**ORIGINAL RESEARCH** 



# Varieties of normativity and mental health: an enactive approach

Enara García<sup>1</sup> · Xabier E. Barandiaran<sup>1</sup>

Received: 15 February 2024 / Accepted: 29 November 2024 © The Author(s) 2025

# Abstract

In recent years, (autonomy-centered) enactivism has been used to provide an integrative and relational account of mental conditions. A significant advancement lies in its naturalized and pluralistic treatment of normativity, which transcends traditional objectivist and normativist dichotomies. This article explores the varieties of normativity within this paradigm and their implications for understanding mental conditions. We address purported challenges associated with the integration of social normativity into the enactive naturalistic framework of cognition, particularly concerning mental conditions. Drawing upon the distinction between the constitution problem and the status problem, we conceptualize mental conditions as intersubjectively constituted with an intersubjectively negotiated status. Adopting a participatory sense-making perspective, we address three challenges posed by social movements: (1) Hermeneutical dilemmas related to the ontological openness of mental health categories. (2) The difficulties and urgency to mitigate epistemic injustices. (3) The complex attribution of (social) responsibility in psychological wellbeing. In conclusion, this perspective prompts a reevaluation of epistemological assumptions, advocating for a second-person and engaged perspective on mental conditions.

Keywords Normativity  $\cdot$  Autonomy  $\cdot$  Mental health  $\cdot$  Enactivism  $\cdot$  Participatory sense-making

Enara García enara.garcia@ehu.eus

<sup>&</sup>lt;sup>1</sup> Department of Philosophy, University of the Basque Country, Avenida Tolosa, 70, 20018 San Sebastián, Spain

# **1** Introduction

The objectivism/evaluativism debate in the field of mental health (also called the descriptivist/normativist debate in the literature) has historically revolved around two seemingly incompatible positions. Objectivists argue that mental disorders are brain or behavioral diseases, and they can be described in physiological or behavioral terms without relying on evaluative language. For instance, Boorse's biostatistical model (1977) holds that mental conditions are statistically significant deviations in brain functions compared with the reference class. Evolutionary accounts of functions/dysfunctions can also be referred to as statistical accounts<sup>1</sup> (McGuire & Troisi, 1998; Rama, 2023; Wakefield, 1992). In contrast, normativists emphasize the evaluative dimension of mental health/pathology categories, albeit with differing opinions on whose norms should serve as criteria (Fulford, 1989). While the antipsychiatry movement (Szasz, 2009) and social constructivist positions (Smith, 2021) claim that the psychiatric categorization is imbued by social norms, phenomenological perspectives tend to look at an individual's suffering as a form of intrinsic criteria for establishing health and pathology (Svenaeus, 2019).

One of the main concerns inherent in these perspectives is their reliance on overly dualistic perspectives that rigidly dichotomize between the Individual versus Social domains, as well as the neurological (sub-personal) versus mental (personal) dimensions. The positions in the philosophical debate have been inclined to see disease concepts as empirical assessments of human physiology, whereas normative judgments pertained to human behavior or concepts of well-being. In addressing this concern, the bio-psycho-social model of mental health emerged as a pluralistic perspective, aiming to recognize the multifaceted nature of mental disorders (Engel, 1977). However, the bio-psycho-social model primarily relied on statistical correlations and did not furnish a satisfactory theory of cognition that effectively integrates these factors (Benning, 2015; Suls & Rothman, 2004).

Recently, the enactive approach has been proposed as a promising theory of cognition and mental conditions that coherently integrates their multifactorial character (de Haan, 2020; Fuchs, 2017; Gallagher, 2024; Maiese, 2022; Nielsen, 2023). One notable strength of the enactive approach is its naturalized account of normativity, which promises to dissolve rather than solve the dichotomic way the traditional debate has been framed (de Haan, 2020; Nielsen & Ward, 2018). This approach strives to bring together both objectivist and evaluativist claims, thus providing a more integrative perspective on mental conditions. A question remains on how the enactive approach integrates different normative dimensions in its theory of cognition, particularly social normativity, and what the consequences are for understanding the nature and social status of mental conditions.

<sup>&</sup>lt;sup>1</sup>Evolutionary perspectives, as outlined by Millikan (1989), emphasize that behavior is considered normative or adaptive if it has been selected by evolution, that is, normativity is based on the history of selection within population dynamics. This definition of adaptive functions ultimately deems normativity as statistical deviations from a reference population, in contrast to which the behavior in question becomes adaptive or maladaptive. This account, however, does not assess normativity or adaptivity in relation to the organism's own functioning.

In this context, recent worries point to the need of accommodating social norms within enactivism's naturalized framework of normativity, as well as its acknowledgement of the significant role played by social, structural, and institutional norms in shaping mental conditions (Dengsø, 2024; Jurgens, 2023; Maiese & Hanna, 2018; Urban, 2014). The main worry is that focusing on individual autonomy and adaptivity might result in an undesired commitment to methodological individualism and a neglect of the causal and constitutive social factors that make up mental conditions. Analyzing and evaluating these criticisms, particularly those stemming from the social and relational models of disability, becomes relevant, especially given the ethical and political claims of the anti-psychiatry movement (Szasz, 2009), Mad Studies (LeFrançois et al., 2013), and the neurodiversity movement (Chapman, 2019). Addressing these concerns aligns with the overarching objective of mitigating social stigma and rectifying epistemic injustices experienced by users of mental health services.

Building on the enactive theory, this work elaborates on a naturalized and pluralistic framework for understanding normativity in psychiatric conditions, with the aim of reconciling descriptive and normative perspectives. We analyze and respond to some of the challenges in the incorporation of social normativity into the enactive framework and draw some implications for characterizing mental conditions as imbued in social norms. In order to do so, we first introduce the enactive approach and its naturalized and pluralistic account of normativity as traversed by organic, sensorimotor and intersubjective domains. Second, we address the challenges posed by Wittgenstenian analysis on rule following, arguing that normativity should not be relegated to the social domain. In the third section, we introduce the enactive approaches to mental conditions and analyze the differences in understanding their normative dimension, showing how social norms are constitutive of mental conditions (either pathological or not). In the fourth section, building on the enactive approach of social cognition as participatory sense-making, we describe mental conditions as intersubjectively constituted with an intersubjectively negotiated status. This will allow us to respond to three challenges to the status question (i.e., the ontological openness of mental health categories, the risk of epistemic injustice, and the attribution of social responsibility).

## 2 Enactivism and naturalized normativity

Cognitivism, in the form of computational representationalism, has been dominant in psychology over the past decades (Fodor, 1975; Pylyshyn, 1984). However, theories that emphasize the living body (instead of machine-like computational processing), sensorimotor dynamics (instead of internal representations), or skills (instead of abstract reasoning) have gained prominence over the years. These alternative approaches are often grouped under the label of "4E cognition" as a family of intersection theories: embodied, ecological, extended and enactive (Newen et al., 2018). We shall focus on the last approach: Enactive cognitive science. Different families of enactivism exist (Hutto & Myin, 2014; O'Regan & Noë, 2001; Varela et al., 2017/1991), they all share the basic tenet that the mind is enacted: that cognition is primarily (inter)activelly produced through perception–action coordinations (or sensorimotor loops) and not something that happens inside the skull, detached from body and environment. Among enactive approaches, the so-called autonomist, autopoietic or bio-enactive school is the one that has the most emphasis on normativity (Di Paolo & Thompson, 2014; Thompson, 2010; Varela et al., 2017/1991). This notion of normativity as emerging from biological organization is not new. It can be traced back to the organicist tradition in biology and philosophy (Bernard, 1865; Canguilhem, 1966; Cannon, 1932; Goldstein, 1939; Piaget, 1969; Russell, 1994) and has been developed in detail also in complex system approaches to biological normative functionality (Barandiaran & Moreno, 2008; Christensen & Bickhard, 2002; McLaughlin, 2000; Moreno & Mossio, 2015; Mossio et al., 2009). Normativity, then, arises from the self-production and self-maintenance of a precarious system, and, through its ongoing individuation, the system intrinsically determines which internal processes and interactions support its wellbeing.

The central tenet of (bio)enactivism is that life and mind dynamically emerge from a distributed, yet autonomously organized, interdependent, and precarious network of processes. This network constitutes an identity: the cell, the multicellular organism, the psychological subject, the social collective, etc., that evolves and develops through time. The central task of such an identity is to sustain itself, to act against its inherent precariousness and decay (thermodynamic, entropic or otherwise) and against external perturbations and threats, while navigating and exploiting environmental opportunities for self-maintenance and growth. It is, thus, continuously producing and regulating itself, both internally and in relation to its environment. This is manifested in the assumption that the same organizational principles that rule life can be systematically extended to or reproduced-within other domains (e.g., immune, sensorimotor, linguistic, social, etc.). In addition, enactivism holds that a continuity exists between these domains (although they are marked by significant transitions), so that, for instance, there is no possibility of mindfulness if not embedded and embodied in living (and lived) bodies; a formulation that is often named the "life-mind continuity thesis" (Thompson, 2010). All such domains and their nested embeddedness are endowed with intrinsic normativities.

The concept of autonomy (from the Greek autos=self and nomos=norm) is of vital relevance to understand the normative character of the organism, its interactions with the environment and the multiscale nesting of autonomous organizations it participates in. The autonomy of living systems, their capacity to adaptively regulate their internal and interactive processes in relation to norms generated by themselves, is said to emerge from organizational closure (Varela, 1979). Organizational closure is technically defined as the interdependence between mutually enabling precarious processes. A network of processes A, B and C is organizationally closed if all the processes within the network depend at least on another member of the set and enable another one (e.g., A enables B enables C enables A). This closure of interconnectedness generates a normative domain: a set of local and global conditions that determine the survival and viability of the system, that is, it's very self-maintenance.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup>At a local level, for example, A has to enable B at a certain rate, within certain boundaries or B will run down and extinguish; thus, producing a cascading disintegration of A and C. Similarly, at a global norma-

These limits determine the norm: "do not cross the boundary, or you will cease to exist". A basic and fundamental sense of autonomy, one that is amenable to empirical accuracy and scientific modeling, is provided by autopoietic operational closure or autonomy in the physico-chemical or metabolic domain, most clearly illustrated by cellular and proto-cellular systems (Luisi, 2003; Maturana & Varela, 1973; Ruiz-Mirazo & Moreno, 2004).<sup>3</sup> Through the networked interconnectedness of (bio)chemical reactions and biological constraints (enzymatic catalysts,membranes, etc.) a cell is both the product and the producer of its own activity, that is, it produces and repairs itself, it self-maintains in a very concrete material sense.

It should be noted that having a norm of self-maintenance, with its viability conditions, is not sufficient for a full normative explanation of bio-cognitive processes. Indeed, for a norm to be an effective norm for the organism, the organism must be able to regulate according to that norm, that is, according to its viability conditions. It must have the capacity to regulate itself, anticipating its potentially damaging trajectories (Barandiaran & Moreno, 2008; Di Paolo, 2005). It is thus important to distinguish between norm-establishing and norm-following, between the self-sustaining conditions that determine what needs to be done, and the mechanisms that guide behavior or regulate the organisms according to such norms. Furthermore, it is possible to provide a non-binary quantifiable notion of viability and a normative-field can be defined as the intensity of the adaptive regulation that is needed for each state of the system in order to avoid crossing the viability boundary (Barandiaran & Egbert, 2014). We all need to drink, but we do not have to do it right now. We can drink later, but the more we delay drinking, the higher hydration required. It is thus possible to define how much needs to be drunk at each point to compensate for the inherent precariousness of autonomous organization.

In the enactive and organizational approaches, health and pathology have to do with the ability of the organism to regulate its interactions with the environment such that it avoids potentially damaging trajectories according to its viability conditions (Barandiaran, 2024; Menatti et al., 2022; Saborido et al., 2016). One of the consequences is that stable well-being should not be understood as the default, passive, mode of existence of the organism, but rather, the organism must actively compensate for the dissipative tendency of its internal processes to maintain itself within its own viability conditions. Life is an ongoing achievement of an inherently precarious system, which, unless actively sustained and regulated, risks surpassing its viability thresholds and ultimately ceasing to exist. Hence, health is defined in relation to the capacity of maintaining oneself within its viability and wellbeing boundaries. Precariousness is both at the source of any form of normativity (Jonas, 1966) and the default mode of existence of living beings. One of the consequences of the adaptive character of the organism is that health and pathology come necessarily in degrees, rather than understood in binary terms. Health is intricately tied to an organism's

tive scale, A, B, and C might have to work coordinated at a certain global synchrony or within certain temperature, pressure or concentration bounds that they collectively produce.

<sup>&</sup>lt;sup>3</sup>Although normative properties were seldom predicated of these systems at the early stages of autopoietic theorizing, what has been called the normative turn in enactivism (Barrett, 2017) soon incorporated organicist normative concepts inherited from Kantian and phenomenological traditions particularly through the work of Hans Jonas (Jonas, 1966; Weber & Varela, 2002).

ability to navigate interactions along favorable paths while sidestepping threats. This requires a gradient-style regulation, wherein performance can vary in a continuous way, with room for improvement or decline. Health and pathology, thus, are not states in themselves, but refer to the performance of adaptive processes of anticipation and regulation of potential damaging trajectories and must be understood in an integrative manner (Lozada et al., 2024).

This sense of normativity is not limited to internal physiological processes but extends into the environment. The environment has a vital significance with respect to the organizational structure of the living being, that is, environmental encounters are always valenced as positive or negative according to its self-maintenance, needs and modes of coupling (Thompson, 2010; Varela, 1992; Weber & Varela, 2002). Thus, at a basic level, sense-making, understood as the adaptive valence of agent-environment interactions, has an integral normative dimension and is directed at the self-maintenance of the biological autonomous system.

And yet, (and this is crucial and often misunderstood or ignored) autonomy is not strictly linked to the biological/metabolic domain. A core tenet of the life-mind approach is that organizational autonomy can be given in different domains of organization simultaneously in the same individual. For instance, metabolism is an autonomously organized system, but the immune system and the sensorimotor activity that is made possible by the nervous system are also partly autonomous (Varela, 1979). Although the paradigmatic metaphor of an organism is often a minimum living being, namely a cell or a bacterium, we should consider different dimensions of identity and operational closures, such as the metabolic, sensorimotor, linguistic, and intersubjective dimensions, which are intertwined and ruled by their own autonomous organization and normativities (which may or may not contradict or be in tension with one another). According to this view, "lower" levels of organization bootstrap the emergence of the higher ones, and, in turn, the "higher" ones modulate the lower ones.<sup>4</sup> These domains, which can be viewed as partially decoupled systems, influence, enable, and constrain each other. As a result, we can speak of different domains of embodiment and identities that coexist in the organism. This distinction is relevant because different forms of life, with particular configurations of each domain, will interact with the environment according to their specific constellation of organizational norms.

One example in animals is the sensorimotor system, which serves as the foundation of other cognitive processes and can be understood as an autonomous system (Barandiaran, 2008; Di Paolo et al., 2017). Behaving organisms can be seen not only as organic bodies, but also as sensorimotor bodies, made up of webs of habits. Habits are precarious, self-sustaining sensorimotor structures, introducing a basic sense of normativity in behavior as a result of their self-producing and self-maintaining nature: their stability and persistence depends on their enaction, the more your exercise a habit the stronger it gets, the less you exercise it the wicker it becomes until it vanishes (Di Paolo, 2003; Egbert & Barandiaran, 2014). They are both stable and plastic and constitute the metastable foundational structure that facilitates flexible

<sup>&</sup>lt;sup>4</sup>Here, "lower" and "higher" levels are used in a non-technical way. For an analysis of the conceptual problems of the level-talk in mental health see Eronen (2021).

organization of behavior in response to changing circumstances. Habits vehicle the acquisition of new capabilities, serving as a crucial source of normativity for the agent. The crucial point here is that the sensorimotor network of habits can be understood as an autonomous system that self-sustains and maintains an identity over time, which opens a domain of normativity that goes beyond the organic self-maintenance, while potentially integrating social norms within it. This makes possible the emergence of a form of life (sensorimotor or mental life) within biological or metabolic life. Crucially, however, sensorimotor life is constitutively world-involving in a manner that is rarely typical of biological organization. Habits and sensorimotor schemes are supported both by internal (neural and body) structures but, crucially, also by external structures (cigarettes, chairs, keyboards, fires and other agents as well), which do not operate simply as inputs, triggers or precursors that feed an operation-ally closed network. The operational closure of sensorimotor schemes is achieved through the environment (Barandiaran, 2017).

A central aspect of the sensorimotor identity is that it should not be seen as a monolithic and completely coherent and stable unity, but as consisting in a complex topology of microidentities that are composed by clusters of habits dependent on their contextual performance. Carrying out an activity implies a set of functional relationships between sensorimotor schemes that are jointly enacted. In turn, "these functional relations follow certain normativity [which] suggests that activities are microworlds (...). They are frames of significance inhabited by a micro-identity formed by tightly connected structural and functional relations between schemes. Phenomenologically, once an agent inhabits a microworld, there is a certain readiness-to-act, and a certain set of sensitivities implied by the possibilities and demands inherent in this activity." (Di Paolo et al., 2017, p. 179). At a more abstract level we find regional identities, i.e., "sets of structured habits of action and attention that allow agents to engage effectively with specific socio-material environments" (Maiese, 2022, p. 23). In order to understand the plurality of norms that traverse the individual, it seems crucial to appeal to the idea of regional identities, that is, the set of sensorimotor habit bundles or behavioral schemes that we conjointly enact in virtue of engaging in specific activities in social contexts, belonging to different social groups, and engaging in collective actions. For instance, styles of behaving, reasoning and communicating in the academic domain differ drastically from styles of behavior we employ in parenting.

Now, where does sensorimotor normativity emerge from? Habits, as self-sustained autonomous units, have an inherent normative dimension insofar as their existence makes them more possible to rehearse. It is like the path that is made by walking and, in turn, invites the walkers to step into them (Barandiaran, 2017). The normativity of habits is not merely internal, but involves also environmental and bodily contributions to different normative dimensions: optimal grip (i.e., the ability to skillfully adapt and attune one's bodily movements and perceptual capacities to the specific demands of a given situation), effectiveness (i.e., the degree to which a specific action, process, or system achieves its intended objectives or produces the desired outcomes), gracility, ease, and interpersonal coordination factors. Indeed, social norms of behavior are deeply incorporated into our habits (e.g., styles of eating in social situations, salutations, bodily postures allowed in formal situations, etc.) and represent a constitutive

element of our regional identities. Importantly, regional identities generate local normative zones by participating in different social groups and activities (e.g., how to be a successful academic, how to be a mother, etc.).

Intersubjective constitution of embodied identity is thus a cornerstone of the enactive approach to cognition. Indeed, beyond sensorimotor autonomy, enactivists also postulate that social interactions represent a distinct domain of autonomy. In social encounters, interaction between individuals can exhibit operational closure, thus taking its own form of autonomy and constituting a new level of organization that should not be reduced to those of individual participants. In social encounters, a co-regulation of the coupling occurs between two or more agents, the autonomy of interaction being sustained by agents against its precariousness and simultaneously influencing the agents' individual sense-making. This process is captured by the notion "participatory sense-making" (De Jaegher & Di Paolo, 2007) and it manifests in embodied coordination processes between two or more participants in the form of turn-taking, synchronization, and co-modulation of the distance among others. These interpersonal forms of interaction may eventually sediment into established social norms which, in turn, impose top-down constraints to interpersonal interactions. As we will explain in Sect. 4, the enactive perspective on social cognition aims at overcoming the overly individualistic perspective on agency and normativity, proposing a theory of social cognition that is deeply grounded in the embodied interactive and participatory processes of mutual co-regulation.

In a nutshell, enactivism advocates for a naturalized but not reductionist account of normativity that emerges at organic, sensorimotor and intersubjective domains of autonomy, the "upper" domains being constrained by the "lower" ones but underdetermined by them. In this way, it postulates a continuity from basic metabolic norms to social norms, also allowing for discontinuities and top-down constraints. Thus, the enactive account of autonomy overcomes two traditional dichotomies that traverses the debate on the nature of the mind and mental disorders: the fact Vs value dichotomy and the individual Vs social. Concerning the former, the enactive perspective, in providing a naturalized account of organizational normativity, questions the assumption that "if it entails value, then it is a matter of subjective or social evaluation" (de Haan, 2020; Nielsen & Ward, 2020). Concerning the latter, reckoning the contribution of the sensorimotor autonomy in building personal identity allows us to bridge the traditional dichotomic distinction between individual and social norms.

## 3 Challenges associated with social normativity

In the following section, we will argue that addressing the tension between individual and social norms is essential to understanding mental health issues. However, before delving into this topic, it is necessary to first address several criticisms of the enactive approach to normativity. Some forms of contemporary enactivism and embodied cognition approaches, most notably so-called "radical enactivists" (e.g., Hutto, 2005) or certain forms of ecological psychologists (e.g., Heras-Escribano et al., 2013, 2015) deny the possibility of normative attributions below the social level. Yet, we want to show that social normativities do not exhaust an individual's sense-making capac-

ity and that a form continuity from sensorimotor to intersubjective norms is necessary to account for our ability to critically assess and regulate the tensions between individual and social norms. If the reader is satisfied with the enactive account of normativity as presented thus far, this section may be skipped. However, if there are concerns regarding how enactivism addresses normativity below the social level, this section will be of relevance.

We identify two main arguments that question the conceptual validity of the (autonomy-based) enactive account of normativity: 1) the problem with rule-following behavior (e.g., HerasEscribano, 2020; Heras-Escribano et al., 2013, 2015) and 2) the problem of the acquisition of new habits (Mojica, 2021). Let us unpack the arguments.

First, according to the enactive theory, for the organism to follow a rule, it must internalize the rule for itself, that is, it must incorporate it. Consequently, if only those rules that have been assimilated into an individual's own cognitive framework are deemed proper for that organism, then there is no criterion for distinguishing between acts perceived as "right to me" and those that are "objectively right" (Heras-Escribano et al., 2013). This argument is exemplified through instances such as a pupil internalizing an erroneous mathematical rule or an individual adopting an idiosyncratic use of clocks. Proponents of a situated perspective contend that this distinction between subjective (private) and intersubjective norms would be more effectively captured by Wittgenstein's distinction between dispositions and rules, thereby relegating the realm of proper normativity to an intersubjective domain of social normativity. In doing so, they aim to account for the fact that we inherit certain social norms, even when we remain unaware of their existence, thereby capturing the socially situated nature of human beings (Mojica, 2021).

Second, allegedly, when it comes to the acquisition of new habits, the enactive approach, in emphasizing the role of self-maintenance, encounters a challenge in explaining how organisms engage in exploratory behavior concerning actions that have not yet stabilized into established habits and norms. The difficulty arises in explaining the precedence of motivation for actions that do not yet fall within the network of habitual behavior for the organism. If sensorimotor normativity derives from the self-preservation tendency inherent in a network of habits, a question arises regarding how to explain the acquisition of new habits and the execution of actions lacking an established normative framework. In other words, enactive accounts of normativity that are linked to self-maintenance appear to impose an excessively conservative criterion for explaining the processes of development and growth. The proposed solution to this caveat is usually an embedded or situated one, that is, to understand cognition as taking place in an already normative environment. This is the solution proposed by Mojica (2021), for instance, who places sociality as a heteronomous normative system that exerts certain external influences upon the behavior of the individual, thereby prompting her exploratory behavior and the acquisition of new habits and socially valued skills.

We find three problematic assumptions in these criticisms: 1) the reduction of the spectrum of social normative behaviors to rule-following behavior, 2) the assumption that normativity pertains exclusively to the social domain and, 3) the necessity of social-heteronomy to escape conservative constraints.

Concerning the first assumption, we might say that rule-following behavior does not exhaust our normative behavior, but we must also provide an account of norm generation (Sepúlveda-Pedro, 2023). On this point, we should distinguish between "Left" and "Right" Wittgensteinianism (Crary, 2002). Right Wittgensteinianism emphasizes the stability and conservatism of social norms, seeing them as largely fixed and grounded in community practices. In contrast, Left Wittgensteinianism advocates for a more dynamic view, where norms are flexible and can evolve through transformations in social practices. While the enactive position is more aligned with Leftist readings it still differs from them in that, for enactivism, it makes sense to talk about individual normativity resulting from self-preservation dynamics and how this influences normative change at the social level, whereas Left Wittgensteinianism still situates the possibility of normative change exclusively in the intersubjective dimension.<sup>5</sup> The enactive approach aims to explain the conditions under which social normativity arises, that is, how it is generated from more basic forms of normativity at the behavioral level, in terms of bodily coordination, which in turn fosters the generation of social normativity. Using the analogy of normative games, it is not just a matter of how a child learns to play chess, but a matter of how children spontaneously create games or shared domains of meaning that are inherently normative. This requires adopting a more dynamic perspective on norms than the ones proposed by Wittgensteinian accounts of rule-following. Intersubjective norms can be viewed as locally stabilized patterns of behavior in social interactions, which are highly contextual, action-dependent and negotiable (Lo Presti, 2016). Intersubjective norms progressively change at different timescales, ranging from concrete interpersonal interactions to large changes in societal norms (e.g., changes in vocabulary of respect to elders, the codes of conduct in public spaces). These progressive changes happen without anyone violating or misunderstanding any explicit or implicit rule, but just generating new norms. For instance, breaking the social norm of not wearing hats indoor might actually generate a new norm of how cool it is to wear hats indoors.<sup>6</sup> The very act can be seen as an instantiation of a new norm. Spontaneous generation, assimilation, accommodation of normative behavior is a prereflective and embodied process of moment-to-moment assessment that allows the individual to cope with changes in the environment. In sum, the Wittgensteinian conception is not sufficiently flexible/dynamic: even though it admits the possibility of normative change, this requires broad-spectrum transformations in social practices, whereas enactivism offers a more fluid interpretation that opens the conceptual space for individuals themselves to be sources of changes in social norms.

Moreover, the enactive approach to normativity brings with it the notion of life not "simply" as form but as diverse types of organizations characterized by their autonomy or adaptive capacity for self-maintenance (that often clash in conflict). It is thus possible, within the enactive approach, in a manner that is harder to make explicit in Wittgensteinian terms, to conceive of recurrent patterns of performance that operate against a norm. Norms, according to enactivism, are manifested, not as ruled patterns of behavior, but as conditions of possibility of the organization of behavior,

<sup>&</sup>lt;sup>5</sup>We are grateful to the Editor, Miguel Nuñez de Prado Gordillo, for this clarification.

<sup>&</sup>lt;sup>6</sup>We are grateful to an anonymous reviewer for this illustrative example.

precarious interdependencies that need to be met for the identity of the system to be maintained. Thus, for instance, obsessive compulsive conditions, which stabilize as repetitive rule-following forms of life, can be conceived as normatively damaging for the subject at the deeper level of psychic organization and the potentialities they preclude for a flourishing, autonomous life.

Concerning the second assumption, the division of individual impulse or dispositions and social norm (e.g., Heras-Escribano, 2020) fails to grasp the complex self-directed (normative) character of behavior that doesn't necessarily imply incorporation of social rules into it. From insect to human behavior, there is an enormous variety of behavior that cannot be explained away with impulse-centered explanatory resources and needs to incorporate sophisticated adaptive models that involve behavioral evaluation, correction and self-supervised learning at various scales. Moreover, the normativity implicit in some of these complex tasks might reveal itself at different temporal scales (without the necessary intervention of social correction mechanisms). A pupil internalizing an erroneous mathematical rule might be blind to the rule for a while without the intervention of a teacher, but it would hardly be sustainable for the pupil in the long term, even without external correction. The mathematical exploration of the infant might lead to the discovery of the previously mistakenly applied rule by means of the self-consistency with the very mathematical structures, and the coherence with other symbolic structures surrounding her. There is a continuum between "right-to-me now" and "objectively right" that can unfold as "right-to-me now" and "right to me in an extended timeframe" (eventually a whole lifetime). In fact, there is nothing like an instantaneous normative judgment or regulation, all normative processes, in so far as function as constraints for regulation, are temporarily unfolded. Something might feel right or correct at a given timescale or instant and reveal itself to the subject as wrong later. There is no need for social ruling for me to find out that I took the wrong key to open the mailbox. It seemed "right to me" when I picked it up, but my intention to open the mailbox and the mismatch between the key and the lock reveals my mistake.

Socially sustained normativity and individually (pre-, post-, or a-socially constituted) normativities are most often deeply intertwined in human behavior. As Heras-Escribano and colleagues (2013) point out, identifying the polar tension between the individual and social, however, is useful to address some issues. We have identified the individual end; we can now explore the opposite end. It can be the case that a rule is purely socially constructed, even against any consistency or instrumental rationality available to the subject (without direct interaction with its social environment) and without any direct relevance to the self-maintenance of its biological or behavioral organization. That is, cases of purely socially contingent norms and rules. In these cases, there are, again, two ways in which normative aspects can unfold (and most often a complex hybridization between the two): One, the rule is sustained by being internalized, and individuals recruit self-guided normative agency capacities and social incorporation to exert normative regulation according to the rule. Two, the individuals are blind to the emergent social norm, but nevertheless display local sanctions and correct social cues to keep individual behavior aligned with it. This can only happen when the global norm emerges from these local normative (internalized) behavioral patterns. This type of norm marks the emergence of social autonomy (institutions, etc.) whose identity and self-maintaining capacity (as a totality) is constituted by the behavior of its participants but might pass (partially) unnoticed to them. All these cases show how enactive theory does not require norms in general to be necessarily and exclusively social, and that social norms are never independent of social interaction. Yet, the enactive framework is perfectly capable to accommodate a) strictly sensorimotor norms whose acquisition is often carried in social contexts, b) social norms that bring together individual and social normative dimensions, and c) even social norms that bear no direct or internalized individual normative concern for the agents that participate in it.

Concerning the third assumption, we hold that social norms, and thus heteronomy, is not required (although it might certainly contribute) to break the conservative interpretation of biological and sensorimotor norms. Non-social animals like Octopus, with no socially heteronomous behavior, do in fact display curiosity and are not trapped within conservative behavior. Why? There are different possible responses that are compatible with enactivism. Some have to do with an inherent instability or precariousness that can never be fully satisfied at the sensorimotor level and that inevitably leads to exploration in a restless process of equilibration (Piaget, 1975/1985). Unlike purely biological or autopoietic normativity, sensorimotor normativity is constitutively open to environmental support structures that are also and often intrinsically unstable, calling for a continuous compensation and sensorimotor re-organization. A different approach involves the possibility that regulatory mechanisms simply overrun the principle of conservation. Behavior needs not be normatively constrained to avoid death but might well be driven to increase wellbeing. Moving from a scenario of binary limits of viability to that of normative gradient fields (Barandiaran, 2024; Barandiaran & Egbert, 2014) makes it possible to conceive that organisms can be sensitive and operate according to gradients of wellbeing beyond the conservative limit. Moreover, the way in which norm-following is adaptively exercised might not be reduced to achieve low precariousness or to ensure conservation but to minimize precariousness. Staying indefinitely within sustainable conditions satisfies the first but not the second option: you might secure endurance, but you are not seeking to reduce precariousness anymore. If you are driven to reduce the latter, on the contrary, you might seek to escape stable situations to increase the rate of reduction. Finally, it is important to note that habit formation and behavioral plasticity in general will lead to situations in which normatively neutral regions of the viability space, when visited, will be normatively shaped by the history of the organism by the development of contingent or habitual preferences that get progressively intertwined with the identity of the system.

This openness of the individual sensorimotor normativity fosters the dialectical interplay between individual and social normativities, allowing also for the incorporation of social norms into an individual's repertoire. However, although all these scenarios do happen in and are enriched by a social context in most of human behavior, they do not necessarily require it. In the end, even when external-social factors may impose normative criteria for the incorporation of behavioral rules, there are often associated or assimilated internal sources of normativity for the agent to evaluate the functionality of those norms. This is particularly relevant in situations of breakdowns or when a social norm ceases to apply or endangers the organism. When

assimilation<sup>7</sup> fails, that is, when a new norm cannot be incorporated, new adaptive processes need to be triggered. Likewise, in accommodation to an external norm, new engagements are also evaluated for their functionality for the agent. Moreover, accommodation requires a rearrangement of the network of habits in a way that is functional for the individual. However, one of the main characteristics of norms and behaviors, either our own or social, is that we can question, evaluate and transform them. This is why we can speak of sense-making as a norm development process, rather than a rule-following case (Sepúlveda-Pedro, 2023). Arguably, an exclusive reliance on external norms and value systems in models of learning would, by definition, impose limitations on the universe of learnable behaviors, reducing the learning mechanisms available to mere imitation without proper invention. Thus, incorporation is not uncritical assimilation either, but a result of a transformation of the coupling between the organism and its sociomaterial environment. Consequently, the acquisition of new sensorimotor schemes to one's repertoire requires a normative evaluation of those skills from the part of the individual (even if this evaluation is implicit and procedural).

Lastly, even if enactivism gives room for situatedness and heteronomy-referring to norms that derive their normative character from social or supra individual autonomy but remain decentered or misaligned with the autonomy of the individual-, this heteronomy should not be understood in a homogeneous and static manner either but tensioned among layers of social groups that traverse the individual. To be clear, this form of heteronomy is not of the social constructivist kind or of the adaptationist kind. In the same way that many different autonomous and distributed agencies constitute and co-exist within the individual, a person also belongs to different social groups and institutions, whose norms may be in tension with each other and are subject to negotiation and modification. This heteronomy, then, is not univocal or homogeneous either, but tensioned, situated and highly dynamic, constraining and modulating the regional identities of the individual. Interactions with other agents and perspectives is both the condition of the possibility of incorporating and generating new norms and of critically assessing them. The social norms we incorporate and embody are, thus, in tension with each other and with other individual sensorimotor or organic norms. Importantly, even if both autonomy and heteronomy, activity and passivity are involved in the normativity of the individual, this relationship is asymmetric, making room for the agency of the individual in regulating the organism-environment coupling. A deep sense of psychological agency requires thus the capacity of adaptively regulating the tensions between different micro and regional identities that traverse the individual. Acknowledging this tension inherent in the autonomous organization of human beings, will be crucial to understand the normative dimension of mental conditions and the integration of social normativity in them.

<sup>&</sup>lt;sup>7</sup> Di Paolo et al. (2017) describe the acquisition of new habits, as a Piagetian equilibration process that encompasses two processes: (1) Assimilation, referring to the incorporation, absorption, or integration of an environmental perturbation into an existing physiological or cognitive/behavioral structure. (2) Accommodation, referring to the process by which the structures of the agent are modulated or transformed to incorporate the non-assimilated perturbation of the environment. Equilibration is the process by which a sensorimotor organization reaches a new form of stability and, accordingly, it implies a development (either by incorporation or generation) of new norms of behavior.

#### 4 Enactive approach to mental conditions

One of the main tenets of the enactive approach is that the mind is not located in the brain but emerges from the embodied interaction of the agent with its environment. A direct consequence of this is that mental conditions are not reduced to pathological changes in brain structure and function, but in contrast to neuroreductionism, the enactive approach views the whole brain-body-environment system and their reciprocal influences as the locus of mental conditions (Colombetti, 2013; de Haan, 2020; Fuchs, 2017; Gallagher, 2024; Maiese, 2022; Nielsen, 2023). They are defined as disorders of sense-making, which emerge from highly complex interactions between the organic, sensorimotor, and intersubjective transactions with the environment (de Haan, 2020; Maximino, 2021). Indeed, mental conditions stem from circular causal interactions among hierarchically nested domains of embodiment (vertical loops) and with the environment (horizontal loops) (Fuchs, 2017). Consequently, the conceptualization of mental conditions lacks a privileged level of description, a preferred descriptive vocabulary, and a singular canonical agent or action that defines it (McGann & Cummins, 2013), but they emerge at the levels of the organism as a whole in interaction with a sociomaterial environment.

Now, how to understand normativity in mental conditions? Roughly speaking, whatever is the mind, from an enactive perspective, should be understood in a normative sense, as responding to an intrinsic purposefulness of the living organism. However, there are certain nuances and discrepancies among proponents on how to demarcate between order and disorder, or even on whether that demarcation should be made (see Nuñez de Prado Gordillo & Pablo Lopez-Silva, 2024 for a review). Nielsen (2023), for instance, characterizes mental conditions as a systematic breakdown of the intrinsic functional norms inherent to the organism. He aims at laying the boundary between healthy and pathology by appealing to the functional norms of the organism, providing a prescriptive rather than merely descriptive (ad hoc) account. One of the main contributions of Nielsen's account is to clarify that these functional norms are distinct from external social norms (or evolutionary adaptive norms); rather, they are intrinsic norms whose break consistently pose a threat to the well-being, objectives, and necessities of the individual. They are pragmatic and relative to personal goals of self-maintenance within a sociomaterial environment. These intrinsic functional norms emerge as consequences of the autonomous organization of the individual and are primarily oriented towards its self-preservation.

However, it is essential to clarify that not all these functional norms exclusively belong to biological self-preservation. A potential caveat of the functional account of normativity stems from the overreliance on the biological nature of functional norms and the presupposition of decomposability inherent in functionalism (see debates in de Haan, 2021; Nielsen, 2021). Enactivists, in contrast, reject both presuppositions and see functional norms as being related to the various organizational domains of the whole organism. In this context, self-maintenance or self-preservation extend beyond reference solely to the metabolic or autopoietic system that constitutes the biological individual. Rather, self-preservation refers to each autonomous system that composes the individual, including the sensorimotor and intersubjective domains (and perhaps

the existential domain, de Haan, 2020).<sup>8</sup> As previously stated, if autonomy is construed as the operational closure of self-enabling processes, then it is also realized in sensorimotor habits and interpersonal interactions. Moreover, autonomy manifests as a tensioned network of local, multiscale, and multidimensional normativities rather than constituting a fully coherent unit. If we assume this holistic framework, the criteria for demarcating between health and pathology cannot refer to a breakdown of a single and isolated organizational function; but it must be related to the overall functioning of the nondecomposable system in relation with its environment. In other words, the breakdown of a biological functional norm, even if it is repetitive, cannot by itself be considered a mental disorder, but a systemic criterion must be applied.

This goes in line with the idea of "meaningful symptom", for which symptoms are not seen as lack of meaning, but as adaptive regulatory strategies to compensate or mitigate harm. A disorder is not a lack of norm, but rather a suboptimal but meaningful regulation that comes with a restriction of the contexts in which it is effective. For instance, echolalia in autism serves as a form of regulation of interpersonal interactions in a conversation (De Jaegher, 2013), self-harm can be a way of releasing emotional distress (Mikolajczak et al., 2009), or delusions might be purposeful (Ritunnano & Bortolotti, 2022). Symptoms in general may be seen as responses to internal or environmental stressors, which embody local norms and have holistic regulatory function. Consequently, the term dysfunction is inadequate to describe mental conditions and symptoms in their contribution to the self-preservation of the whole organism. Even if pathological states might be suboptimal, this does not mean that they are not adaptive, functional and normative in their restricted domain. Following Canguilhem (1966), health requires the capacity of flexibly adapting to a wide range of situations, by expanding one's own normative behavior. Pathology, on the contrary, is viewed as a narrowness in the contexts to which the norms of the individual are apt to. For these reasons, health is better considered as a gradual feature as a form of multidimensional evaluation of the organism-environment relationship, rather than in binary functional/dysfunctional terms. This relational account of health posits that in regulating the varieties of normativities that traverse the relationship between the individual and their environment, both self-transformation and transformation of the environment are valid intervention strategies.

Accordingly, enactivism advocates for a synthetic rather than an analytic pluralism<sup>9</sup> on functional norms (Gauld et al., 2022). De Haan (2020), for instance, suggests

<sup>&</sup>lt;sup>8</sup> In this regard, de Haan (2020) emphasizes that beyond mere biological normativity or basic sense-making, existential values (i.e., "actions that are not motivated by the drive to stay alive, but that rather have to do with living a good, meaningful, or dignified life" (p. 156) represent a person's stance on herself and her interactions with her environment and partly configure her own identity, and existential values are deeply related to mental disorders. However, she builds under the assumption that "if it is not a biological norm, then it is an existential value", thus downplaying the role of sensorimotor and intersubjective normativities.

<sup>&</sup>lt;sup>9</sup> "We therefore propose that the broader framework of explanatory pluralism should be described as an analytical pluralism, since, at first, it tends to break targets down across levels of understanding (e.g., biological from social), before it is considered whether these different understandings can be integrated or happily co-exist. An enactive pluralism, meanwhile, can be described as a synthetic-organizational pluralism, since it demands a constant return to consideration of all levels of understanding in relation to each other, in a synthetic and organizational way" (Gauld et al., 2022, p. 9).

the use of network models that integrate both organic, social, experiential, and existential factors and looking at their inflexible dynamics to describe mental conditions. Gallagher (2024), in turn, characterizes the self and its disorders as a dynamic Gestalt pattern of a variety of dimensions. In the same vein, Maiese (2022), looks at the distribution of regional identities in building a coherent self. From all these views, mental conditions imply a diminishment in the sense of self, a restriction of the affordances available in the environment, and a diminishment in effective agency. In this way, they acknowledge the complex webs of identities across the various domains that traverse the autonomy of the individual. Mental conditions imply a difficulty maintaining one's own identity in relation with the sociomaterial environment (either organically, sensorimotor abilities, or capacities for intersubjective engagement). Consequently, in mental conditions the sense of agency and possibilities for effective action in the sociomaterial environment decrease. The destabilization of regional identities may come partly due to the breakdown in sociobehavioral norms established by expected social roles. A key aspect here is that mental conditions do not necessarily endanger the biological self-maintenance of the individual but reduce their ability to cope with changes and flexibly adapt to a variety of social circumstances.

Another key aspect in mental conditions can be referred to as the diminishment of metastability and meta-flexibility in the individuation of the system (García, 2023; García & Arandia, 2022).<sup>10</sup> The brain-body-environment dynamics can be either too rigid or too flexible. On the one hand, in psychotic and dissociative conditions, there is a difficulty of integrating information (and norms) coming from different domains and sense-modalities, so behavioral aspects become too flexible and unstable. On the other hand, neurotic conditions may be seen as attractor-like states to where the system's dynamics tends, reducing the degrees of freedom and flexibility. It is thus not a matter of breaking a single norm, but rather a lack of meta-flexibility between suboptimal normative regimes and tendencies that conflict between them (García & Arandia, 2022). Insofar as adaptivity requires both robustness and flexibility, a criterion for metastability and metaflexibility in the dynamics of sensorimotor enactments might be adequate to describe health/pathology in terms of adaptivity.

One of the advantages of this approach is that it allows for the integration of various domains that the biopsychosocial model keeps disaggregated. However, it is also true that this approach does not provide a definitive solution to the problem of demarcation, that is, to the question of when a psychiatric condition is deemed pathological versus a "normal" variation. In fact, we advocate for a gradual continuum between health and illness, while acknowledging that qualitative changes might take place within a person's trajectory, such as more or less abrupt relapses and recoveries. Still, this gradual account allows us to distinguish between better or worse performances. People seek help for a variety of reasons: they may feel that something in their relationship with their environment is not functioning optimally, or they may wish to develop certain aspects of their lives, such as increasing productivity at work.

<sup>&</sup>lt;sup>10</sup>Here, we leave open the question of whether increasing metastability constitutes a meta-norm for the organism, meaning an ideal meta-state that the organism must strive to achieve. Nor do we claim that this second-order norm plays an effective regulatory role for the individual. It might well be that changes in metastability and meta-flexibility we observe in different mental conditions is a descriptive rather than prescriptive feature of their dynamics. We are thankful to an anonymous reviewer for pointing this out.

These motivations do not necessarily indicate a breakdown of a norm, but rather that individuals are performing below their desired or expected levels. Our gradualist approach accommodates this spectrum of help-seeking behaviors without imposing an external demarcation criterion for correctness.

# 5 Integrating social normativity in mental conditions: a participatory sense-making account

Recently, skepticism has emerged regarding the adequacy of the enactive approach in fully incorporating the influence of social norms and values in delineating the boundary between health and pathology (Dengsø, 2024; Jurgens, 2023; Russell, 2023). The main worry comes from social and political claims raised by Neurodiversity and Mad Pride movements (Chapman, 2019; Walker, 2014) which advocate for the understanding of mental health differences as natural variations of the human brain rather than inherent disorders or deficits, thereby reducing stigma and negative stereotypes associated with pathologizing discourses. In response to the medical model, social models of disability, for instance, attribute impairments to external structures, advocating for societal changes to alleviate these impairments. Conversely, interactionist perspectives depict mental impairments as arising from the interplay of cognitive capacities with environmental factors. Adopting a relational perspective on cognition and mental conditions, the enactive approach presents a way of incorporating social normative dimensions within a naturalistic framework, thereby reconciling descriptivist and normativist stances.

To begin with, it is worth noting that in the debate between descriptivists and normativists, the question of to what extent social norms are involved in mental conditions often conflates two different claims (Roberts & Willkinson, forthcoming). On the one hand, the status question asks about the criteria we use to give the status of disorder to a mental condition, that is, how we categorize such that the category promotes certain institutional social practices. On the other hand, the constitution question focuses on the material components and architecture of the phenomenon under investigation, which are addressed by examining its composition, structure, and functional organization. Traditionally, the question regarding constitutionality has been addressed in descriptivist terms, implying that the constitution of mental conditions is a matter of fact without needing to resort to normative vocabulary. Conversely, the issue concerning status has been deemed genuinely social, falling within the realm of normativity. The enactive approach challenges this dichotomy by, among other arguments, contesting that the normative and social aspects are not confined solely to matters of status but rather permeate every attempt to describe the constitution of mental conditions. In other words, it asserts that all mental conditions, either considered pathological or not, are intersubjectively constituted, and the status of mental conditions is intersubjectively negotiated.<sup>11</sup>

<sup>&</sup>lt;sup>11</sup>Roberts and Wilkinson (forthcoming) advocate for a descriptivist perspective on the constitution, while remaining normativists on the status question. From our perspective, there is no such a direct mapping, but

The intersubjective constitution of mental conditions comes from the fact that social interactions are part of the set of processes that make up certain conditions, which diachronically sediment in the sensorimotor habits of the individual. The intersubjective constitution of conditions such as Autism Spectrum Disorder have been on a difficulty of pre-reflective bodily interaction with others (Fuchs, 2015; Gallagher, 2004; Gipps, 2004). The idea is that the recursive and circular processes that build up the condition itself are taken to be externalized to interpersonal interactions and relational habitual patterns of behavior. But not only conditions that involve social cognition failures are regarded as intersubjectively constituted. Schizophrenia, for instance, which is often seen as a disturbance of the minimal self, should also be understood as a struggle to distinguish self from other, which is exacerbated or attenuated via reciprocal interactions with others (Fuchs & Röhricht, 2017; Kyselo, 2016). "Engagements and relations with others leave traces, bodily memories of how particular styles of being with others felt to us and were evaluated according to their contribution to the sense of self as emancipated and distinct or open and supported" (Kyselo, 2016, p.606). Another example comes from Anxiety Disturbances, where explanations of onsets of panic attacks require to go beyond explanations based on mere inner dispositions or attachment styles, to see them as responses to actual interpersonal situations (e.g., having lost a job, a strict evaluation situation, etc.) (Glas, 2020). A way of understanding this intersubjective constitution of mental conditions would be to see them as disturbances of dynamical self-patterns (Gallagher, 2024), where interpersonal relations reinforce certain configurations of the organization of the varieties of the elements that conform the condition. In this way, we can take the relational constitution thesis cautiously and to gauge the effect of interpersonal relationships in each mental condition. Indeed, there might be a continuity between primarily endogenous forms of mental conditions, such as developmental conditions, which are maintained via interpersonal interactions, and conditions that are primarily caused and constituted by feedback loops with social pathogenic factors, such as affective disturbances and other forms of neurosis. Consequently, although in different degrees, any mental condition would manifest social behavioral norms, both subjunctive (i.e., of what others expect from me) and injunctive (i.e., what I believe others expect from me). Indeed, either incorporating social norms or not incorporating them can be a source of maladaptive individual patterns. For instance, social anxiety disorders, eating disorders, and other neurotic conditions may stem from an incorporation of pernicious social norms that conflict with individual norms. Other conditions, such as autism, for instance, are constituted by their difficulties to capture social normative dimension via styles of interaction. Moreover, the fact that mental conditions are intersubjectively constituted makes it possible that psychotherapy, as a form of participatory sense-making process, can be effective for recovery. In psychotherapy, the intersubjective normativity implied in mental conditions can be made explicit and transformed via interaction with the therapist (García, 2022).

However, when it comes to reducing stigma and advocating for civil rights to neurodivergent people, the question of the status becomes principal. In this regard,

both the constitutive aspect and the status aspect would be imbued by a naturalized form of normativity (including social normativity). Yet, we consider the distinction useful for the sake of the argument.

we suggest that the status of health and pathology does not pertain solely to experts of mental institutions, nor solely on the individual, but it must be intersubjectively negotiated. On this point, there is an ongoing debate wherein some view enactivism as an ally of Mad or Neurodiversity movements, while others argue that it is not sufficiently counter-hegemonic or fails to address certain social demands. In this regard, we identify three main challenges that the enactive approach must address: 1) the ontological openness of categories of disorder and relativism (Russell, 2023) 2) the risk of perpetuating epistemic injustices (Catala et al., 2021), and 3) the problem of how to ascribe social responsibility (Dengsø, 2024). In what follows, we will provide an enactive response to these challenges, drawing from the theory of social cognition as participatory sense-making, with the aim of showing that the enactive approach has conceptual resources to deal with those ethical demands.

#### 5.1 Ontological openness

One of the alleged pitfalls of the enactive approach is that it does not provide a prescriptive account of what counts as disordered due to its ontological openness. Russell (2023), for instance, argues that enactivism does not allow to prescribe criteria of actuation when there is a clash between societal norms or between the norms of the patient and the clinician. The main problem is that its ontological openness leaves too much room for individual interpretation of the clinician, and thus it does not allow fulfilling the ethical goals of diminishing the stigmatization of people suffering from certain conditions. She claims "enactivism doesn't assume that values are homogenous across a single society, but these points nevertheless undermine enactivism's utility as a practical framework for use by clinicians insofar as no clear priority is given to any set of values" (Russell, 2023, p. 1475). Allegedly, there is an ambiguity in the interpretation of terms such as "patterns" and "dysfunctions" due to their ontological openness, which makes enactive psychiatry a descriptive rather than a prescriptive approach.

This holds true; however, it should not be perceived as a drawback of the theory but as a strength. A good theory should tell you how to negotiate the truth, where do norms emerge from, and how they are constituted. A good theory should not deprive practitioners from their own agency as experts and remove their responsibility as a professional evaluator and mediator with a prescriptive checklist that ignores the singularities and complexities of each situation. This is why any form of ontological closeness in the status of mental conditions leads to an epistemic overdetermination of the phenomenon by establishing a fixed set of values, a rigid normative frame of reference from which to ascribe order and disorder, typicality and divergence or health and pathology. If the status of mental conditions is bound to a matrix of social practices, and these practices undergo historical changes, then it is an advantage to keep the practical categories open to resignification. Indeed, it is well known that the very symptomatology and behavior of patients is reciprocally changed with the fact of being diagnosed and with changes in social status of mental conditions (Hacking, 1999), so the status of a condition can feedback in the constitutive processes of the disorder in question, in the ontology of it. This form of ontological openness is

ethically desirable for a continuous resignification and negotiation of mental disorder statuses as result of participatory meaning-making process.

From an enactive perspective, the tension between individual and collective normativities is an inherent and irresoluble tension of human social embeddedness. Indeed, a core element of participatory sense-making is the dialectical articulation between individual and interactional autonomies (Di Paolo et al., 2018). Individual autonomy arises from the sustained integration of organic and sensorimotor agencies in each participant, whereas interactive autonomy arises from self-organized and self-sustained relational patterns that emerge in social interactions. This implies that in social interactions, we expect to find a productive tension between different normativities from which the status of health and pathology are ascribed and transformed.

Consequently, we can identify an interpersonal version of the self-illness ambiguity. Self-illness ambiguity refers to a phenomenon where an individual's subjective experience of illness is intertwined with their sense of self (Dings & De Bruin, 2023). In other words, the boundary between the person and their illness becomes blurred or ambiguous. "Is it me or my pathology?" An important consideration is that this phenomenon is not solely confined to the individual's sense of self but also manifests as an interpersonal phenomenon. Indeed, psychiatrists often (mis)interpret certain behaviors or explanations as manifestations of the illness rather than as phenomena stemming from the personality of the patient or other *bona fide* causes. In engaging with a person with addiction, for instance, there is uncertainty regarding whether certain behaviors should be interpreted with empathy or condemnation, and whether trust in the individual's agency is warranted. Is it you or your pathology? This ambiguity regarding the attribution of responsibility for one's actions is widely recognized within the field of psychotherapy. To what extent does the therapist possess an epistemic advantage in understanding the patient's behavior in virtue of their knowledge of the typification of the disorder? To what extent should therapists uphold deference for the patient's behavior, decisions, attitudes? As we describe below, the enactive approach adopts a second-person perspective to answer these questions.

Indeed, what the phenomenon of the self-illness ambiguity shows is that the sense of self, which is fragmented in typical cases, can become polarized in certain mental conditions, and that the management between how to deal with one's autonomy and other's autonomy is widespread in social interactions, requiring constant negotiation of the interpersonal sphere. Self-illness ambiguity is, therefore, a special case (and probably a result) of participatory sense-making processes in which we engage, where it is difficult to establish a definitive answer. This reflects the second-person and dialogical character of our interpersonal interactions in general and the therapeutic stance in particular. First-personal approaches take the experiences of patients/ users at face value or uncritically (as person-centered approaches do). Conversely, third-person approaches rely on the clinical and theoretical expertise of clinicians in assessing the patient's issues. Second-person or dialogical approaches, instead, see the interaction as an open-ended process of negotiation and participation of meanings (Seikkula & Trimble, 2005), which does not require that this participation is or should always be symmetric.

#### 5.2 Epistemic injustices

One of the main risks in social interactions is falling into epistemic injustices, particularly hermeneutical or testimonial injustices, which occur when the experience of a patient is not regarded as reliable or valuable. Epistemic injustice in healthcare services arises from biases in diagnosis or in neglecting the first-person perspective of patients, thereby disregarding them as bearers of knowledge of their own condition (Crichton et al., 2017; Kurs & Grinshpoon, 2018). More specifically, testimonial injustice involves an unjustified deflation of the credibility of the patient, while hermeneutical injustice occurs when there is a gap in the epistemic resources (i.e., technical vocabulary in psychiatry), leaving patients unable to interpret their experience within a shared vocabulary; in other words, when the experience of the patient is translated and thereby downgraded under the technical and descriptive vocabulary of psychiatry.<sup>12</sup> In either case, a patient's first-person experiences are often downplayed in the interaction with the clinician in the process of making sense of their condition.

In the clinical relationship, however, there is an evident bidirectional epistemic asymmetry. On the one hand, expert knowledge is privileged for the practitioner. On the other, the first-person perspective is privileged for the patient. The concept of participatory sense-making aims to provide a framework through which individuals with differing normative and epistemic frameworks can co-construct a shared understanding. In relation to naturally asymmetric processes or developmental support relationships, such as those between teacher and student, parent and child, or therapist and patient, these interactions are prescriptive in the sense that they aim to minimize these asymmetries over time. In other words, they are types of interactions where the goal is to gradually increase the autonomy of the other party, in this case, the patient. Thus, they can be viewed as forms of interpersonal developmental scaffolding.

In this regard, it is crucial to acknowledge two aspects of social interactions. First, those asymmetries are actively sustained by both interactants, although often asymmetrically, in a dialectical co-dependence, so power relations are always bidirectional. Second, participatory sense-making processes prescribes the interaction to be aimed to minimize those asymmetries. The reason is that proper social interactions are partly autonomous in the sense that they are self-sustaining patterns of participation. In other words, their normative character prescribes "to participate so as to enhance participation". Indeed, according to the authors, a proper social interaction must meet two conditions: the co-modulation of the coupling between individuals and the maintenance of the individual autonomy of each participant. Social interactions that do not recognize the autonomy of the other (such as enforced social isolation, tortures, etc.) are, by definition, not intersubjective, because they objectify the other and hamper active participation. Accordingly, we can distinguish between autonomy enhancing and autonomy diminishing forms of interactions (Maiese & Hanna, 2018). While autonomy diminishing forms of interactions are often inflexible and static, such as in domination structures, autonomy enhancing interactions promote different forms of participation, thus enabling further interactions. By enhancing the autonomy

<sup>&</sup>lt;sup>12</sup>Other forms of epistemic injustices have been characterized in the literature, such as differential access to epistemic and cognitive resources (Legault et al., 2021).

of the participants, interactions become more intersubjective (as opposed to thirdpersonal), thereby fostering greater engagement in social interactions. This is particularly relevant in the context of the asymmetric relationships mentioned earlier, especially when they become institutionalized. Indeed, the aim of such interactions is to increase the autonomy of patients-students-children, thus diachronically minimizing their asymmetry.

We suggest that the enactive approach to social cognition as participatory sensemaking provides conceptual tools to overcome potentially damaging epistemic injustices. First, individual first-person experience is necessary to any form of evaluation of cognitive processes. The experiential domain is not an epiphenomenon arising from an underlying cognitive system, but it has a central role in describing sensemaking processes. Second, the enactive proposal aims at overcoming the consequences of the biomedical over-determination and reductionist view of patients. Indeed, according to an engaging epistemology (De Jaegher, 2019), knowing is seen as a participatory process where the knower does not over-determine the known but it faces the tension of letting it be while also being transformed by this knowing relationship. Understanding pathology in this enactive sense keeps room for the person to develop herself without being externally over-determined (e.g., through a certain label or category), as well as for the knowers to be transformed by the interaction itself. As a result, promoting participation should be added to the list of epistemic virtues along with open-mindedness, and humility among others (Friesen et al., 2021). Following the neurodiversity claim "no research about us without us", the generation of knowledge, from an enactive perspective, should be participative, both in clinical assessment and in academic spheres. Both the engaged epistemology and the promotion of participation stem from the original formulation of social cognition as participatory sense-making (De Jaegher, 2023). While this does not inherently prevent cases of epistemic injustice, it does promote a more "democratic" perspective that avoids epistemic authoritarianism.

## 5.3 Social responsibility

A third challenge concerns the risk that placing an excessive emphasis on individual autonomy and interpersonal interactions can result in a neglect of societal responsibilities in the emergence of mental conditions (Dengsø, 2024). Indeed, our interactions with others are mediated and constrained by various pragmatic and institutional normative contexts, such as public spaces, technologies, structures, symbols, and rituals, which exist before and beyond any particular interpersonal interaction. These normative environments are pre-established by pragmatic or institutional circumstances that we do not choose, but find ourselves embedded in. Indeed, they exert a notable influence in our enculturation process and development. These *mental institutions* are rich networks of norm-governed practices, artifacts, and traditions that shape how we attend to and interact with the world and others (Gallagher & Crisafi, 2009; Krueger & Maiese, 2018; Werner, 2024). They are contextual and practice dependent (e.g., university, legal system, educational systems, languages) and shape our cognitive capacities, such as attention, memory, perception, and action possibilities. They might facilitate certain cognitive processes or open otherwise inaccessible

cognitive processes (e.g., universities as safeguard and transmission of knowledge or the legal system as the externalization of mental judgements), but they in turn diachronically shape embodied habits of mind through an internalization and sedimentation of sensorimotor, attentional and affective habits (Maiese & Hanna, 2018).

Mental institutions and mental habits can either enable or constrain individual autonomy. Indeed, according to Dengsø (2024), we can evaluate the healthy or pathological character of the institution itself in terms of its capacity to incorporate normative diversity. When a social institution can incorporate diversity in its elements, that is, in the variety of norms that embody the individuals belonging to it, the institution can be regarded as healthy. Unhealthy social institutions, instead, are those that cannot accommodate different voices, practices, and normative behaviors within them. Consequently, processes of ecological constraints might end up with maladaptive individual habits, either by the translation of habits of a regional identity to other contexts (e.g., incorporating and translating habits of speed and efficiency from work to leisure in cases of workaholism), or by difficulties in incorporating contextual norms. In the case of autism, for instance, Krueger and Maiese (2018) describe how, individuals are disadapted to neurotypical mental institutions due to their difficulties to capture their normative dimension via styles of interaction. Therefore, it is pertinent to acknowledge the subjectivizing dimension of power relations and institutions and to distinguish between enabling and coercive forms of institutional interaction.

However, an important aspect of participatory sense-making is that the social dynamics are emergent phenomena. Social interaction is not merely a combination or aggregate of the behavior of its participants but is itself an emergent pattern that can become adaptively autonomous, it has a dynamic on its own, which can constrain the behavior of the interactants just as much as facilitate it. The autonomous organization of the social dynamic generates an inertia, making the interaction resistant to perturbation, even by the individuals enacting it. This implies that relational norms impose certain top-down constraints to individual agencies in interaction, while being also modifiable by participants. One consequence is that individuals are not only recipients of relational norms, but they also have the capacity (although limited) of modulating and changing the relational patterns they sustain.

It should be clear by now that, when it comes to the status question, putting the burden of pathology exclusively within the individual or in society would be detrimental for any form of negotiability and social transformation, that is, it would directly undermine the very ethico-political emancipatory goal it emerged from. If we place responsibility solely in society and not in the individual (i.e., social determinism), we run the risk of depriving individuals from agency and the capacity of self-transformation and political contest. Moreover, it would be difficult to justify the claim for specific interventions or policy changes in healthcare services to particular collectives. It undermines the very possibility of negotiation of the social practices that constitute mental health statuses.

When it comes to ascribing responsibility, the fundamental question is not the status question of whether the society or the individual counts as disordered and unhealthy. It might be the case that societal dysfunctions cause dysfunctions at the individual level, but not necessarily generate the status category. For instance, the case of workaholism, which might be highly dysfunctional both at the individual and

societal level—according to Dengsø's definition, at least–, but not having the social status of pathology. The question of responsibility is thus not necessarily bound to the status question but appeals to the locus of intervention. To be clear, when we consider mental conditions as "social problems" (Saborido & Zamora-Bonilla, 2024), we are not saying that society is "insane", but rather that those mental health issues should be addressed by societal institutions and practices, sometimes even reformulating the institutionalized environment individuals live in. Here, response-ability refers to our ability to respond to certain circumstances, in this case, to our intervention strategy. This pragmatic conception of the status requires a pluralistic perspective on intervention, where all individual psychotherapy, systemic therapy, support groups, psychosocial or community-based interventions and policy changes might be appropriate to target certain mental conditions. It also calls for a wider response-ability, that of society at large and of the political regimes we favor: a genuine participatory democracy should have more resources to deal with the conflict of the varieties of norms that produce pain, limit potential, and claim for attention in mental health.

## 6 Conclusion: autonomy ↔ outonomy ↔ heteronomy

This article has described the varieties of normativities that are present in the enactive approach and its application to the debates on the nature of mental conditions. We have explained the enactive naturalized account of normativity, which dissolves rather than solves the dichotomic positions between objectivists and normativists. In this regard, enactivism advocates for a pluralist conception of normativity, which encompasses tensioned norms between micro-identities and regional identities, as well as tensions between organic, sensorimotor, and intersubjective domains. We have shown that this framework can also incorporate heteronomy, i.e., norms that belong to a supra-individual social sphere, without thereby abandoning its backbone concept of autonomy. In this regard, the concept Outonomy (Barandiaran & Etxeberria, 2025) refers precisely to this possibility of the emergence of supraindividual forms of autonomy that can in turn limit or expand the autonomy of their constituents, from dyadic relationships to collective agency, which feedback to individual sensorimotor identities.

This places enactivism particularly well suited to incorporate some of the claims regarding the social character of mental condition statuses, since the ascription of health/pathology is interpersonally negotiated, influencing matrices of institutional practices and the constitution of the condition itself. This interpersonal constitution is also the condition of the possibility of interpersonal recovery and transformation—via psychotherapy, psychosocial interventions, or political action. When people ponder whether mental disorder is "real" or socially constructed, their concerns often center on the ontological openness and room for interpretation between health and pathology, epistemic injustices, and the attribution of social responsibility. We have shown that the enactive approach to social cognition as participatory sense-making can respond to these worries without giving up with the naturalization aims of the theory. Indeed, one of the strengths of the theory is to see mental condition statuses as negotiable phenomena, which are results of participatory sense-making processes.

The second-person perspective of psychiatric conditions carries significant methodological and heuristic implications for assessment, diagnostic processes (Roubal et al., 2017), and research methodologies (Galbusera & Fellin, 2014). Thus, this way of understanding pathology entails a shift in our epistemological grounds towards an engaged epistemology (De Jaegher, 2021), which addresses us as researchers, social workers, or clinicians to become active participants within the systems under assessment, promoting participation on both sides.

Funding Open Access funding provided thanks to the CRUE-CSIC agreement with Springer Nature. EG was funded by the Juan de la Cierva Postdoctoral Grant (MCIN/AEI/https://doi.org/10.13039/5011000 11033 and European union "NextGenerationEU"/PRTR"). This work was supported by project IT1228-19 funded by Basque Government, the project "Outonomy", PID2019-104576GB-Ioo, funded by MICIN, the Project "The Social Roots of Mental Health: Agency and Normativity" PID2021-126826NA-I00 funded by MCIN/AEI/https://doi.org/10.13039/501100011033 and by "ESF Investing in your future", and the project "OUTAGENCIES: Varieties of autonomous agency across living, humanimal and technical system" (PI Xabier Barandiaran) funded by MCIU/AEI/https://doi.org/10.13039/501100011033.

#### Declarations

**Competing interests** The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article. The authors have no relevant financial or non-financial interests to disclose.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicate otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/.

## References

- Barandiaran, X. E. (2008). Mental Life: A naturalized approach to the autonomy of cognitive agents. Ph.D. Thesis, University of the Basque Country (UPV-EHU)]. https://xabier.barandiaran.net/phdthesis/
- Barandiaran, X. E. (2017). Autonomy and enactivism: Towards a theory of sensorimotor autonomous agency. *Topoi*, 36, 409–430.
- Barandiaran, X. E. (2025). Organizational accounts of biological malfunctioning. The two-level approach and the normative field alternative. Biological Theory, Accepted.
- Barandiaran, X. E. & Etxeberria, A. (Eds.) (2025) Outonomy: fleshing out autonomy beyond the individual. Springer. (forthcoming).
- Barandiaran, X. E., & Egbert, M. D. (2014). Norm-establishing and norm-following in autonomous agency. Artificial Life, 20(1), 5–28.
- Barandiaran, X. E., & Moreno, A. (2008). Adaptivity: From metabolism to behavior. Adaptive Behavior,16(5), 325–344. https://doi.org/10.1177/1059712308093868
- Barrett, N. F. (2017). The normative turn in enactive theory: An examination of its roots and implications. *Topoi*, 36(3), 431–443. https://doi.org/10.1007/s11245-0159355-y
- Benning, T. B. (2015). Limitations of the biopsychosocial model in psychiatry. Advances in Medical Education and Practice, 6, 347–352.
- Bernard, C. (1865). Introduction à l'étude de la médecine expérimentale. JB Baillière et fils.

Boorse, C. (1977). Health as a theoretical concept. Philosophy of Science, 44, 542–573

- Canguilhem, G. (1966). Le normal et le pathologique (Vol. 2). Presses universitaires de France.
- Cannon, W. B. (1932). The wisdom of the body. WW Norton & Company, inc.
- Catala, A., Faucher, L., & Poirier, P. (2021). Autism, epistemic injustice, and epistemic disablement: A relational account of epistemic agency. *Synthese*, 199(3–4), 9013–9039.
- Chapman, R. (2019). Neurodiversity theory and its discontents: Autism, schizophrenia, and the social model of disability. The Bloomsbury companion to philosophy of psychiatry 371.
- Christensen, W. D., & Bickhard, M. H. (2002). The process dynamics of normative function. *The Monist*, 85(1), 3–29.
- Colombetti, G. (2013). Psychopathology and the enactive mind.
- Crary, A. (2002). Wittgenstein's philosophy in relation to political thought. In The New Wittgenstein (pp. 128–156). Routledge.
- Crichton, P., Carel, H., & Kidd, I. J. (2017). Epistemic injustice in psychiatry. *Bjpsych Bulletin*,41(2), 65-70.
- de Haan, S. (2020). Enactive psychiatry. Cambridge University Press.
- de Haan, S. (2021). Two enactive approaches to psychiatry: Two contrasting views on what it means to be human. *Philosophy, Psychiatry, & Psychology: PPP,28*(3), 191–196.
- De Jaegher, H. (2013). Embodiment and sense-making in autism. *Frontiers in Integrative Neuroscience*, *7*, 15.
- De Jaegher, H. (2015). How we affect each other: Michel Henry's' pathos-with'and the enactive approach to intersubjectivity. *Journal of Consciousness Studies*, 22(1–2), 112132.
- De Jaegher, H. (2019). Loving and knowing: Reflections for an engaged epistemology. *Phenomenology and the Cognitive Sciences*. https://doi.org/10.1007/s11097-019-09634-5
- De Jaegher, H. (2021). Loving and knowing: Reflections for an engaged epistemology. *Phenomenology and the Cognitive Sciences*, 20(5), 847–870.
- De Jaegher, H. (2023). Seeing and inviting participation in autistic interactions. *Transcultural Psychiatry*, 60(5), 852–865.
- De Jaegher, H., & Di Paolo, E. A. (2007). Participatory sense-making: An enactive approach to social cognition. *Phenomenology and the Cognitive Sciences*, 6, 485–507.
- Dengsø, M. J. (2024). Enactive psychiatry and social integration: Beyond dyadic interactions. *Phenom-enology and the Cognitive Sciences*. https://doi.org/10.1007/s11097-02409957-y
- Di Paolo, E., & Thompson, E. (2014). The enactive approach. In The Routledge handbook of embodied cognition (pp. 68–78). Routledge.
- Di Paolo, E. A. (2003). Organismically-inspired robotics: Homeostatic adaptation and teleology beyond the closed sensorimotor loop. In K. Murase & Asakura (Eds.), Dynamical systems approaches to embodiment and sociality (pp. 19–42). Advanced Knowledge International.
- Di Paolo, E. A. (2005). Autopoiesis, adaptivity, teleology, agency. Phenomenology and the Cognitive Sciences, 4(4), 429–452.
- Di Paolo, E. A., Buhrmann, T., & Barandiaran, X. E. (2017). Sensorimotor life: An enactive proposal. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780198786849.001.0001
- Di Paolo, E. A., Cuffari, E. C., & De Jaegher, H. (2018). Linguistic bodies: The continuity between life and language. MIT Press.
- Dings, R., & De Bruin, L. C. (2023). self-illness ambiguity and narrative identity. *Philosophical Explora*tions, 26(2), 147–154.
- Egbert, M. D., & Barandiaran, X. E. (2014). Modeling habits as self-sustaining patterns of sensorimotor behavior. Frontiers in Human Neuroscience, 8, 590. https://doi.org/10.3389/fnhum.2014.00590
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, *196*(4286), 129–136.
- Eronen, M. I. (2021). The levels problem in psychopathology. Psychological Medicine, 51(6), 927–933.
- Fodor, J. A. (1975). The language of thought. Harvard University Press.
- Friesen, P., Lignou, S., Sheehan, M., & Singh, I. (2021). Measuring the impact of participatory research in psychiatry: How the search for epistemic justifications obscures ethical considerations. *Health Expectations: An International Journal of Public Participation in Health Care and Health Policy*, 24 Suppl 1(Suppl 1), 54–61.
- Fuchs, T. (2017). *Ecology of the brain: The phenomenology and biology of the embodied mind*. Oxford University Press.
- Fuchs, T. (2015). Pathologies of intersubjectivity in autism and schizophrenia. Journal of Consciousness Studies, 22(1-2), 191–214.

Fuchs, T., & Röhricht, F. (2017). Schizophrenia and intersubjectivity: An embodied and enactive approach to psychopathology and psychotherapy. *Philosophy, Psychiatry, & Psychology,24*(2), 127–142.

Fulford, K. W. M. (1989). Moral theory and medical practice. Cambridge University Press.

- Galbusera, L., & Fellin, L. (2014). The intersubjective endeavor of psychopathology research: Methodological reflections on a second-person perspective approach. *Frontiers in Psychology*, 5, 1150.
- Gallagher, S. (2004). Understanding interpersonal problems in autism: Interaction theory as an alternative to theory of mind. *Philosophy, Psychiatry, & Psychology: PPP,11*(3), 199–217.
- Gallagher, S. (2024). The self and its disorders. Oxford University Press.
- Gallagher, S., & Crisafi, A. (2009). Mental institutions. Topoi, 28, 45-51.
- García, E. (2022). Participatory sense-making in psychotherapy. Ph.D. thesis. University of the Basque Country.
- García, E. (2023). Affectivity in mental disorders: an enactive-simondonian approach. *Phenomenology and the Cognitive Sciences* 1–28.
- García, E., & Arandia, I. R. (2022). Enactive and simondonian reflections on mental disorders. Frontiers in Psychology, 13, 938105.
- Gauld, C., Nielsen, K., Job, M., Bottemanne, H., & Dumas, G. (2022). From analytic to synthetic-organizational pluralisms: A pluralistic enactive psychiatry. *Frontiers in Psychiatry*, 13, 981787.
- Gipps, R. G. T. (2004). Autism and intersubjectivity: Beyond cognitivism and the theory of mind. *Philosophy, Psychiatry, & Psychology: PPP,11*(3), 195–198.
- Glas, G. (2020). An enactive approach to anxiety and anxiety disorders. *Philosophy, Psychiatry, & Psychology*, 27(1), 35–50.
- Goldstein, K. (1939). The organism. Zone Books.
- Hacking, J. (1999). The social construction of what? Harvard University Press.
- Heras-Escribano, M. (2020). Précis of the philosophy of affordances. Constructivist Foundations, 15(3), 199–213.
- Heras-Escribano, M., Noble, J., & Pinedo, M. (2013). The only wrong cell is the dead one: On the enactive approach to normativity. *European Conference on Artificial Life* 665–670.
- Heras-Escribano, M., Noble, J., & de Pinedo, M. (2015). Enactivism, action and normativity: A Wittgensteinian analysis. *Adaptive Behavior*, 23(1), 20–33.
- Hutto, D. D. (2005). Knowing what? Radical versus conservative enactivism. *Phenomenology and the Cognitive Sciences*, 4(4), 389–405.
- Hutto, D. D., & Myin, E. (2014). Neural representations not needed-no more pleas, please. *Phenomenology and the Cognitive Sciences*, 13, 241–256.
- Jonas, H. (1966). The phenomenon of life. Greenwood Press.
- Jurgens, A. (2023). Body social models of disability: Examining enactive and ecological approaches. Frontiers in Psychology, 14, 1128772.
- Krueger, J., & Maiese, M. (2018). Mental institutions, habits of mind, and an extended approach to autism. *Thaumàzein* [*Rivista di Filosofia6*, 10–41.
- Kurs, R., & Grinshpoon, A. (2018). Vulnerability of individuals with mental disorders to epistemic injustice in both clinical and social domains. *Ethics & Behavior*;28(4), 336–346.
- Kyselo, M. (2016). The enactive approach and disorders of the self-the case of schizophrenia. *Phenomenology and the Cognitive Sciences*, 15, 591–616.
- LeFrançois, B. A., Menzies, R., & Reaume, G. (2013). *Mad matters: A critical reader in Canadian mad studies*. Canadian Scholars' Press.
- Legault, M., Bourdon, J.-N., & Poirier, P. (2021). From neurodiversity to neurodivergence: The role of epistemic and cognitive marginalization. *Synthese*. https://doi.org/10.1007/s11229-021-03356-5
- Lo Presti, P. (2016). An ecological approach to normativity. Adaptive Behavior, 24(1), 3-17.
- Lozada, M., García, E., Chaoul, A., & D'Adamo, P. (2024). Towards an enactive approach to MikolajczakHealth: An integrative perspective which considers interdependence, agency, autonomy and participatory sensemaking in therapeutic phenomena. *Frontiers in Psychology*, 15, 1440751.
- Luisi, F. S. A., & P. L. (2003). Autopoiesis: A review and a reappraisal. *Die Naturwissenschaften*,90(2), 49–59. https://doi.org/10.1007/s00114-002-0389-9
- Maiese, M. (2022). Autonomy, enactivism, and mental disorder: A philosophical account. Taylor & Francis.
- Maiese, M., & Hanna, R. (2018). The mind-body politic. Springer International Publishing.
- Maturana, H., & Varela, F. J. (1973). De Maquinas y Seres Vivos (1st ed.). Lumen.
- Maximino, C. (2021). A new epistemology for mental disorders.

- McGann, M., & Cummins, F. (2013). No mental; health. Conference Publication. Retrieved from http://cs peech.ucd.ie/Fred/docs/NoMentalHealth.pdf.
- McGuire, M., & Troisi, A. (1998). Darwinian psychiatry. Oxford University Press.
- McLaughlin, P. (2000). What functions explain: Functional explanation and SelfReproducing systems (1st edition). Cambridge University Press.
- Menatti, L., Bich, L., & Saborido, C. (2022). Health and environment from adaptation to adaptivity: A situated relational account. *History and Philosophy of the Life Sciences*, 44(3), 1–28.
- Mikolajczak, M., Petrides, K. V., & Hurry, J. (2009). Adolescents choosing self-harm as an emotion regulation strategy: The protective role of trait emotional intelligence. *The British Journal of Clinical Psychology/The British Psychological Society*, 48(Pt 2), 181–193.
- Millikan, R. G. (1989). An ambiguity in the notion "function." Biology and Philosophy, 4(2), 172-176.
- Mojica, L. (2021). The enactive naturalization of normativity: From self-maintenance to situated interactions. *History and Philosophy of the Life Sciences*, 43(4), 127.
- Moreno, A., & Mossio, M. (2015). Biological autonomy: A philosophical and theoretical enquiry. Springer.
- Mossio, M., Saborido, C., & Moreno, A. (2009). An organizational account of biological functions. The British Journal for the Philosophy of Science, 60(4), 813–841. https://doi.org/10.1093/bjps/axp036
- Newen, A., De Bruin, L., & Gallagher, S. (Eds.). (2018). The Oxford handbook of 4E cognition. Oxford University Press.
- Nielsen, K. (2021). Comparing two enactive perspectives on mental disorder. *Philosophy, Psychiatry, & Psychology*, 28(3), 175–185.
- Nielsen, K. (2023). Embodied, embedded, and enactive psychopathology: Reimagining mental disorder. Springer Nature.
- Nielsen, K., & Ward, T. (2018). Towards a new conceptual framework for psychopathology: Embodiment, enactivism, and embedment. *Theory & Psychology*, 28(6), 800–822.
- Nielsen, K., & Ward, T. (2020). Mental disorder as both natural and normative: Developing the normative dimension of the 3e conceptual framework for psychopathology. *Journal of Theoretical and Philo*sophical Psychology, 40(2), 107.
- Núñez de Prado-Gordillo, M., & López-Silva, P. (forthcoming). Making sense of the 4E cognition turn in mental health research. *Philosophy, Psychiatry, & Psychology.*
- O'regan, J. K., & Noë, A. (2001). A sensorimotor account of vision and visual consciousness. *Behavioral and Brain Sciences*, 24(5), 939–973.
- Piaget, J. (1975/1985). The equilibration of cognitive structures: The central problem of intellectual development. Chicago: University of Chicago Press.
- Piaget, J. (1969). Biology and knowledge. University of Chicago Press.
- Pylyshyn, Z. W. (1984). Computation and cognition: Toward a foundation for cognitive science. MIT Press.
- Rama, T. (2023). Evolutionary causation and teleosemantics. In J. M. Viejo & M. Sanjuán (Eds.), Life and mind: New directions in the philosophy of biology and cognitive sciences (pp. 301–329). Springer International Publishing. https://doi.org/10.1007/9783-031-30304-3\_14
- Ritunnano, R., & Bortolotti, L. (2022). Do delusions have and give meaning? *Phenomenology and the Cognitive Sciences*, 21(4), 949–968.
- Roberts, T. & Wilkinson, S. (forthcoming) (2024). Status and constitution in psychiatric classification. Synthese.
- Roubal, J., Francesetti, G., & Gecele, M. (2017). Aesthetic diagnosis in gestalt therapy. *Behavioral Sciences*, 7(4), 70.
- Ruiz-Mirazo, K., & Moreno, A. (2004). Basic autonomy as a fundamental step in the synthesis of life. Artificial Life, 10(3), 235–259. https://doi.org/10.1162/1064546041255584
- Russell, J. L. (2023). Problems for enactive psychiatry as a practical framework. *Philosophical Psychology* 1–24.
- Russell, G. A. (1994). The impact of the philosophus autodidactus: Pocockes, John Locke, and the Society of Friends. In G. A. Russell (Ed.), *The 'Arabick'Interest of the Natural Philosophers in Seventeenth-Century England* (pp. 224–265). E. J. Brill.
- Saborido, C., Moreno, A., González-Moreno, M., & Hernández Clemente, J. C. (2016). Organizational malfunctions and the notions of health and disease. In É. Giroux (Ed.), Naturalism in the philosophy of health: Issues and implications (pp. 101–120). Springer International Publishing. https://doi.org/1 0.1007/978-3-31929091-1\_7
- Saborido, C., & Zamora-Bonilla, J. (2024). Diseases as social problems. Synthese, 203(2), 1-16.

- Seikkula, J., & Trimble, D. (2005). Healing elements of therapeutic conversation: Dialogue as an embodiment of love. *Family Process*, 44(4), 461–475.
- Sepúlveda-Pedro, M. A. (2023). Enactive cognition in place: Sense-making as the development of ecological norms. Springer Nature.
- Smith, V. (2021). Naming and framing: Understanding the power of words across disciplines, domains, and modalities. Routledge.
- Suls, J., & Rothman, A. (2004). Evolution of the biopsychosocial model: Prospects and challenges for health psychology. *Health Psychology*, 23(2), 119–125.
- Svenaeus, F. (2019). a defense of the phenomenological account of health and illness. *The Journal of Medicine and Philosophy*, 44(4), 459–478.
- Szasz, T. (2009). Coercion as cure: A critical history of psychiatry. Transaction Publishers.
- Thompson, E. (2010). *Mind in life: Biology, phenomenology, and the sciences of mind*. Harvard University Press.
- Urban, P. (2014). Toward an expansion of an enactive ethics with the help of care ethics. Frontiers in Psychology, 5, 1354.
- Varela, F. J. (1979). Principles of biological autonomy. North Holland. http://openlibrary.org/b/OL441649 4M/Principles\_of\_biological\_autonomy
- Varela, F. J., Thompson, E., & Rosch, E. (1991/2017). The embodied mind, revised edition: Cognitive science and human experience. MIT Press.
- Varela, F. J. (1992). Autopoiesis and a biology of intentionality. Proceedings of the Workshop "Autopoiesis and Perception" 4–14.
- Wakefield, J. C. (1992). The concept of mental disorder. On the boundary between biological facts and social values. *The American Psychologist*, 47(3), 373–388.
- Walker, N. (2014). Neurodiversity: Some basic terms & definitions.
- Weber, A., & Varela, F. J. (2002). Life after Kant: Natural purposes and the autopoietic foundations of biological individuality. *Phenomenology and the Cognitive Sciences*, 1(2), 97–125.
- Werner, K. (2024). Enacted institutions, participatory sense-making and social norms. *Synthese*, 203(5), 152.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.