

Phenomenological psychopathology and the neurosciences

G. Catone^{1,2}, J.F. Lindau^{2,3}, M.R. Broome²

¹ Department of Mental and Physical Health and Preventive Medicine, Second University of Naples, Naples, Italy; ² Department of Psychiatry, University of Oxford, Warneford Hospital, Oxford, UK; ³ NESMOS Department (Neurosciences, Mental Health and Sensory Functions), Sapienza University, Rome, Italy

Summary

Phenomenology and neuroscience share an explicit interest in the “mind”, with interest growing as to the inter-relationship between the two disciplines and their object of study. In fact, both aim to explain characteristics of mental life and mental illness. For phenomenology there is often a prioritisation of subjective experience, whereas the neurosciences are primarily interested in brain structure and functioning, but aspire to give a bottom-up account of conscious experience. However, for some authors in the two fields, these disciplines show elements of complementarity. This complex union between the biological and philosophical was already evident in the work of Jaspers and his General Psychopathology, Brentano, and the debate on psychologism that inaugurates Husserl’s work. Jaspers conveys a pluralistic vision of science, and contrasted this complementary approach with one of biological exclusivity in explaining mental phenomena. His thought contains elements of topical relevance such as the difficulty of proving the biological substrate of psychic events and the spatial location of mental events in network systems rather than discrete areas. Phenomenologically-speaking, he constantly re-oriented the focus of the discussion to subjective experience as a means to understand mental illness, alongside somatic accounts. In recent years, the scientific community has experienced a long period in which biological psychiatry

has possessed major rhetorical force in disseminating scientific progress in psychiatry, but as has already happened in other historical periods, the interest for phenomenology returns when biology needs philosophy to explain the data and progress obtained. The debate is still ongoing and the aim of this paper is to offer an overview of the main contributions on the relationship between phenomenology, neurosciences and psychopathology. Phenomenology and neuroscience have been trying to find a point of agreement and interconnection, and several authors offer the suggestion of naturalising phenomenology, relating the way we experience the world in time, as embodied agents, to brain function, whereas other authors try to phenomenologise the neurosciences, where the basic principles of philosophy applied to human mind should drive scientific research. Both methods seem to be able to increase the possibility of understanding of psychiatric illnesses. Accordingly, the relationship between phenomenology and psychopathology has an impact on classification systems, and more generally on the science of psychiatry. Herein, the points where neuroscience may benefit from phenomenology are discussed.

Key words

Phenomenology • Neuroscience • Psychopathology • Jaspers • Neurophenomenology

Introduction

In the complex topic that we are addressing, we should start by defining phenomenology before any attempts to go into its contribution to psychiatry and its relationship to neurosciences. The question of “what phenomenology is or what relationship it had with psychiatry”^{1,2} might be a good starting point, even if there is no easy answer. The term *phenomenon* originates from the Greek word “*phainomenon*” which means “that which appears”. Hence, phenomenology is the study of what appears, and in psychiatry the subjects of inquiry are not only abnormal mental events but also the science of psychiatry and other themes. First of all, phenomenology is not akin with just the concept of “subjective understanding” and is not

simply a detailed description of mental events or states³. Secondly, phenomenology is not a school but rather a method of inquiry, an agreement on the precise method does not exist. Several ideas about the relationship between phenomenology and philosophy and the method of phenomenological inquiry have been developed by Simon Glendinning. He affirmed that phenomenology has a critical role against “the natural attitude”; it does not seek to advance theses or defending positions excluding a theoretical work. Furthermore, phenomenology highlights features of our experience that are not explicit, emphasising descriptions rather than explanations, and avoiding theoretical assumptions and distortions. Finally, phenomenology is a manner to understand the world in different way, through its method of enquiry⁴. After this

Correspondence

Matthew R. Broome, Department of Psychiatry, Warneford Hospital, Oxford OX3 7JX, UK • Tel. +44(0)1865738772 • Fax +44(0)1865738779 • E-mail: matthew.broome@psych.ox.ac.uk

brief introduction about the definition of phenomenology, we can try to understand how to deal with this important framework about the relationship between phenomenology and neuroscience, in the light of both historical concerns and ongoing debate. It is sometimes supposed that phenomenology is “anti-scientific”, or that biological and phenomenological psychiatry are in opposition. It is helpful to recall that phenomenology was conceived of as being the method that would underpin all of science. For Husserl, phenomenology is an a priori science of essences. However, such essentialism may not itself be a defining feature of phenomenology⁵ and some commentators suggest that Husserl never developed a critical understanding of the notion of essence⁶. This concept of essence highlights how contemporary phenomenological psychiatry and psychopathology, at least conceptually, share strong similarities with the realism of biological psychiatry. The two disciplines share several similarities: both methods of investigation seek to find the defining characteristic of a mental illness. For phenomenology, this characteristic is some essential feature of subjective experience, whereas for biological psychiatry it may be a particular activation of neural circuitry or a discrete genetic polymorphism. Furthermore, the investigations of both fields may be complementary, and for some contemporary writers there is the suggestion that further advances in biological psychiatry will depend on phenomenology⁷. One of the recent surprises in the history of ideas is that the rebirth of interest in the philosophy of psychiatry closely followed advances in neurosciences. As has been pointed out⁸, perhaps this shouldn't come as such a surprise: with empirical scientific advances comes the pressure to think deeply about their significance, their place within existing knowledge, and how prior discourse and practice stands in relation to the new findings⁹. The contribution of phenomenological approaches in contemporary science, if viewed widely, can include a primarily empirical method of inquiry such as patient's vignettes, phenomenological descriptive experience sample or retrospective introspection, also called (*p*)phenomenology or small *p*, and also by a more technical notion of phenomenology that concerns the formal structures than specific content of experiences (Husserl), called (*P*)phenomenology or big *p*. (*p*)phenomenology could be enriched by (*P*)phenomenology because the former works at a distinct but nevertheless complementary level of analysis to the latter. Data from phenomenological reports can lend important clues to how and where these basic structures become compromised or disrupted within anomalous experience. However, Phenomenology can further contextualise these often fragmentary or isolated reports within a broader transcendental context, and working within the reductions of Husserl, reminds us to bracket off causal accounts of the phenomena we are

studying. In fact, while phenomenology asks about the specific contents of experiences (*what* a subject is experiencing), Phenomenology takes into account the formal structures of experience (*How* the subject is experiencing the “what”), and the meaning of those experiences for the individual¹⁰.

The historical background to Jaspers and his response

A pioneering contribution to medical science by a phenomenological physician was made by Jaspers; this is not surprising since Jaspers was first and foremost a psychiatrist and troubled by the state of the discipline. His thought about the relationship between Phenomenology and natural sciences is found in several of his works, but especially in *General Psychopathology*.

Jasper was confronted with an environment dominated by strong scientific positivism, the twilight of the “first biological psychiatry”¹¹. He describes much of the psychiatric literature as “unfounded chatter”¹² and criticises the obscurity, jargon and lack of common theoretical language in discourse. Jaspers makes a diagnosis of this difficulty of psychiatric thinking: psychiatry had forgotten that its subject was man, rather than his body. As such, Jaspers describes how he turned to philosophy, philology, social and cultural science, and psychology and utilised the thought of Husserl, Dilthey and Weber^{12,13}, emphasising the importance of methodological reflection and pluralism regarding theories. Hence, from a more widespread theoretical disaffection, Jaspers launched his attempts to diagnose the crisis in psychiatry and to reground its practice. Jasper pointed out the mind-body unity. His first point is that psyche and soma are an “inseparable unity” and stand in a reciprocal relationship to one another. This seems to suggest that both can affect one another and are in turn constrained by one another. Moving on from this statement of unity, Jaspers makes trenchant approval of what may be called neuro-scientific method. Jaspers then introduces the idea of an epistemological void or abyss, “an impenetrable country”, which separates our knowledge of how precisely to link up our comprehension of psychic events with somatic events. Hence, we have both some positive views of Jaspers regarding the unity of psyche and soma, and the importance of neuroscience, but some pessimistic views as to how precise physical changes are mapped onto discrete mental states. Furthermore, there is a seeming worry: with the progress of neurology, the psyche recedes and as such the soma and somatic models of illness have explanatory and ontological dominance. Jaspers here remains not anti-science, or anti-neuroscience specifically, but coherent with his later views on science more generally, ecumenical and pluralistic. His reason for emphasising

the “somatic prejudice”, as he refers to this dominance, is not to limit biological research or criticise it, but rather to challenge its hegemony and dominance. As such, Jaspers maintains his view of the unity and inter-dependence of the psyche and soma, a unity where emphasising one element of investigation (‘neurology’) over another (“psychopathology”) is not warranted. Jaspers then moves on to discuss findings in neuropathology and psychiatric illness. As mentioned earlier, here he reiterates that the specificity and lack of tight relationships imply that we cannot presume that brain changes are direct causes of psychic events. This is not, to repeat, to argue that Jaspers believes that brain changes do not cause mental illness, but rather, based upon his understanding of direct cause, they are not close enough on the causal pathway to the event and hence a given brain change that is not specifically linked to a given psychic change cannot serve as a direct cause. For Jaspers, “we postulate that all psychic events, normal and abnormal, have a somatic base, this has never been demonstrated”¹⁴ (p. 458). Jaspers then comments on the clarion call of Griesinger’s psychiatry “mental illness is cerebral illness”. Echoing contemporary discussions in philosophy around connectionism and in cognitive neuroscience around functional connectivity, Jaspers suggests that function may be dependent not on discrete areas, but on relationships between many different parts of the brain. In addition, we have to remember that in principle cerebral changes may also be the result of primary psychic phenomena, though such an effect has not been empirically demonstrated. In no sense is Jaspers anti-science or opposed to biological psychiatry. Indeed, reading him on cerebral localisation and on extra-conscious causal factors he is likely to have been impressed by the advances that have been made to understand psychopathology through neuroscience. However, what he is clear on is that such work can never be the sole means to understand the psyche and mental illness. These assumptions about the difficulty of proving the biological substrate of psychic events and the spatial collocation of mental events in network systems instead of a discrete area are astonishing elements of novelty and actuality in Jasperian thought. Jaspers constantly warns throughout *General Psychopathology* of one mode of study being dominant and blocking out others, and this theme, of scientific pluralism, is one that Jaspers continues in his later philosophy.

Phenomenology and neuroscience

In the last decades, we have gone through a period of increasing scientific knowledge in the field of neurosciences. Cognitive neuroscience has drastically improved our understanding of mental functioning and this understanding has begun to yield rewards in theories of aetiology

and mechanisms of major mental diseases. These scientific advances correspond to an renewed interest in the field of phenomenology for several reasons: the need for cognitive neurosciences to pay attention to the phenomena of human life, the subjectivity of experience; phenomenology allows us to investigate the meaning of the aspects that characterise the results of research; the method of the phenomenological enquiry leads the investigator to broaden the scope of discussion, promoting in this way a continuous investment in the field of ideas and hypotheses, and remaining open to phenomena, rather than only considering data which fits into a prior theory. At this point, a question arises: how concretely can the neurosciences and phenomenology inform one another and how are the disciplines related?

Natural science has the aim of understanding the physical world. When it extends its field of observation to man and his physical and psychical world, a problem arises on how to relate these two aspects. The human is part of nature, but his capacity of reflection and self-reflection distinguish him from other subjects of investigation. The “quiddity” is properly consciousness, and phenomenology has identified this as its object of research¹⁵. In the attempt to connect these two disciplines, two paths have been followed: on one hand we have those who believed to naturalise phenomenology by attempting “to integrate into an explanatory framework where every acceptable property is made continuous with properties admitted by the natural sciences”¹⁶ (pp. 1-2); on the other hand, there are those who tried to phenomenologise the neurosciences. The first route is further divided in three approaches, the first lead by Marbach who proposed a logical formalisation of phenomenology, whereas the second, namely neurophenomenology attempted to mathematise phenomenology in such a way that it has further validity. The third methodology is called “front-loading phenomenology”, and was influenced by Merleau-Ponty, who suggested that phenomenology and scientific disciplines could link themselves with dialogue¹⁷. Essentially the three approaches, although they do share a common aim, differ mainly because of the gateway through which the phenomenology makes contact with the natural sciences: while the first approach looks at the empirical data and the second is concerned with the training of subjects from the study (phenomenologically oriented), the latter starts from the whole experimental design of the research¹⁸ (p. 38).

Marbach postulated to formalise the descriptions of lived experience and to put them into a scientific context. This allowed the management of problems of scientific communication and word meaning, by using a formalised language typically akin to logic or mathematics¹⁹. A step forward was made by the second approach by Roy, Petitot, Pachoud and Varela. A common concern

is that the mathematics formalisation cannot cover data derived from the first-person experience. Indeed, as Roy et al. proposed, the first step of the translation to mathematics involves eidetic variation. They highlighted the need to understand what the embodied and dynamic experience is²⁰. Neurophenomenology may contribute directly to put phenomenology into scientific research through the integration of phenomenological analysis of the experience, dynamical system theory and empirical experimentation on biological systems²⁰. In the last years, Varela noted that some studies, although anchored to the tradition of cognitive neuroscience, demonstrated a greater importance to the *lived experience*. He argued this saying that each cognitive science had to take into account the fundamental condition of the understandability of the *mental* outside our experience of it. Varela, in naturalising phenomenology, proposed to make the method of phenomenological enquiry very rigorous, in order to build a broad program of research, called *Neurophenomenology*. This method was constituted by an attitude to Husserl's reductions, intimacy with the phenomenon and subsequent intuition, description of it in terms that are clearly communicable, and thorough training to confer stability and reliability to the method²⁰. An example arises when we discuss about time and its relationship with consciousness. Phenomenology, following Husserl's thought, has always emphasised the temporal extension of the act of consciousness. Therefore, the temporal structure of consciousness has been described as being formed by a "primal impression" that indicates the momentary and current perception of the object, and "retention" and a "protention", which means an impression of the object perceived in the "past" and in the "future". According to Husserl, retention does not have a real content but is only an intuition of the past sense of the object whereas protention is fundamental for the experience because it provides a sense of anticipation. In detail, "retention and protention" (a priori conditions) unfold the temporal flow of consciousness^{18 21 22}. Varela, in his program of neurophenomenology, explains the protentional-retentional model as a self-organising dynamical system¹⁸. For the author, each mental act constitutes an integration of functionally and topographically distinct regions of the brain; these require a frame of simultaneity (the lived present), but are included in a more general framework that has extensive dynamic quality. This introduced a *temporal horizon* that Varela completes with the description of three scale of duration of the basic neuro-endogenous event: *basic or elementary events (the "1/10" scale)*; (2) *relaxation time for large-scale integration (the "1" scale)*; and (3) *descriptive-narrative assessments (the "10" scale)*. The first corresponds to the minimum time needed for two stimuli to be perceived as non-simultaneous. Neurophysiologically, this corresponds to 10 msec (the

intrinsic cellular rhythms of neuronal discharges) to 100 msec (the duration of an excitatory postsynaptic potential (EPSP)/inhibitory postsynaptic potential (IPSP) sequence in a cortical pyramidal neuron), whereas the second is the neurophysiological timeframe of the emergence, operation and subsidence of a cell assembly (0.5-3 sec). The integration of the basic *neural* events at the 1 scale is correlated with the lived present and describes a potential neurophysiological retentional-protentional structure of the time consciousness²³.

The third approach concerns uppermost with the research design, attempting a dialectical movement between the knowledge acquired in phenomenology and the insights produced by empirical investigation¹⁸ (pp. 28-40). Parnas and Zahavi endorse the strategy of phenomenology guiding biological research and, it seems, endorse the possibility of reduction of psychiatric disorder, defined by subjective experiences, to neuroscience. Thus, they believe that phenomenology is a method to define more clearly that which we seek to reduce, namely, the subjective essence of the given experience. They appear to suggest that either ontological identity reduction is possible, or efforts to bridge explanations of subjectivity and biology require phenomenology. They helpfully review the scope of phenomenology, including Jaspers' interpretation of the method²⁴.

On the contrary, Gallese's point of view was to phenomenologise the cognitive neurosciences using the insights that come from phenomenology reflection, and in particular from the analysis of the body (*leib*) and the role that it has in the constitution of our experience of things of the world and others. For this, Gallese uses the concept of embodied simulation that fits into the broader concept of intersubjectivity, which could be a good example of how the two disciplines might dialogue with each other²⁵. In detail, he echoes an epistemological model of the brain that underscores its relational and interactional connotations. To better clarify this point of view, mirror neurons are activated both in the observation of, and the fulfillment of, bodily movements, communicative acts and in the subjective or objective (perceived in the other) experience of the emotions. They represent the neural correlate of the relationship between the subject and the object and therefore perceive and understand the meaning of an action is equivalent to internally simulate the experience of such action, activating a pre-existing brain heritage of the observer. Gallese, through a review of a number of neuro-scientific studies underlying of somatosensory sensations, language and consciousness of the action, sets the stage for a fruitful exchange between phenomenological insights and neuroscientific data. He proposes a theory of social cognition in which the *embodied simulation* and the *shared manifold system* (report for the identity across

all the forms of interpersonal relationships) are some of the mechanisms, although not the only, at the basis of intersubjectivity. The convergence of these interpretations and speculations of phenomenological philosophy are evident, and mirror neurons explain how the observer may utilise his/her neural systems to *penetrate the world of the other from the inside*. The recovering the thought of Husserl that the perception of the other presupposes the awareness of own body *acting*, and that the understanding of the others' behaviour implies an experience of their body vital (*Leib*) and not material (*Korper*); that of Merlau-Ponty states that the meaning of the gestures of others is not given, but understood, by the action of the observer, finally concluded: "The man conception that arise from Husserl's thought, still more if reread in the light of findings in the neuroscientific field ..., becomes convincing topical today" ²⁶.

Phenomenology and psychopathology

Phenomenology and psychopathology have always had a close relationship since the birth and the growth of the two disciplines. Jaspers, in his *General Psychopathology*, discussed systematically how mental disorders, and its symptoms, are studied from both a theoretical and empirical perspective ¹⁴. The understanding of anomalous mental states, with the aim of description, taxonomy and classification. The narrative structure of Jaspers' work reflected his thought because in his book (*General Psychopathology*), the description of abnormal mental state followed an exhaustive report of the correspondent normal experience, where the opposition facilitated comprehension for readers ²⁷. Such a vision implies the investigator's effort is to catch the patient's subjective experience and his particular point of view, and to bring his knowledge of the normal and abnormal functioning in his enquiry during the interaction with the patient. The role of the interviewer as described by Jaspers cannot be passive: it must be in active and empathic participation to the relationship with the patient, trying to understand and testing narrative hypotheses together; phenomenologically speaking the psychiatrist assumes his identity only within this relationship. Over the years the term phenomenology has been changed, and in contemporary psychiatry it has acquired the narrower meaning of the study of psychopathology through the signs and symptoms of mental disorder. This conduced psychiatry to nosology and classifications systems, and while the birth of the Diagnostic Statistic Manual (DSM) was initially considered a "revolutionary operation", it was not without disagreements and concerns. In fact, if on the one hand, there was an attempt to create a more reliable and comprehensive system to improve communication between clinicians and to provide re-

liable diagnoses that would be useful in research and be more consistent with an international approach (i.e. International Classification of Diseases, Ninth Revision), on the other hand, many forms of disease were rejected from the set of diagnostic criteria for their lack of reliability. The psychopathological features of mental illnesses were compressed in lay-language descriptions of symptoms and signs and all those not objectifiable, clearly visible aspects of mental illness were, ignored and discarded as not scientific. The impact of this process was that psychiatry is at risk of returning to the concern that first prompted Jaspers' work: that its object of study is man, and not a disorder defined by the presence of atomistic symptoms, despite the scientific gains made in terms reliability of diagnosis. This has led to a use of common nomenclature and to large advances in scientific research, but possible problems in the validity of constructs ²⁸. Therefore, the relationship between phenomenology and the DSM is controversial, giving rise to an ongoing debate, and the recent views of the NIMH that the traditional categories of mental disorder may not be amenable to scientific investigation. In fact, a project regarding the development of The Research Domain Criteria has been launched by NIMH to favour a system of classification based on pathophysiological mechanisms and discoveries in neuroscience and genetics. This could improve treatments and communication between clinical data and neuroscience research ²⁹. Parnas and Zahavi (2002) offer some suggestions as to how phenomenology can aid classification. First, they suggest that single case histories are very important. Most clinicians will be fortunate to remember a handful of patients who have been willing to discuss in detail their experiences and, from this, interviewers can feel as if they have learned what schizophrenia or any other mental disorder "is". Thus, epidemiologically speaking, one would be left with a selection bias in one's data, because some patients are more able than others in expressing their feelings, and otherwise there is a problem of lack of generalisability. Second, Parnas and Zahavi (2002, pp. 156-7) suggest that during an assessment, psychiatrists cannot but "typify" and think in terms of prototypes. For Broome, in a recent publication that aimed to review the latest contributions in terms of classification systems, this approach (Parnas and Zahvi) might be considered as part of the broad theme that he defined "realists" or "essentialists" which contrast with other two groups that he called "anti-essentialists" and "eliminativist mindless psychiatry" ⁷, and shares a view in common with some biological research paradigms that there is a discrete essence that marks out different disorders, for example, for the phenomenologists a particular way of experiencing the world, for the biologist, a genetic polymorphism.

Conclusion

The Maudsley Reader in Phenomenological Psychiatry¹³ concluded that the relationship between phenomenology and neurosciences was based on three key points:

- 1) phenomenology seems to provide opportunities to build new research hypotheses;
- 2) phenomenology offers a guide to reconsidering nosological boundaries;
- 3) understanding mental disease requires a whole person approach.

In conclusion, we attempt to address individually each point to inform how phenomenology could deal with cognitive neurosciences.

1) Today it seems the time has come that research in psychiatry has finally agreed to hear the contribution of phenomenological psychopathology. This re-discovery seems to be witnessed by numerous recent papers and books that evaluate this topic, and the empirical interest in subtle changes in mental state as precursors of mental illness (e.g., anomalous self-experiences and basic symptoms in the prodromal of psychosis)³⁰⁻³³. Integration between neuroscience and psychopathology is required because psychiatric research is experiencing difficulties due to a decline in clinical psychopathology³⁴, and a primacy, as with the 'first biological psychiatry' of prioritising somatic accounts of illness³⁵. Maj, in his editorial in *World Psychiatry*, explicitly states that two worlds coexist between them: a world of biological and physical entities that in this context, are investigated by neuroscience, genetics etc., and another world of *meanings, symbols, discursive contexts and interpersonal relationships*, equally important for psychiatry, that are studied by the social sciences and phenomenology. The author firmly asserts that: *"That the above two worlds do exist, that they can be studied separately, and that they cannot be reduced to each other, or fully explained each through the concepts that are specific to the other, there seems to be no doubt. But that they are independent from each other appears today implausible"*³⁶. This conclusion endorses Jaspers own view of the unity of the psyche and soma. Hence, for theoretical, clinical and scientific approaches to psychiatry, both need to be studied rigorously and in balance. The next horizon of research is not only to answer the questions that arise from the dimension ruled by physical and biological laws, but also to formulate new hypotheses based on the pillars of classical psychopathology, which are phenomenologically oriented. As previously explained, various methods have been proposed. Neurophenomenology constitutes a multi-disciplinary approach to the study of consciousness. It is able to combine the empirical methodologies of neurosciences with the first-person analysis of the phenomenological approach. In this way, following Varela, the dualism mind-body

may be exceeded, focusing on the empirical analysis of the *"Leib"* (the body in lived experience). This strategy may allow both a transcendental analysis and an empirical study of the underlying nervous process. Conversely, multiple levels of scientific enquiry and data interpretation, involving psychiatrist, philosophers and scientists, may help forward our knowledge about mental illness³⁷. 2) As Lewis stated, classification systems are influenced by somatic paradigms³⁸, while Cooper added that classifications systems are too heterogeneous³⁹, and that the limits of current classification systems are generated because they are governed exclusively by biological paradigms. These may be able to uncover useful generalisations in assessing and treating our patients, but inevitably fail to highlight strict psychophysical laws⁷. Life and consciousness are phenomena embedded in, but not specified by, the environment⁴⁰. For Andreasen, the study of psychopathology, which was important for those who created the DSM, is now rarely recognized²⁸. Indeed, the field of psychiatry inevitably forces practitioners to philosophical reflection; psychiatrists are interested in psychiatric illness, what they are, what we can know and how we can conceptualise them⁷. Therefore, phenomenology may increase the benefit of classification systems; first of all, we have to remember that *second nature* (an adjunctive concept to the first nature, characterised by human rationality and conceptual capacities) is theorized in an attempt to include phenomena that cannot be explained solely by the physical sciences. It is an alternative space that includes issues related to the conceptual nature of psychopathology⁴¹. Parnas, Sass and Zahavi suggested that phenomenological psychopathology, unlike current classification systems, provides the clinician with the tools to make a differential diagnosis through various prototypical options (i.e. affective spectrum condition vs. schizophrenia spectrum conditions), but it also provides the tools to question the structure that underpins such prototypes. This is not taken into account by the DSM (a problem that has generated the concept of "multiple comorbidities vs. differential diagnosis). As an example, the deep knowledge of schizophrenia is more closer to the concept of its "fundamental" prototypical core than to operational diagnostic criteria provided by classificatory systems⁴², and defining the clinical boundaries of schizophrenia requires reinforcement of classical psychopathology⁴³. On this matter, Maj criticises the DSM IV definition of schizophrenia affirming that it does not consider what schizophrenia is but rather what it is not; furthermore the operational criteria help only psychiatrists who are familiar with the narrow concept of schizophrenia⁴⁴. Obviously, phenomenology does not resolve all problems linked to the nosology of psychiatry, but a more pluralistic vision of science should be required in future attempts⁴⁵.

3) Jaspers in his introduction to the paper “The Phenomenological approach in Psychopathology” explores the dichotomy between the subjective and objective symptoms in psychiatry, describing the features and methods of gathering information for each of the two categories. The objective symptoms were described as follows: “*Objective symptoms include all concrete events that can be perceived by the senses, e.g. reflexes, registrable movements, an individual’s physiognomy, his motor activity, verbal expression, written productions, actions and general conduct, etc.; all measureable performances, such as the patient’s capacity to work, his ability to learn, the extent of his memory, and so forth, also belong here. It is also usual to include under objective symptoms such features as delusional ideas, falsifications of memory, etc., in other words the rational contents of what the patient tells us. These, it is true, are not perceived by the senses, but only understood; nevertheless, this understanding achieved through rational thought, without the help of any empathy into the patient’s psyche*”. Conversely, he defined subjective symptoms and distinguished them from the objective ones: “*Objective symptoms can all be directly and convincingly demonstrated to anyone capable of sense-perception and logical thought; but subjective symptoms, if they are to be understood, must be referred to some process which, in contrast to sense-perception and logical thought, is usually described by the same term, subjective. Subjective symptoms cannot be perceived by the sense-organs, but have to be grasped by transferring oneself, so to say, into the other individual’s psyche; that is, by empathy*”. Jasper continued, raising the question of the primacy of objectivity, which determined in his opinion an inevitable psychiatric science without psyche: “*It is usual to connect with this classification into objective and subjective symptoms a very definite contrast of values. According to this, only the objective symptoms offer certainty; they alone form a basis for scientific study, whereas subjective symptoms, though we cannot easily do without them for our preliminary assessments, are considered to be quite unreliable for making final judgments and unfruitful for the purpose of any further scientific investigation. There is a widespread desire to base our study of mental disorder on objective symptoms alone and ideally to disregard subjective symptoms altogether... An objective psychology is set up in opposition to subjective psychology. The former claims to concern itself with objective data only; its natural consequence is psychology without a psyche*”. In view of the approach to the whole person and understanding mental illness, it is necessary to include subjective experiences, which are typically the field of study of phenomenology, and whose instruments are empathy and the Husserlian reductions, isolation and classification of phenomena⁴⁶. Contemporary works are underlying the importance of

such methods, emerging from daily clinical and psychiatric activity. Pallagrosi et al., in a diagnostic perspective using the concept of “person centred assessment”⁴⁷, stated that the “lifeworld can only be reached through the medium of interpersonal relationship”⁴⁸. Fava, in his editorial, criticised the overconfidence on diagnostic criteria that have emptied clinical processes and their complexity. He stressed the need to recover the science of psychopathology and clinical judgment, even if already used every day by the psychiatrist to make clinical decisions, but not taken into account and considered non-scientific³⁴. Therefore, psychiatry needs to regain a feeling of “humanity”, that for Engel is based on observation (outer-viewing), introspection (inner-viewing) and dialogue (interviewing)⁴⁹. This vision is not anti-scientific, but together with the progresses of neuroscience allows an approach based on the whole person.

Acknowledgments

Juliana Fortes Lindau and Gennaro Catone contributed equally to the paper.

Conflict of interest

None.

References

- Berrios GE. *What is phenomenology – a review*. J Roy Soc Med 1989;82:425-8.
- Wiggins O, Schwartz M, Spitzer M. *Phenomenological/descriptive psychiatry: the methods of Edmund Husserl and Karl Jaspers*. In: Spitzer M, Uehlein F, Schwartz M, et al. editors. *Phenomenology, language & schizophrenia*. New York: Springer 1992, pp. 46-69.
- Ratcliffe M. *Understanding existential changes in psychiatric illness: the indispensability of phenomenology*. In: Broome M, Bortolotti L, editors. *Psychiatry as cognitive neuroscience: philosophical perspectives*. Oxford University Press 2009.
- Glendinning S. *What is phenomenology?* Philosophy Compass 2007;3:30-50.
- Zahavi D. *Husserl’s phenomenology*. Stanford, California: Stanford University Press 2003.
- Moran D. *Introduction to phenomenology*. London, New York: Routledge 2000.
- Broome MR. *Taxonomy and ontology in psychiatry: a survey of recent literature*. Philos Psychiatr Psychol 2006;13:303-19.
- Fulford KWM, Morris KJ, Sadler JZ, et al. *Past improbable, future possible: the renaissance in philosophy and psychiatry. Nature and narrative: an introduction to the new philosophy of psychiatry*. New York: Oxford University Press 2003.
- Stanghellini G, Fuchs T. *One century of Karl Jaspers’ general psychopathology*. Oxford University Press 2013.
- McCarthy-Jones S, Krueger J, Laroi F, et al. *Stop, look, lis-*

- ten: the need for philosophical phenomenological perspectives on auditory verbal hallucinations. *Front Hum Neurosci* 2013;7:127.
- 11 Shorter E. *A history of psychiatry: from the era of the asylum to the age of prozac*. New York: John Wiley & Sons 1997.
 - 12 Jaspers K, Schilpp PA. *The philosophy of Karl Jaspers*. La Salle: Open Court Pub. Co. 1981.
 - 13 Broome MR. *The Maudsley reader in phenomenological psychiatry*. Cambridge, New York: Cambridge University Press 2012.
 - 14 Jaspers K. *General psychopathology*. Chicago: University of Chicago Press 1968.
 - 15 Ales Bello A, Manganaro P. ... e la coscienza? *Fenomenologia, psico-patologia, neuroscienze*. Bari: Giuseppe Laterza 2012.
 - 16 Petitot J. *Naturalizing phenomenology: issues in contemporary phenomenology and cognitive science*. Stanford, CA: Stanford University Press 1999.
 - 17 Merleau-Ponty M, Séglaard D. *Nature: course notes from the Collège de France*. Evanston: Northwestern University Press 2003.
 - 18 Gallagher S, Zahavi D. *The phenomenological mind*. London, New York: Routledge 2012.
 - 19 Marbach E. *Towards a phenomenological analysis of fictional intentionality and reference*. *Intern Journ Philos St* 2013;21:428-47.
 - 20 Petitot J, Varela FJ, Pachoud B, et al. *Naturalizing phenomenology: issues in contemporary phenomenology and cognitive science*. *Writing science*. 1999. *Naturalizing phenomenology: issues in contemporary phenomenology and cognitive science*. Stanford, CA: Stanford University Press 1999.
 - 21 Evans JC. *On the phenomenology of the consciousness of internal time (1893-1917)*. *Husserl Studies* 1992;9:237-8.
 - 22 Husserl E, Bernet R. *Zur Phänomenologie des inneren zeitbewusstseins: mit den texten aus der erstausgabe und dem nachlass*. Hamburg: Meiner 2013.
 - 23 Varela FJ. *The specious present: a neurophenomenology of time consciousness*. In: Petitot J, Varela FJ, Pachoud B, et al. editors. *Naturalizing phenomenology: issues in contemporary phenomenology and cognitive science*. Stanford: Stanford University Press 1999, pp. 266-314.
 - 24 Parnas J, Zahavi D. *The role of phenomenology in psychiatric diagnosis and classification*. *Psychiatric diagnosis and classification*. Hoboken, NJ: John Wiley & Sons Inc 2002, pp. 137-62.
 - 25 Gallese V. *From mirror neurons to embodied simulation: a new neuroscientific perspective on intersubjectivity*. *Eur Psychiat* 2011;26(Suppl 1):2127.
 - 26 Gallese V. *Neuroscienze e fenomenologia*. Treccani Terzo Millennio 2010.
 - 27 Parnas J, Sass LA, Zahavi D. *Rediscovering psychopathology: the epistemology and phenomenology of the psychiatric object*. *Schizophr Bull* 2013;39:270-7.
 - 28 Andreasen NC. *DSM and the death of phenomenology in America: an example of unintended consequences*. *Schizophr Bull* 2007;33:108-12.
 - 29 Insel TR. *The NIMH Research Domain Criteria (RDoC) Project: precision medicine for psychiatry*. *Am J Psychiatry* 2014;171:395-7.
 - 30 Parnas J, Moller P, Kircher T, et al. *EASE: examination of anomalous self-experience*. *Psychopathology* 2005;38:236-58.
 - 31 Parnas J, Moller P, Kircher T, et al. *EASE: examination of anomalous self-experience*. *L'Encephale* 2012;38(Suppl 3):121-45.
 - 32 Klosterkotter J, Ebel H, Schultze-Lutter F, et al. *Diagnostic validity of basic symptoms*. *Eur Arch Psychiatry Clin Neurosci* 1996;246:147-54.
 - 33 Schultze-Lutter F, Ruhrmann S, Berning J, et al. *Basic symptoms and ultrahigh risk criteria: symptom development in the initial prodromal state*. *Schizophr Bull* 2010;36:182-91.
 - 34 Fava GA. *Road to nowhere*. *World Psychiatry* 2014;13:49-50.
 - 35 Fava GA. *The intellectual crisis of psychiatric research*. *Psychother Psychosom* 2006;75:202-8.
 - 36 Maj M. *Social neuroscience as an ideal basic science for psychiatry*. *World Psychiatry* 2014;13:105-6.
 - 37 Cacioppo JT, Cacioppo S, Dulawa S, et al. *Social neuroscience and its potential contribution to psychiatry*. *World Psychiatry* 2014;13:131-9.
 - 38 Lewis A. *The later papers of Sir Aubrey Lewis*. Oxford: Oxford University Press 1979.
 - 39 Cooper R. *What is wrong with the DSM?* *Hist Psychiat* 2004;15:5-25.
 - 40 Thompson E. *Mind in life: biology, phenomenology, and the sciences of mind*. Cambridge, MA: Belknap Press of Harvard University Press 2007.
 - 41 McDowell JH. *Mind, value, and reality*. Cambridge, MA: Harvard University Press 1998.
 - 42 Parnas J. *A disappearing heritage: the clinical core of schizophrenia*. *Schizophr Bull* 2011;37:1121-30.
 - 43 Hojajj CR. *Reappraisal of Dementia Praecox: focus on clinical psychopathology*. *World J Biol Psychiatry* 2000;1:43-54.
 - 44 Maj M. *Critique of the DSM-IV operational diagnostic criteria for schizophrenia*. *Br J Psychiatry* 1998;172:458-60.
 - 45 Parnas J, Sass LA, Zahavi D. *Recent developments in philosophy of psychopathology*. *Curr Opin Psychiat* 2008;21:578-84.
 - 46 Jaspers K. *The phenomenological approach in psychopathology*. *Br J Psychiatry* 1968;114:1313-23.
 - 47 Pallagrosi M, Fonzi L, Picardi A, et al. *Assessing clinician's subjective experience during interaction with patients*. *Psychopathology* 2014;47:111-8.
 - 48 Fuchs T. *Subjectivity and intersubjectivity in psychiatric diagnosis*. *Psychopathology* 2010;43:268-74.
 - 49 Engel GL. *How much longer must medicine's science be bound by a seventeenth century world view?* *Psychother Psychosom* 1992;57:3-16.