

They killed Spider-Man. Birth, splendour and decline of a mythical phase of clinical psychopathology and psychotherapy. Is there still room for their scientific dignity? A complex connexionist proposal

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ABSTRACT. – The landscape of technical interventions in the field of psychotherapy offers a wide range of different treatments. Even Psychiatry (especially the non-academic kind) is producing a huge quantity of research data dealing with two important issues: the widespread surge in prescribing psychotropic drugs and the severe underestimation of side effects and of withdrawal syndromes due to these medications. On the other hand, we cannot find the same research effort being put into conceptualizing, discussing, and providing viable theories questioning the true nature of behaviour defined as relevant from a psychopathologic perspective. Enhancing the understanding of these behaviours could allow for better management of psychotherapeutic processes and not just a mere attempt to control symptomatic aspects. The term ‘outburst’ (or fit) has come back into vogue as an explanation of a supposedly pathological sensation/trauma, even though it is devoid of real semantic meaning. Thanks to the concept of ‘epigenetics’, the evolutionary perspective reintroduces a linear and deterministic description of how residual genes work in causing behaviour. Neuropsychologists and neurobiologists have no doubt about the existence of structures and faulty basic biological mechanisms that allow for the conceptualization of a precise demarcation dividing normality from psychopathology. Firstly, the author gives an in-depth analysis of the many disciplines dealing with human behaviour and then proposes a rigorous and coherent pathway (via a systemic-connexionist approach) towards a modification of the current concepts of mind, psychopathology, and psychotherapeutic change. Furthermore, the author underlines the risk of replacing theoretical concepts with tempting yet misleading descriptive definitions. This article also provides an introduction describing the author’s epistemological framework, the reasons for her choice and she proposes her work method - through a clinical case study - in which transmissibility and verifiability must be the mainstay of its scientific criteria.

Key words: Global health; complexity theory; emergent quality; disruption; psychiatric drug withdrawal; COVID-19.

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Ostrich policy does not go far

On the 18th of January 2020 in Milan, at *La Casa della Psicologia* (House of Psychology), a meeting was held with a vintage tone to it: it was self-convened, self-financed and self-managed, with a few young psychologists (experts by profession), many old-timers and just as many 'experts by experience' (patients and/or family members) attending.

It was impossible not to be reminded of the heroic days at the end of the 70s and all through the 80s in which the enthusiasm and cultural mix of clinical psychology and alternative psychiatry managed to dialogue and engage in stimulating intellectual challenges. These were the years of a global buzz in which ethical, social, and scientific efforts had broken down the barriers between psychotherapeutic Schools and psychopathological theories. Professional figures from different backgrounds were all united in the hope of democratizing; a keen spirit, Franco Basaglia, immediately grasped the ambiguities and dangers of this. He called it 'the antiscientific risk' (Basaglia, 1971).

However, the opportunity was perfect: Giuseppe Tibaldi, Marcello Macario and Raffaella Pocobello¹ had gathered those who were sensitive to and interested in creating an Italian section in *the International Institute for Psychiatric Drug Withdrawal* (IIPDW). Certainly, such an important international board did not act without reason. A few days later on the other side of Milan, a large conference on Neuropsychopharmacology and new therapeutic frontiers would be held: with Presidents C. Mencacci and M. Balestrieri.

The blow to my heart was hard: the conference was held in the mythical halls of the Palazzo delle Stelline in Corso Magenta. The place where Mara Palazzoli Selvini had debated with Framo and Stirling, squabbled with Andolfi (she always left the audience electrified. With whom did she not quarrel?). All the greatest had been through there, Boscolo, Cecchin and Hoffman, and from there they would meet again in Zurich, Florence, Rome, and Heidelberg and those who could, would also go overseas. Those gatherings were a breeding ground for a wide variety of ideas and work, but all were interested in providing a knowledge contribution to the various areas of mental health.

I detest lamentations of time gone by, but it is inevitable to take note of the decline, of a sort of cultural abandonment, in which the present clinical psychopathology languishes. Increasingly more attracted by the dazzling

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promises of neuroscience, psychologists have become the greatest mentors of pharmacological treatments.

Of that creative movement, which was transversal to the various psychopathological theories, and which originated from the Mental Research Institute in Palo Alto, there seems to be no more trace. The Milan Approach, today, lends itself to the quotation: “Nothing underneath!”. And what of the efforts to renew developmental psychopathology and of the annexed theme of school management? Child psychologists and neuropsychiatrists have become certificate producers at the service of the efficient ‘factory aimed at breaking children’, in which all functions are transformed into a quotient in order to self-legitimize it as *evidence based*, because it is expressed as a number (Gandolfi, 2018, 2019, 2020b).

Do we really want to continue being ostriches and hiding our heads in the sand by issuing ecumenical/triumphalist interviews like those that recently saw Beppe Dell’Acqua and Massimo Cirri (2020) praising the great humanization of psychiatry and the scholastic reception guaranteed to all children?

Or even worse do we want to believe that, without taking anything away from neuroscientific discoveries, we accept that all the complexity of the human mind can be explained by basic biological circuits, neurotransmitters or individual genes? (Kandel, 2018).

I am personally concerned to discover that the neuroscience department in Pisa is concerned with demonstrating that Buddhist monks are the scientific evidence that everything can be explained by transcranial electromagnetic recordings of brain activity and can be controlled by meditative techniques (Gasperetti, 2020; www.unipi.it).

The present article takes its cue from what the IIPDW set in motion. Indeed, if we fail in developing a scientific study project on the way *we conceive, explain, theorize and verify another way (not purely organicist) of thinking about* mental illness, I do not think we will have much chance of countering the rampant reductionist and mercantile approach currently taking over.

We must not let ourselves be pushed into *the ideologized corner*, I think it is time to take up wide-ranging thoughts that have characterized important moments in the history of clinical psychology/psychiatry. Thus, I am not beyond exhuming ‘obsolete’ expressions such as epistemology, language precision, coherence between theoretical models and technical choices.

I will adhere to the Confucianism principle of *cheng ming*, that is, ‘rectification of names’, which means that if words are not in agreement with the reality of things, whatever it is we want to undertake cannot be accomplished. The task of the scholar must be to act ethically and *cheng ming* allows action and ethics to meet (Castellani, 1984).

The current state of art

A group of colleagues from the Department of Human and Social Sciences of the University of Bergamo recently published a research article that attempted to analyse and identify the degree of attention that the different psychotherapy schools assign to the conscious study of epistemological frameworks, to which the proposed models refer, and whether this conscious teaching influences an attitude/perspective of research in future psychotherapists during their clinical work. I will not get into the careful elaboration and analysis of the items and of the specificities between different psychotherapeutic schools (analytical, cognitive, and systemic). What I will emphasize is the transversal fact that once the students became therapists, with few differences between models, they were more interested in the strictly operative aspects, the dreaded ‘good practices’, rather than paying attention to the coherence between acquired theoretical concepts and implemented technical choices. This would explain the lack of awareness of the manoeuvres that induce a targeted and conscious change in the therapeutic process implemented (Negri *et al.*, 2019). This result, despite not being encouraging, is not surprising if one considers a background noise that mattifies reflections on the concept of psychopathology.

The explicit question “What do you think mental illness is?” is now almost clandestine, and perhaps even considered obscene, and definitely dangerous. All this pushes us to understand what to do, how to more or less control unwanted behaviours. Implicitly, the DSM-5 diagnostic system and the silent acceptance of the idea that mind and brain coincide are shared throughout. Consequently, psychopathology becomes a personal dysfunction of those who manifest it. Enlightened psychiatrists, psychologists and psychotherapists from all different training backgrounds and patient and family organizations are not excluded from this. This is also what emerges when reading technical articles and articles by different organizations.

I personally believe that we should return to the problem at the base of it all. It is not enough to confine ourselves to a struggle on the principle of self-determination (pharmacological or regarding recovery) or compassionate intervention for a social anti-stigma mobilization. The pivotal point is perfectly expressed by Frances Allen (2015): “I was forced to take sides in what has become a civil war for the heart of psychiatry - fighting a mostly losing battle to protect normality from medicalization and psychiatry from overexpansion”. Allen goes straight to the heart of the problem: can we still talk about a scientific method in making diagnoses? Or rather build a theory on the phenomenon we want to study and then choose a treatment to verify it by checking results and their reproducibility?

Allen again talking about the DSM-5 states: “All changes to the diagnostic system should be *science driven and evidenced based*, not

influenced by my personal whims or anyone else's... there weren't compelling scientific data to back up the many proposals we eventually received. The basic science of psychiatry was daily coming up with exciting insights into how the *brain works*, but none of this translated one bit into how we should diagnose and treat patients" (ibidem).

The problem of the relationship between the criteria used by the observer of behaviour and the construction of the condition of mental illness was precisely one of the *pièces de résistance* of the veteran approach and subsequently related to complexity theory, which led to a revolution in diagnosis, therapy and social-welfare interventions. But it seems that this push has been lost, considering that almost all systemic schools sell EMDR training and an acritical adherence to the linear theory of attachment. Obviously let us not forget the hint of evolutionary theory, which believes that it can explain every pathology as a residual archaegenetic memory of behaviours that were useful to survival in the distant past. Finally, there is no school that does not present the mindfulness approach, giving an orientalist touch, which is currently very in vogue. The problem is that all these ideas are presented as a miscellany, which does not distinguish the logical level and the epistemological framework of the explanatory theory from the technical one, which is also useful in terms of contingent control.

I have analysed (Gandolfi, 2019) the dangerous slip that transforms descriptive processes into explanatory processes and the epistemological roots of this serious error. However, this does not happen by chance, in fact I have found that contexts that are considered 'scientifically sound and pure', have more of a habit of using suggestive language and that leads to slippage between the formulation of a theory and its presumed *material existence*, as 'evidence based' (Sokal and Bricmont, 1999). Here I would like to give some examples of how suggestive language risks confusing and aggravating the problem. Jill Bolte Taylor, a 1994 Member of the Board of Directors of The National Institute of Mental Health (NIMH) and Researcher at Harvard University's Brain Bank, was constantly hunting for schizophrenic brains to elaborate "a protocol where we could visualize three neurotransmitter systems in the same piece of tissue [...]. It was our goal to understand the microcircuitry of the brain [...]. The better we understood what the differences were at a cellular level, between the brains of individuals diagnosed with a severe mental illness and normal control brains, the closer the medical community would be to helping those in need with appropriate medications" (Taylor, 2017).

This is the theoretical premise that assumes that the brain of schizophrenics works with defective neurotransmitters. But the truly disturbing aspect, which violates the principle of *cheng ming* (name rectification), is the continuous use of terms and expressions that I would call animistic: the anatomical structure of the two hemispheres is defined as 'duality of the mind', "by its design, our right mind is spontaneous, carefree, and imaginative. It allows our artistic juices

to flow freely”; “the cells in my left brain tell me I like red” (ibidem). You will tell me that you cannot expect more from a neuroanatomist. But under the guise of scientific rigour of a journal like *Le Scienze* we find a full-bodied article on the biological mechanisms underlying *the disease of loneliness*. Not to be confused with the disease of depression, into which, however, if left untreated it could evolve (Russo, 2018). Russo discards the old theories that were in vogue in the 60s, thanks to the great success of American psychoanalysis, and also those theories offered by sociologists in the 70s and 80s, relating to a lack of social network. He points out that John Cacioppo, from the University of Chicago, had no doubt about it. Evolutionary theory provides a scientific rigour-proof explanation: as with other animal species, the instinct for survival activates patterns of the reaffiliation motive (RAM) allowing us to bond to our group of conspecifics. “The results of these studies in children and adolescents agree with the model of a failing RAM and intense hypervigilance developed by John Cacioppo [...]. A study of 730 adolescents in 2015 (Brussels, Author’s note) [...] indicated that children suffering from chronic loneliness can feel alone because of their own negative interpretations of social situations” (pg. 79-80). Cognitive behavioural therapy to correct cognitive distortion together with psychotropic drugs are considered a cure-all.

It can be said that this is an approach marked by typically Anglo-Saxon pragmatism. But what about scientists like Edoardo Boncinelli? He can be inserted among the prominent Italians to be remembered in the history of Italy for training generations of researchers on the study of human behaviour at the University of San Raffaele in Milan. In 2018, the last year in which he still produced his tireless activity as a scientific commentator, he wrote an article on the experimental demonstration of a topic that has been debated since the dawn of time: whether cooperative attitude is the result of education and persuasion or whether it “depends more on the nature of the individual”. “Well, administering food, however welcome, fails to teach mice to change strategy, while a small electric stimulation does. [...] Education, that is to say the elaboration of an ordered complex of conditioning, may sometimes not work properly or even at all. Acting directly on the brain, for example with a drug, can have another effect, perhaps a more tangible one” (Boncinelli, 2018). How can we not think of Bateson’s mice and weasels and simultaneously of the reference centres for rechristened electrotherapy that flourished everywhere?

Certainly, there is not only the cognitive-behavioural approach, with all its more or less soft and even heterodoxical variants. I have colleagues who I esteem greatly in the psychoanalytic field - indeed I found myself at Home in their own magazine *Ricerca Psicoanalitica* -, I read and appreciate the depth and cultured humanity of greats like Eugenio Borgna. I don’t appreciate stars like Massimo Recalcati as much. But since he seems to represent the spearhead for the treatment of eating disorders, I thought I would analyse his statements in light of the problem I pose: have we

increased scientific knowledge in psychopathology so that we can choose conscious and disruptive interventions? Moreover, from a systemic point of view, this theme represents a repository of knowledge, and indeed of identity. Anorexia is to a systemic like the unconscious is to Freud. But we know that Mara Palazzoli Selvini made the great leap by using her own psychoanalytic training and never renounced it. In fact, she wrote: “There is nothing worse and more disqualifying for psychoanalysis than its amateur use” (Palazzoli Selvini, 1976, p.39 1981). This leap was due to her passion for rigorous scientific thought and for the search for a transmissible and verifiable method that would escape the damage of ‘psychologising divulgation’ (p. 43 1981).

In analysing the sites of presentation of Recalcati’s many activities, it strikes me that he qualifies himself as an expert “in new pathologies: anorexia, bulimia, obesity, panic attacks, depression, psychosomatic phenomena, drug addiction, hyperactivity”. That this long list now defines historical pathologies as new (excluding hyperactivity, which appeared in the early 1990s anyway) is frankly striking. But having discovered that Recalcati preferred to graduate in philosophy rather than psychology, despite his young age, I think shows he did not have to study the history of psychopathology. The act of covering up for the lack of general explanatory concepts and hypotheses of pathological cases known for some time now, with proliferation and fragmentation in particular cases is evident. It is the opposite of a scientific process.

Of course, from a Lacanian psychoanalyst we might expect more respect for language. Respect for that principle of the *rectification of names* which I am precisely looking for.

In the field of eating disorders, especially restrictive ones, I have a lot of direct experience, because after patients have used the year state run healthcare program in the various ‘*new temporary nuthouses*’ (Italian or overseas), they return home and start their war again.

This letter was sent to me by a father and demonstrates this:

“...I am the father of a 26-year-old girl who has been suffering from a serious eating disorder for ten years (restrictive anorexia nervosa that has recently turned into ‘binge eating’). In addition to this, a mood disorder (bipolar and schizotypic) was diagnosed as well as a personality disorder (borderline) depending on which psychiatrist we were dealing with. She has been treated in public facilities, such as the Mental Health Service of xxx, and private ones, (such as Residence xxx to xxx), but also by various private professionals. The approach to her problem has been predominantly psychiatric based on the prescription of many psychotropic drugs (which she has taken up to now).

As a parent, I am very concerned about the chronicization of my daughter’s problems, the lack of a differential diagnosis, the heavy emotional family burden, the unpredictable consequences of the psychotropic drugs and the lack of a real psychotherapy” (Gandolfi, 2020 b).

The tragic confusion described by this father testifies to the fact that anyone, especially laymen, can speak and write about psychology and psychic distress, or replace the word mind indifferently with soul or brain, although sometimes even with enviable results. In fact, I found the last book by the archaeologist Andrea Carandini (2017 a) incredibly shrewd. I think it is not a coincidence that he revolutionized archaeology in the vital years of the 70s/80s, making it a scientific discipline. I found his conquering of the concept of *context* extremely useful and an example of the spirit of the times. The same complex construct that in psychology was supposed to replace the linear one of *environment*, in which instead even the systemics have decided to hide themselves in for some time (Carandini, 2017 b).

A huge cultural legacy, a great heritage wasted

Bateson (1979) tells of how psychiatrists opened their eyes wide when during his first lesson he asked what their theory on mental health and illness was. They simply did not understand the question, yet the history of medicine is all a sequence of outdated, confirmed, incorrect, imaginative, and sometimes very damaging theories (Capua, 2014; Corbellini, 2014). I wonder if psychologists and psychiatrists know that systemic theory was formulated by the mathematician Hadamard, regarding the processes that generate theories. Whether they know that double bind theory delves into the analysis of Gödel's bizarre rings, and that the problem of the effects of the observation method on the outcomes of the observed phenomenon is still a puzzle for physicists today. So much so, that the debate on what generates 'the real world' is more heated than ever (Greene and Geltenbort, 2016). In medicine, too, the classical linear concepts of cause/effect and time, on which psychoanalysis and cognitive-behavioural approaches are based, have proved insufficient in explaining the unpredictability and variability of disease processes. They have been replaced by the concepts *syndemic* and *emergent quality* (Vineis, 2014).

In reading older texts, one can trace all the ingenuity and inaccuracies of the transposition of these concepts into clinical psychology, which at the time were new and borrowed from other disciplines (physics, mathematics, biology, and genetics), yet the conceptual legacy is still enormous. What has stopped is the effort to continue in the study of theoretical evolution, continuing to ruminate on certain aphorisms, but above all, to mechanically overlay technical interventions exchanging them for theoretical premises, which for that matter are no longer understood. How to speak a by now unknown language. Mental laziness and mainstream acceptance have dried up all innovative incentives, leading to low-quality modern-day junk.

Still in those texts, however, it is still possible to find methodological

rigour and the clarity that marked the real turning point, the one that I would call the *second failed revolution*, in accordance with a statement by Kuhn (1962) on Gestalt theory. To exemplify the usual lucidity and precision of Mara Palazzoli Selvini:

“All interventions [...] have a common epistemology, that is, they share some conceptual patterns on the nature, the origins and the evolution of mental pathology and behavioural disorders. Such patterns are not applied only in the field of psychopathology, but they are deeply rooted in Western culture [...]. All attention is centred on the intrapsychic mechanisms of a subject, on his/her mind considered the bearer of the disorder. Modern psychology and in particular psychoanalysis have allowed science to make a major qualitative leap, overcoming the organic conception of mental illness, that is, linked to a soma dysfunction. Often the picture has even been overturned by hypothesising a possible psychic root of certain somatic diseases. But we did not leave the classic idea of the monadic conception of man consisting of soma+psyche with reciprocal interrelations. When confronted with abnormal behaviour, such as, the complex series of manifestations that is known as schizophrenia, if we no longer search for ‘schizococcus’, we are convinced that: i) you are faced with a person with a disease, with a dysfunctional psyche; ii) by investigating the mind of the subject, by observing, and getting to know them more deeply, one will be able to discover the causes of such a dysfunction; iii) the greatest difficulty will consist in the removal of such a dysfunction, whose roots can be found in a distant and therefore often irretrievable past; iv) other people (parents, members of the community) are the possible agents that trigger or favour the disease, which in any case resides in the carrier of the symptoms. The behaviour is strange, illegible: in this dimension the unconscious becomes the unexplored, unknown area where everything is possible [...] there is no question what the exploratory direction and the object of the analysis is, *i.e., the legitimacy of the intrapsychic conception of mental illness.*”

This is basically the core of traditional epistemology. The epistemological change consists in abandoning the mechanistic-causal vision of phenomena, which has dominated science to date, in order to access a systemic vision (today we would say complex, Author’s note). The object of study is therefore no longer the individual intrapsychic, but the relational system of which the individual is a part of. In this context, the symptom is investigated not as an external manifestation of an internal pathology of the subject, but in its communicational significance within the relational system.

This systemic vision also implicates new problems of a semantic and syntactic nature. In the case of semantics, it is because the use of a term which is loaded with meanings borrowed from other conceptual schemes requires continuous clarifications; consider terms such as: symptom, pathology, anxiety, depression, *etc.* in syntax, because the need to describe not individual behaviours, but interpersonal relationships, with simultaneous communications on various levels” (Palazzoli Selvini, 1976, pp. 55-57).

We find the same reference to the risks of the semantic effects of psychiatric lexicon in Basaglia’s work (in Goffman, 1968), because the rectification of words, strictly connected to ethical awareness, cannot hide behind the presumed neutrality of science. Through its classificatory and

interpretative choices, it can make reality match its own hypotheses. To define mental illness as *incomprehensible* and *incurable* and assume that it depends on a *sick body* in order to receive the legitimacy of being a branch of general scientific medicine, meant that psychiatry was “born to treat a disease of which the aetiology and pathogenesis were unknown. It found itself manufacturing a sick person as its image, so as to justify and guarantee the methods on which its therapeutic action is based” (Goffman, 1968, p. 407, 2001).

In these 1968 and 1976 texts there is the core of the cultural leap, of the true distilled heritage thanks to that intellectual and methodological maturation that characterized the leap between two incredible and simultaneously dramatic centuries: the end of the 1800s and the first half of 1900s.

But it is impossible not to realize that the temporal needle seems to have been reversed, turned upside down. What was considered to have been surpassed in the 70s bloomed as novelty in the 2000s. Have we therefore proceeded to ‘turn back the clock’ as Umberto Eco stated? Evidently, we have, if an epistemologist like Michela Massimi is awarded the Wilkins-Bernal-Medawar 2017 Medal by the Royal Society because she is committed to “defending a realistic perspective on science” against “flagrant conceptual changes, as Thomas Kuhn emphasized in the 1960s” (Massimi, 2019, p. 59). Moreover, for example, she cites the advantage of using “theoretical pluralism” to understand the aggressive behaviour associated with sexuality much like the physics of particles (p. 46). This is exactly what Eco (2006) calls “the syncretic acceptance of all models, not to mention all values” (p. 340). Thus, the embarrassing question is: «What theory do we choose to explain mental illness?» we fall back on a mix in which a reference to the theory of attachment is always present, legitimized by the current infatuation for epigenetics. Thus, the return to the seduction of a biological explanation of each behaviour, pushed towards Freud’s innovative ideas, that gave dignity also to affectivity and subjectivity, uniting the Freudian drives to the genetic heritage, by now considered completely discovered. While brushing up on self-suggestive and meditative techniques serves to paint the grey clothes of Western self-control a brighter colour. What comes out of it is what I call a diagnosis, or a theory, a chimera (Gandolfi, 2019). This is all strictly ascribed to an individual subject, although with some concessions to the effects of the environment based on the reassuring concept of a linear cause and effect. All this is made scientifically plausible with the integrated intervention label. Therefore, confusing algebra with combinatorics!

“Yet here, too, as the new giants reject the legacy of the old giants, the dwarf’s deference also asserts itself [...]. The risk, for everyone, though the fault of no one is that constant innovation constantly accepted by everybody will lead to ranks of dwarfs sitting on the shoulders of other dwarfs” (Eco, 2006).

A connexionist approach to the concept of mind and Matteo's story

I return to the motivation that prompted me to choose the content of this article, aware of running the risk of appearing hypercritical or too pessimistic about the state of health in our discipline. But the meeting in Milan and the hope that something can really change in the troubled and desolate panorama of psychic suffering, especially in the context of the developmental age, has made me get straight to the point. So, I close with the negative part of criticizing views (the *pars destruens*) and I venture into that *pars construens*. I venture with the spirit of the stupid, willing to be criticised and corrected: “Mediocre, I do not have the stature of the greatest minds. Good or bad, I try to follow the path of the scholar... The path of honour is paved with misery and servility. Stupidity, she indeed has her own elegance” (Nguyen Tai, in Bussolino, 2009).

Psychotropic drugs have always accompanied the history of man and the debate about their use interests me in understanding the meaning that both the patient and his/her entire relational network attribute to it. The purely biochemical aspects I leave to the specialists in the field. In my work I never interfere with the choices of fellow psychiatrists, who are often valuable allies, when they share the premise that we work together for the good of the patient. Management, interruption, and chronicization of drugs are in fact manageable only if one understands how the drug information is perceived and conveyed in order to define the mutual relations of belonging and self-definition. In fact, “the drug is immediately given a meaning that will both bond with the identity of the person who takes it and nourish the conversational mind of the whole reference system” (Gandolfi, 2015, p. 204). It is common in psychotherapeutic practice to see patients try to guess whether their therapist is in favour or against their taking the drug, or whether the psychiatrist could be offended if he/she knew that the patient had doubts about its effectiveness or its toxicity. Thus, as in families, it is always a creeping and sometimes clandestine subject. In the text *Manuale di tessitura del cambiamento* [Manual for weaving change] (2015) I illustrated a series of situations where the understanding of drug information allowed us to identify the profound meaning of the individual and family suffering of those who take it and also to optimize its management. This is also the case in facilities that are no longer called asylums, but that do not work very differently.

Matteo's case lends itself in a striking way. Matteo is a handsome young man of 27 years, he is successfully coming to the end of an internship at an important company and, if he wishes to, he can choose to continue working there or to join his family's company. Since the end of university, he has lived independently in a small apartment above his parents. His autonomy became almost total since he began living with his girlfriend,

and this had been going on for a year now. He suffered from panic attacks at the start of university. A psychiatrist diagnosed him with social anxiety and supported him with drugs for two years. The attacks disappeared, he graduated from his undergraduate degree and then began his master's to specialise in his field of study. After two years of well-being, and his internship going extremely well, his attacks started again. He returned to the psychiatrist he trusted, who supported him for another year. He meets Anna with whom he starts a progressive and functioning relationship where they live together. He no longer suffers from panic attacks, so he ends it with the psychiatrist.

He now knows how to manage the medication on his own and takes it 'when needed' in case of stress. If he needs a prescription, his mother obtains it for him through her psychiatrist, whom she visits a couple of times a year for depression, which is treated with lithium.

Matteo believes he is cured from the panic attacks. He comes to me after the last contact with the psychiatrist because he considers himself a procrastinator. He claims that he never experienced this unpleasant characteristic before. He feels indecisive in his work, with Anna, for the decision of possibly moving house. Matteo completely disregards any connection between the current situation of indecision, which he defines as a weakness, and previous periods of crisis. He also does not understand that it is normal to be indecisive in the face of these existential choices.

I omit here all the work of negotiating and defining the therapeutic relationship and of reconstructing the family system, in order to reach the point of interest for this article. I ask Matteo if he is willing to do a job for me. I propose that he create a grid in which to mark in one column the years when he went to the psychiatrist and took medication. Then to add a column for each of the people who are important to him (mother, father, half-brother - the father's first son from a previous marriage -, other family members who collaborate in the family business, and Anna). He had to reconstruct the temporal link between his treatment with the psychiatrist and what those people were doing at that time in their lives.

The next session Matteo returns with a treasure trove of information hung to dry, as though they were photos that have just been developed on the thread of his medication history, that is, of his official label of 'patient to psychiatrist'. I will not reveal to the reader all the simultaneous systemic/family events that coincide with the 'pharmacological' starts and stops. The interesting thing is that when Matteo comes to me the family picture is stabilized in terms of conflict. So, there is no apparent cause for his discomfort. His family system looks like a bunch of Mikado sticks that have been placed in precarious equilibrium, but they are balanced. Everything had happened in the previous years. Matteo navigated through it, also thanks to the help of the psychiatrist, but now it is he who can upset the balance.

He has become *the emergent quality*, he demonstrates the Mikado structure: whatever stick he moves, that is, whatever decision he makes, all the sticks will be involved. As the young Matteo grasps the connections between all the sticks and sees the processes that have positioned them in that way, his current and prior ‘feeling of being weak and indecisive’ takes on a clear, new and perfectly plausible meaning. Anyone would have felt this way in that context, with that life story.

The work of complexification of the connections proceeded. Matteo comes to each session more and more angry and nervous, and I ask him if this is a situation in which he would ‘need’ to take medication. He confirms to me that in fact he has been taking medication, but always self-medicating. I point out to him that it does not seem to me an act of weakness to ask the psychiatrist for help again, while it does not seem to me a good idea to self-medicate, all the more since we made that synoptic grid and it had emerged that it was important that he manage his prescriptions directly, without asking his mother ‘for a favour’. It is at this juncture that *the meaning of the medicine information* emerges with all its paradoxical strength. The context gives and reveals a much wider meaning to the ‘banal’ behaviour of the sporadic use of a pill: “The medication is in my mother’s bathroom, downstairs, so she is always informed when I take it and of how many pills I have left! Should I tell her openly that I want to bring the pills to my house? Should I argue about this too? Hear her again say: after all the sacrifices I have made for...” The therapist has to be responsible for co-building a way of managing the medication. Only in this way will Matteo stay afloat.

I chose the story of Matteo because the significance of the problem of drug management and discontinuation emerges, but I could have talked about the case of Eric, who has a genetic disease with mental deficiency, or Katy, who ended up in intensive care due to the severity of her anorexia, or Carlo who, at the age of 35, has lived for 15 years in rehab centres, going on holiday every once in a while to a psychiatric ward, and many other stories (Gandolfi, 2015). In fact, medication, like any other behaviour linked to a diagnosed psychopathology, is a significant ‘conversational pretext’: the *emergent quality* of the way the specific system we meet works. The mind, like pathology is no longer an individual attribute, but it is the emergent quality of the process of interconnection between all the ‘conversationalists’ in which each individual is inevitably involved. Therefore, ‘any mind’ is to be understood both as a system of simultaneously interconnected functions relevant to an individual (biological organisation), and as a result of the process of interconnection between individuals bound by increasingly complex contexts and in turn hierarchically interconnected: family level, social level, macrocultural and religious level, and political level. What I call *the conversational mind*.

Living beings look more like chaotic systems than microscopy preparations or individual neurones. “A healthy system... is a system that guarantees belonging of one of its components while allowing it a complexification and multiplication of the possibilities of acting with other members inside and outside the original system” (Gandolfi, 2015, p. 33).

“Therefore, the mind, although biologically supported by an individual brain and body, is generated and developed in the complex and simultaneous relationships that bind individuals. [...] It is on this basis that I consider ‘any mind’ a superindividual process” (pp. 52-53). In this perspective, the symptomatic onset, and its possible structure and chronicization into a diagnostic label, is to be considered the epiphenomenon that highlights the functioning/dysfunctioning of the entire network of relations. Pathology is generated by the collapse of the system and makes all connections visible simultaneously.

The therapist must become an expert on complex conversational networks. Only in this way does bizarre behaviour take on meaning, comprehensibility and the possibility of being treated.

Exactly the opposite of what happens with a diagnosis codified by the DSM that extrapolates behaviour from the context, allowing for at most a textbook stereotyped relationship. This behaviour transforms into a complete definition of the patient’s reality and personality. But if the mind is considered the emergent quality of a complex process of interconnection, pathology, understood at this point as syndemic, cannot be controlled or expelled by controlling the single bizarre individual or moving him/her away from its system.

The choice of a linear paradigm explains the cohabitation of ‘theoretical polytheism’ accepted in the integrated approach: each piece of description of consciousness or self has its own theory. After all, even the most orthodox psychoanalysis includes the term relationship. The theory of attachment has also given back some dignity/responsibility to fathers. The cognitive-behavioural approach can include things as far away from its premise for rationality, falling under the transcendental contemplation into neurobiological materialism (Balter, 2017; www.unipi.it). With regard to the return of systemics to the good old fashioned linear concept of trauma (linearization of time and breakdown of simultaneity) I have already spoken. What allows for coexistence to be integrated summation (to each a floor of the theoretical building) is the sharing of the same paradigm: one can now highlight one plane or another, but psychopathology is always considered something that belongs to the individual. It can change the emphasis on the mind/body connection, or on the child/adult bond, or on the individual/environment bond, or on the subject/event bond at a given time, or on the connection between neurotransmitters, but psychopathology remains a problem, a suffering resulting from an individual imbalance that

must, using different techniques, go back into equilibrium. Each local theory is concerned with making its own floor of the building shine.

But it is the entire condominium that is rickety, like those buildings that we find in post-colonial countries or in the improvised suburbs of megacities where, depending on the whim of the inhabitants of the single portion of the house, you can find a gothic gargoyle, a classic gable, a pagoda roof and a large electronic advertising panel.

Changing paradigm means seeking out superordinate concepts that deal with the processes of connection of individual partial theories, not seeking out which partial theory can explain the whole, because it is a contradiction. On the other hand, the premise that the mind and its pathologies are individual explains why each of the accredited psychological theories can accept the DSM-5 diagnostic system.

In a complex approach to living beings, by changing the paradigm that replaces circularity with linearity, both the concept of mind and psychopathology become extra individual and dislocated.

Pathology, considered in this way, is to the concept of health, as the problem of waste is to environmental pollution. In a linear paradigm, you create ways and need to find ways to store them. In a circular logic, that is actually ecological, *i.e.*, Batesonian, that favours processes and ‘the structure that connects them’, waste must not be produced. Indeed, the problematic excess of one element is emergent quality, it is an indicator of an imbalance in the interconnection of all systems.

Can Spider-Man still be saved?

This article was written during the COVID-19 pandemic, when people seemed more disturbed by the discovery that science is not omnipotent, that statistics are not totally superimposable to real life, that an explanatory hypothesis must await verification, and above all, that not all scientists think the same, than from the discovery of human fragility in the face of nature’s self-defence force. Here, then, we mobilized psychiatrists and psychologists who explained the difference between fear, anxiety, and panic and then the techniques to control them, obviously with abundant concessions to psychotropic drugs, use of relaxation techniques and paternalistic occupational therapy advice. This event brought us back to reflecting on what the process of science is and what ethical and useful science is. There is nothing more suitable to conclude my discussion than the preface by Umberto Curi, Professor Emeritus of the History of Philosophy at the University of Padua, in Ilaria Capua’s text, *Circular Health: Empowering the one health revolution*. “[...] we are surprised [...] disappointing the enthusiasts of disciplinary rigidities, the academically

defined vestals of knowledge. Both of them destined to the object of fierce sarcasm of people who know best - I am referring to Albert Einstein - who loves to remind the proponents of the divisions between disciplines that nature is not divided into departments, as are universities... the One Health approach, that is a scaffolding in the text, undoubtedly marks the appearance of a new paradigm... revisiting Thomas Kuhn's scheme in a not merely decorative manner" (Curi, 2014, pp. 10-11).

In this text we can find the concepts that have marked the failed revolution even in the psychological field that I have already mentioned. A revolution that conceives health as a system and that by putting 'interconnections and interdependencies' at the centre changes the very definition of health and disease.

Perhaps the needle of time has again turned in the right direction. The ecological approach to Bateson's mind reminds us that, as man belongs to Nature and only within Nature can he understand who he is, thus every individual is born and lives within his system of relationships, that are complex and interconnected, and only within that system can he/she find the meaning of all his/her behaviours, even the most painful and disturbing ones. Before shortening the sleeves of a jacket, so that you have the right length for your hands, you must make sure that your shoulders are cut to the right height and the centre line of your back is perpendicular to the hem. This is the difference between a tailor-made dress and a dress that looks perfect on a mannequin, but once worn will make you look like a scarecrow. Today we apply this to the concept of health, even mental health: a highly specialized factory where there is the department of sleeves, the shoulder department, the sewing department of the back, *etc.* but the master craftsman, who has in mind a template in which every part must find its own proportionate location, is missing. Therefore, the concept of a pre-conscious paradigm choice is needed.

And what about the mythical '*Uomo Ragno*' (Spider-Man) in the song written by the band 883 in 1992? The history of customs tells us that in times that foreshadow moments of great instability and social control, songs that are apparently stupid appear, but they have subversive metaphorical content. This is the case for the song '*È arrivata la bufera*' (the storm has arrived), written by Renato Raschel in 1939 and which was censored. Our Spider-Man seems to have been created out of economic lobbies and the power of advertising. Economists tell us that by the beginning of the 90s, finance changed the World (Perkins, 2004). We know that all scientific disciplines suffer enormously because of economic mechanisms underlying funding and peer review management systems (Bucci, 2015). That is why one must recover a psychotherapeutic working method capable of documenting one's disruptive capacity step by step. That can structure audits and checks over time and also document the cost-benefit ratio.

This is exactly the heart of the current problem of science in general, in which the repetition of procedures that do not question the theoretical premises (consilience) prevents the most robust and up-to-date theories from emerging, highlighting the contradictory effects on the same problems in relation to the different way of dealing with them (triangulation). This is considered by epistemologists to be the only way out of theoretical polytheism that renders many interventions ineffective. “Most scientists would be hard-pressed to describe it. Researchers typically receive extensive training on experimental methods and the design of experiments, while training for causal inference approaches is poor. They are left with no framework to guide scientific pursuit” (Munafò and Smith, 2018, p. 68).

We hope that the third revolution will not be missed again and... long live Spider-Man!

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