Can Mental Illness be Naturalised?

ANDRZEJ KAPUSTA

1 Introduction

To deliberate over the issue of mental disorders aims to understand their specific character and expose the actual status of the present-day psychopathology. The attempts to discover the biological foundations of mental diseases have accompanied psychiatry ever since its separation as an independent medical discipline. A varied attitude to the biological analysis of the essence of such disorders is much affected by the dispute on the definition of mental illness. The question of the neutralization of psychological deficits is the question of the prospects of an objective and descriptive discussion on psychopathology and the question of the role of valuation or assessment in the diagnostic process. The early concept of Christopher Boorse (Boorse 1975) is an example of the approach which distinguishes the normative and descriptive element. He recognizes the difference between disease and illness. Disease is a condition perceived by the scientific medical theory and illness is the actual condition of being sick – the feeling (experience) of illness. Fulford (Fulford et al. 2006) points to the hidden assumption behind this dispute and division which pertain not only the status of the mental disorder but the assumptions made on the notion of disease as such.

In this paper, I would like to take a stance on the discussion about the notion of mental disease with much pressure attached to the biological and evolutionary perspective. At the same time, by referring to contemporary systems of classification and diagnostic practice, I intend to show a number of limitations and obstacles in the implementation of a radical programme of the naturalisation of psychopathology. I would avoid being entangled in complex conceptual analyses – I merely wish to cast light on the notion of mental disease as it emerges.
form the present-day psychiatric practice and point to a number of criteria indispens-
able for developing a good-quality definition of psychic disorders. To pro-
pose such a definition is hindered by the “abundance” of the existing mental im-
pediments and certain tension present between the colloquial and strictly sci-
entific approach to them. The stakes are that whether we are more interested in the
common perception of such disorders, involving our linguistic intuition, or
whether it is the conviction that any classification should be based on purely sci-
entific, clear and reliable criteria. Ultimately, it appears that today we cannot
decisively opt for purely scientific classification criteria for mental disorders,
since we do not possess good theoretical models of the most psychiatric disorders
and their use would entail a radical redefinition of some basic concepts of mod-
ern psychiatry and would reveal the heterogeneity of the officially recognized
classifications. Naturalisation is not only connected with discarding common-
sense concepts of mental illness but also social constructivists approach where
the reality of mental illness is abandoned. Nevertheless, besides its social costs,
the naturalisation of some aspects of disorders seems workable and necessary if
we intend to see any realistic progress in the therapy, the search for the causes
and the forecast and control of the psychiatric phenomena.

2 Naturalisation in cognitive sciences

The naturalisation of psychiatric phenomena seems feasible only if we
manager to naturalise the mind, intentionality or our common-sense beliefs. Such
attempts are known to the philosophy of mind and cognitive sciences in relation
to the issue of mental content. A naturalist approach to content isolates the
opportunity to reduce intentionality (so called aboutness) to something else.
Fodor (Fodor 1987) assumed the possibility to prove that “R represents x”
without referring to intentionality but rather to internal states typical of the
material processes within the brain. Otherwise, intentionality would not be
something real but something distant and magic and operating only in the
common pre-scientific perspective. This approach is present in the modern
cognitive psychology where the human cognitive capacity is defined through the
flow of information between different subpersonal systems. The semantic
properties of mental states can be expressed by the data processing of lower-
order. This approach is criticized because it is not capable of showing the
normative facet of human convictions, that is, the fact that they can be right or
wrong as well as the fact that they are related to the outer world.

As T. Thornton points out:

The problem is that the subject described by a cognitivist account appears to
be out of touch with or alienated from the world. Even the mental state that cor-
responds to opening ones eyes to and experiencing the world is construed as a
free-standing state in inner space connected to the outer world only by causal relations. But how can such a state be \textit{about} anything? How can such inner states be anything but blind? The general explanatory picture at work here seems not to contain the right sort of materials to explain how thought and experience is able to bear on the world at all. (Thornton 2002: 245).

The problem of normativeness of our convictions, or the fact of their presence or absence, is attempted to be overcome by the evolutionary biological account. According to this view, represented, inter alia, by R.G. Millikan (Millikan 1984), the mental content is rooted in the natural, proper, or biological functions.

In psychiatry, this discussion is of specific character and concerns the criticism of the biomedical approach which seeks the physiological and genetic factors responsible for mental disorder. On the other hand, the biological and evolutionary approach aims to discover the source of the disorders by appealing to the notions of function and dysfunction. The internal states code the content whose adequacy is supposed to be explained by its biological usefulness.

Besides of evolutionary account of dysfunction we distinguish between:
1) clinical understanding of dysfunction in biomedical model (referring to physiological or genetic level) and classification systems (e.i. DSM-IV)
2) common-sense understanding the notion of dysfunction (described on a social, rational or emotional level).

3 Mental diseases in contemporary classification

Modern psychiatric classifications do not offer the definition of disease \textit{explicitly}. It is rather referenced by pointing to its standard or paradigmatic meaning (stereotypical). The notions of “clinically recognizable”, “symptom”, or “dysfunction” are not exhaustively defined. The document of the World Health organization gives the following definition of “disorder”:

The term ‘disorder’ is used throughout the classification, so as to avoid even greater problems inherent in the use of terms such as ‘disease’ and ‘illness’. ‘Disorder’ is not an exact term, but it is used here to imply the existence of a clinically recognizable set of symptoms or behaviour associated in most cases with distress and with interference with personal functions. Social deviance or conflict alone, without personal dysfunction, should not be included in mental disorder as defined here. (World Health Organization (1992, 5).

DSM-IV offers a similar definition of “norm” and “pathology” to that of ICD-10:
In DSM4, each of the mental disorders is conceptualized as a clinically significant behavioural or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g., a painful symptom) or disability (i.e., impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability or an important loss of freedom. In addition, this syndrome or pattern must not be merely an expectable and culturally sanctioned response to a particular event, for example, the death of a loved one. Whatever its original cause, it must currently be considered a manifestation of a behavioural, psychological or biological dysfunction in the individual. (DSM-IV 1994: XXI-XXII).

As in the case of ICD-10, there is a number of terms whose meaning has not been elucidated. Some additional clues as to how to define individual symptoms are to be found elsewhere in DSM-IV. Yet, there is the recurring reference to the implicite established norm/standard. The classification criteria often mask a qualitative element; they refer to the clinically important changes or a change in relation to the standard functions. The external and behavioural criteria do not make mention of the biological markers or specific cognitive or brain mechanisms. There is a bold suspicion that despite the relatively well-defined criteria and reliability of the recognized diseases, there can be different causes and mechanisms involved. However, the probability of symptoms does not necessarily translate onto the consistency of aetiology or pathophysiology. The descriptive criteria of the contemporary classification systems are far from being a matter of interpretation. Nevertheless, human action and behaviour cannot be isolated from interpretation, understanding and social background. This fact may determine a considerable limitation to the naturalisation of psychiatric disorders.

4 Mental disorder as a dysfunction

A central notion to the naturalisation of disorders is the biological function. Dysfunction implies a defect of a natural body mechanism which has been acquired through evolution to respond to the external environment. The notion of disease refers to the dysfunction treated as a biological disadvantage. On the other hand, illness is a consequence of a biological defect and has a normative character: it is something wrong and unwanted. The “naturalisation cascade” described by Fulford (Fulford 2000: 78) shows the moment of passage from the descriptive to prescriptive approach in relation to psychopathology. As commonly known, a disease is something undesired and painful for the patient and their surrounding. Medicine endeavours to unveil the true causes of diseases and through naturalisation make their hard core truly visible. The dispute largely concerns the notion of dysfunction which, according to Wakefield (Wakefield, 2000), is of a normative character, and for Boorse and Kendell (Kendell 1975) it
seems more a descriptive concept. Conversely, Fulford (Fulford et al. 2006) assumes that the descriptive definition of a disorder can be given; however, its practical application cannot do without valuation. While it is possible to define murder as a conscious and unjustified taking of somebody’s life, we cannot name such a deed without expressing equal contempt to it.

Let us try to define the concept of mental disease beginning with a classic biomedical model. Of crucial importance is the factual element understood as an external factor. The disorder is caused by an injury, i.e. structural or anatomic defect (to cells, tissue, organs). As pointed out by Szasz: “Literally, the concept of a disease refers to the substantiated damage to cells, tissue or organs.” (Szasz 2000: 4). At the same time, Szasz does not challenge the occurrence of functional disorders. However, this radical approach does not have suitable tools to grasp the character of the functions or dysfunctions, i.e. the specificity of living organisms.

Disorders as a partial dysfunction (or harmful dysfunction) concern a physiological or biochemical process but are not necessarily effected by an anatomic damage underlying a disorder. Pathology has a functional character which could not have been explained by the purely causal approach free from the language of teleology and function (this approach only takes note of the self-organizing system). We can speak of a disease only if we are faced with a defective internal functioning of the body and if these internal dysfunctions explain the symptoms observable within the whole organism (e.g. at the behavioural level). This is definitely a reduction approach which takes no account of the quality of the sick person’s action but stresses the fact that certain mechanism within the body is no longer as efficient as it used to be.

Dysfunction can be seen two ways: biologically and statistically. A biological defect is construed in evolutionary terms as the decrease in the chances of survival and the reduction in the reproductive capacity. The statistical anomaly stresses the departure from the statistic standard. The biological and evolutionary approach points to the failure of some internal mechanisms in providing their natural functions. Natural means the compliance with the nature’s, i.e. evolution’s design. The failure is believed to cause damage and depletion of certain bodily advantages and results from the inability of the internal mechanisms to initiate and hold the natural functions. Nevertheless, such attempts to define psychotic disorders face a number of obstacles.

A mental disorder is often referred to as a breakdown of sensible links between convictions and other mental states and actions. Thus, if certain type of intentional explanation (concerning an object which is in the central point of our mental states – right or wrong) is exhausted, there is a tendency to refer to a lower-order of explanation. Furthermore, not every intentional disorder results in a disease. We can list some minor mistakes or errors in the form of habits, minor mood swings or incoherence between convictions and action. According to actual
clinical approach and sometimes a commonsense understanding a disorder emerges when improper intentionality is accompanied by suffering or impairment of everyday functions. In the case of erroneous or irrational convictions, it is necessary to provide for the cultural context when some false convictions are enhanced by the commonly accepted educational patterns while they should not vary even despite adverse evidence or widely recognized beliefs. Notwithstanding the tendency to look for the irrational explanation of convictions and behaviours at the biological and physical level, we are able to explain certain disorders relying on the intentional level. For the human goals are so complex that the set of rules that come into play in a specific situation may be in conflict. Another instance is the sacrifice of one of the functions (goal, desire) in order to realize another. The intentional approach is supported by Daniel Dennett (Dennett 1987) who defines it in rationality terms. It serves the satisfactory explanation of such actions and helps forecast their effects. However, the intentional explanations may also concern the actions which, in specific conditions, do not seem rational for an ideally rational observer. Therefore, Derek Bolton allows the possibility to accept an attitude intentional towards goals whose completion may be more flexible in relation to the variable environmental factors and which take into consideration the specific prejudices or fears of the acting subject. Thus, the notion of understanding seems broader than that of rationality. We are able to understand the actions which do not seem entirely rational. This can be said about a computer which is so programmed as to refrain from implementing certain otherwise optimum solutions (e.g. while playing chess).

Certainly, some defects of intentionality reject the intentional attitude even if appropriately flexible. Then, in order to forecast the action of the system, it is the functional attitude (design stance) rather than, for example, physical attitude that comes handy. For, as we have noted elsewhere, the purely physical attitude is too irregular to comprehend the specificity of living organisms. There is a number of attempts to elucidate psychiatric disorders through the evolutionary adaptation. That is why Kendell sees a mental disease in a subgroup of diseases and speaks of the biological disadvantage defined as an increase in mortality and decrease in fertility of a sick individual. The issue is that in the case of psychiatric disorders it is hardly possible to tell the difference between the biological defect and social defect as, for example, with homosexuality which adversely impacts fertility and its pathology seems at the very least controversial.

5 Naturalisation of mental diseases and the limitations

The natural functions of mind as we see them in contemporary psychiatry and commonsense view – perception, thinking, emotion, convictions or de-
sires – do not necessarily correspond to the evolutionarily acquired natural functions. Moreover, some specific mental symptoms, perceived as the effect of a biological dysfunction, do not have to display typical neurological similarity. They do not have to be the biological conditions of the same source, course and treatment. Besides, it transpires that a biological dysfunction is not necessarily the condition of a mental disorder. Someone may be mentally suffering even if there is no “evolutionary error” involved. For many natural functions are not the direct outcomes of the evolutionary adaptation but are rather the neutral by-products of that adaptation (e.g. ability to read):

1) Disease may result from damage to the mechanisms which lack the adaptive capacity. They are a type of exaptation or the remnants of adaptation mechanisms (e.g. spandril, an ornamental part of an arch).

2) Mental disorders may also be caused by the mechanisms which fulfil their naturally acquired functions, i.e. those acting in line with the design of evolution (the disorder causes may be some non-typical content which, when processed by the body, result in pathology).

The evolutionary and theoretical perspective searches for the elements of the adaptation of biological mechanisms to environment even if it evades perception at first glance. This corresponds to the level of design (and not intentional), according to Dennett’s terminology, and concerns the adaptive capacity of systems in diverse internal and external environments. Evolutionary epidemiology points to the high rates of major and minor mental disorders that survive in the population despite their discernible biological defects. If their genotypic and phenotypic features have been preserved, it must have somehow benefited the human being.\(^1\)

According to Bolton, the high level of pathological features exceeding the standard indicator of mutations and phenotype reactions forces us to have a fresh look at psychopathology: “what we are inclined to call a disorder may turn out not to be a disorder at all, from the evolutionary perspective, but indeed perhaps something more in order, more adapted, than normal”. (Bolton 2001: 193). What follows, a number of hypotheses emerged dealing with the adaptive capacity of such disorders as sociopathy, anxiety neurosis, depression or schizophrenia. T. Crow (Crow 1995) underlines the loss of certain functions present in schizophrenia is strictly connected, in terms of genotype and phenotype, with the biological achievement of speaking languages.

There is also another explanation, namely that our environment is much different than that of our ancestors. This explains why something which was the adaptation in that time today appears to be a dysfunction, unfriendly towards the nature-developed functions. From the evolutionary and theoretical viewpoint, a mental disease consists in the damage to the basic psychological competencies

and has a modular character. To justify this approach, Baron-Cohen proposes a theory of the failure of the function of the theory of mind in autistic patients or the impairment of the concentration processes in schizophrenia. However, the evolutionary approach is much richer than the physical or functional view may suggest. Any damage to the function, even if the underlying factor is a neurological defect, is accompanied by the mechanisms facilitating the survival of the organism such as recreation, plasticity and compensation which allow a crisis situation to be positively handled. After Dennett, we can notice the intentional strategy incorporated into the organism’s design which allows the body to overcome physical and functional obstacles. Therefore, schizophrenic or autistic patients tend to avoid the conditions in which it is particularly important to use the impaired functions such as social cooperation and simulation, or stimulation. As regards psychiatric disorders, Wakefield (Wakefield 2000a) says about a “harmful dysfunction”. On the one hand, he points to dysfunction being damage to what has been designed through the natural selection, and, on the other, stresses the failure seen from the perspective of current patient’s interests and values. Hence, he appreciates the role of the environment which may at times favour some biological dysfunctions. Finally, Wakefield rejects the requirement of the existence of a dysfunctional mechanism when defining a disease even if he refuses to say it straightforwardly (see Bolton 2000: 144). The problem of telling the difference between an evolutionary drawback and everyday observation of non-standard behaviour makes us accept less restrictive definition of dysfunction. A function is every mechanism or structure which contributes to the general operation of the systems which has it at its disposal. This definition supported by Cummins, where function is just a causal role in a system (see Cummins 1975), says that spandrels, exaptations or the adaptation of mind also constitute functions. In my opinion (and somehow against Cummins intentions), this makes a disorder (as a dysfunction) a valuing notion, therefore pathological functions are ultimately harmful and against the patient’s interest. We can’t strictly differentiate between descriptive and normative aspects of dysfunctions.

When Megone (Megone 2000) analyzes the notion of mental disease referring to dysfunctions, he hopes that it is possible to separate the descriptive element from the valuing element. Dysfunction adds to the limitation of the individual’s capacity to fulfil their life goals, yet it does it instrumentally. It does not permit technically the realization of somebody’s rational being in the world. In order to distinguish pathological dysfunctions from simple human problems, e.g. social, ethical or legal, we look for the internal cause, state or process that result in the feeling ill, i.e. unfit or incapable. This definition raises doubts as it sees many conditions and states as diseases although, rationally, they seem to be far from it. These are, for example, ignorance, sadness or a fanatic belief. A similar definition was proposed by Culver and Gert (1982) who defined the phrase “in-
ternally caused” as “the absence of a distinct sustaining cause”. They further point out:

   We could say that to be a malady, the evil-producing condition must be part of the person. However, for reasons of conceptual rigor, a more formal negative statement is preferable: the person has a malady if and only if the evil he is suffering does not have a sustaining cause which is clearly distinct from the person. (Culver and Gert 1982: 72)

   Handcuffs on one’s hand impose a limitation but they are an external factor. Whereas, the internal cause may be a deadly virus or a clamp left accidentally in the patient’s body after an operation. In the case of mental disorders, the cause may be mental or biological and the impairment itself may concern free will or cognitive functions. The aforesaid definition still seems problematic as, for example, fundamental religious beliefs fall within its criteria. They can be simply taken as an integral part of an individual. Moreover, sorrow caused by the loss of a close relative may seem an independent factor in the world whose change would bring the mourning person back to their normal condition. However, one can always conclude that the sorrow has emerged due to the internal conviction of the mourner concerning the loss. Still more dubious are the conditions of sensory deprivation or phobias which are strictly connected with the external environment and invariably treated as the types of psychiatric disorders. The Boorse’s classic definition pointed to disease to be somehow interwoven with the failure in the regular biological processes. Nevertheless, the reference to the biological and evolutionary dysfunctions runs into a number of hindrances. As stressed by Dominic Murphy:

   In the biomedical and cognitive sciences function concepts get their sense from the role they play in mechanistic, rather than evolutionary, explanation. Ever since Harvey showed that the heart is a pump, medicine has ascribed functions to organs without worrying about (or, in Harvey’s case, even knowing about) the possibility of showing that the function is a naturally selected one. The tasks performed by the organism are broken down into subtasks and these are localized in subcomponents. So the function of a mechanism is the activity that it performs so as to contribute to the overall system (Murphy 2005: 124).

   The exclusive reference to the functional break down would fundamentally alter our perception of mental diseases and psychiatric classification. For many psychiatric diagnoses rely upon a hard-to-define notion of irrationality. After all, the idea of mental disease encounters the problems unseen in somatic diseases. Thus, it is not easy to pinpoint the actual concept of mental breakdown.
6 Development prospects of naturalised psychopathology

The dispute and difficulty in defining mental disorders partly stems from the misconception present in our language intuitions and the scientific objectivism. When juxtaposing our language intuitions with the scientific endeavours to define diseases, it appears that some of them are unjustified, e.g. make no mention of the biological dysfunction but of the culture-dependent notion of irrationality. If the starting point is the commonsense interpretation of a mental disease, scientific research should only determine the conditioning mechanism. It may, however, transpire that our common intuitions are totally undermined by scientific discoveries. The current dispute over the status of psychopathology vacillates between objectivism and constructivism. The followers of constructivism assume that mental disorders are basically a social phenomenon. They base on social norms and rules by claiming that the biomedical approach will not contribute much to the problem as it explores the area which is not adequate to mental diseases. Mentally ill patients often break or bend some social rules. Even if constructivists agree that we search for the biological and psychological mechanisms underlying such disorders, the original decision consists in the classification of some behaviour as pathological (negatively evaluated). On the other hand, objectivism concentrates solely on the biological change determining the status and desirability of a disorder. Conversely, Dominic Murphy (Murphy 2005) proposes a distinction between a conservative and revisionist approach. The former refers to common intuition which determines whether we are faced with the actual disease or with the reaction to some external, disadvantageous situation/surroundings. The latter subscribes to the idea that our scientific discoveries alter our cognition and classification of diseases even if it contradicts common intuitions. Interestingly enough, even constructivists sometimes adopt the revisionist approach by criticizing the socially negative manner of classifying madness. They do so by questioning the concepts of mental diseases.

The attempts to naturalise mental diseases cannot benefit from full success. On the other hand, we cannot overlook the biological foundations of disorders. Contemporary psychiatric classification tends to be descriptive and neutral towards the possible causes of most mental disorders. In fact, these are the neurocognitive theories that play a part in the breakthrough in the schizophrenia research or depression analysis. After all, the field of psychiatric disorders is so extensive that some conditions will have to be reclassified and some seemingly distinct and heterogeneous diseases will likely surface as the collections of di-
verse afflictions. The current discussion on schizophrenia testifies to this trend as it aims to replace this notion with a number of particular conditions.  

References


---