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Psychiatry Meets Philosophy of Mind: A Defence of
Externalism About the Constitution of Mental Disorders

Bachelor's Thesis in Philosophy

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Tartu 2023

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Introduction

This BA thesis focuses on the ontology of the mind and its implications for psychiatry. The ontology of the mind is a branch of philosophy concerned with questions about the “nature of mental phenomena” and how the mind and body relate to each other and the world (Encyclopædia Britannica 2023a). Depending on the question being asked, ontological theories of the mind vary – e.g., from dualism to monism, from internalism to externalism.

According to monism, everything that exists falls under a single category: mental or physical. Cartesian dualism argues instead that there are two types of things: thinking things (with mental properties) and material/physical things (with extension), so minds and brains are distinct entities (Rowlands 2003, pp. 8-9). Internalism holds that mental phenomena are intrinsic to the subject that undergoes them (*ibid*, p. 2). Externalism, on the other hand, argues that the location of at least some mental phenomena extends beyond the boundaries of the subject (*ibid*).

Understanding the ontological status of the mind can provide insights into the constitution of mental disorders, making it an important aspect of the psychiatric practice (cf. Hoffmann 2016, p. 1). Particular views on the ontology of the mind are implied, for example, in the diagnostic manual (DSM) and various models of mental disorders, such as the biomedical model of the mind. Knowing what and where the mind is, impacts what kinds of psychiatric interventions are used and developed.

Even though internalism is the most widely accepted theory when talking about minds – hence, also prominent in psychiatry – some philosophers have recently argued for *externalist psychiatry*, where the focus has shifted from the brain to the rest of the body and the external world (de Haan 2020; Hoffmann 2016; Krueger 2020; Roberts *et al.*, 2019).

In my BA thesis, I will focus on the debate between internalism and externalism about the location of mental disorders and will defend externalism. By investigating how the constitution of mental disorders is understood in psychiatry, I argue that contemporary psychiatry leans towards internalism. I examine whether the internalist ontology is sufficient for explaining mental disorders. This is an important question because the answer can lead us to a better understanding of mental disorders, which can lead to better psychiatric interventions.

I argue that locating the mind inside the subject’s brain unnecessarily limits our understanding of mental disorders. By assuming an internalised mind, external aspects can only be seen as causal aspects of mental disorders. I provide arguments to show that at least some

aspects of the mind (mental acts or states) extend beyond the inner boundaries of the subject and should therefore be treated as constitutive parts of the mind.

My thesis is composed of four chapters. In the first chapter, I will discuss the ontological framework currently presupposed in psychiatry and argue that it relies on a biased internalist ontology. In the second chapter, I highlight problems with the internalist account and suggest that an alternative view should be considered. In the third chapter, I present externalism as an alternative framework for understanding what mental disorders are. I will use schizophrenia as an illustrative example. In the fourth chapter, I consider and respond to two objections to the proposed framework.

On the basis of my analysis, I will conclude that the externalist paradigm provides us with a more adequate understanding of mental disorders without encountering the difficulties that arise for internalism. External factors play a crucial role in the constitution of some mental disorders, for example, in cases where a form of cognition is extended out into the world.

Chapter I: Psychiatry and the internalist framework

In this chapter, I will focus on current approaches in psychiatry concerning the ontology of mental disorders. In the first subchapter, I analyse the ontological implications behind the definition of mental disorders provided by the American Psychiatric Association (APA) and the biomedical model of the mind. This will lead the discussion into the following subchapter, where I explain these implications revealing an internalist philosophy of mind.

1.1 The psychiatric models and definitions of mental disorders reduce the mind to brain processes

Before I turn to the purpose of this chapter, I will introduce some essential notions for the following discussion. Firstly, when we think, we usually think of something – that something is *content* (Rowlands *et al.*, 2020, pp. 5-6). Mental contents are not “free-floating”; they need *vehicles* or *carriers* (*ibid*, p. 19). Mental *states* (e.g., beliefs) are one example of such carriers (*ibid*). Mental *acts* (e.g., believing) are another form of vehicles (*ibid*). While these notions are used in philosophy, this thesis also aims to clarify the notions of *functions* and *processes* used in psychiatry and their relationship to the above-explained philosophical notions.

In psychiatry, a mental *function*¹ refers to some activity of the mind, such as thinking or reasoning (APA Dictionary of Psychology 2023a). I use mental acts and functions interchangeably throughout this work. Mental functions are supported by underlying *processes* that realise these functions – e.g., certain cognitive² processes realise thinking. Mental *functioning* refers to such functions as a whole – something that the mind does. Mental *states* in psychiatry can refer to “intentions, beliefs, desires and emotions” (US DHHS 2023). This work focuses on *cognitive states*, defined as states of knowing, which differ from motivational and affective states (Encyclopædia Britannica 2023b). With this in mind, I will turn to the DSM’s definition of *mental disorders*.

¹ In philosophy, functions can refer to the idea that something counts as a mental state by the function it plays in a larger system it is a part of (i.e., functionalism) (Levin 2023). It also refers to inputs and outputs: e.g., a sensation (input) produces an action (output) (i.e., computationalism) (Rescorla 2020). However, this thesis considers them mental acts – things the mind can do.

² Cognitive refers to one aspect of the mind amongst affect and conation (APA Dictionary of Psychology 2023b). Cognition refers to, for example, knowing, perceiving, and reasoning (*ibid*).

The definition of a mental disorder in the DSM-V focuses on mental functioning and its underlying processes:

A mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. /.../ Socially deviant behavior /.../ and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above (APA 2022, p. 14)

This definition implies that dysfunctions are problems of mental functioning that have underlying processes inside the individual – problems of cognition are latent manifestations of these underlying inner mechanisms. Further, these dysfunctions must be realised (located) inside the patient to be considered mental disorders – if they are not, they are a different kind of problem (Cooper 2017, p. 3). Thus, the currently employed DSM interpretation seems to imply an ontology of acts and states where their underlying processes are located inside the patient that undergoes them. Next, I will focus on the medical model to provide an understanding of what kind of underlying mechanisms are at the focus of this paradigm.

The most prominent model in psychiatry is the biomedical model. This model assumes that different disorders are “biologically-based brain diseases” – reducing them to their biological underpinnings (Deacon 2013, pp. 2-3). According to it, mental disorders can arise out of abnormalities “located in the brain,” physical and mental disorders have no “meaningful distinction,” and the prominent treatment focuses on biology (*ibid*, p. 2).

However, different intervention techniques raise questions about approaching mental disorders as simply brain diseases. For example, there is wide use of cognitive-behavioural therapy, which focuses on changing problematic cognitive and behavioural patterns (Kring *et al.*, 2017, p. 276). This approach considers how a person interacts with her environment – it does not merely prescribe a drug, thus seemingly differentiating between the mental and physical aspects of the disorder. However, this is not to say that mental aspects are considered as something over and above the physical, as the function of interpretation and other cognitive processes are, as we previously established, located inside the skull. Thus, they are still considered disorders of the brain, even if they are not considered simply brain diseases.³ Hence, the idea that mental disorders are disorders of the brain is still implied – the mind is a) a physical

³ Like Rowlands (2010, p. 4), I argue that the difference between *realisation* and *identity* is not important here because “identical” could mean two things: 1) a type of mental phenomenon is identical to a type of brain function or process; 2) identity can hold between “individual instances of each kind.” Token identity connects with the notion of realisation – e.g., considering cognitive science, a particular program can run on differently built computers, and the program is the “physical basis” for some instance of a token (*ibid*). The brain can be type identical to the mind, or it can be an individual instance of a kind – one assumes identity, and the other focuses on realisation. Both still focus on the brain as the basis for the mind.

entity and has b) a location inside the skull. Next, I will consider schizophrenia as a paradigmatic example of a mental disorder as put forward by the internalist framework.

Schizophrenia includes behavioural and cognitive dysfunctions (Kring *et al.*, 2017, p. 246). Symptoms group together to form positive (e.g., delusions, hallucinations), negative (e.g., anhedonia, alogia), and disorganised (e.g., speech, behaviour) symptoms (*ibid*, pp. 246-252). In the DSM-V, the symptom clusters A–F focuses on different (A) positive, negative, and disorganised symptoms (which are noticeably present for one month) and (B) the disturbance of functioning in social areas (APA 2022, pp. 114-115). It is specified that (C) the disturbance must “persist for at least 6 months” and (D) other disorders (depressive and bipolar “with psychotic symptoms”) have been ruled out (*ibid*). It is clarified that (E) substance use, as a source, is ruled out, and (F) in the case of autism spectrum disorder, childhood communication disorder, diagnosis of schizophrenia is suitable if the positive symptoms are “present for at least 1 month (or less if successfully treated)” (*ibid*). Hence, behaviour and other disturbed mental functions are latent manifestations of an underlying cause in the brain – as problems in social cognition and intersubjectivity are part of the “functional consequences of schizophrenia” (*ibid*, p. 104). Thus, the constitutive parts must be found in the underlying internal mechanisms.

The aetiology of schizophrenia focuses on neuro-developmental problems and genetics (Kring *et al.*, 2017, p. 255). Other constitutive aspects focus on brain structure and function: enlarged ventricles and dysfunctions of the prefrontal and temporal cortex (*ibid*, p. 262). Environmental factors are considered in the way in which they influence the brain (*ibid*, p. 263), as brain dysfunctions can be caused by complications at birth, maternal infections, and problems with development (*ibid*, pp. 263-264). The onset of the disorder can also stem from problems of sociocultural factors (e.g., migration) and problems of family relations (*ibid*, pp. 264-265). Families also influence the relapse of the disorder, in which communication plays a key role (*ibid*, p. 265-266). Next, I will give examples of some models used for explaining schizophrenia.

Most models of schizophrenia, such as lesion, developmental, pharmacological, and genetic models, focus on dysfunctions in the brain. One example is the *dopamine hypothesis*, according to which schizophrenia appears due to the “excess activity of the neurotransmitter dopamine” (Kring *et al.*, 2017, p. 259).⁴

The main approaches in psychiatry imply a brain-centred view of mental disorders, which relies on two central ideas: a) mental processes (and therefore functions) are reduced to

⁴ In addition, the Theory of Mind hypothesis focuses on impaired intrinsic social-cognitive abilities.

brain processes, and b) a mind is constituted (because the mind is located in the brain, and the brain is located inside the body) by intrinsic parts of the subject. External features are considered only causally, as they can influence what is happening inside the brain. This approach is consequently biased towards an internalised view of the mind.

1.2 Current views in psychiatry coincide with the internalist account of the constitution of the mind

In this subchapter, I will introduce the notion of internalism that seems to motivate psychiatry. It consists of two major claims: the *Possession Claim* (PC) and the *Location Claim* (LC) (Rowlands 2003, p. 13).

The PC holds that “the possession of any mental phenomenon by a subject S does not depend on any feature that is external to the boundaries of S” (Rowlands 2003, p. 13). It concerns content (Rowlands *et al.*, 2020, p. 2). The focus is on individuation dependence (*ibid*, p. 6) – what things the mental phenomena depend on to be what they are. According to internalism, mental properties are “non-relational”, as environmental changes would not influence their individuation (Rowlands 2003, p. 16). Thus, the PC informs us about how the internalist individuates mental contents – it says nothing about the location (the constitutive parts) of the vehicles of mental phenomena. To establish the latter, I turn to the LC.

The LC holds that “any mental phenomenon is spatially located inside the boundaries of the subject, S, that has or undergoes it” (Rowlands 2003, p. 13). It is concerned with the “location of mental phenomena” and applies to “mental *particulars*” or “*process-tokens*” (*ibid*).

The two claims are not interdependent, as it would be coherent to say that something is externally individuated but located internally (cf. Rowlands 2003, pp. 13-14).⁵ In this thesis, I will not be concerned with the debate between individualism and externalism about mental content but will focus on the *vehicles* of mental content. I argue that the current view of the mind in psychiatry is internalist because they assume that the vehicles of mental content are located within an individual brain.

As I have previously demonstrated, psychiatry assumes that: a) mental processes are reduced to brain processes, and b) a mind is constituted by parts intrinsic to the subject. Any state or act that the patient undergoes is located inside the individual. Therefore, psychiatry is

⁵ In Philosophy of Mind, many authors prefer an externalist account regarding the PC and an internalist account regarding the LC.

assuming the internalist LC, where both mental acts and states are located inside the brain. As a result, the constitutive parts of a mental disorder are internal and corporate only what lies inside the skull (as functions are reduced to intrinsic processes) – external aspects can causally influence the brain. However, because they are not part of the mind, they are not parts of the mental disorders. Thus, internalism motivates the current views of the mind.

Chapter conclusions

The current views of mental disorders provided by the DSM and the biomedical model of the mind put forward an ontology of the mind, which is coherent with the internalist thesis – as both argue that vehicles of mental content are located inside the individual brains. Hence, the current view of the constitution of mental disorders in psychiatry is motivated by internalism. In the next chapter, I will consider problems with this view.

Chapter II: Problems with the internalist Location Claim

If the internalist thesis is the primary way of explaining mental disorders, it should provide us with an adequate explanation of them, which focuses only on the intrinsic properties of the disorder. If the internalist approach does not sufficiently explain mental disorders or is based on an unwarranted bias, alternatives should be considered.

The “spatial containment” (Rowlands 2010, p. 140) of mental functions is intuitive. To think of them as something that includes more than my spatial location does seem (at first) absurd. We depict ourselves as beings whose “abilities are fixed”, and the external scaffolding can only support the true inner processes (Clark 2008, p. 30). This chapter’s goal is to question these assumptions. Mental processes might rather be something which can transform amid new possibilities – external parts can become proper parts of the mind, incorporated into mental functions (Clark 2008, pp. 30-31).

In this chapter, I will focus on different problems the internalist account faces. I argue that biased internalism in psychiatry is not warranted. I will focus on philosophical and empirical arguments.

2.1 Philosophical arguments: Internalist approaches to the mind rely on unwarranted bias – some mental processes extend the boundaries of the brain

In this subchapter, I consider philosophical arguments of why the internalised version of mental processes is false in at least some cases. I will illustrate this through the Parity Principle (Clark and Chalmers 1998) and the Burden of Proof argument (Rowlands 2003).

2.1.1 The internalist bias is not a convincing argument to suggest that mental processes cannot extend beyond the skull

The Parity Principle illustrates that the problem with internalism is that it lacks proper reasoning behind the bias – it is only an arbitrary stipulation that all mental phenomena lie inside the skull. Hence, it begs the question. The Parity Principle argues that:

If, as we confront some task, a part of the world functions as a process which, *were it done in the head*, we would have no hesitation in recognizing as part of the cognitive process, then that part of the world *is* /.../ part of the cognitive process. (Clark and Chalmers 1998, p. 8).

Consider, for example, cognitive functions in the following three conditions. In the first (1) situation, a person sits before a computer screen, which displays different two-dimensional geometric shapes; the person is required to answer questions about the fit of the shapes into certain sockets. In the second (2) situation, the person sits in front of the same screen and can physically rotate the images displayed on the computer screen – all he needs to do is press an external button. In the case of physical manipulation, the speed (of answering questions) is faster than in the previous situation. Lastly, in the third (3) situation, the manipulation occurs in the future, where the person sits again in front of the same computer screen. This time the person has a neural implant, which lets him manipulate the rotation of those images as fast as in the previous example. The person must choose between rotating by an implant or “good old-fashion mental rotation.” These resources make different demands on the person accomplishing the task. (Clark and Chalmers 1998, p. 7)

According to the Parity Principle, all of these cases are similar in the presence of cognition. The last (3) and first (1) examples are similar, as they rely on internal processes to complete a cognitive task (Clark and Chalmers 1998, p. 7). This means that it is possible to think of the neural implant as part of the cognitive function – as it serves to complete the cognitive task (and does so effectively – faster). Therefore, we should not rule out the neural implant as “subserving cognitive functions” just because it was originally not part of the biological basis of the person – “as long as function is preserved, cognition is preserved” (Rowlands 2003, p. 160). This idea does not seem to be counterintuitive.

It is argued that in the second (2) case, the button can be put on par with the third (3) case, as it, too, “displays the same sort of computational structure as case (3)” (Clark and Chalmers 1998, p. 7). Suppose the second case seems different from the others. In that case, we need to ask why the external resource cannot be part of the cognitive process because, in principle, both cases involve processes in which “the transformation of information-bearing representations” takes place (Rowlands 2003, p. 160).⁶ In both cases, the cognitive function is

⁶ These questions may stem from an intuitive view of the Mark of the Cognitive – the idea that information processing usually involves processes inside the brain. However, the nature of cognition is not straightforward. Rowlands (2010, p. 110) sets out to find general principles of what counts as cognitive – the results will be illustrated in Chapter IV as the criteria for the cognitive, which coincides with an externalist framework. Physical manipulation can count as a part of cognition if the overall process (of which it is part) fits the criteria of cognition. Still, a cognitive process does, at least, need to be something that allows someone to complete a cognitive task (Rowlands 2003, p.161).

effectively completed. We simply stipulate the boundary if we turn to the claim that it is not happening inside the person. Conversely, as we were concerned with a “justifiable reason for supposing that cognitive processes” need to be intrinsic to the “cognizing subject” (Rowlands 2003, p. 160), simply pointing to “the skin/skull boundary as justification” is not adequate (Clark and Chalmers 1998, pp. 7-8).

By mere stipulation, internalists exclude external parts as parts of cognitive processes because the denial of ascribing the button pressing as part of the cognitive process but ascribing the neural implant as a part of the cognitive process seems nothing more than internalist prejudice (Rowlands 2003, p. 161).

The second example (Clark and Chalmers 1998, pp. 12-13) focuses on the case of Otto and Inga, where an external piece of scaffolding (a sentence) is identified with a state (a belief). The example is the following: Inga’s belief that is “embedded in memory” is used to go to an exhibition, which is taking place at the Museum of Modern Art. The belief itself is that the museum is on 53rd Street. Recalling this belief from her biological memory, she goes to the museum. On the other hand, Otto has Alzheimer’s disease. He relies on the external environment to structure his everyday life – writing new information in his notebook and looking it up when needed. Otto also hears about the exhibition and decides to go there; unlike Inga, he will rely on the external environment – using the information he has written in his notebook. By manipulating the external information-carrying resource, he successfully makes his way to the museum. The notebook is for Otto, what the biological memory is for Inga.

These cases present the idea that the external resource can play a role of a belief if it drives the cognitive process – as a dispositional belief. According to Clark and Chalmers (1998, p. 13), it is reasonable to argue that Otto had a standing belief of the location of the museum before he turned to his notebook; and this is because the standing belief was written down in the external resource – it existed the same way that Inga’s belief existed (both recalling it when it is necessary as an occurrent belief).

Interpreting this case as the idea of Otto’s belief existing externally out there the same way a biological belief exists when Otto is not acting on it is not something for which I will argue. As Rowlands (2010) illustrates, the notebook is an external information-carrying structure that augments the cognitive process. The belief is a part of cognition as long as it is part of the manipulation and transformation process – hence, by the way in which it contributes to the “cognitive processes instantiated in an organism” (*ibid*, p. 135).

To conclude, the problem with the internalist approach is that it relies on unsupported bias. It can be argued that mental processes can sometimes extend beyond the boundary of the skull, and there is no reason to limit them to internal processes besides unwarranted internalist bias. This takes us to the next part of this discussion: relying merely on intrinsic properties to complete a task is overly costly when loading some of the burden off is possible.

2.2.2 Making use of external resources: Do only as much as needed

The *Burden of Proof* argument argues that it is more cost-effective to load some of the burden off to the environment, as it would be unnecessarily costly for me to do “all the necessary work,” when it is possible to do “less work” by “combination of internal mechanisms and manipulation of the external environment” (Rowlands 2003, pp. 165-166).

For example, if we need to multiply 56×78 , we would rarely, it seems intuitively, resort to in-the-head computation when it is possible to use tools (e.g., pen and paper). Of course, doing it in the head is possible, but using an external tool makes it less effortful. It is cost-effective for the agent to use “the world” to save on “internal computation” (Kirsh 1995, p. 63). Similarly, the Principle of Ecological Assembly illustrates that people tend to use things available to them to solve a problem with “minimum effort” (Clark 2008, p. 13) – thus, not doing unnecessary work when it can be off-loaded onto the environment.

However, it is important to note that mental computation is not lost; rather, it is off-loaded to the world (Kirsh 1995, p. 63). Typically, what we can do depends on the environment (*ibid*, p. 43). If environments change, the possibilities for off-loading also change. However, the idea that we can load some of the burden off to adequate and available external scaffolding to complete a cognitive task does not change. The idea of cognitive task completion, which corporates different parts of cognition, relies on the idea of the Hypothesis of Cognitive Impartiality (Clark 2008, p. 197):

Our problem-solving performances take shape according to some cost function or functions that, in the typical course of events, accord no special status or privilege to specific types of operation (motoric, perceptual, introspective) or modes of encoding (in the head or the world).

This means that we do not differentiate between the dichotomic appearance of the processes, as whatever is most useful to complete a task will be used – focusing on necessary resources to get something done (Clark 2008, p. 122). This idea then illustrates that some part of the *action*

loop is a proper part of the overall process because it plays a key role in the overall action (*ibid*, p. 68).

This form of processing involves action loops, which include manipulating “information-bearing structures” in a way that makes available the information, that would have otherwise remained unavailable and, in which case said information is “indispensable” for the completion of a task (Rowlands 2003, pp. 178-179). These information-bearing structures can be internal or external – either way, a part will count as a proper part if it is necessary to perform some action.⁷

Thus, it is cost-effective for the individual to perform some mental functions in configuration with the environment. If mental functions extend beyond the boundary of the skull, then so do some of the constitutive parts – external parts are proper parts of a cognitive process when appropriately integrated with them. As we explained previously, mental phenomena consist of both acts and states; if it is the case that at least acts are extended, then it is the case that at least some parts of the mind are extended.

2.2 Psychiatric evidence: The brain alone is not sufficient for constituting mental disorders

This subchapter will focus on the Localization Fallacy and problems of heterogeneity and comorbidity in psychiatry.

2.2.1 *The Localization Fallacy: The brain is not the sole place where the magic happens*

The *Localization Fallacy* is the assumption “that we can locate specific experiences or functions of the whole in one of its parts” (de Haan 2020, p. 25). The current theory in psychiatry assumes that the brain is “where the magic happens” (*ibid*, p. 27). This idea is flawed – we can assume that the brain is an important part of mental disorders, but it does not follow that the one part is the only realisation of the whole (a mental disorder). Next, I will consider arguments that undermine the idea that the brain is the only part of the processes where mental disorders are located.

⁷ I will make the distinction between constitutional vs causal factors in Chapter IV.

The first problem stems from the arbitrariness of considering only neural changes as constitutive of disorders. Consider the example of a change in mood (de Haan 2020 pp. 28-29): a person with a depressed mood moves from one situation A (in which she is in one brain state) to another situation B (in which she is in another brain state), and this leads the patient to become happier. The internalist supposes that the cause of mood change is found in the brain state because the change in mood occurred after the change in brain state. However, why stop at the brain boundary? Different aspects (e.g., hormonal, cardiac) change when the situation changes, but only the neural processes are considered by the internalist (de Haan 2020, pp. 29-30). This seems unjustified: the mere fact that the brain is implicated in dysfunctions does not mean it is the only cause (cf. de Haan 2020, p. 30).

Secondly, mental disorder cultivation is not linear but rather a complicated interplay between experience and structural changes in the brain. Many different things (experiences) contribute to the onset of mental disorders – it is hard to identify the exact cause (de Haan 2020, p. 28). Determining when the structural change in the brain becomes a dysfunction is challenging – we will see this in the following subsection. Of course, what makes the brain a proper part of the process is the fact that without it, the function is lost. Nevertheless, from this, it does not follow that the external aspects are merely causal. Next, I consider the difference between the necessity and sufficiency of the brain’s implications in mental disorders.

The activations of specific brain regions while completing certain tasks would imply that brain regions are responsible for that particular action. However, there is not enough evidence to discriminate between sufficient and non-sufficient brain regions. FMRI studies, although important, do not conclude causality (de Haan 2020, p. 22). Based on the activations of brain regions, we cannot say that they are the sufficient “underlying mechanisms” (de Haan 2020, pp. 22-23) for some mental action. Consider the example of a necessary activation of brain region x (e.g., Broca’s area) for cognitive function y (e.g., speaking). When the activation of region x is damaged, and the function of y is malfunctioning or lost, we cannot say that y is located in x ⁸ because what we gather from this is that the region is necessary for the process of y , but not that it is sufficient for y . Other brain areas and muscles typically play an important role in speech production.

Hence, the fact that the brain is a necessary part of mental disorders does not account for the idea that it is also sufficient in constituting them. If the function includes other parts as proper parts, then those parts should also count as constitutive aspects of mental disorders.

⁸ De Haan (2020, p. 20) gives a similar example.

Considering that the boundary lies on mere stipulation, these proper parts may extend the skull boundary. Attributing the central locus solely to the brain is a fallacious move in which the internalist locates mental disorders (in at least some cases) to only one part (the brain) of the whole.⁹

2.2.2 The reductive underlying problems are still not found in psychiatry – comorbidity and heterogeneity

The current internalist paradigm has not been successful in explaining mental disorders by focusing only on constituents intrinsic to the individual brains. Instead, the current approach faces two problems, which are the results of the search for underlying mechanisms of disorders in just one part of the whole. These problems are: 1) *comorbidity* – simultaneous presence of two or more disorders in one individual (Kring *et al.*, 2017, p. 66); and 2) *heterogeneity* – the problem that patients in the same disorder category have diverse symptoms and other characteristics of the disorder (APA Dictionary of Psychology 2023c).

Heterogeneity creates problems for intervention and diagnosis efficacy (Newson *et al.*, 2021, p. 7) – as disorders seem to have “different causal mechanisms,” which have different results in patients (Fecko *et al.*, 2019, p. 1). Current problems that indicate different disorders have overlapping “biological features”, – and no clear boundary can indicate the “presence or absence” of a disorder (*ibid*, p. 2). This would make it difficult to diagnose a psychiatric disorder based on aetiology or underlying mechanisms.¹⁰ For example, there is no one gene that causes schizophrenia (Krin *et al.*, 2017, p. 261) – and many of the same genes also play an important role in bipolar disorder, meaning that the “predisposition may not even be specific to schizophrenia” (*ibid*, p. 255). For this reason, the DSM does not rely on underlying mechanisms for diagnosis – it relies on symptoms (*ibid*, p. 62), but this does not mean that the DSM approach is entirely adequate.

Comorbidity in psychiatry is a “norm rather than the exception” (Kring *et al.*, 2017, p. 66). According to research executed on the DSM-V, out of the 12.3% of participants who got one diagnosis, 62,7% also had at least one more diagnosis (Newson *et al.*, 2021, p. 7). This has

⁹ It is possible to distinguish between parts of functions and conditions to perform some function – I will consider this in Chapter IV.

¹⁰Research Domain Criteria project hopes to use “genetic and neuroscience mechanisms” for diagnosis (Kring *et al.*, 2017, p. 67).

led to the suspicion that the DSM-V's categorisation of disorders is “equivalent to a random drawing of individuals” (*ibid*).

Even though research still focuses on the underlying mechanisms of one part – the brain – what it has discovered is a complex system which spans the brain, body, and world (de Haan 2020, p. 238). The idea that any one particular aspect (e.g., gene) could cause mental disorders has been surpassed; rather, the complex interplay (e.g., with the environment) has been acknowledged (van der Kolk 2014, pp. 182-183). We have moved to epigenetics, complex neural networks (de Haan 2020, p. 238) and other complex circuits. This indicates that if we constantly incorporate more parts, stopping at the skull boundary is unwarranted (reliant on stipulation). Mental disorders may be realised by different parts. Hence, the role of beyond-the-skull factors needs to be taken more seriously.

Chapter conclusions

The idea that mental disorders can be reduced to intrinsic underlying mechanisms leads to various problems for the current psychiatric approach. These problems include an unjustified reliance on internalist prejudice, which excludes external parts only by stipulation, and committing the fallacious inference that one part (the brain) is sufficient in constituting the whole (mental disorder). This has brought about unsolved problems of comorbidity and heterogeneity in psychiatry. Hence, the current intrinsic constituents have trouble explaining mental disorders. In the next chapter, I will introduce externalism as an alternative framework for understanding mental disorders – as externalism embraces the complexities of the disorders by not trying to reduce them to one underlying part.

Chapter III: Externalism in psychiatry

Content externalism is what people usually consider when discussing externalism (Rowlands 2003, p. 98). It claims that content is relational (i.e., individuation dependent on the external world) (*ibid*, p. 218). In Philosophy, this view is usually preferred. However, as we established in Chapter I, this does not give us information about the location of mental processes underlying mental functions. For this reason, I will focus on the externalist LC.

As psychiatry is biased towards an internalised interpretation of the mind, mental disorders are seen as being constituted only by intrinsic parts. This idea faces philosophical as well as empirical problems. Thus, alternatives should be considered. In the first subchapter, I will introduce externalism and the 4E approaches to the mind – their main ideas focus (in different degrees) on the external world, the body and the brain (Rowlands *et al.*, 2020). In the second subchapter, I will consider how this framework can improve our understanding of mental disorders by discussing the example of schizophrenia.

3.1 The 4E approaches to the mind: The embodied, embedded, enacted and extended mind

Constitutive externalism challenges the idea that a mental particular has only intrinsic constituents. Instead, the externalist LC says that “at least some mental phenomena are not spatially located inside the boundaries of the subject, S, that has or undergoes them” (Rowlands 2003, p. 218).

The embodied mind approach argues that (i) the way a brain “manipulates and transforms mental representations” depends on the body (Rowlands 2010, p. 54). Dependence can be viewed as causal or constitutive: it can be the case that (i.i) “(some) mental processes causally depend (for their existence, identity, etc.) on the body and its characteristic,” or (i.ii) “(some) processes occurring inside the body, but outside the brain, can partially constitute mental processes;” and lastly (i.iii) “(some) mental processes depend on mental representations that relate to body” (Rowlands *et al.*, 2020, pp. 28-29). In the cases of (i.i) and (i.iii), it can be argued that they still focus on the brain as the place of mental processes – and can, thus, be argued not to be constitutively externalist (Rowlands 2010). Thus, (i.ii) can be considered as a constitutive externalist view.

The embedded mind focuses on the idea that a brain is dependent on the external environment in which it functions. A person loads some of the burden off to the appropriate environment, and as a result, it reduces the demands on the agent's cognitive processes and further enhances her cognitive capacities (Shapiro and Spaulding 2021). Here, the external environment is considered causally and not constitutively – it is a causal dependence (Rowlands 2010, p. 69). Cognition still occurs in the head; the external scaffolding merely causally augments it (*ibid*, pp. 69-70). Thus, it can be argued that this idea is not constitutively externalist.

*An enacted mind*¹¹ focuses on action in the environment. This is a view that “cognition emerges from or is constituted by sensorimotor activity” (Shapiro and Spaulding 2021). It postulates different information-bearing structures on which the person can act on (Rowlands 2010, p. 74). Cognition takes place by way of coupled processes in the head and outside of it (Rowlands *et al.*, 2020, p. 30). The phenomenal aspect of experience appears by availing information in the world (Rowlands *et al.*, 2020, p. 31). This interpretation of the enacted mind seems compatible with the extended mind thesis.¹²

Lastly, *the extended mind* (ExM) thesis focuses on external aspects as constitutive aspects of some acts or states. This means that the ExM can be understood as a) the case in which states are extended, b) the case in which acts are extended (Rowlands *et al.*, 2020, p. 19) (or the extension of both). Thus, the focus is on the idea that vehicles of mental content (or their parts) are, in some cases, extended beyond the boundary of the skull – forming an integrated coupled-system (Clark and Chalmers 1998, p. 8)

The state-oriented extended mind identifies a state with an external piece of scaffolding – considering it plays the right “functional role” (Rowlands *et al.*, 2020, p. 20). The ExM, as proposed by Clark and Chalmers (1998), can be understood as locating token states with external structures when in the “right context” (Rowlands 2010, p. 61), e.g., a sentence in a notebook counts as a proper belief. However, as we established earlier in Chapter II, this is not

¹¹ My explanation is focused on Rowland's interpretation of enactivism (reliant on Noë's idea of sensorimotor enactivism). There are three different approaches to enactivism: one, “Autopoietic Enactivism”, which conceives that cognition is a sensorimotor process spanning the brain, body and world, and there is no distinction between mental and non-mental “biological processes” – the former are enriched versions of the latter (Shapiro and Spaulding, 2021). Another, “Sensorimotor Enactivism”, focuses on perceptual experiences and says that it depends on activity in the environment – while establishing patterns between activity, world and “sensory states” – and postulates that we do not form representations but instead rely on the relived “sensorimotor dependencies” (*ibid*). Lastly, “Radical Enactivism” (Hutto, 2012) claims that there are no representations, only embodied interactive action (Shapiro and Spaulding, 2021).

¹² There are other ways to understand the enacted mind. Rowlands (2010, p. 74) argues that it focuses on *expectations* and *abilities* rather than actual activities. In short, abilities and expectations do not need to be extended the same way in which activities are (Rowlands 2010).

how I (relying on Rowlands 2010) interpret this case. Consider next the process-oriented extended mind.

The process-oriented extended mind focuses on mental acts as being extended – partially constituted by intrinsic and external parts if they augment the cognitive functions (Rowlands 2010). This idea focuses on the exploitation of the external environment to complete a cognitive task – some external part can become a proper part of the overall process – e.g., remembering (*ibid*, p. 63). This kind of externalism is constitutional, as it integrates the different parts (*ibid*, p. 67). According to this type of extended mind, (i) the external world acts as a “store of information” that is necessary for some mental function (e.g., reasoning, experiencing); (ii) “cognitive processes are hybrid” as they include external and internal parts; (iii) processes take the form of action, in which case, a subject manipulates, exploits, and transforms “environmental structures” which are “relevant of a given task;” (iv) “at least some” internal processes are such that they supply the “subject with the ability to appropriately use relevant structures” in the environment (Rowlands 2010, p. 59).

This interpretation of cognition could also be seen as coherent with the concept of *sense-making* (de Haan 2020), which is central for some enactivists. In this case, sense-making involves values – valences – that, depending on the agent (and its wants and needs), the external environment will have (*ibid*, pp. 56-57).¹³ As the environment is an information-bearing structure, the *act* of unravelling information is what makes up sense-making. The meaning is conjured from these information-bearing structures by acting on them. Therefore, the operations in the environment, which have external and internal parts, also include extended experiences.

To conclude, the ExM thesis, the constitutional embodied mind (and certain versions of the enactive mind), truly challenge the internalist LC by proposing that constitutive parts of the mind lie outside the skull. In the following subchapter, I illustrate the externalist approach to mental disorders by analysing the example of schizophrenia.

¹³The main difference between Rowlands’ and de Haan’s ideas is that de Haan argues for an emerged mind (with material and internal parts). I argue, relying on Rowlands, that the mind is coupled to the environment – not minimising the importance of the brain. Thus, some processes are extended, but not all.

3.2 An externalist account of schizophrenia: Social cognition, mental institutions and intersubjectivity

As we previously established in Chapter I, schizophrenia in psychiatry is considered to have constitutive parts only inside the patient. The internalist paradigm sees problems of social cognition as latent manifestations of an underlying internal cause. As biased internalism in psychiatry faces problems, I will outline an alternative externalist approach, where social cognition is at the core of schizophrenia. In this case, the problems of impaired social cognition are not the mere results of dopamine dysregulation but rather the result of problematic “embodied interaction” (Froese 2013, p. 1377) of a coupled system.

The idea that social cognition is not intrinsic to the subject but extends outwards into the world and incorporates external scaffolding (i.e., the body, mental institutions and other people) places the disorder in an externalist framework. The inability to access the external scaffolding necessitates part of schizophrenia. The phenomenological approach relies on the idea that experience integrates external parts, and the problems of accessing them lead to abnormal experiences. In the following subsections, I will illustrate how social cognition is an important feature of the realisation of different symptoms of schizophrenia, how the inability to make sense of social interactions can lead to alienation and disorganised behaviour, and how this can culminate in psychosis, in which case the boundary of self and other becomes problematic, and agency is lost.

Schizophrenia is a good example for my analyses because there is no empirical evidence linking the hypothesised disorder of the brain to any specific malfunction only in the brain. I will focus on social cognition problems because similar problems arise in other mental disorders (e.g., depression and anxiety). Hence, schizophrenia is used as an illustrative example of how, in some cases, problems of social cognition can account for more than just latent manifestations.

In addition to social cognition, I will rely on two important notions: *genuine intersubjectivity* and *mental institutions*. Let me first explain what they mean. The notion of *social cognition* usually refers to processes that underlie how we interact in a shared world – typically involving brain-bound parts. It is the ability to understand my own and others’ social behaviour (APA Dictionary of Psychology 2023d). This ability underlies *intersubjectivity* – which refers to a shared experience (APA Dictionary of Psychology 2023e). Intersubjective relationships are enabled by the ability to understand others in a larger social context. If we

have problems with social cognition, intersubjectivity is likely to suffer. *Genuine intersubjectivity* assumes that we usually co-regulate our interaction and that our individual experience is integrated into an interpersonal one, giving it a “second-person character” (Krueger 2020, p. 2). Our bodily movements (facial expressions, gestures) impact the other’s response and *vice versa* (Krueger and Colombetti 2018, pp. 5-6), creating an action loop and extending cognition beyond the skull by including external information-bearing structures.

As social interactions occur in sociocultural institutions, this brings us to the notion of *mental institutions*. They are collections of collective knowledge about the “cultural milieu” (Krueger 2013, p. 40). People engage with not only tools but institutions (Gallagher 2013, p. 4). These institutions provide us with narrative-like scripts of how things usually and typically happen, which helps us “make sense” of the actions of others and ourselves (Gallagher 2006a, p. 226). As a result, these institutions make us intelligible to others and *vice versa* (Roberts *et al.*, 2019, p. 60). Institutions become a proper part of the overall action loop – facilitating a fluid engagement with others. Due to the complexities of these institutions, they are such that “in principle they could not happen just in the head” (Gallagher 2013, p. 4), but this does not mean agents cannot still be coupled with them.¹⁴ In the following subsections, I will argue that in the case of schizophrenia, these external scaffoldings are not adequately integrated due to problems of embodiment.

3.2.1 Problems of embodiment: Feelings of alienation

In this subsection, I consider the problem of embodiment – and the negative symptoms of schizophrenia. Problems with embodiment are an empirically observed phenomenon in patients with schizophrenia. It is reported that patients often feel their bodies as “deanimated objects” (Krueger 2020 p. 12). Such findings were concluded by de Haan and Fuchs (2010), who, based on two case studies, established that patients with schizophrenia lose their sense of embodiment and self. Next, I will unpack this idea.

Problems with embodiment mean that the body is no longer “lived through” (Krueger 2018, p. 602) or experienced in a “normal” way. Rowlands (2010, pp. 157-158) illustrates the Heideggerian idea of the *primordially* understood use of tools, in which case the tool becomes transparent (we are unaware of using it – not until something goes wrong with it). The problem

¹⁴ Rowland’s (2010, p.63) interpretation of the extended mind thesis is coherent with external information-bearing structures: mental institution can be a “properly cognitive part of an overall cognitive process”.

in schizophrenia is with transparency: the use of the body as entertaining and providing social knowledge is no longer primordially understood – we become too aware of it, no longer using it effortlessly in social cognition – in such cases, the patient has to resort to “deliberation” (Rowlands 2010, p. 159) of his and others’ actions. Hence, the “mediating role of the body” has changed as we now become aware of perception itself (de Haan and Fuchs 2010, p. 331).

The bodies we inhabit are important when engaging with external resources – possible actions are determined by the external world and the bodies we inhabit (Rietveld and Kiverstein 2014). This means that embodied action (our bodily gestures which convey social knowledge) is the condition in which we usually are able to adequately access¹⁵ mental institutions and make sense of others. As this feeling of embodiment is lost, so is the knowledge these institutions facilitate. Information from others (as information-bearing structures) becomes incomprehensible; in this case, the action loop, which includes external scaffolding as necessary parts, is malfunctioning. As social cognition is impaired, social encounters can be “puzzling and devoid of meaning” – integrating social scaffolding is inadequate (Krueger 2018, p.602). As a result, intersubjectivity suffers. Losing the ability to be a part of the social world with others can lead to “alienation and social withdrawal”, – which are related to the negative symptoms of schizophrenia (Schilbach 2016, p.5).

Irarrázaval and Sharim (2014, p. 7) have noted that acute episodes occur after social isolation. Thus, even though problems in the brain are a necessary factor for schizophrenia, external scaffolding and the non-adequate access to them can lead to dysfunctional social cognition. Next, I consider the positive symptoms of schizophrenia.

3.2.2 Losing the excentric position: Delusions and hallucinations

After being isolated and losing the embodied self, returning to the social world can give rise to positive symptoms of schizophrenia as one tries to make sense of others again – now from a detached third-person point of view. Problems of intersubjectivity and withdrawal from the social world usually precede the onset of psychosis (Salice *et al.*, 2015, p. 149; Irarrázaval and Sharim, 2014); thus, complications with embodiment, troubled social cognition and alienation from the social world often lead to further complications. They can lead to a delusional experience of the world, as losing oneself impacts the “self-other distinction” (Fuchs 2015, p. 201), which leads to the problem of losing one’s “excentric position”, which is the

¹⁵ This is a requirement for adequate coupling (Clark and Chalmers 1998).

ability to integrate in an appropriate way the “ego- and allocentric point of view” – my perspective and the perspective of the other, without losing my “self-awareness” (*ibid*, p. 195).¹⁶ Next, I consider how this might be the case.

Gallagher (2006b) introduces the notions of *agency* and *ownership*. Agency refers to me being the “initiator” of some act or thought; ownership refers to the idea that I am the one experiencing them (*ibid*, p. 173). In any normal voluntary case, these two phenomena coincide (e.g., I initiate walking, and I experience walking) (*ibid*, p. 174). In the case of involuntary movement, we can distinguish the two (e.g., someone pushed me – I know that it is I who is moving, but I was not the one who was the initiator of the movement) (*ibid*). However, as the excentric position is lost (Fuchs 2015) due to problems of embodiment, I abnormally no longer feel like the initiator of my actions or thoughts – I have lost the sense of agency in my intentional actions. What still does remain is the experience of these bodily sensations. For example, in the case of “controlled” movement: I can feel my lips moving but attribute the production to someone or something else (Gallagher 2006b, p. 175). Thus, there is a mismatch between voluntary actions and involuntary actions.

Other cases also apply. For example, I may “acknowledge that I am the one who is thinking”, but I can still insist and say that they are not the result of my willed action to think of them (Gallagher 2006b, p. 175) (e.g., in a normal case: earworms; in a case of losing the excentric position: thought insertions). The person with schizophrenia feels as if the thoughts she encounters are not *hers*. Hence, losing the excentric position can lead to impaired agency, leading to a delusional experience.

Chapter conclusions

The ExM and the constitutive interpretation of embodiment can be considered as truly challenging the internalist LC. Looking at the problems of social cognition in the case of schizophrenia from an externalist perspective, they become the core of the disorder rather than its latent manifestations. Problems of embodiment and the loss of adequate access to shared knowledge (i.e., troubled social cognition) lead to alienation – bringing about problems of the excentric position, which complicates social relations. This means that problems in the brain

¹⁶This also illustrates how the being in the world of a person with schizophrenia is disorganised (e.g., abnormal behaviour occurs as the person loses the sense of embodiment and knowledge facilitated by mental institutions, and her actions are no longer congruent with expectations of the social narrative).

can influence the overall process of social cognition. However, it is not the only part of mental disorders, as external scaffoldings as proper parts are also considered constitutive. This gives us a more in-depth explanation of schizophrenia and can further indicate the core problems in other mental disorders where such extended coupled systems malfunction.¹⁷ In the next chapter, I will respond to counterarguments against externalism (ExM).

¹⁷ The ontology of the mind has implications for interventions. By expanding the constitutive parts of the mind beyond the skull, we can focus on the beyond-the-skull parts when cultivating interventions, for example, focusing more on non-pharmacological techniques, such as yoga (e.g., Schulze *et al.*, 2021; van der Kolk 2014).

Chapter IV: Counterarguments and solutions

In previous chapters, I have argued that the scaffoldings are constitutional parts of at least some cognitive processes. In this chapter, I will distinguish between causal and constitutional claims and defend constitutional externalism. I will consider two counterarguments – the *Coupling-Constitution Fallacy* argument and the *Cognitive Bloat Argument*, both of which lead to the idea of the *Mark of the Cognitive* – and will provide responses to them.

4.1 The Coupling-Constitution Fallacy

One argument against ExM theorists says that ExM relies on a problematic differentiation between causal and constitutive parts. Adams and Aizawa (2010a, 2010b) call this the *Coupling-Constitution Fallacy*. ExM theorists commit a fallacy when they move from a causal to a constitutional dependence on the “environment, and body” (Adams and Aizawa 2010b, p. 105).

Firstly, Adams and Aizawa (2010a, p. 67) articulate their concerns with the absurdity of external tools being cognitive: if we couple a pencil to a cognising subject, the pencil will think that $2+2$ equals four, because, for the ExM theorist, it does not matter whether the external resource carries out some cognitive process, what matters is only that the external aspects are coupled to the cognitive agent. They argue that no ExM theorist provides an adequate argument for the move from causality to constitution (Adams and Aizawa 2010b, p. 91).

The problem stems from the lack of a clear distinction between causal parts and constitutive parts (Adams and Aizawa 2010b, p. 89). Due to this inadequate distinction, ExM theorists make the mistake of attributing an external resource X, which can merely causally augment cognition, a cognitive status if it is coupled to Y (Adams and Aizawa 2010a, p. 68). However, the mere coupling of parts does not make the external part count as a sufficient cognitive part (Adams and Aizawa 2010b, p. 93). Next, I consider responses to these concerns.

Firstly, indeed the idea that the coupling between an agent and the external tool *makes* the external tool think seems inane. However, this formation of the argument misunderstands the true argument. It is not the case that the mere coupling of external process or state X to a

truly cognitive process or state Y makes X cognitive – the hypothesis does not attribute a cognitive status to the external part by itself but to the overall process in which the external part is a proper part (Clark 2010, p. 87). The external tool is a proper part of the process as long as it functions to accomplish the cognitive function (Rowlands 2010), which would otherwise not have been what it currently is (Gallagher 2013, p. 5). Hence, the problem lies in the idea that Adams and Aizawa falsely assume that the coupling makes the external resource cognitive on its own.

Of course, some aspects influence cognition causally, and some are constitutive of mental functions. Through the notion of action loops (introduced in Chapter II), I argued that some parts of processes could extend the intrinsic boundaries of the individual— and they do so adequately as long as the function is preserved (Rowlands 2003).¹⁸ By this notion, ExM theorists are not making causal aspects constitutive but rather are determining necessary parts of some process without stipulating a boundary. This means that the external resources were not considered sufficient but necessary.

In some instances, the overall process incorporates different necessary parts, and no one part is sufficient to realise the whole process by itself. It is not the case that a “putative part” carries the cognitive function in itself (if we said it was, we would be making the Localization Fallacy). It is the case that if a part is a proper part, then it is a necessary part of the overall process (Clark 2010, p. 83) – e.g., a single neuron is “never sufficient” for cognition (Clark 2008, p. 129). Therefore, it was not argued that one putative part is sufficient for some mental functions.

Of course, the loop need not always require external resources. Still, it does not follow that because of this, the external resources are only causal and not constitutive. Hurley (2010, p. 106) argues that this assumption makes the Causal-Constitutive Error Error. This fallacy argues that opponents of externalism argue “without independent argument or criteria” that we can draw a “causal/constitutive distinction” by focusing on the “external/internal boundary” (*ibid*). This begs the question as internalism relies on assumptions of where the boundary is (*ibid*). Even if this “spatial containment” (Rowlands 2010) is intuitive, the opponent would still be arguing without “independent justification” (Hurley 2010, p. 106). We should focus on determining the necessary parts of mental processes without stipulation.

¹⁸ This leads the discussion into the Mark of the Cognitive, as the “states of external processes” need to satisfy some “criterion for the cognitive” (Rowlands 2010, p. 92).

Thus, the counterargument falsely assumes that the extended mind thesis attributed a cognitive status to the external resource independently of the part it plays in the overall process and assumes without independent criteria that what is causal is external to the brain and what is constitutive is internal. In the following subchapter, I consider the Cognitive Bloat Argument and will also introduce Rowlands's (2010) idea of the Mark of the Cognitive, which is compatible with the ExM.

4.2 The Cognitive Bloat Argument and the Mark of the Cognitive

If a sentence in a notebook counts as a belief, why not “sentences found on the internet” (Rowlands *et al.*, 2020, p. 21)? The *Cognitive Bloat Argument* claims that extending cognitive processes “places us on a slippery slope” and seems to admit that many different external structures and processes that are not cognitive turn out to be cognitive (Rowlands 2010, p. 86).

To respond to this argument, we could first consider the criteria of adequate coupling put forward by Clark and Chalmers (1998) and Clark (2008, p. 79), which focuses on the idea that the external resource is “reliably available and typically invoked”, the information is endorsed automatically, and is not usually a subject “to critical scrutiny,” the information is “easily accessible,” and “has been consciously endorsed.”

These criteria are able to establish “the reliable presence of the new capacities” and that “the mode of deployment of the resource” makes the external tool into a “proper part” (Clark and Wilson 2005, p. 20). If the criteria are met, the new capacities enabled by some external tool “contribute to the persisting cognitive profile” (*ibid*). They add something to the function, turning it into something new. Further, the criteria illustrate that it makes no difference where the resource lies (*ibid*). If the part of a process fails to account for these criteria, then it is not a necessary part of the cognitive process.

Still, based on these criteria, an internalist (arguing for causality) might raise a problem, which entails the idea of a mind still extending into everything. For example, information on the internet can meet the criteria previously considered, and it would then need to count as part of someone’s mind all the time, even when someone is not acting on it. Answers to the Bloat Argument can take a different route and focus on the Mark of the Cognitive.

The previously introduced Coupling-Constitution Fallacy argument leads back to the idea of the Mark of the Cognitive, as Adams and Aizawa (2010a, p. 68) claim that what makes a thing cognitive is its “nature.” They argue that by focusing on empirical findings (e.g.,

psychometric laws like Weber's law), we can conclude that a truly cognitive process takes place only in the head and not outside it (*ibid*, p. 69). According to this argument, we should reject the extended mind thesis because it is "incompatible with any plausible mark of the cognitive" (Rowlands 2010, p. 86).

To answer this problem, I will consider some (sufficient) criteria for cognition, put forward by Rowlands (2010, pp. 110-111), which supports an externalist account of the Mark of the Cognitive. It establishes what would count as cognitive (differentiating between an enabling condition and a part of the process).

1. P involves *information processing* – the manipulation and transformation of information-bearing structures.
2. This information processing has the *proper function of making available* either to the subject or to subsequent processing operations information that was, prior to this processing, unavailable.
3. This information is *made available* by way of the production, in the subject of P, of a *representational state*.
4. P is a process that belongs to the *subject* of that *representational state*.

The latter (i.e., owning) can be used to answer the Cognitive Bloat.

Firstly, we can distinguish between "*subpersonal*" and "*personal-level*" processes (Rowlands 2010, p. 138) to see how the personal-level process can be owned and, therefore, avoid falling into the slippery slope of the bloat. Personal-level processes make information available to the subject¹⁹ "of these processes," and this is true whether they make or do not make "information available to the subsequent processes" (*ibid*). The subpersonal-level makes information available only to the "subsequent processing operations" (*ibid*, pp. 138-139). Both processes are important in availing information, for without them, the information would have remained merely present (unavailable) (*ibid*).

The personal-level indicates that the subject (of those processes) can have epistemic authority over the process (Rowlands 2010, p. 155) (i.e., have knowledge about it). The personal-level processes are concerned with detecting environmental changes and acting accordingly (Rowlands 2010, p. 146). These "personal-level abilities" are something which the "organism does *in virtue of* its various subsystems rather than something that can be attributed to the subsystem themselves" (*ibid*, p. 147). The subpersonal-level processes enable the personal-level process to be realised.²⁰

¹⁹ The subject, as the "cognizing organism" (Rowlands 2010, p. 97), is the subject to whom the "processes that satisfy conditions (1)-(3)" (*ibid*, p. 135) are regarded (*ibid*, p. 145) – it can be understood broadly (e.g., individual, group) (*ibid*, p. 135).

²⁰ Parallels with David Marr's theory of vision.

According to Clark (2010, p. 89), subsystems (parts) of some cognitive system need not carry all the same properties that the overall system does if some X is a part of the “supervenience base of” Y, and Y must “exhibit some property Z,” there is no “requirement that Z be in addition a property of the putative part X.”²¹ The subpersonal-level processes can contribute to the personal-level information processing and, as such, are considered cognitive (*ibid*) – i.e., cognitive subpersonal-level processes are owned in such a way that they contribute to the personal-level processes, and the latter meets the criteria of 1-4.

Bloat could happen on the subpersonal-level, but it can be avoided on the personal-level (Rowlands 2010, p. 139) due to the ownership criteria (*ibid*, p. 142). For a process to be owned, “it is necessary and sufficient for it to be integrated into my other biological processes in the right way” (*ibid*, p. 142). The coupling for these processes needs to be adequate to count as a function and work in proper ways regarding a subject – to whom the proper function is completed (*ibid*). Moreover, the bloat in subpersonal processes would not be cognitive because if those processes are not contributing to the personal-level, they are not cognitive. Hence, mental functions are not free-floating but are owned by the agent for whom these processes’ complete a cognitive task. Cognition only extends to the appropriately coupled “subject-systems,” which have “epistemic authority” over their actions (Rowlands 2010, p. 156).

Thus, the Cognitive Bloat Argument can be refuted if we consider what could play the role of the Mark of the Cognitive, which includes the criterion of ownership: a subject owns a process when that process helps to complete a cognitive task regarding that person, in which case that process counts as cognitive (as long as it meets the criteria 1–4). Otherwise, the processes in the external environment are not considered in the same way – hence, no (cognitive) process is subjectless (Rowlands 2010, p. 138).

Chapter conclusions

In this chapter, I addressed two objections towards the externalist framework for understanding mental disorders and argued that they could be overcome. The first objection, the Coupling-Constitution Fallacy, fails to acknowledge that a cognitive process sometimes requires external parts to function properly. The overall system counts as cognitive, not just some part thereof. The second, the Cognitive Bloat objection, concerns the Mark of the

²¹ Thus, even if one part of the system carries no representational aspects, it does not follow that the overall system does not.

Cognitive. It can be overcome by making the ownership of cognitive processes at a personal level one of the marks of the cognitive. This suggests that externalism is a viable ontological framework for mental disorders.

Conclusion

This thesis focuses on the ontological constitution of mental disorders and its implications for psychiatry.

Firstly, I argued that psychiatry currently employs an internalist framework to define mental disorders. I demonstrated this by highlighting the underlying internalist assumptions about the location of the mind and showing how the current approach in psychiatry aligns with internalist ontology.

Secondly, I presented several criticisms of the internalist approach by giving philosophical and empirical counterarguments. These critiques include the issue of begging the question as the boundary of mental processes is based on an arbitrary stipulation rather than an adequate justification. I also argued that loading some of the burden onto the environment is cost-effective. Another criticism was that when internalists attribute mental disorders to one part (the brain) of the whole, they commit the Localization Fallacy. To support this argument, two empirical problems in psychiatry were considered: comorbidity and heterogeneity. Further, I pointed out that current empirical findings seem to suggest more complex loops of mental functioning than previously thought.

Thirdly, I argued for an alternative externalist framework, which gives an in-depth description of at least some mental disorders – e.g., schizophrenia – by acknowledging their complex parts. Describing schizophrenia in such a way lets us see how the core problems may not lie only inside the skull – the disordered functions include proper parts inside and outside the brain.

Lastly, I considered two counterarguments to the proposed externalist thesis and provided responses to them: the Coupling-Constitution Fallacy argument and the Cognitive Bloat Argument. I argued that opponents typically misunderstand the real thesis defended by ExM theorists and, secondly, how the idea of the Mark of the Cognitive may be compatible with an externalist framework and how the latter, in this case, can be further used to answer the Cognitive Bloat Argument.

The main conclusion of the thesis is that the externalist paradigm could provide us with a more in-depth understanding of mental disorders without facing the problems that arise for internalism. The presupposed internalist approach in psychiatry does not adequately describe all mental disorders (e.g., schizophrenia); therefore, the externalist alternative should be considered.

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Resümee

Psühhiaatria kohtub vaimufilosoofiaga: vaimsete häirete eksternalistliku käsitluse kaitseks

Käesoleva bakalaureusetöö eesmärgiks oli välja selgitada, milline vaimufilosoofiline vaade – internalism või eksternalism – võimaldab meil paremini mõista, milles seisnevad vaimsed häired. See küsimus on oluline, kuna teatav arusaam vaimu ontoloogiast on psühhiaatriasse kätketud, olles omakorda aluseks psühhiaatrilistele sekkumistele.

Hetkel on psühhiaatrias valdavaks vaimu käsitluseks internalistlik vaade, mille kohaselt taanduvad vaimsed häired protsessidele, mis leiavad aset patsiendi ajus. Paraku ei võimalda see vaade vaimseid häireid adekvaatselt käsitleda, sest tugineb eelarvamusele, mille kohaselt vaim piirneb koljuga. Internalism toob kaasa filosoofilisi ja empiirilisi probleeme, kuna ei suuda veenvalt näidata, miks peaksime vaimu piirama subjekti ajuga, kui on põhjust arvata, et mõned vaimsete häirete tarvilikud komponendid asetsevad ka väljaspool aju.

Eksternalistlik vaade integreerib vaimu konstitutsioonilisteks osadeks ka ajust väljaspool asuvaid komponente, kui need on mõne vaimse protsessi jaoks *tarvilikud*. Peamisi eksternalistlikke vaateid on neli: vaimu ihulisus, laiendus, enaktivism ja kätketus. Neist konstitutsioonilised on laiendatud vaimu ning ihulisuse vaade, sest omistavad konstitutsioonilise staatuse ka väljaspool aju asuvatele vaimu osadele.

Töös uuriti illustreeriva näitena skisofreeniat, et uurida internalismi ja eksternalismi võimalikku ulatust. Skisofreenia puhul on olulisel kohal sotsiaalse tunnetuse probleemid, mis kerkivad esile ka mitmete teiste psüühikahäirete juures. Internalistliku vaate kohaselt on sotsiaalse tunnetuse probleemid sümptomid, mis tulenevad häiritud aju biokeemiast. Konkreetset probleemi ajus, mis oleks skisofreenia aluseks, pole teadlastel siiski õnnestunud siiani tuvastada. Eksternalismi kohaselt on sotsiaalse tunnetuse tasand skisofreenia jaoks keskne ja konstitueerib seda kui vaimset häiret.

Bakalaureusetöö peamiseks järelduseks on, et peaksime liikuma vaimu internalistliku käsitluse juurest eksternalistliku käsitluse juurde, sest viimane arvestab vaimsete häirete keerukusega, andes põhjalikuma arusaama sellest, milles vaimsed häired seisnevad.

Summary

Psychiatry Meets Philosophy of Mind: A Defence of Externalism About the Constitution of Mental Disorders

This bachelor's thesis aimed to determine which philosophy of mind – internalist or externalist – provides us with a more adequate understanding of mental disorders. This is an important question, as the currently presupposed ontology of the mind has implications for psychiatric interventions.

Currently, the internalist framework is the primary way of understanding mental disorders. According to it, different mental disorders are reduced to processes in the brain. However, as this view relies on a stipulation of a skull boundary, it cannot provide us with an adequate understanding of mental disorders. The internalist framework faces empirical and philosophical problems because it cannot convincingly argue why we should reduce the mind to the brain when we have reason to believe that at least some mental disorders have necessary parts outside the skull.

The externalist framework incorporates parts outside the skull as parts of the mental disorder if they are necessary for some relevant mental process. The embodied, embedded, enacted and extended mind are the four main externalist views, of which truly constitutive are the extended mind and the embodied mind, as they incorporate constitutional parts of the mind outside the skull.

This work considered schizophrenia as an illustrative example to understand the possible scope of externalism and internalism. Problems with social cognition are an important part of schizophrenia and also appear in other mental disorders. According to the internalist view, problems with social cognition have underlying problems only in the brain. However, scientists have not been able to find the underlying biological mechanisms responsible for schizophrenia. On the other hand, according to externalism, social cognition is at the core of schizophrenia and constitutes it as a mental disorder.

The main conclusion of this thesis is that we should move from an internalist framework to an externalist framework, as the latter acknowledges the complexities of mental disorders and provides a more in-depth understanding of mental disorders.

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