

PERSONALIZED AND HOLISITIC MEDICINE:

A DEFENSE OF ENACTIVE PSYCHIATRY

By

TAITE WALTER LIPCHAK

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A Thesis Submitted to The Honors College

In Partial Fulfillment of the Bachelors degree  
With Honors in

Philosophy

THE UNIVERSITY OF ARIZONA

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Approved by:

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Dr. Margaret Reimer  
Department of Philosophy

### Abstract

Despite advances in neuroscience and psychology, the treatment of psychiatric disorders is still clouded in uncertainty. Psychiatrists must make decisions about interventions while considering possibly over a dozen different factors. And even once they have decided, they are simply not able to give a sufficient explanation for *why* they did what they did. What is missing from the field of psychiatry is an explicit framework that connects and untangles the many complex factors that persist in psychiatric disorders. In this thesis I consider one such framework created by Sanneke de Haan, entitled “Enactive Psychiatry”. I begin the thesis with a discussion of key terms and concepts related to cognitive science and psychiatry. Next, I briefly outline and discuss Enactive Psychiatry as presented in de Haan’s most recent book. This is then followed by a critical analysis of Enactive Psychiatry based on the critiques of Donovan and Murphy. Finally, I present my own concerns of Enactive Psychiatry and contribute small suggestions for improvement.

*Keywords:* enactive psychiatry, philosophy of psychiatry, philosophy of mind, enactivism, cognition

## 1 Introduction

Among the medical specialties, there is none that is as strongly tied to philosophy as the field of psychiatry. The treatment of mental, emotional and behavioral disorders<sup>1</sup> implicitly evokes broader metaphysical and ethical discussions, such as determining how the mental and physical bodies of patients interrelate and deciding what should be considered psychiatrically normal or disordered. Because of its close tie to the abstract world of philosophy, there are even concerns as to whether psychiatry can be considered akin to the other medical specialties that do not intertwine so explicitly with metaphysical and ethical study.<sup>2</sup> Nonetheless, given that psychiatry is considered a medical specialty, a theoretical model should be developed that guides psychiatrists, researchers, patients, and the community as a whole to compromise on defining what is the nature of psychiatry.

Throughout the specialty's short history, there have been many attempts to provide a model that took on the arduous task of grounding psychiatry, but most of them have resorted to sacrificing one or more aspects in order to create a model that is easier to work with.<sup>3</sup> Unfortunately, such models are detrimental to the field of psychiatry because of their failure to integrate the many dimensions of psychiatry, which ultimately creates a disconnect between theoretical academic psychiatry and the practice of psychiatry in the clinical setting. As evidence of the absence of a cogent model, recent studies have shown that there is a general lack of consensus among American health care professionals, academics and healthcare trainees on fundamental concepts related to psychiatry (Aftab et. al., 2020). One model that has the potential to encompass the abstract concepts of psychiatry, while meeting the rigorous criteria to conduct scientific research is Sanneke de Haan's Enactive Psychiatry.

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<sup>1</sup> This characterization of psychiatry is taken from the American Psychiatric Association website (2021).

<sup>2</sup> For a brief discussion of this concern, see (Martin, 2020).

<sup>3</sup> This will be discussed in more detail in the "Background" section.

Enactive Psychiatry utilizes a modern theory of cognition called “Enactivism”. This theory—which was first introduced in 1991 by Varela et. al.—proposes that cognition is the *activity* of an organism interacting and *participating* with their environment (Varela et. al., 1991, pp. 172—173). This “activity” has since been referred to as an organism’s “sense-making”. By applying this cognitive theory to psychiatry, de Haan argues that psychiatric disorders should be viewed as disorders of a person’s sense-making. In this essay, I will provide a defense of Enactive Psychiatry in response to the critiques of Donovan and Murphy (2020).<sup>4</sup> First, I will argue against the notion that the enactive model conjures the same amount of complexity as its explandrum, and second, I will argue that modern empirical tools, such as network modeling and experience sampling, can provide an ideal foundation for scientific research without the need for isolating the four dimensions of psychiatry.

## 2 Background

Sanneke de Haan’s novel model entitled “Enactive Psychiatry” draws on a diverse range of concepts that are tied to many fields of study—the two most important being the philosophy of psychiatry and cognitive science. Before defending my thesis, a discussion of key terms and concepts related to these two topics will be needed. In addition, it is essential to understand the main principles and arguments of de Haan’s book, *Enactive Psychiatry* (2020c).<sup>5</sup> This section will first defend the need of a universal model in psychiatry and will be followed by a critical discussion of the most popular currently available models. After this, the most important concepts and arguments in *Enactive Psychiatry* (2020c) will be given.

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<sup>4</sup> I chose this article because I believe it best outlines the major concerns of Enactive Psychiatry—this does not mean that I will only consider their arguments.

<sup>5</sup> This is Sanneke de Haan’s most complete formulation of her model as of writing this essay.

## 2.1 Why a Universal Model is Needed

For most medical specialties, it is relatively easy for professionals to agree upon what is the *subject* of their respective specialties. In cardiology, for example, there is no dispute on what constitutes “the heart” or “the circulatory system”. These subjects are explicitly and universally defined bodily systems or organs. In psychiatry however, the subject to be studied is not as explicitly and universally defined. To illustrate, a psychiatrist that takes a biological approach may view psychiatric disorders as a result of disordered brain networks, where “brain networks” seem to be the subject to be studied and treated (de Haan, 2020c, p.18). In contrast, a more holistic psychiatrist could prefer the sentiment of the BPS model and view disorders as a “complex interplay of three major dimensions (biology, psychology, and social)” (Tripathi et. al., 2019). With the holistic psychiatrist, the subject to be studied is even less clear. This fundamental discrepancy on what is the subject to be studied—due to the lack of a universal model—creates many practical and theoretical problems for the field of psychiatry.

On the practical side, there are two main problems I identify that are associated with having no universal model: first, the inability to communicate in a shared language and second, the lack of sufficient justification to make important funding decisions.<sup>6</sup> In regard to the former, it is important that all parties involved in the clinical and research settings of psychiatry are able to understand *what* is being talked about. Sanneke de Haan states that “one easily ends up talking at cross purposes if one interlocutor adopts a physiological and the other an existential perspective” (de Haan, 2020c, p. 9). A universal model could avoid the dilemma of “talking at cross purposes” by instituting an explicit shared language. This would even enable individuals

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<sup>6</sup> Both of these are loosely based off of de Haan’s four advantages of having an explicit integrative framework for psychiatry (de Haan, 2020c, p. 7-9).

with different perspectives—such as an existential-leaning psychiatrist and a physiological-leaning psychiatrist—to at least have a framework to base their discussion around.

The second practical problem I identified deals with making funding decisions. Without a universal model, how can it be decided where funding should be allocated? If one is under the impression that psychiatric disorders are disorders of “brain networks”, they would direct their funding to more neurological-based research. Conversely, if one believes that psychiatric illnesses are disorders of a “complex interplay” of the biological, psychological and social dimensions, they would be more likely to disperse research funding across different disciplines. Unless a universal model is established, it seems that the decision to allocate funding would be based on the preference of the organization in charge of dispensing funds—in a rather arbitrary fashion across the board.

On the theoretical side, a universal model would not only help to narrow down the subject to be studied in psychiatry, but most importantly, it would allow a psychiatrist to provide *treatment rationale*. As de Haan puts it, treatment rationale “helps one to know what one is doing and why one is doing it” (de Haan, 2020c, p. 9). In psychiatry’s current state, the decision for deciding a course of treatment is more or less arbitrary in most cases. The psychiatrist Dr. Rachel Dew shared her frustration with this by stating: “The one thing I can’t think, that I really can’t tolerate at all, is that I don’t know what’s wrong and I don’t know what I’m doing that is helping” (2009). When a psychiatrist prescribes a depressed patient a medication to increase their serotonin levels and the patient seems to get better, how can it be said what role the serotonin had in the treatment? Ultimately due to the multitude of factors, it cannot be clearly made sense of *without* a model.

## 2.2 Currently Available Models of Psychiatry

A model in psychiatry thus serves the purpose of providing a theoretical framework to try to make sense of the many causal factors that are contributing to the development and persistence of psychiatric disorders. The three main categories of psychiatric models that de Haan identifies are those that are reductionist, complementary, and integrative (de Haan, 2020c, pp. 15–16). For the purpose of this essay, I will briefly discuss three models that seem to me to be the most popular: the neurophysiological model, the biopsychosocial model and the network model. The first one is an example of a reductionist model, and the latter two are examples of integrative models.

### 2.2.1 Neurophysiological Model <sup>7</sup>

As can be deduced from the name, this model focuses on the physiology of the brain in order to explain psychiatric disorders. Specifically, the model asserts that “patients’ experiences are symptoms, expressions of underlying problems in the brain—be it neurotransmitter imbalance, malfunctioning brain parts, disturbances in connectivity between different parts or networks of the brain, or some complex combination of these” (de Haan, 2020c, p. 18). Importantly however, the fact that it is a reductionist model does not mean it *neglects* the many dimensions involved in psychiatry. Instead, it asserts that all other aspects can be explained *in respect* to the neurophysiological aspect. This, along with other reductionist models have the advantage of clarity but run the risk of instituting “unwarranted reductions” (pp. 17–19).

### 2.2.2 Biopsychosocial Model

The biopsychosocial model (BPS) is a general medical model that was first proposed in 1977 by George Engel. Dr. George Papadimitriou, a professor of psychiatry from the University

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<sup>7</sup> De Haan labeled this model as the “neuroreductionist” model in her book (p. 19).

of Athens, described the basic principles of the biopsychosocial model as including “the biological, psychological and social dimensions of the person’s life and the perception that the person suffers as a whole and not as isolated organs” (2017). Papadimitriou attributes many benefits to the model, such as the fact that it establishes a more “compassionate approach in medical practice”, and that it recognizes the close relation of psychosocial factors to psychiatric disorders. However, Papadimitriou also recognizes that the main disadvantage of this model is that it lacks a “concise theoretical framework regarding its function and content”. In other words, this model, although recognizing many of the main factors that contribute to psychiatric disorders, fails to explain *how* the factors interact.

### **2.2.3 Network Model**

The last model I will discuss is Denny Borsboom’s Network model. In this theory, psychiatric disorders are characterized in terms of “the interaction between different components in a psychopathology network” (Borsboom, 2017). These “components” are to be corresponded with psychiatric symptoms as defined in the *DSM*. A patient is considered to have a psychiatric disorder when their psychopathology network enters an “alternative (stable) state of a strongly connected network” (Borsboom, 2017). de Haan evaluates Borsboom’s model as having the advantage to model the complex causal connections between symptoms and the ability to personalize diagnoses. However, de Haan argues that this model is merely a “mathematical tool, an empty template, in which the nodes and their connections can refer to anything” (de Haan p. 41). Borsboom model relies on the classification of symptoms in the *DSM*, and therefore does not provide an actual theory on the nature of psychiatric disorders.



## 2.3 Enactive Psychiatry

Sanneke de Haan's enactive approach to psychiatry attempts to solve the pitfalls of the three models I have just discussed. It is an integrative model that aims to "provide a holistic perspective without being vague" (de Haan, 2020c, p. 45). The foundation of the model is built from a theory of cognition called "Enactivism" that was first proposed by Varela, Thompson and Rosch in their publication, *The Embodied Mind* (1991). By using the principles of Enactivism, the model proposes a novel conceptualization of psychiatric disorders as disorders of "sense-making". In the following pages, I will explain the main components of Enactive Psychiatry in more detail.

### 2.3.1 The Integration Problem and the Four Dimensions

So far, I have merely made references to the many dimensions, or causal factors, that contribute to psychiatric disorders, but I have not yet explicitly defined what I intended them to be. Following de Haan, there are four dimensions that are integral to understanding the nature of psychiatric disorders: experiential, physiological, sociocultural and existential (de Haan, 2020c, p. 10). At the heart of Enactive Psychiatry is the goal to acknowledge all four of these factors and show how they interact. The struggle to sufficiently achieve this goal is referred to by de Haan as psychiatry's "Integration Problem" (p. 2).

The experiential dimension refers to the patient's subjective experiences. It is similar to the psychological dimension that is expressed in the BPS model, but because the term "psychological" can refer to a wide variety of different phenomenon, de Haan thought it best to use the term "experiential" instead (p. 10).<sup>8</sup> This dimension simply acknowledges that the

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<sup>8</sup> It will be seen shortly that the common notion of "psychological" and "mental" does not hold in the cognitive theory of Enactivism.

experiences of a patient are intrinsically tied to the disorder in which they are seeking treatment. A patient's experiences usually are the catalyst to both stop and start treatment, so to not include this dimension would be a great mistake.

The physiological dimension recognizes the bodily factors of psychiatric disorders. This mainly includes the aspects that pertain to biochemical, genetic, anatomical and neurological processes (de Haan, 2020c, p. 10). Some factors of this dimension could include amygdala activity, hormonal balance and neurotransmitter concentration.

The sociocultural dimension considers the effect that our social interactions and cultural communities have on psychiatric disorders. De Haan states "the individual's psychiatric problems cannot be understood in isolation from their social context, both currently and in the past" (p. 11). This means that a patient's economic status, relationship with family or friends, and past social interactions are all included in this dimension. Additionally, on a larger level, this dimension recognizes the role of normativity in the treatment of psychiatric disorders (pp. 11–12).

The existential dimension<sup>9</sup> refers to the *self-reflective* and *evaluative* influences that are present in the development and persistence of psychiatric disorders. De Haan illustrates this dimension through the example of a person with panic disorder. Often times, the regular occurrence of panic attacks is co-constituted with the *fear* of the panic attacks themselves. This fear is referred by de Haan as a "stance" towards their experience (p. 12). The act of "stance-taking" does not need to be explicit. For example, a depressed patient could simply *feel* there is no hope for their future without actually thinking this thought. The fact that the patient has this *evaluation* of the future is part of the existential dimension. De Haan wrote that the existential

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<sup>9</sup> The use of the term "existential" is not synonymous to the theories of the existential psychiatrists such as Viktor Frankl or Rollo May. For a full interpretation of this dimension, See (De Haan 2017).

dimension of a person is so entrenched with the psychiatric disorders that it could even be argued that “psychiatric disorders emerge with this stance-taking ability of persons” (p. 13).<sup>10</sup>

Accordingly, there is much emphasis placed on the existential dimension in the model of Enactive Psychiatry.

### 2.3.2 Enactivism<sup>11</sup>

De Haan asserts that the cognitive theory of Enactivism provides the best ontological framework to integrate the four dimensions of psychiatry (p. 47). As mentioned previously, the theory of Enactivism was introduced in the 1991 publication, *The Embodied Mind* (Varela et. al.). Since its conception, the cognitive theory has been expanded upon—most notably by Evan Thompson in his publication, *Mind in Life: Biology, Phenomenology, and the Sciences of Mind* (2010). The main principle of Enactivism is best summarized with the following passage: “the human mind emerges from self-organizing processes that tightly interconnect the brain, body and environment at multiple levels” (Thompson, 2010, p. 37).

One of the main reasons de Haan opted for an enactive framework is that it provides a radically different conception of the mind compared to opposing theories that suggest a topology of an “inner mind versus an outer world” (de Haan, 2020c, p. 48).<sup>12</sup> Enactivism proposes that cognition cannot be understood “in isolation from the bodily being that is doing the cognizing, nor from the environment that it is directed at” (p. 51). In this view, it is argued that the scientific study of the mind can better fit with our everyday experiences. The theory of Enactivism is preferred by de Haan to other theories of cognition<sup>13</sup> because of its “explicit

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<sup>10</sup> This argument was made by Fuchs (2011).

<sup>11</sup> This theory is also known as “The Enactive Approach to Cognition” (Thompson, 2010, p. 13).

<sup>12</sup> This is not just referencing Cartesian Dualism; De Haan also ascribes the theories of Cognitivism and the modern “predictive-processing models” of having this type of topology (2020c, pp. 50—51).

<sup>13</sup> Specifically, other embodied and embedded theories that stemmed from *The Embodied Mind* (1991).

engagement with the natural sciences and their embracement of complex dynamical systems theory as their preferred mathematical model” (p. 53).

This theory relies on the idea that cognition is “sense-making”. This term refers to the *activity* of an organism interacting with its environment. Instead of the mind being a separate entity or belonging to a topology of “inner versus outer”, the mind refers to “a type of interaction with its environment” (p. 54). De Haan gives the explicit definition of sense-making as “an organism’s evaluative interaction with its environment” (p. 55). This definition entails that the unit of analysis for studying the mind is not an individual agent, but an *organism-environment system*.

Enactivism rejects many of the traditional dichotomies such as mind versus body, perception versus action and subject versus object. It is a theory that integrates many things into one, but it is not a theory of monism as traditionally viewed. Instead, de Haan calls Enactivism a “pluralism monism” (p. 66). By this, she means that “the *relations* between parts plays a constitutive role for the properties of the entity as a *whole*” (p. 65). In other words, it is the particular *organization* of matter that determines the properties of the entity as a whole. This “relational ontology” requires scientists (and psychiatrists) to look at an organism, not only as its complete organism-environment system, but also as a highly *dynamic* entity regarding time (pp. 66–67).

### **2.3.3 Psychiatric Disorders Are Disorders of Sense-Making**

By using the main principles of Enactivism, de Haan argues that psychiatric disorders should be seen as disorders of sense-making. Specifically, for something to be considered psychiatrically disordered, a patient’s sense-making is *structurally biased in a specific direction* (p. 196). A “specific direction of bias” can refer to, for example, when a depressed patient’s

sense-making is “perceiving only what is hopeless or meaningless or disconcerting” (p. 197). What makes it “structural” is that it has to be a long-lasting *pattern* of specific bias.

The model of Enactive Psychiatry thus offers “sense-making” as the subject of psychiatry. This conception necessarily extends the unit of analysis for psychiatry from “the individual”, to the “person-in-their-world”. It also recognizes the four dimensions of psychiatric disorders and does not attempt to make any claims of linear causality-- such as in saying that there is an “underlying pathology”. Instead, it offers an organizational causality where certain processes and their *relations* can be “zoomed in” on (p. 232). Whether or not these are practical or sound arguments presented for a model of psychiatry will be discussed in the remaining sections of this essay.

### 3 Complexity Critique

The first critique of Enactive Psychiatry I will respond to pertains directly to its *holistic* nature. Particularly, it is a common-sense reservation that questions whether or not such a non-reductive framework is practical. Reductive models, such as the neurophysiological model, have the advantage of being *clear* and *simple*—and these attributes are generally valued in any philosophical model or theory.<sup>14</sup> In contrast, when more dimensions are added, one runs the risk of having a model that is *too complex*. In the words of Donovan and Murphy (2020):

Enactivism's inherent holism means that it provides a model that is as complex as the explanandum. A model of nature that has the same complexity as its target is no use to anyone. (p. 29)

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<sup>14</sup> Here I am specifically referencing the doctrine of Occam’s Razor, or the idea of “philosophical parsimony”.

Donovan and Murphy prefer to view Enactivism as a “philosophy of nature” as defined by Godfrey-Smith (2001). By this definition, a model of nature “comes *after* empirical sciences and tries to redescribe structures in the world that have already been described by the sciences” (Godfrey-Smith, 2001, p. 284). Following this, Donovan and Murphy grant that Enactive Psychiatry may be the right *metaphysical* conception of psychiatric disorders, but it may not give a “fruitful explanatory strategy”. As an example, they draw on a consequence of Enactive Psychiatry which states that “the opposition of physiological processes and values is misconceived”. They argue that this *could* be the case, but “it does not follow that the study of values and the study of physiology cannot be distinguished and modeled separately” (Donovan & Murphy, 2020, p. 29).

Since de Haan has already submitted a response to Donovan and Murphy, I do not wish to simply reiterate her argument in response to this critique.<sup>15</sup> Instead, I will offer a new response that targets Donovan and Murphy’s appeal to Godfrey-Smith’s philosophy of nature. And to make it absolutely clear as to what I am responding to, I propose that Donovan and Murphy are addressing the following concern:

- (1) Enactive Psychiatry is best viewed as a philosophy of nature as conceived by Godfrey-Smith, which states that its goal is to describe and interpret the world as disclosed by science
- (2) As a philosophy of nature, Enactive Psychiatry interprets psychiatric illnesses as a dynamic interdependence of person and environment
- (3) The conception in 2 seems to provide a model that has the same complexity as its target

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<sup>15</sup> Please see de Haan (2020b) for full response.

(4) A model of nature with the same complexity of its target is not explanatorily productive

(5) Following 3 and 4, Enactive Psychiatry provides a model that is not explanatorily productive

De Haan responded to this concern by granting that Enactive Psychiatry is a more complex model than those that can offer a static linear causality, but rejects (3) because the four dimensions outlined in Enactive Psychiatry *can* be manageable. For example, she suggests that accepting Larsen's *decentered* approach to psychiatry (de Haan, 2020b, p. 32) could help to alleviate the addition of multiple dimensions by emphasizing teamwork and the involvement of various medical specialties. Additionally, she asserts that the amount of detail needed to assign to each dimension is dependent on the question being asked—which affords for further simplification (de Haan, 2020b, p. 33).

Differing from de Haan's response, I wish to raise a concern about (1). Specifically, I believe that Donovan and Murphy are misinterpreting—and misusing—Godfrey-Smith's conception of a "philosophy of nature". And if the right interpretation was assumed, it would dissolve the apparent problems that arise when addressing Enactive Psychiatry's "inherent holism".<sup>16</sup>

First, how is it that Donovan and Murphy are misinterpreting Godfrey-Smith's philosophy of nature? I contend that Donovan and Murphy (DM) fail to acknowledge the context and overall goal of Godfrey-Smith when he defined a "philosophy of nature". In order to best understand what I mean by this, first consider the following passage of DM after saying they prefer to view Enactive Psychiatry as Godfrey-Smith's philosophy of nature:

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<sup>16</sup> Namely, the problem that can be seen in (5).

the very generality of this approach [Enactive Psychiatry] leaves room for lots of specific scientific enquiries, and we are concerned that de Haan's research agenda writes productive approaches off too hastily. (p. 30)

Now, compare that to what Godfrey-Smith (2001) states about the role of holism in a philosophy of nature:

holism per se is not a bad thing in a philosophy of nature, because it is an error to demand that a philosophy of nature be a useful tool in the laboratory, or a good heuristic for guiding research. In a philosophy of nature, holism is just one possible view about the causal structure of the world. (p. 289)

What is important to note here is that DM seem to think that “the very generality”<sup>17</sup> of Enactive Psychiatry—as a philosophy of nature—will somehow dictate the scientific research agenda, while Godfrey-Smith asserts that this does not have to be the case. It is rather the case that a holistic philosophy of nature, such as Enactive Psychiatry, is “just one possible view about the causal structure of the world”.

Following this, it should be seen that there is a discrepancy on the value—or perhaps permissibility— of holism in a philosophy of nature. On one hand, DM think that a philosophy of nature that is overly complex cannot be explanatorily useful, while on the other hand Godfrey-Smith says a philosophy of nature *can* allow for such complexity. This discrepancy is the reason I believe that DM have misinterpreted Godfrey-Smith’s philosophy of nature. And with the correct interpretation of Godfrey-Smith’s philosophy of nature—which champions holism, and

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<sup>17</sup> I take this phrase to be synonymous with “the holistic nature”.



the separation of science and philosophy—the assertion of DM that states, “a model of nature that is as complex as its target is of no use to anyone”<sup>18</sup> seems to fall apart.

The reason why such a statement falls apart is because there is no reason to accept that a model of nature cannot be “just as complex as its target” following Godfrey-Smith’s conception. Godfrey-Smith (2001) states, “if one is engaged in philosophy of nature, the *unwieldiness* of a description is no objection to that description. The heuristic emptiness of a description is no objection to it either.” (p. 289) So, since Enactive Psychiatry is taken to be a philosophy of nature, its multi-dimensionality—or “unwieldiness”—cannot be a reason to dismiss the model’s viability (as I believe DM would contend).

In summary of my response for this section, I believe that DM have misinterpreted Godfrey-Smith’s conception of a philosophy of nature in an attempt to raise a concern about Enactive Psychiatry. The misinterpretation arises in the fact that DM believe that the complexity and holism present in Enactive Psychiatry presents a problem for its ability to be explanatorily effective, as well as allowing for proper scientific research. I argued that, upon further review of Godfrey-Smith’s philosophy of nature, there is no such problem that exists between holism and a model’s ability to be explanatorily effective. In fact, Godfrey-Smith had argued *in defense* of holistic philosophies of nature in the same reference that DM had cited. So, regarding the problem of complexity posed against Enactive Psychiatry, it seems that a further critique and examination of Godfrey-Smith’s theories would help to expose the fundamental problems that are possibly present in Enactive Psychiatry.

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<sup>18</sup> This is premise (4) on page 15.

## 4 The Application of Enactive Psychiatry

Now, if Enactive Psychiatry is to be accepted on a theoretical basis<sup>19</sup>, how would it effect the practical side of things? That is, if psychiatric illnesses are to be understood as “disordered patterns of sense-making in a person-world environment”<sup>20</sup>, what implications would it have for psychiatric research and in its clinical practice? Is there any *practical* method available that allows for the empirical qualification of such “sense-making”? In this section, I will first examine what de Haan has said about this topic and then discuss the relevant concerns of Donovan and Murphy.

### 4.1 Personalized Network Models

When answering the question of how to represent psychiatric disorders, de Haan suggests that “personalized network models” would be a great tool to accomplish this (de Haan, 2020c, p. 244). In such a representation, different factors that influence a particular psychiatric disorder for a specific person can be mapped out in a network<sup>21</sup> and organized into the four dimensions outlined in Enactive Psychiatry. Importantly, this representation of psychiatric disorders cannot be used without the theoretical framework that Enactive Psychiatry provides. What is specifically meant by this is that no factor, or node in the network, are seen as “underlying causes” or “mere symptoms”. Instead, these factors, and their connections, are *collectively* the patients’ “sense-making”—which is the area of study for Enactive Psychiatry. Ideally, a personalized network model would help psychiatrists to track the *stability* of a patient’s sense-making. The goal of treatment would be to turn an *unstable* sense-making network into a *stable*

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<sup>19</sup> I am in no way stating that there are not additional theoretical concerns of Enactive Psychiatry; I am merely assuming its acceptance in order to examine its practical consequences.

<sup>20</sup> This is the definition given on page 12.

<sup>21</sup> This is similar to the network described in section 2.2.3.

sense-making network (de Haan, 2020c, pp.244–252). In this way, it should be seen that treating a supposed “mere symptom” or “underlying cause” is actually treating the disorder *itself*—so long as it has a discernible effect on a patient’s personalized network/sense-making.<sup>22</sup>

To give an example, if one is to create a network for a patient with depression, one factor may be labeled as “poor quality of sleep”—this factor would fall under the physiological dimension. Now, imagine this factor also has a *positive* connection to another factor, or node, labeled as “feeling lethargic” in the experiential dimension. This *one* connection does not add much value to document this patient’s depression in isolation; it is only a small part of an entire network of factors and their connections. Instead, imagine that there are multiple other factors that are connected to the label of “feeling lethargic”. One could be the symptom of taking an antidepressant (physiological dimension), and another could be the feeling of purposelessness (existential dimension). With the accumulation of multiple factors and their connections—guided by the theoretical framework of Enactive Psychiatry—a personalized network model would provide a method for psychiatrists and researchers to *represent* psychiatric disorders. In the figure on the next page, I have attempted to create a theoretical, and purely schematic, representation of a patient with depression.<sup>23</sup>

In the figure, the factors that the clinician, researcher and/or patient deem are relevant to include are separated into their respective dimensions. The bidirectional arrows represent the fact that the dimensions are constitutively interacting. Overall, the figure represents a *static* state of a patient’s sense-making, but be reminded that sense-making has a *dynamic* and *constitutive*

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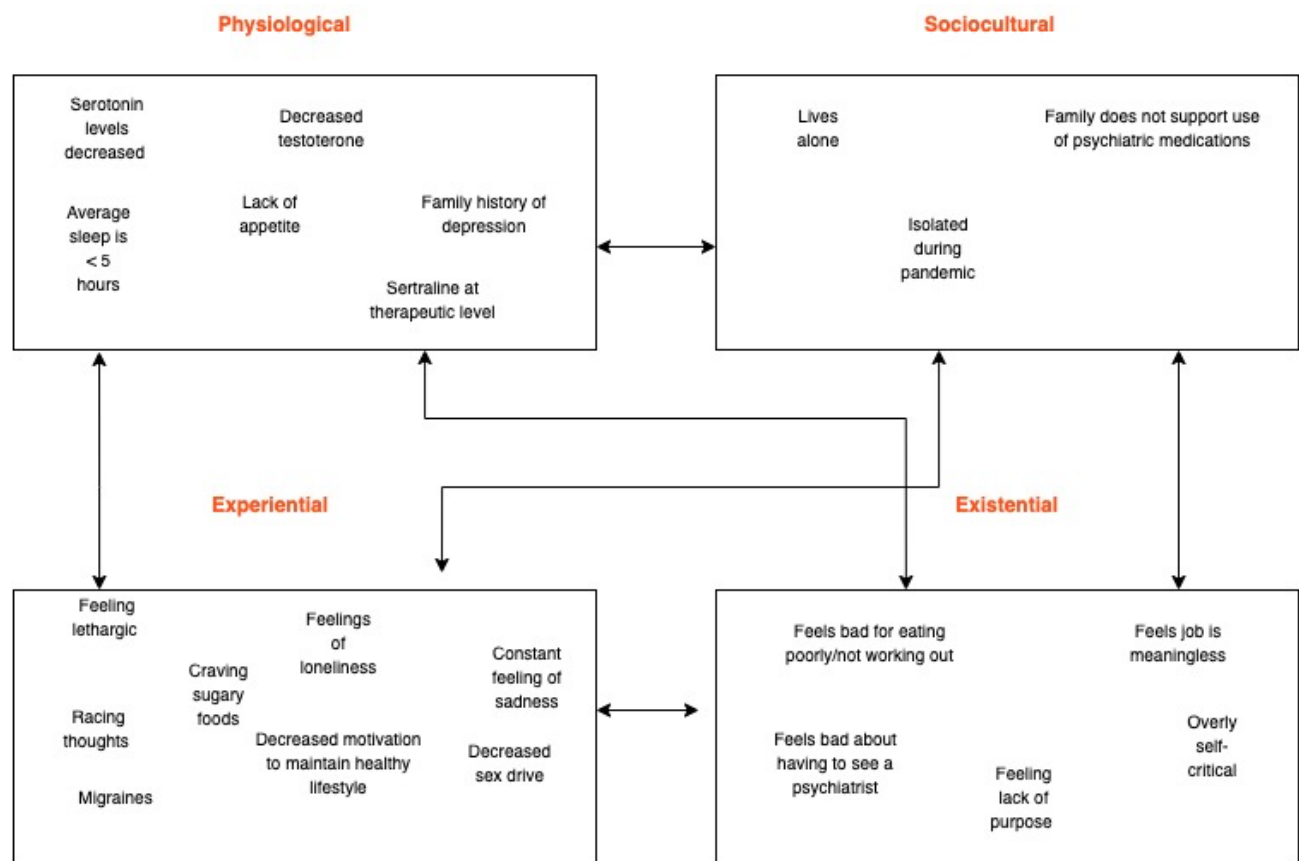
<sup>22</sup> Imagine a patient with anxiety complains of frequent hand tremors. Normally, this may be seen as merely a symptom of their anxiety, and that there is still some “underlying cause”. However, in Enactive Psychiatry, treating the hand tremors *is* treating the anxiety, because hand tremors are a part of the holistic and dynamic network that constitute the patient’s sense-making.

<sup>23</sup> To see de Haan’s schematic representations, see (de Haan, 2020c, p. 246).

nature. To better model this dynamic nature, additional work must be done to include a way to track changes *over time*. Nonetheless, it should be seen that **Figure 1** includes many factors of depression that would typically not be officially documented. For example, the factor labeled, “feels bad about having to see a psychiatrist” may be known and considered in the treatment, but a factor like this would not be considered as *part of the depression*—as the enactive framework would assert. Having a factor like this included into a personalized network model allows for a holistic representation of psychiatric disorders.

**Figure 1**

*Theoretical Personalized Network Model of a Patient With Depression*



*Note.* This figure is only meant to give a basic idea of what a personalized network model would look like. In an actual model, there would be many more connections, and the relative strength and directionality of each connection would be modeled as well.

## 4.2 Decomposing a Cake

However, even with a way to represent psychiatric disorders in patients, does a system such as a personalized network model give any insight into *how* the factors are related? One of de Haan's overall goal for proposing Enactive Psychiatry was to solve this "Problem of Integration", so it is incredibly important that whatever tool is used has the ability to tell us more than that *there exist* relationships between factors. In order to be workable, the tool should tell us how *strong* each relationship is, as well as being able to document the effectiveness of different interventions (treatments). Donovan and Murphy (2020) seem to refute the idea that any tool could accomplish this task and is best exemplified by the following statement: "de Haan's framework does not allow her to decompose the system into causal trajectories or "starting points" that can be identified as, say, physiological rather than experiential or existential" (p. 30).

Although Donovan and Murphy are correct in saying that it would be difficult to decompose a sense-making network into proper starting points, I do not think a "decomposition" is required. In fact, a "decomposition" into proper starting points, or causal trajectories, would go against the holistic framework of Enactive Psychiatry. The enactive framework emphasizes an organizational and constitutive causality of psychiatric disorders in which it would be meaningless to even speak of "starting points". The reason for this is because the term "starting points" implies that there exists some chronological procession of events between factors that contribute to psychiatric disorders, but Enactive Psychiatry can only speak meaningfully of chronological events in terms of the system's *whole*—which is a patient's sense-making. For example, in an enactive framework, one is permitted to say, "After starting medication, Patient A

exhibited increased serotonin levels and entered into a stable-state of sense-making”.<sup>24</sup> One is not permitted to say, “Increased serotonin levels *caused* Patient A to enter a stable state of sense-making” (Part → Whole). It would also be incorrect to assert, “Increased serotonin levels *caused* Patient A to experience a happier mood” (Part→Part).

Donovan and Murphy (2020) also seem to have a concern about the *categorization* of factors into different dimensions. They think that because there is not decomposability of parts, one cannot identify factors in their respective dimensions. Citing a cake analogy of de Haan, they state, “We need to be able to analyze slices of the cake and show how parts of it depend on other parts, and de Haan's framework would seem to make this strategy unavailable to her” (p. 30).

I have two responses to this concern. First, I believe Donovan and Murphy are misunderstanding the cake analogy of de Haan. They believe that the four dimensions of Enactive Psychiatry would be likened to “slices of the cake”. However, a more accurate representation of the four dimensions is actually more diverse—it would include the individual ingredients, the way in which it was baked, its overall presentation and even the environment in which it is stored. For example, one could imagine that the state of the physical ingredients of the cake could be analogous to the physiological dimension. When sugar content is too high, it may result in a sweeter-tasting cake, but more sugar does not *alone* lead to a sweeter-tasting cake. The “sweetness” of a cake relies on numerous other factors—what if the cake was baked at too high of a temperature and the cake did not come out sweet? Similarly, the increased concentration of serotonin does not *in isolation* lead to a happier mood—other factors could include a patient’s existential values, relationships, home life, etc. To only analyze and differentiate a patient’s

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<sup>24</sup> Take notice of how there is only the implication that Patient A was in an unstable state of sense-making before medication, and then entered a stable state after starting medication-- there is no claim about a specific factor that caused this change.

“slices of cake” (i.e., the physiological dimension) would be failing to acknowledge, not only the many other factors that contribute to psychiatric disorders, but the complex organizational structure of psychiatric disorders that Enactive Psychiatry provides.

Second, factors that contribute to psychiatric disorders can be clearly separated into the four dimensions, in virtue that they are “dimensions”. For example, consider a cake analogy once more. Suppose I categorize three “dimensions” of a *cake’s flavor* as ingredients, baking method and the skill of the baker. It is easy for me to discern what factors belong in what dimension—e.g., I would not have any trouble placing the factor of “flour” into anything but the “ingredient” dimension. Now, why is this the case? It is this way simply because I have created the categories and have already defined what factors are to go into what category. As simple as this sounds, I believe this to be the same case for the four dimensions of Enactive Psychiatry. De Haan has already done most of the work to clearly define what factors belong in what dimension, and the choice for four dimensions was not arbitrary. It is merely a heuristic to include four dimensions; I do not believe that anyone would argue that it is the ontologically correct distinction—if one even exists.

The goal of this section was to assess whether Enactive Psychiatry would be feasible in its practice. First, de Haan’s proposed use of “personalized network models” was discussed and I offered my own example of one such model. After, concerns were raised from Donovan and Murphy about how to view the causality between factors, as well as how to appropriately discern between the four dimensions. In my response, I decided to continue discussion of the “cake analogy” that was introduced in the March 2020 issue of *Philosophy, Psychiatry, & Psychology*

(de Haan, 2020a). Not only did I decide to discuss this because it interested me, but I hoped that my contribution would spark even further discussion and analysis.<sup>25</sup>

## 5 Final Reflections and Projections

My purpose in writing this thesis was to defend a novel approach to psychiatry of Sanneke de Haan. In doing so, I did not intend to simply refute concerns of Enactive Psychiatry by way of rhetoric, or pedantic scrutinization of terms; instead, I attempted to draw out further discussion, so that hopefully philosophical progress can be made. My responses—although sympathetic to Enactive Psychiatry—should not be seen as a complete ratification of this framework. The model is still in its infancy and much work is yet to be done. Throughout this final section, I will articulate more of what I consider “weak points” in Enactive Psychiatry, as well as offering suggestions of my own.

### 5.1 Psychiatric Nosology

The first “weak point” that I identify deals with psychiatric diagnoses. De Haan does not seem to offer a developed account of how Enactive Psychiatry can be, or should be, reconciled with the current process of diagnosing. For such a significant reconceptualization of psychiatry, it would seem that further elucidation is necessary. Should we hold onto the same terms and criteria that are published in the *DSM-5* and *ICD-10*? Should we perhaps do a complete “taxonomic revision”<sup>26</sup> of psychiatric diagnoses? Or maybe, should we veer away from traditional diagnoses and focus on *personalization*—as personalized network models seem to suggest?

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<sup>25</sup> Here I would like to acknowledge that the use of analogies and metaphors is a contentious topic in philosophy. For the purpose of Enactive Psychiatry, I believe that the “cake analogy” can help to illustrate many of its central claims, and for this is it useful. However, diligence must be kept as to not “get lost in metaphor”.

<sup>26</sup> I borrow this phrase from Donovan and Murphy (2020).



The three questions just presented offer three possible paths to define the nosology of Enactive Psychiatry. In the first path, the criteria for diagnosis would be virtually unchanged. This would mean that, upon adopting Enactive Psychiatry, a thorough project would have to be undertaken to reconcile the theory of Enactive Psychiatry with the taxonomy of the *DSM-5*. There are many advantages to this path. One would be that it is an easier transition for the clinician. Another would be that it maintains the diagnostic labels that patients have formed an identity with. However, the disadvantages—and the reason I why I reject this path—is that it does not seem possible to both accept the current diagnostic system *and* accept the basic theoretical implications of Enactive Psychiatry.

As part of Enactive Psychiatry, one is psychiatrically disordered when there is a *structural bias* in a patient's sense-making. This has two major implications. First, a “structural bias” is *relative* to each individuals' sense-making. This would make it extremely difficult to find objective standards of diagnosis. Second, in order to prove that there is a “structural bias”, a clinician must be able to track an individual's sense-making. This would mean a system like a personalized network model would have to be used. And in using a system like this, it seems one would have to concede traditional diagnostic standards and opt for more personalized diagnosis and treatment.

An alternative to the first path would be to completely revise our current system of diagnosing, as to properly align with the theories of Enactive Psychiatry. I think this is a better approach than the first, but it still faces the same problem of finding *objective* ways to diagnose psychiatric disorders under an enactive framework. There perhaps could be powerful statistical tools to find patterns of individuals' sense-making networks, and this would help establish diagnostic criteria, but I find that this would just be more useful for researchers. Instead, I

believe the third path to be the best to follow. In this path, adopting Enactive Psychiatry would transition the field of psychiatry into an age of *personalization*. It is time we recognize the unique nature of each patients' *person-world* environment and treat them accordingly.

## 5.2 Methodology and Research

Another “weak point” of de Haan’s framework deals with the methodology of assessing a patient’s sense-making. As discussed previously, de Haan does spend some time offering personalized network models as a solution, but as of now, it seems that mostly schematic examples are given. In order to develop this area, an explicit and uniform method of creating a personalized network model should be made. Additionally, if the personalized network models are to be useful, it is important that there is some empirical, or mathematical way, to quantify the connections between the nodes in the network.

De Haan has already suggested that “experience sampling” could be a useful secondary tool to initially gather relevant information to set up nodes and their connections—and this is something I agree with (de Haan, 2020c, p. 256). However, she has said little about what tools could help us determine the strength, magnitude and directionality of each connection. In her book, she discusses briefly about this topic:

It makes sense to involve patients in determining the relevant factors to be included in the network and to discuss their likely connections. The relevance of each factor and the extent to which and the way in which they are connected to the other factors is an empirical question. They are moreover likely to change over time: different factors become stronger or weaker. (p. 256)

So, it can be seen that de Haan advocates for patient involvement in determining relevant questions, but it is unclear to me what she means when she says that the relevance and extent of

each factor is an empirical question. Is it empirical in the sense that a psychiatrist would observe these factors? Or perhaps is it the fact that different interventions can give a psychiatrist insight into their connections—as a form of interventionism?<sup>27</sup> And since modeling psychiatric disorders under an enactive framework is a dynamic and complex process where the connections may be in constant flux, is there a tool that could help to track this?

As part of resolving these concerns, I propose that Enactive Psychiatry adopts Kristopher Nielsen's "Relational Analysis of Phenomena" approach— "RAP" for short (Nielsen, 2020; Nielsen & Ward, 2020). This approach presents an explicit three-phased process where clinicians and researchers develop a rich understanding of what Nielsen calls "phenomena complexes". These complexes are a cluster of clinically observed phenomena that reside within a "problem space" of a patients' sense-making. The process can be repeated many times, as to refine a deeper understanding of how the phenomenon in a phenomena complex interrelate. The overall goal of this approach is to understand the "constitutive structure" of a problem space, which is something that would aid de Haan in creating a more comprehensive personalized network model (Nielsen, 2020). Below I have reprinted a figure (Nielsen & Ward, 2020, p. 177) that presents a schematic representation of the RAP process. On the right side of the figure, take notice of how the visual representation of "Phase 1" looks remarkably like a network model. It seems that further work could be done to incorporate the RAP process into de Haan's idea of a personalized network model—which would hopefully create a complete tool to trace and study psychiatric disorders.

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<sup>27</sup> Sean Gallagher (2020) has already suggested interventionism as a way to deal with Enactive Psychiatry's problem of complexity.

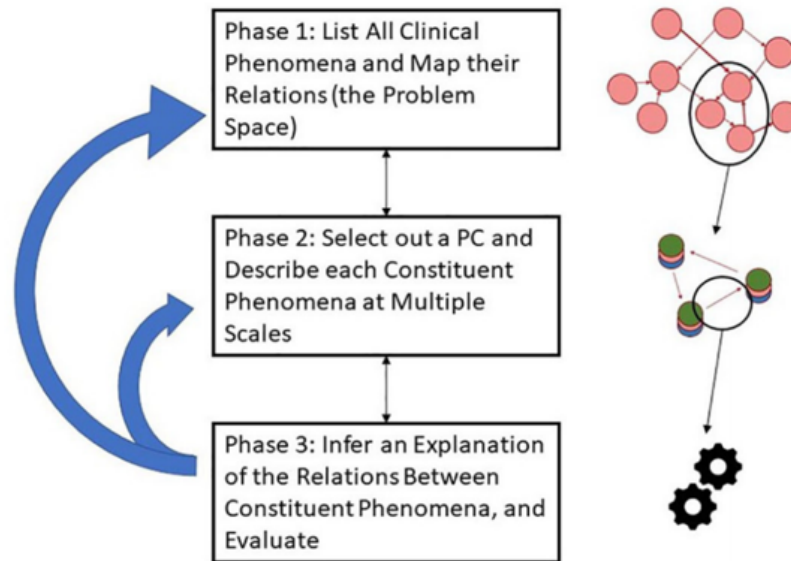
**Figure 2***Schematic Representation of Nielsen's RAP Process*

Figure 2. Schematic Representation of the RAP Process Note. The images on the right represent the output at each phase. The blue arrows represent how RAP allows for refinement of the output at each phase (e.g., remapping the problem space, lumping or splitting of phenomena, adding or removing descriptive models of each phenomena, choosing a different set of phenomena within the PC). Returning to select different phenomena to form the PC should over time produce an understanding of the constitutive

*Note.* From *Phenomena Complexes as Targets of Explanation in Psychopathology: The Relational Analysis of Phenomena Approach*, by K. Nielsen and T. Ward, 2020, *Theory & Psychology*, 30(2), p. 177 (<https://doi.org/10.1177/0959354320906462>). Copyright 2020 by SAGE Publications. Reprinted in accordance with their policy on “Dissertation/Thesis Reuse” (<https://us.sagepub.com/en-us/nam/pre-approved-permission-requests-journals>).

### 5.3 What Comes Next

In the coming years, I expect that discourse over an enactive framework for psychiatry will increase significantly. As philosophers, healthcare workers and the public continue discussion, I implore all to be reminded that the values of compassion and empathy are at the heart of psychiatry. With this in mind, the next steps to advance Enactive Psychiatry will be to apply it in practice—for this is the best way to find its weaknesses. And since there is no current universally

accepted framework, it would not be a grand transition. For example, we may find that personalized network models are a perfect fit to model psychiatric disorders, or we may find that they are not—only application can tell you this.

Above all else, the field of psychiatry is motivated by compassion, empathy and an attention to detail. Currently, psychiatrists must weave through an intricate web of factors that makes it unlike any other medical specialty. The web includes complex causal structures, conflicting values and uncertainty at every intervention. Being tasked with such an enormous load, psychiatrists try their best to treat each patient, but they simply are not given enough guidance. As de Haan rightly points out, psychiatrists already work in a holistic and compassionate way, but there is no overarching framework that justifies this type of work (de Haan, 2020c, p. 6). Enactive psychiatry is one attempt at providing this framework, and it is one that I find to be very promising. It is explicit in its theory and it is clear it was created by someone who has been a part of a clinical psychiatric team. I hope that others see the value and potential that is presented, and contribute to progressing the field of psychiatry.

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