, p.55-56). Thus, for mental disorders that seem to have no biological markers or medically unexplainable symptoms, it is necessary to go beyond the patient’s biology and consult their psychological symptoms in a contextual setting to be able to understand the underlying mechanisms.

However, it’s been argued that externalist psychiatry requires greater empirical support to back its claims. While the aforementioned cases may require externalist considerations to classify them, Jefferson argues that such mental disorders are still considered brain disorders since they are distinguishable through their brain dysfunctions (Jefferson, 2022, p.40). Externalist psychiatry claims that patients’ psychological states may be indistinguishable in cases of burnout or major depression versus grief unless external conditions are considered. Yet, externalist psychiatry has not proven that there are no further brain differences between patients, whether discovered as of yet or not. If this is not proven, then considering brain dysfunctions or differences is sufficient to diagnose mental disorders, and external considerations are not required. Brain differences in patients and the psychological process they realise can be located, and then after labelled brain dysfunctions if they also realise psychological dysfunction

(Jefferson, 2022, p.40). Even in cases of medically unexplainable symptoms, or distinguishing between depression and the justifiably sad in a dystopian world, Jefferson claims that there are physiological brain differences behind mental disorders that can be discovered. Thus, the biomedical model is sufficient for psychiatric assessment and diagnoses, and externalist psychiatry is unnecessary.

Yet, while Jefferson is accurate in her claim that the lack of biological differences in certain cases requires empirical evidence to be supported, understanding what constitutes dysfunctions still requires externalist considerations. Jefferson defines dysfunction as the “failure of a trait or mechanism to contribute in the usual way” and function as a “typical contribution” of a trait, organ or mechanism (Jefferson, 2022, p.5). Furthermore, brain differences would be labelled as dysfunctions only if they realise psychological dysfunction. This means a patient’s psychological or brain function would have to reach a threshold that is set between typical contributions and atypical or pathological contributions to be labelled as dysfunctional. However, a pattern is regarded as a dysfunction when it fails to align with an external standard set by factors located outside the body (Roberts, Krueger and Glackin, 2019, p.54-55). This standard or threshold may be set based on statistical evidence, qualitative support, negative consequences or evaluative judgements on whether the condition impairs the patient’s health (Amoretti, 2023, p.612). Regardless, the standards for determining what is labelled as function and dysfunction are constitutively externalist. If the external standard was changed and the patterns of symptoms the patient exhibits were now considered ‘normal’, the patient’s brain and psychological patterns would not be dysfunctional even if their internal facts remained the same (Roberts, Krueger and Glackin, 2019, p.54). Furthermore, deciding which brain response or psychological pattern is dysfunctional may depend on its comparison to other variants of responses. Brain responses ‘favored by’ natural selection are functional, and those ‘selected against’ are dysfunctional. For example, there is a naturally selected range of the sensitivity of fear-response mechanisms, and the spontaneous terrors of a panic disorder are not part of the range (Wakefield, 1997, p.387). This naturally ‘favored by’ or ‘selected against’ range depends on “which other forms exist in the population” (Schwartz, 2007, p.370). This means that if new variants appear or disappear, psychological or brain patterns once thought to be selected against and dysfunctional, could fall within the normal range without any internal change in the psychological pattern (Amoretti, 2023, p.613). Thus, biological or any internal differences require consultation of a standard or threshold, and hence external considerations.

Externalism needs to go further into the treatment of certain mental disorders, whereby only looking at biological differences causes harmful effects for patients. This is particularly evident in medically unexplainable cases like burnout. By translating burnout into a medical problem with a strictly biomedical treatment style, research has suggested that public health policies should focus on and medically treat one of

burnout's core symptoms, depression (Engebretsen, 2017). Depression is commonly medicated with selective serotonin reuptake inhibitors (SSRI). However, by reducing burnout into its core symptom of depression, patients suffered from worsened symptoms. Despite treating burnout's symptoms, SSRI can lower cortisol levels and thus worsen the symptoms in stress-induced conditions. As burnout can be reasonably supposed to be a stress-induced syndrome, SSRI could "hurt much more than they can help" (Anjum, Copeland and Rocca, 2020, p.79). Furthermore, purely relying on the pharmacological treatment style the biomedical model supports may have negative side effects even outside of medically unexplainable cases. By prescribing drugs like antidepressants for mental disorders, there is a risk of effects like emotional blunting, possible cognitive impairment and major dependency. Antidepressants like SSRI may cause side effects like emotional blunting, which means patients have diminished or lack emotional responses, or even possible cognitive impairment, including impairment of memory, creativity and attention (Marazziti et al., 2019, p.78). Furthermore, utilizing drugs means patients have a higher risk of becoming majorly dependent on them, with 59% of respondents reporting withdrawal rates and 40% major addiction in a survey of adult antidepressant users (Read and Williams, 2018, p.178-179). Thus, the motivation the biomedical model provides towards pharmacological treatment styles has harmful risks of side effects and reduces complex psychosocial phenomena to their medically accepted symptoms.

A further argument against the addition of externalism into psychiatry as necessary is that externalist theories lack practical operationalisation. There have been proposals for a biopsychosocial (BPS) model, which combines the biomedical model and externalist psychiatry to push for consideration of internal and external factors, or bio, psycho and social forces in mental disorders. The BPS model advocates for a holistic view of the three biological, psychological, and social aspects and how the three factors affect health or disease. Biological is associated with biological abnormalities, as seen in the biomedical model. Psychological refers to aspects of mental and emotional wellness such as self-esteem or mental health. Finally, Social encompasses interpersonal factors like social interactions and family relationships (Hardie, 2021). The BPS model considers all three areas to be greatly linked, and different issues to sometimes overlap between bio, psycho or social. However, it has been argued that the BPS model's "theoretical audacity has paled in comparison to its clinical utility" (Ongaro, 2024, p.270). The BPS model and externalist psychiatry have been condemned as conceptually vague, as it has little clarification on how bio, psycho and social forces causally interact with each other. Despite externalism's calls for more holistic care and external considerations, there is also little practical use as psychiatrists and practitioners have little guidance on how to integrate externalist theories into their care or clinic.

Yet, while still relatively nascent, the theoretical workings of externalist psychiatry have immensely useful practical implications for its integration into clinics and operationalisation.

Externalist psychiatry has its links with the biopsychosocial (BPS) model, whereby biopsychosocial causal integration takes on 'circular causality'. Rather than 'linear causality', which the biomedical model espouses (i.e. variable A affects variable B, variable B does not affect variable A, or $A \rightarrow B$), circular causality allows any effect on the system to depend on, and affect, in turn, the overall global organisation of that system (i.e. variable A affects variable B, variable B affects variable, or $A \leftrightarrow B$) (Hopkins, 2019). This does not necessarily mean that internal and external variables are weighted indiscriminately with no clarification. Instead, practitioners may take a more circumstantial approach. Operationalisation of externalist psychiatry recognises that some mental disorders may be more 'biological' in origin and others more 'psychosocial'. Research has shown that 'psychosocial' treatment styles like psychotherapy and therapeutic rituals are more effective on disorders with a largely social cause, and medication is more effective on biological causes (Ongaro, 2024, p.271). Thus, rather than choosing to always ignore certain factors, operationalisation of externalist psychiatry in tandem with the biomedical model may mean that biological and psychosocial or external causes are engaged in "a relation of circular causality" (Ongaro, 2024, p.272). Depending on the patient, external causes or biological abnormalities may take the leading role, but they each cannot be taken in isolation from the "overall organism-world system" (Ongaro, 2024, p.272).

By considering externalist psychiatry, gaps caused by an overly internalist bias in the biomedical model can be filled to minimise conceptual reductionism and harm to patients. Certain mental disorders, like those with contemporaneous or historical constitutive conditions, require external context to diagnose, treat and overall understand more effectively. This is relevant in terms of treatment to avoid medicalisation and harmful side effects like heavy dependency and cognitive impairment. For medically unexplainable cases with no obvious biological abnormality or cause, an overwhelming internal focus on the body or brain does not account for such patients. While adding externalist theories seems to require more empirical evidence, testing for biological and psychological dysfunctions or abnormalities already requires an external standard. Adding a dimension of externalism provides practitioners with an alternative to heavy-handed pharmacological treatment styles, and a more nuanced causal model of how both internal and external factors affect mental disorders. The gaps caused by an internalist bias in the current biomedical can thus be mitigated by externalist psychiatry, and allow for a holistic view of the brain, body and environment.

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