No Mental; Health

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Abstract. The basic argument to be made has two parts. Part the First: there is no tenable distinction to be made between the mental and the physical. The enactive approach is probably the best framework for expressing this constraint among contemporary theories. Part the Second: As we move from consideration of the identity of cells to the identity of nations, there is no single level that is co-extensive with the person. In particular, identification of the person with the human body is inappropriate. The enactive approach is ambivalent here, and recent attempts to provide definitions of agency seem to run the risk of fixing the person, inappropriately, at one level or another. The consequences of these two observations is that there is no coherent domain of mental health. There is health: the health of cells, of bodies, of families, of football teams, and of nations.

1 INTRODUCTION

The field of mental health lives a precarious existence. To those of a neuroreductionist bent it is just another medical speciality, on the same level as immunology, gynaecology and oncology, and disorders of the mind are nothing more or less than disorders of the brain. Those who favour a functionalist, cognitive psychological account will see mental disorders as malfunctions of a notional cognitive system, for which there are assumed to be norms that allow distinctions between healthy and pathological operation.

The day to day life of the practitioner in the field of psychiatry forces a somewhat more eclectic and pragmatic view, as cases that present display a very wide range of problems that need to be confronted. Some are clearly of organic origin, as in frontal lobe tumours; some may have organic correlates, such as serotonin imbalance in depression, but the problematic manifestations frequently lie rather in the lived experience of the subject. Making a link from the observed problematic to the presumed level of physiological regulation becomes increasingly more difficult as we move among the cornucopia of neurotic and psychotic phenomena, many of which display no obvious link to physiological disorder at all, and many of which may plausibly be argued to be disorders of a social field, rather than a single biological individual [1], or to reflect culturally specific normative considerations unrelated to the body [2]. Some cases that present may appear to be problems of behaviour or belief with no identifiable organic pathology. Even if one were fully subscribed to either a neuroreductionist or a functionalist interpretation of the field, there is little hope that such accounts will make significant contributions to many of the problems faced by clinicians in psychiatry in the short to medium term.

In this brief contribution we seek to provide a basis for an alternative discussion of such issues. The argument to be made has two parts. Firstly, we argue that there is no tenable distinction between the mental and the physical. Adopting this stance will affect how we frame all subsequent discussion of mental and physical health. We believe that the enactive framework that is emerging may be the best of the current stock of theoretical approaches to develop arguments that are free of the mental-physical dichotomy. We then follow a line of argumentation that is frequently followed in the enactive literature, among others, to consider the relations that obtain among levels of systemic organisation in living beings, from the cell to societies. Here, there is much work yet to be done, and we will argue that there is no level in this hierarchy (or, better, network) that is co-extensive with the person. This second claim runs counter to some recent proposals within the enactive literature about the nature of agency, and we suggest that there is an important discussion waiting to happen here.

2 THE STICKY LEGACY OF MIND-BODY DUALISM

Contemporary understanding of health and well-being remains strongly affected by the legacy distinction between the mental and the physical. To the neuroreductionist or eliminativist, the need to treat the mental as *sui generis* is a pragmatic step, necessary for the daily conduct of business until the job of translating the vocabulary of the mental into the vocabulary of neural events is complete. We are not holding our breath.

To the functionalist, or cognitivist, mental health issues may be presumed to pertain to the (dys)function of a notional cognitive mechanism that is most properly characterized on its own terms as information processing and computation over representations of the world. Difficulty arises as measurement and observation are strictly limited to features of the world, and the presumed cognitive machinations are never directly observable.

In both approaches, and many similar discussions, most of the considerable energy spent has been directed towards trying to shoehorn a problematic domain of the mental into the domain of the physical, presumed to be somehow simpler, or less in need of justification. To the eliminativist, the physical is the only real level of description; to the functionalist, it is the only observable domain.

There seem to be two senses of the term physical that are

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lurking in the background here, and when examined, neither suggests that the physical is any more easy to pin down than the mental. These two senses we will call the 'experiential' and the 'theoretical', though inevitably, hybrid accounts can be found.

The experiential-physical is best illustrated by the search of Doubting Thomas for the kind of proof that is beyond question. Thomas insisted on seeing the risen Christ with his own eyes, and placing his own finger in the wounds. A similar appeal to the experience of a reassuring presence is illustrated by Doctor Johnson who famously sought to repudiate Berkeleyian Idealism by kicking a stone and saying "I refute it *thus*". This is the sense of physical indubitableness that arises in our everyday experience of tangible objects and substances. But of course, for Doubting Thomas and Dr Johnson alike, the satisfaction of physicality arises only through sensorimotor engagement with the world, through visual or haptic exploration on the one hand, and through the wilful act of kicking on the other. Both require feats of perceptually guided action and both provide the security blanket of the ``physically real'' only in the direct experience, or sense-making activity, of the doubter. This sense of physical is thus not clearly or conceptually distinct from the mental at all.

But perhaps the examples cited above relate only to bar-room argumentation, and the term ``physical'', when employed in scientific debate actually means something rather different, viz. that which is the object of the science of physics. And then we must ask, on which physical theory do we hang our hat? For physical theories no longer trade in the substantial and tangible, but in strings, quarks, and fields, all of which are very far removed from the indubitable, tangible, and kickable. Newtonian physics may no longer be state of the art but it is physics that was developed to account for the motions of massive objects at spatial and timescales that were familiar to scientists. It is the best physics in the world to describe the carry on of apples and missiles, and its very effectiveness for such objects is testament to the deep link between the framework and tools of the Newtonian enterprise and the embodied reality encountered by organic beings of a specific size and with a specific metabolic rate. But these characteristics do not permit the separation of a ground for reality from the experiences of conscious embodied beings; rather, they emphasise the very deep interconnection between the world contingently experienced by such beings, and the theory that best accounts for measurement in such a world. And they fail to make any meaningful link whatsoever to modern physics, where measurements are made at spatial and time scales vastly larger or smaller than those centred in the body.

This failure to identify the ``physical'' undercuts any attempt to use such an identification to then characterize some notional ``mental'' domain. If we accept this, then eliminativism, or neuroreductionism, becomes incoherent. Absent a mental-physical distinction, there are no distinct concepts to be reduced to neural events.

Our goal here is not to do metaphysics but to seek a path forward, beyond the intellectual traps that continue to license the inclusion of phenomena in the ontological dustbin of "mental health". Many have sought to abandon the mental-physical distinction, without reducing the level of explanation to one or the other domain [3]–[5]. Within contemporary approaches to cognition, the Enactive approach, Ecological Psychology, Coordination Dynamics, and recent initiative such as Radical Embodied Cognitive Science [6] or Radical Embodied Cognition [7] all adopt a vocabulary that nowhere acknowledges or relies on a mental-physical distinction. But it is within the mind and life or enactive approach that is emerging from foundations in the work of Varela, Thompson and others, that this dualism is rejected in a most principled way. In an enactive account, no mental-physical distinction arises (Varela, Thompson, & Rosch, 1991). The bringing forth of a world, as Varela called it, through the sense-making activity of an autonomous system at once acknowledges the dual subjective/objective character of the lived world, and sidesteps most of the legacy mind-body dualisms inherent in received approaches. There thus seems to be some *prima facie* reason to believe that problems that have proven intractable within paradigms irrevocably committed to a subject-object, or mind-world, distinction may be addressed in a new light within an enactive framework. If the concept of ``mind'' does not stand in opposition to the concept of ``body'', then there is little justification for distinguishing between ``mental'' and ``physical'' health.

3 MANY MODES OF DESCRIPTION

Biological agency, particularly human agency with which we are concerned here, has we might say, many moving parts. Agency arises within a very dynamic and complex web of phenomena, from the cellular to the cultural. Biological requirements and appetites wax and wane within socially structured opportunities and physical affordances that enable, invite and scaffold actions.

If we use an efficient causal framework – one cause to one effect in billiard ball-style progression – then human behaviour is a compromise formed within the interaction of many different biological factors, conditioned within multiple physical, social and developmental constraints.

This matrix of causality resists explanation in terms of a single canonical thread running forward through time, identifiable as “the agent” or “the person”. We do not argue here that the explanation of action at any given time is arbitrary. However the perspectival nature of any explanation, including those from a first person point of view, means that there is no single correct explanation that captures the totality of the person at a given moment in time and exhaustively explains their behaviour.

The descriptions of behaviour that we choose to offer at a particular time are characterised by that subset of the field of forces within which the person we are describing is moving, that we ourselves can perceive, and that enable us to make sense of, to sensibly coordinate our own behaviour with, as best as possible at that time.

It is part of the ambition of enactive theorists to do more than offer neutral descriptions of actions, however [8]–[10]. The

enactive literature is replete with discussion of value and normativity, the perspective defining character of mindedness on which is (or will be) founded a satisfactory understanding of meaning and experience [8], [11]–[14]. Despite the prevalence of such discussion however, there remains some confusion as to what might be the ultimate ground for value, or how different values might be related. Two themes can be discerned, one on the foundational role of operational closure and autopoiesis as the biological fundament of meaning and mind (biological autonomy), while other work focuses on the more fluid autonomy of social interactions (participatory sense-making).

Systemic Value, Growth and Identity

It is a core tenet of the enactive approach that values for a given system arise inherently within the operation of the system itself. Values, norms and normativity are not determined by the comparison of current state with an ideal (or even "normal") state but are enacted in the operation of the system itself over time [8], [12].

The most basic systemic value is that of identity grounded in organisational closure. The concept of identity in play here is somewhat slippery. Its clearest definition is derived from Varela's [15] work on biological autonomy. Relations of mutual support or dependence between components of a system form an implicit identity – the circularity of the relations effectively instantiating a distinction between the system and its surround, the production-in-action of an identity for that closed network of components (see Figure 1.).

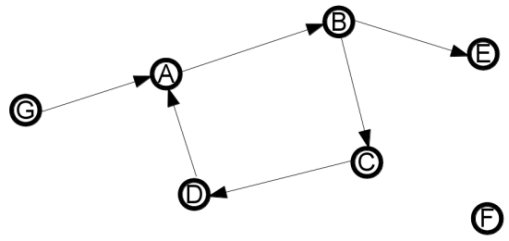

Figure 1. An organisationally closed network of production, ABCD, forms a dynamic identity. Nodes are processes of production (usually considered as biochemical processes) arrows are relations of support. Because they are not mutually supporting within the network, nodes E and G are not part of the autonomous system per se.

It is standard discourse within the enactive literature to hold that such dynamically constituted identities form the basis of normative, value-driven activity, the foundation of agency (Thompson & Stapleton, 2009; Weber & Varela, 2002). The value of self-maintenance is inherent in the system because of the manner in which the system's organisation operates so as to maintain itself. Should the organization break down the identity is lost – this is something basic and intrinsic to the system itself, not something that depends on the observation of a third party or the judgement of a dedicated subsystem of sensors and comparators (Di Paolo, De Jaegher & Rohde, 2010).

Though it is certainly not offered as the full story (see particularly Di Paolo, 2005, also Di Paolo 2009 and Barandiaran, Di Paolo & Rohde, 2009) it is from such a concept of identity and value that the enactive literature to date promises to adequately address questions of agency, meaning and normativity. The logic of organisational closure, systemic value and dynamic identity is sufficiently generic that it "scales up" and can be applied in some way to social and personal forms of identity (see De Jaegher & Di Paolo, 2007; Di Paolo, 2009). Whereas in the biological case the components of the network are biochemical processes of production, in the social case the nature of the components is less clear. Candidates include habits, cultural practices or skills structured by sensorimotor contingencies (or some personal, emotional equivalent; see McGann & De Jaegher [16]). The identification of any set of components, and the identification of any superordinate systemic domain may depend, *inter alia*, on the purposes of the investigator.

The autonomy provided by organizational closure is seen as fundamental to agency and the agent as effectively co-extensive with the identity of the system in question. The domain of cognition is to be interpreted as the domain of relations between the agent as identified in the network of self-production and its environment.

Our problem is that it is difficult to imagine only one such agent, and only one identity as defined here, existing in the complex of relations that encompass a human life. Rather than a single identifiable entity around which sets of normative relations might be sought, it is likely that a skein of such identities might be available to astute observers, with no single identity (or its attendant systemic value) having any cause for claims of precedence.

We argue that there are, in any given action, values inherent in the action that are produced by the organisation of the tangle of forces in the field that define that situation (its biological, social, developmental and "merely" physical facets). None of these values can be identified as the ground, the ultimate foundation from which a detailed and comprehensive account of the action in question must be built. Making sense of any moderately complex human behaviour necessitates appeal to many domains of organization simultaneously. The biological domain of the body is one such, but it is neither the sole, nor often the most important domain within which behaviour is grounded.

Life is dynamic, and while at one moment I might act such as to ensure a particular value is maintained, the fine details of how that value is instantiated and how it influences my behaviour over even short timescales may vary as the situation changes. There will be no one moment where the "true" intention of an action can be identified, just a prolonged period of time over which the action can be understood if the actions of the perceiver can be brought into coordination with it in some way.

Rather than self-maintenance of any kind, we must seek to

ground our ideas of value in continuity. If we imagine Figure 1. as indicating personal, social or cultural identities being formed in the dynamic of cultural practice and social interaction it is easy for us to imagine, as the situation evolves, as the relationship between the interactants changes (perhaps just over the order of seconds), that the relationships between the components of interest to us, the observers, changes.

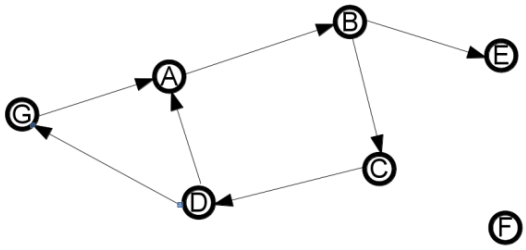

Figure 2. An evolving identity. The initial identity might be subsumed or in a later step even destroyed, but the agent, the relations of interest show an important continuity that does not challenge the existence of the agent of interest to us (and maybe not to the person themselves either).

There is no privileged level of description, no privileged vocabulary of description and no single canonical agent or even canonical action.

It has been an continuing implication of enactive thinking that wherever cognitive scientists seek to find a clear distinction, some solid ground on which to stand a theoretical edifice, that the approach breaks that ground into shifting sands. What is needed is not a firm place to stand but a willingness and ability to move with the dynamic, in-flux, phenomena that we seek to describe. The concept of health will be no different here.

4 HEALTH AND SYSTEMIC VALUES

Barandiaran and Egbert [12] have outlined a mathematical framework for trying to capture the idea of a momentary, systemic value. They endorse an organisational view of normativity – that a system can by virtue of operational closure, instantiate a norm of self-maintenance. They also point out, however, that such norms are "virtual". They are not mechanisms or special-purpose components of a given system. They are instead emergent phenomena within the space of possible actions of the system, some of which will lead to its survival, some to its death, but which must be understood and evaluated dynamically, moment to moment. Their virtuality is a product of their dynamism.

Their paper presents their framework for the minimal case of a single cellular entity engaging in chemotaxis. They suggest (perhaps at this point rather optimistically) that, where there are multiple values instantiated by a given entity, that the method's principles of analysis will remain. A very great deal of work remains to identify whether this promise is possible, let alone to actually follow through with such developments, but their analysis at least provides us with one way of considering the concept of health within an enactive framework.

Health is an expression of a system's values. If a system, howsoever described, can be said to be operating in such a way as to continue to operate and (if appropriate) achieve its ends, then it is healthy.

Ill-health then is a relational characteristic that describes the behaviour of a system as inviting intervention. The perception or experience of ill-health is an expression of the values of that system, be they biological, personal, social, cultural or otherwise.

We see problems when various forms of these values fall into conflict with one another – personal experiences of normal behaviour may conflict with cultural norms, for instance, or with biological, such that the larger system is unhealthy while the elements comprising it could be considered perfectly fine. By contrast we might see perfectly healthy systems whose components are run down and destroyed by its "healthy" operation. The health of one system may indeed represent a threat to the health of another, as in the conflict between a tumour and its host, or a paramilitary force and a nation state.

In real terms, this is a more general statement of the concept of defining health less as the "normal" operation of a biological or psychological system and more as a matter of quality of life[17], [18]. We see the logic of enactivism, brought to its own conclusions, as providing a principled means by which such contextualised, observer-dependent judgements of health, quality of life can be stated, and by which the continuity of such considerations across the range of human experience can be framed.

Given the fragmented, piecemeal nature of much of the discourse concerning mental illness and psychological disorder at present we consider this a valuable contribution of an emerging enactive framework. The real work of developing from this beginning a fully development paradigm of health and living still proves a mammoth, if inviting, challenge.

5 CONCLUSION

The ideas, diagnoses and judgements of ill-health must be made with an explicit framing of the context in which those judgements are being made, and the values against which observed behaviour is seen as inviting intervention. Practitioners must be sensitive to the potential for conflicts between different modes of description of behaviour, including the system in which both they and their clients are mutually influencing components. Questions of health are not independent from questions of systemic values and the shifting boundaries of system identity, where the systems in question may range from the sub-cellular to the societal. There is thus no domain of mental health. There are questions of health, period.

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