Ann Ist Super Sanità 2021 | Vol. 57, No. 4: 352-360
DOI: 10.4415/ANN_21_04_10

Book Reviews, Notes and Comments

Edited by
Federica Napolitani Cheyne

LE PILLOLE PIÙ AMARE
La storia inquietante dei farmaci antipsicotici
Joanna Moncrieff
Roma: Giovanni Fioriti Editore; 2020.
266 p.
ISBN 9788836250172
€ 24,00

[Original title -The bitterest pills: The troubling story of antipsychotic drugs]

Joanna Moncrieff's essay, published in the Italian edition in 2020, is an accurate scientific investigation that can be read like a novel based on real facts: psychotropic drugs with their peculiar history and their use (and abuse). Although it is a pharmacology textbook, purposefully limited to brief descriptions of the characteristics and development of hypotheses about the action of some of the most prescribed psychotropic drugs (from haloperidol to clozapine and the more recent "atypical" ones), the work of the Author helps the reader reach an improved, broad awareness about prescribing (if the reader is a medical doctor) or recruitment (if the reader is a potential user).

There is an impalpable common thread that runs through the book: "Although there is a variation in the response of individuals to all drugs, psychoactive ones produce their characteristic range of effects in anyone who takes them, regardless of whether or not they have psychological problems. Most psychoactive drugs also have physical effects, and physical and mental effects are often inextricably linked" (p. 10).

The Author, page after page, makes us witness the sunset of the "drug's model of action based on the drug itself" (the drug is a chemical that alters the functioning of the brain and the entire body) and dawn of a "model based on the disease" (the drug acts on the biological processes that cause a disease). All the arguments are supported by compelling evidence about causes (including marketing actions and the absence of evidence in some cases) and clinical-cultural consequences: "The idea that psychiatric therapies, including medications, worked by inducing other diseases, was no longer an acceptable basis for treatment (...)" and "When textbooks began to present the disease-centered view, there was little recognition that there was an alternative explanation of how antipsychotics might work (...)" (p. 49).

The essay is also a historical investigation into the change of psychiatric approaches over time. Such a change has led to treatments that are applied on the basis of labels or diagnoses derived from Manuals ("The 'bipolar' epidemic began in the United States in the 90s, when some academics began to suggest that the disorder was poorly recognized (Ghaemi *et al.*, 1999)" (p. 188). Also, this change is precisely connected to the spread of the disease-centered model, which is well suited to approaches based on economic, rapid therapies, which, in some cases, are only on-the-surface grounded in real evidence: "No research has ever been conducted, or at least published, that has shown that Valproic Acid reduces mood variability and there remains no evidence that it modifies the biological basis of mood (...) Despite the evidence, its sales skyrocketed when the concept of mood instability and the idea that there was a specific treatment for it were introduced into mental health services (Ilyas and Moncrieff, 2012)" (p. 190).

The indirect protagonists are Mental Health Users, Psychiatrists, and Researchers – the various voices, through a "(...) critical debate on the huge volume of literature and marketing that describe these drugs as a godsend for humanity (...)" (p. 18), will gradually lead the reader to ask himself "(...) questions about the consequences of long-term treatment and why, sixty years after their introduction, we still have no certainty whether antipsychotics help or harm those who take them for a long time" (p. 18).

The importance of psychiatric drugs used in a critical and targeted way is not denied at all. On the contrary, the Author provides a well-round reflection on the need to maintain "humane" psychiatric care, by arguing against the logic of renewed, "total institutions" that embrace excessively agile and ready-to-use diagnostic packages associated with standardized psychopharmacological treatments: "It must be recognized that in many circumstances antipsychotics are not taken because the individual finds them useful but, in fact, because other people or society in general cannot tolerate this person's behavior". And, if it is not wrong "to change people's behavior if it is seriously antisocial, threatening or dangerous (...) yet as a society we must feel a sense of awareness and responsibility in trying to do so and be ready to think objectively about the methods we use to do so" (p. 215).

In its final analysis, the essay provides an indirect invitation for the reader to ponder on therapeutic relationship as reciprocity between its actors and on the fact that even the future of psychiatry cannot be separated from its biological, cultural, psychodynamic, phenomenological, social, and relational facets. Leveraging the dialogue between different disciplines and fusing the resulting knowledge as a single whole, it will be possible

to achieve the most effective and efficient "recovery" in Mental Health.

Psychic care aimed at alleviating mental suffering is certainly not a mere and stereotyped application of algorithms or rigid schemes to follow, rather, it is an action that focuses on the very life of the human being: care is a taking care. We must not be distracted by such core mission, whereby "although there is no evidence to suggest that early intervention is responsible for a better prognosis for individuals diagnosed with schizophrenia and psychosis (...) emotional advertising is meant to convince doctors that not starting antipsychotic treatment at the earliest possible opportunity leads people to an empty life and ruin. (...)". An advertisement for a Long Acting Injectable antypsychotic "read: 'prescribe early, because what he/she loses, could lose forever' (...)" (p. 179).

An exclusively quantitative model centered on illness aims to quell mental pain, making it deaf and invisible. As such, it might empty human existence and create humans devoid of pain and its meaning, prompting societies without pain, passive, and at risk of totalitarianism.

The essay does not definite solutions to the reader, but it is a successful solicitation to examine mental health also according to a drug-centered model. As such, it constitutes a valuable viewpoint on the deceptive equivalence between the person and her\his biology and an energizing basis to support an evidence-based, constructive, critical attitude that is mindful of the homologation of behaviors crushed by technicalities.

Extrapolating to the Italian Mental Health model, the reading of this very well translated volume places at the center of the scene those public services that, basing their operations on a bio-psycho-social model, are able to respond to the multiple variables of help demand to offer an effective response even, and above all, to serious mental disorders.

Based on the data released by the recent Report of the Ministry of Mental Health in Italy, the essay could advocate for the continuous implementation and strengthening of the network of public mental health services, which, equipped with suitable resources, must be increasingly able to intercept the youth psychic discomfort that represents a real emergency, lately exacerbated by the COVID-19 pandemic.

Alongside new resources, new forms of collaboration between the territorial mental health services and the universities could contribute to the progressive development of innovative training projects. By giving centrality to public mental health services, these projects could contribute to reducing gaps and promoting global health. Relocating the "person" at the center of the therapeutic scene is an act of defense of democracy and a memory of the future.

Emanuele Caroppo
Department of Mental Health - Local Health Unit ASL Roma 2
emanuele.caroppo@aslroma2.it

HOTEL PENICILLINA
Storia di una grande fabbrica diventata rifugio per invisibili
Anna Ditta, Marco Passaro, Andrea Turchi
Con testi di Matteo Balduzzi, Luigi Cerruti, Mauro Palma
Formigine (MO): Infinito Edizioni; 2020. 255 p.
ISBN 9788868614416
€ 14,00

[The story of a big factory that became a shelter for the homeless]

This is a strange book. It is made of science, of local and global politics, of the past and the present, of large-scale economics and neighborhood solidarity. All these issues are concentrated in one (large) place: the abandoned penicillin factory created after WWII at the Eastern periphery of Rome. It was named Leo – after the Danish company Løvens that licensed the production process, and it was built between 1947 and 1950 by Giovanni Armenise, who acquired the license from another Italian company – Cisitalia, a former car-maker – that went bankrupt soon after the war. Penicillin, the miracle drug, was at the time an Anglo-American monopoly, except for the Danish pharmaceutical company: most of the antimicrobial drug was produced in the USA and UK, and other countries merely filled the vials. The first half of the book – written by Andrea Turchi (a chemist by training, with a passion for history and politics) – details the early history of penicillin in Italy. Drawing on published sources and archival material, the book outlines the trajectory of the molecule and the associated technology, together with the political history of Armenise who, with the help of Danish engineers and technicians, togheter with Italian scientists and politicians, managed to open the "fabbrica" in 1950, when it was inaugurated by the universal symbol of the new pharmaceutical era, sir Alexander Fleming.

To understand in full the history of the Leo, the reader should also remember the greater picture of the introduction of penicillin research and production in Italy. While Armenise was dealing with the Danes to obtain the patent and build the "fabbrica", the director of the Istituto Superiore di Sanità (just a few kilometers from the Leo plant) Domenico Marotta hired the biochemical mind behind the wonder drug: Ernst Boris Chain, the German-born British chemist awarded with the Nobel prize in 1945 for the discovery, together with Alexander Fleming and Howard Florey. For 15 years, the ISS became a global center of innovation in the biochemistry and engineering of antibiotics production, with a research laboratory, a pilot plant and a small factory (built with American aids) to supply hospitals and the Italian Army. Leo and the whole Italian pharmaceutical sector greatly benefitted from Marotta's vision of the ISS as a support to the development of Italian industry. Scientists and technicians from private com-

panies often turned to Chain and the ISS for help and advice, and international connections (for example, the ISS was a WHO reference center for antibiotics); while the ISS could count on the help of Leo and other companies when special and expensive needs arose. The physical proximity between Leo and ISS was obviously a bonus, with frequent exchanges between the private "fabbrica" and the public establishment.

The narrative of the first half of the book is multifold. Turchi mixes the detailed reconstruction of the techno-scientific history of the Leo (how the fermentation process was gradually perfected, the emergence of semi-synthetic penicillin, etc.) with the history of the area where the factory was built, and the history of the people working inside the factory. Over the years, Turchi developed several connections with former technicians, clerks and engineers of the Leo, and their voices are often heard in the book. They speak not only of the interaction of science, technology and industry, but they also remember an almost forgotten past of working-class pride and paternalistic capitalism. The factory was the core of the area, with hundreds of families living in the neighborhood relying on the Leo as the main source of income, so that the evolution of the company is mirrored by the evolution of the urban context. In the 1970s, the Armenise family leaves the company, and in 1985 the factory is sold to a global player, Smith Kline & French. However, the pharmaceutical market has completely changed, and despite some efforts for innovation, the large establishment is gradually dismantled: in 1987 penicillin production by fermentation is definitely halted, and the buildings are slowly but steadily abandoned as production decreases and scandals sweep Italian pharmaceutical market. The factory finally ended its operations in 2006, and every trace of activity disappears in 2008.

Here starts the second life of the factory, and the second part of the book, written by the journalist Anna Ditta. The immense building became a shelter for dozens of homeless, and some of its structures were predated for scrapping metals, glasses, and whatever could be of some use. The factory, in its decline, followed the gradual failure of industrial development of the area, so that a working-class neighborhood became an underclass district. The Leo factory became a house to many asylum-seekers, immigrants *sans papier*, or simply working poors who could not afford a rent. Once again, the fate of the factory is intertwined to Italian politics: according to the authors, the failure of restrictive immigration policies and the lagging economy led to the birth of large ghettos in hidden corners of most Italian cities, often ending with forced removal of people, as in the case of the Leo.

The book is thus interesting for several reasons: the reader interested in the history of science and medicine will appreciate the pharmaceutical development of an industry in the context of post-WWII Italy; the sociologically versed reader will find interesting insights about the connections between a factory and its urban context; a political reading is also possible, especially when the book deals with the workers' struggles in the 1960s and 1970s, and in its second part about contemporary Italian politics. The three authors (with Turchi and Ditta, Marco Passaro contributed to a chapter and shot the photographs documenting the lives of the people living in the "Hotel Penicillina") successfully turned the building of the Leo Penicillina and its trajectory in an interesting and stimulating case study relevant to several academic disciplines. Unfortunately, the factory is now a ghost haunting the surrounding area, a decaying monument that reveals more of the bleak present than of the great past.

Mauro Capocci
Dipartimento di Civiltà e Forme del Sapere
Università degli Studi di Pisa, Pisa, Italy
mauro.capocci@unipi.it

PICCOLI PICCOLI. Storie di neonati nell'Italia di oggi
Mario De Curtis, Sarah Gangi
Roma: Laterza; 2021. 184 p.
€ 16,00

[Little little ones. Stories of newborns in Italy today]

Mario De Curtis and Sarah Gangi have been working together for a long time in the Neonatalogy and Neonatal Intensive Care Unit (NICU) of the Umberto I Polyclinic in Rome, Italy. The former is a neonatologist, who was head of the NICU and full professor of Pediatrics at the University of Rome La Sapienza; the latter is a psychologist and psychotherapist, in charge of the Psychology Service in the same structure. After years of work in such a delicate and complex environment, they decided to share with a wider audience both the passion needed to face its daily challenges and the lessons they have drawn, on a professional and human level. They did this mainly by writing two books: the first *Voglia di vivere. Storie di piccoli guerrieri*, published in 2015 by Hoepli, and the one in review here, *Piccoli Piccoli. Storie di neonati nell'Italia di oggi,* published this year, 2021, by Laterza.

Through seven different stories of newborns and of their parents and families, the authors bring us into what they call the "microcosm" of NICU and illustrate some complex medical problems (by definition in a neonatal intensive care!), the challenging social background that often accompanies them and the related ethical dilemmas.

The book unfolds on two parallel levels, according to the different professional specializations of the two authors.

For each of the stories told, at first Dr. Gangi takes us inside the ward and vividly recreates the difficulties and the emotions that the families involved and the health personnel face on a daily basis. The result is a competent and empathic portrait of every single situation.

Then follows Professor De Curtis, who offers the medical background of the story, the related health care aspects, and gives, whenever necessary or useful, the epidemiological framework of reference. He often broadens his description by touching delicate issues, whose common thread is the fragility of the newborns and their dependence on the choices of adults – aspects with which De Curtis became well acquainted during his long tenure within the National Bioethics Committee.

All the stories told are examples of situations that recur in the hospital practice involving premature babies. The authors' desire is to offer parents, who might unexpectedly face difficulties with their newborn kids, a little perspective to feel less alone, and to help them find the energies that the situation requires, however unobtainable they might appear.

What remains after reading this book is a choral image of the NICU microcosm, involving infants and their families, the health personnel, doctors and nurses, who fight every day together with premature babies to get them out of the emergency. We are outside this microcosm, blissfully unaware of it, but we could be thrown inside it, utterly unprepared. And this is a good reason for reading this book.

Antonia Stazi
Istituto Superiore di Sanità, Rome, Italy
antonia.stazi@iss.it

REALTÀ
Mario De Caro
Torino: Bollati Boringhieri;
2020 p. 128.
ISBN 9788833928074.
€ 13,00

[Reality]

In this little book that once would have been deemed as "golden" for the outstanding clarity and the unparalleled lucidity of its argumentation, Mario De Caro faces the most philosophical and at the same time the most common-sensical problem, that of reality. His main assumption is tantamount to maintain that "no one has succeeded in convincingly demonstrating that we can give up the idea of a reality independent from us, that is, the idea of an internally structured reality even before the mind gives it a conceptual framework" (p. 14).

De Caro has multifariously collaborated with some exponents of the so-called new realism (such as Maurizio Ferraris and Markus Gabriel), but this book does not represent a sort of manifesto of that philosophical standpoint: it is rather a defence of a naturalistic perspective on reality. In the first chapter, the author, starting from the general scepticism that characterized most of the philosophers of the last decades of the twentieth century about the idea of reality, observes how, apart from two important exceptions such as Karl R. Popper and John Searle, authentically realist options were to be found almost only in Australia, so much so that in the ocean of anti-realism those who could be defined as the "marsupials of philosophy" found themselves swimming in the opposite direction, with great difficulty. Anti-realism found its champions both among the eminent philosophers of the Anglo-Saxon tradition (like Davidson or Feyerabend), and among the so-called continental philosophers (from Foucault to Gadamer).

Moreover, none of these philosophers went so far as to explicitly deny the existence of an extramental reality, but rather maintained that it was impossible to understand it as something already given, as if it were pre-packaged independently of the structuring of the categories of mind and language. Without them, reality would be unstructured and amorphous. This point of view had then led to the rehabilitation of various traditional forms of anti-realism, from nominalism to phenomenalism, from classical idealism to radical empiricism, ending with more or less pronounced forms of scepticism, often declined with disguised clothes (postmodernism, "weak thought" or deconstructionism)[1].

However, De Caro observes, just as in the last act of Mozart's *Don Giovanni* the Commendatore's ghost appears to remind us of those truths that cannot be erased, so in recent years reality has once again firmly

1 Even a historian of science like Thomas Kuhn defended a rather radical relativism, according to which we live in a world determined by the paradigms of the dominant sciences: our world, or rather the Galilean world, differs from the Aristotelian world because a body oscillating above us is a pendulum, whereas for the ancients it is only a body tending towards its *locus naturalis*. And even Hilary Putnam, along with the seemingly distant Gadamer and Davidson, came to argue that it is impossible to speak of a world without the participation of the mind or of reality data presupposed to the mind and not interpreted. Putnam, in the phase in which he defended the so-called internal realism, argued that it is the mind and the world, jointly, that generate the mind and the world, in a "transitive" way, so to speak, as Spinoza would have said; there cannot be, therefore, a "ready-made" world, without the participation of our intuitive and cognitive functions. In a not dissimilar vein, the American philosopher Richard Rorty, in an epoch-making book entitled *The Philosophy and the Mirror of Nature* (1979), argued that external reality is always shaped by our conceptual framework. Given the impossibility of standing outside our conceptual apparatus to understand what reality really is before it is conceptualised, we cannot form any non-contradictory representation of a reality that pre-exists in our minds. From Rorty, bridge-builder between analytic philosophy and continental philosophy, the passage to postmodernism, deconstructionism and weak thought is short: these conceptions are characterised precisely by the explicit denial of the idea of an independent objective reality, in the name of the thesis that it makes no sense to speak of a prelinguistic reality.

and decisively occupied the philosophical scene, so that the number of philosophers who call themselves realists has been increasing, both within analytical philosophy and continental philosophy. The marsupials, far from being an endangered species, have returned, with their realism, to occupy the philosophical continents.

But De Caro does not intend to prepare a survey of the new realist philosophies, but rather to give a convincing answer to the questions that arise once the correctness of the realist point of view has been assumed. Here is a brief overview: 1) Should we rely more on the senses or on what science tells us about the world as a parameter for making judgements about external reality? 2) If the answer were to assign more value to science, how would we cope if the various scientific disciplines talk about entities that cannot be perceived either with the senses or with instruments that amplify the senses (such as telescopes or microscopes)? 3) Do colours, sounds, smells – i.e. what the tradition from Galileo to Locke called secondary qualities and which, on the basis of the testimony of the senses, seem to us to be located in the external world – really exist outside us or are they projections fashioned by our mind? 4) Apart from material objects, do non-material entities such as disembodied minds, numbers, missing acts and universals exist? 5) Do unobservable entities in physics, such as electrons or black holes, exist objectively or are they merely theoretical constructs with an "economic" value, as Ernst Mach once claimed? 6) In the non-hard sciences, do collective entities, such as multinational corporations, exist as independent entities that are responsible for their actions, or are they fictitious entities that, precisely because they are fictitious, cannot be held responsible for what seems to everyone to be happening because of their intervention? 7) What status of reality do mental illnesses have? Are they cultural constructs or pathologies objectively located in the biological world? 8) Are moral and aesthetic judgments able to identify objective aspects of reality or do they have a merely subjective status? 9) Does time exist as we think it does or is its nature entirely illusory, as even some physicists claim? 10) Do causal phenomena really exist in the world or is causation a mere projection of our mind?

For De Caro, all these questions can only be plausibly answered once it has been determined which is the best form of philosophical realism available today. De Caro, moreover, starts from the hypothesis that no serious philosopher has ever been completely realist or completely anti-realist[2]. Therefore, the author argues that all attempts to solve the problem of realism are a matter of degree: for him, it is a matter of assessing which doses of realism should be adopted on a case-by-case basis, specifying which entities are real with respect to the various fields.

However, there are at least two basic forms of philosophical realism:

1. Ontological realism, whereby certain kinds of things are real, whether they are concrete entities (the computer I am writing with, the table, the Alpha Centauri double star or Woody Allen), abstract entities (disembodied minds, numbers, aliens and the Schumann cello concerto I am listening to) or properties (the red being, goodness and free will), events or processes (the Big Bang, transubstantiation and the Middle Ages). These theories can go so far as not only to affirm the reality of the external world as a whole but also to determine in what sense time, including the future, or space, as a container of entities, according to Isaac Newton, is real. Two parallel questions then arise: whether something really exists, or, if it does, whether it exists independently of the minds that think it up. The first question is usually asked of atoms, and the second is asked of colours.

2. Epistemological realism. According to the proponents of this conception, there are facts that go far beyond our ability to verify them. Let us imagine that it is true, for instance, that there are no life forms in the universe outside the solar system. This clearly seems to be a fact that cannot be definitively ascertained, because it would imply the possibility of scouring the entire universe, which is beyond the reach of today's technologies. An anti-realist might object that this is a fact that can be ascertained under "ideal epistemic conditions", i.e. without spatio-temporal constraints placed on the knowing subject. In turn, then, the epistemological realist might reply that accepting such a possibility would mean appealing to a "divine" point of view, a hypothesis that is little considered today even by believers.

De Caro deals especially with the first form of realism (p. 19), ontological realism, assuming, however, that in all serious philosophical theories elements of realism and anti-realism are combined. For him, the two basic forms of ontological realism are (a) ordinary realism, which attributes reality exclusively to entities we can experience, whether directly (through introspection or the senses) or indirectly (by means of instruments that extend the reach of the senses, such as microscopes and telescopes), and (b) scientific realism, i.e. the conception according to which the world contains only those entities and events (both observable and unobservable) that the natural sciences are able to describe and explain. According to a version of this perspective that was already called physicalism in the Wiener Kreis, physics becomes a fundamental science, because all other sciences are reducible to it: in this perspective, therefore, physics delimits in principle the whole of our knowledge and ontology.

2 Not even the Austrian Alexius Meinong, perhaps the most radical of realists, attributed to the round square a real existence, but if anything a hypothetical existence. Or Bishop George Berkeley, champion of anti-realism in the form of subjective idealism and defender of immaterialism: he became a convinced realist when he discussed the divine mind. As Benedetto Croce had already argued, in his somewhat old-fashioned prose: "not even Berkeley, by denying matter, denied reality, which was for him the will and reality of God; and for Hegel the Idea was not mere knowing, but the unity of knowing and willing, capable of producing the sun, the earth and the other stars, and executing the programme of all the seven days of creation; and, even for the most vacuous of today's idealists, the act they call the act of thinking is more than the act of knowing, so that they fall, if ever, into mysticism or irrationalism or phenomenism, but not into 'solipsism', which is a bogeyman of something that no one has ever seriously thought of proposing and supporting" (*La Critica*, 1937, 35, p. 153).

De Caro turns to be rather sceptical about the possibility of admitting the reducibility of biology and biological taxonomy to physics and physical taxonomy (p. 19). In his view (which he shares with his colleague David Macarthur), evolutionary biology, for example, aims to provide a causal explanation for a highly specific sequence of *actual* historical events. It is not concerned about laws for a *possible* sequence, but about historical events that are represented by the evolution of single organisms under determined circumstances. But the same is true of physics itself, if we look at cosmology, that aims at describing the actual development of the universe, i. e. another specific sequence of historical events. Another biological example that could fit this standpoint is represented by the Mendelian genetics, insofar as it involves predictions through statistically discovered patterns of phenotypic variations in populations of biological entities. Furthermore, in the philosophy of biology we can find the supporters of final causes (the so-called teleosemanticists, biomedical Nobel laureate Jacques Monod, Fred Dreske, Garrett Millikan), who have variously endorsed the irreducibility of biological functions to the entities of physics or chemistry. According to these scholars, biology provides examples of authentic scientific explanations and predictions that don't necessarily become general laws of nature. Therefore we are obliged to recognize the failure of the deductive-nomological conception of science in some fields of investigation: if we recognize biology as an autonomous science we can go on in the process of liberalizing the philosophical conception of the sciences within a naturalist perspective. And De Caro stresses this standpoint when he deals with ethics: it can be argued that moral properties are reducible to non-moral natural properties, but it does not necessarily imply that the property of a certain action to be good, for example, could simply mean that that action conforms to a system of instructions – hardwired into our brains by virtue of natural selection – that results in a benefit to humanity. Moral properties can be studied by the natural sciences, but not identical to some non-moral property: that is, they are natural properties of a specific kind (p. 47)[3].

De Caro then undertakes extensive historical excursus that take us first of all to the time of Galileo: the great scientist is seen as a defender of the Platonic theses, i.e. of the idea that it should be mathematics to determine the ontological sphere, as the Platonists claimed, and not perception, as the Aristotelians claimed: for him the ontological and epistemological primacy belongs to physics. According to physical-mathematical Platonism, there are only physical properties, the nature of which is intrinsically mathematical and, more precisely, geometrical[4].

De Caro eventually arrives at a form of "liberalised naturalism", which admits the existence (and necessity) of a plurality of keys to access a reality that is irreducibly complex and varied[5]. In order to demonstrate the feasibility of such a path, he dwells on a subject that is very dear to him, namely that of free will (which Hume called "the most controversial question that philosophy and science have to face"). He first discusses some common misconceptions (such as the idola of Baconian memory), which are frequently found in discussions on the concept of free will or freedom of the will and which risk leading any discussion into an impasse. He then analyses the two main current challenges to the concept of free will, the neuroscientific deterministic one and the epiphenomenalist one.

According to the former, our behaviour is entirely determined by factors beyond our control so that free will is impossible. To support this thesis, reference was once made to physics (whether Newtonian mechanics or the theory of relativity) or to social sciences such as sociology and anthropology (in their deterministic versions centred on the notion of social and cultural context). Today, genetics and neuroscience are preferred, in their more deterministic declinations. The latter emphasises the discrepancy between the (explanatory) motives that the subject adduces to explain his actions and the unconscious motivational factors (i.e. the real causes) that would actually determine the actions themselves. In this case, there would be conditions in which, beyond appearances, conscious states would not be causally relevant in the generation of actions: the consequence is that, at least in some cases, the conscious mind would not have causal powers, i.e. it would be epiphenomenal. This thesis would also put out of play the classic compatibilism, i.e. the classic conception developed by Locke, Hume and Leibniz according to which determinism is, at least in part, reconcilable with free will.

Another interesting point is the challenge set up by the so called mysterianism (p. 65). In fact, we have, on the one side, philosopher who contend that the features of the manifest image of nature have a place in the world as it is described by natural science and want

3 These versions of realism can then be combined with a third version, which is more sophisticated from a philosophical point of view, although unfamiliar to non-philosophers: this is realism with respect to abstract entities (i.e. entities that by definition cannot be located from a spatio-temporal point of view, such as universals, numbers, sets, species and meanings): realism with respect to these classes of entities is often labelled "ontological Platonism", because it can be compared in many ways to Plato's so-called "theory of ideas". According to this form of realism, abstract entities exist independently of the concrete exemplifications that occur in the space-time continuum. For example, the species Canis lupus exists as an abstract entity beyond its individual concrete exemplifications, such as my neighbour's German shepherd or the dog-actor playing Commissioner Rex. Similarly, according to ontological Platonists (e.g. Gottlob Frege), the meaning of the utterance "Greenland is an island" exists independently of the concrete manifestations of that utterance (and of similar utterances in languages other than Italian).

4 He then dwells on Husserl, according to whom phenomenological investigations prove that the only real world is the "life-world" (Lebenswelt): this is the world of human experience, in which secondary values and properties are real. It is the "forgotten foundation of meaning of natural science". Scientific concepts become mere idealisations with practical ends, such as measurement and prediction, without referring to real entities. From this perspective, science must be interpreted instrumentally, i.e. in ontological and anti-realistic terms.

5 He does not forget to compare his position with the one of some authoritative contemporary analytical philosophers, such as van Fraassen (for whom he uses the felicitous label of "constructive empiricism"), Quine, and Putnam.

those features to be reduced to scientifically acceptable ones. Others, instead, argue that these features are mere delusions and, consequently, should be taken away from our ontology. The two ontological choices, i.e. reductionism and eliminativism are deemed by others as something between the devil and the deep blue sea, that is both equally unpleasant or not convenient. Consequently, they opt for 'mysterianism', the view according to which we cannot renounce the naïve and non-scientific features of the manifest image even if we are not able to understand the ways (which certainly exist) in which they could be reduced to the scientific ones. De Caro thinks that mysterianism is only a way to explain away the problems, without providing any solution: in the last analysis, reductionism, eliminativism and mysterianism fail in their own so that the best tenet is that the scientific image and the manifest image of the world are essential and mutually irreducible but not incompatible with each other, as only a genuine philosophical outlook can highlight. That's why it is absurd to give credit to some scientist that sentence philosophy to death, just because are simply philosophizing on their own without having the appropriate tools to do so. And this is an error symmetrical to that of philosophers – still quite numerous, unfortunately – who claim to discuss scientific issues without having the slightest idea of what they are talking about (p. 78).

At this point, according to De Caro, it is necessary for philosophy and science to proceed jointly, each according to its competences and prerogatives, in order to find a space in which it is legitimate to speak of free will: for him, this is exactly the perspective of liberalised naturalism that allows human beings to be considered, at the same time, as free agents and as natural entities. In the first sense, we belong to the normative sphere of the space of reasons; in the second sense, to the sphere of natural legality: only a poorly justified scientistic metaphysics can lead us to think that there is one explanation that is more correct and fundamental than others. There are cases in which we must resort to the explanations proper to the natural sciences; then we will gradually move on to the level proper to the human and social sciences; and finally we will arrive at the level of normative explanations. As Hilary Putnam has written, there are "as many kinds of cause as there are senses of 'because'".

Why to suggest such a book to the biomedical audience? Cognitive sciences with their increasing association with neuroscientific approaches and the relevance of neurodegenerative diseases in our Western aging population find a cross-pollinating relationship, e.g. on p. 71, where brain scientists melt with philosophers. The problems of language, the pathophysiology of communication and their "mystery" are presented under a Chomskyan perspective. In the paragraph "Problems of scientific realism", reductionist straitjackets are concisely reviewed beyond Descartes and Kant. The most provoking point could be "the mistake of the neuromaniac", the average scientist who brandishes theories and neuroscientific experiments to reinforce with weak evidence his feeble tenets and arrogant statements (p. 98). Libet's electro-encephalographic experiments and their reflection on awareness do represent another intriguing challenge.

The author, Mario De Caro, full professor of moral philosophy at University Roma Tre, has also been holding a course in Boston (USA) for several years. He recently participated into a series of joint seminars at ISS, in collaboration with the Accademia Nazionale dei Lincei and the Imperial College, London, on the issue of community and health. This agile contribution may indeed provide a lively interaction between biomedicine and the humanities.

Teodosio Orlando
Università degli Studi Roma Tre, Rome Italy
teodosio.orlando@uniroma3.it

COME PENSANO LE FORESTE
Eduardo Kohn
Prefazione di Emanuele Coccia
Milano: Nottetempo; 2021
439 p.
ISBN 9788874528943
€ 20,00

[How forests think: Toward an anthropology beyond the human]

A PIEDI NUDI NEL VERDE
Giocare per imparare a vivere
Albertina Oliverio,
Anna Oliverio Ferraris
Milano: Giunti;
2011
223 p.
ISBN 978-88-09-76624-2
€ 10,00

[Bare foot in the green: Play to learn how to live]

An emerging research sector, with an exploding variety of biomedical studies and analytical approaches, deals with the beneficial effects of spending the entire lifespan in a natural environment, or at least within an ecological niche characterized by a sufficient amount of natural-type stimuli, those enough to trigger appropriate mental and bodily reactions. Experience of a natural environment is relevant during infancy. During such sensitive or critical periods, the developing brain is prepared to be moulded by stimulus sets of a sufficient complexity.

In general, it is suggested that environment characterized by scarce natural stimuli, a variety of unnatu-

ral stimulus sets, or stimuli which for frequency and\or duration are far from those expected by *Homo sapiens*, might not support wellbeing and resilience. Even exposure to plant essence or walking under a tree canopy covering reportedly ameliorate psychophysical discomfort. Vulnerable patients are a particular target.

Very recently, the policy paper for the G20 "Mental health" included this statement, formally inspired by the UN Environmental Programme: "Environmental issues should not be neglected, given that factors such as pollution, climate change, and ecosystem degradation negatively impact mental health" (*COVID-19 and the need for action on mental health 2021*, pag. 2, par. 1).

The volume by Kohn (a recognized anthropologist interested in climate change effects based at McGill University, Montréal, awarded the Gregory Bateson Prize in 2014 for this present book) is an elegant, sometimes poetic narration about a kind of individual (the ecology of selves) ecology, an "aboutness" which reveals a generalized *telos* which initiates with interhuman relationships to eventually delineate an interactive creative effort which envelops and permeates all the living organisms: where the local human populations have spent, are spending, and will spend their existence?

"Distributed selfhood" is a central concept here (p. 210), as "The ecology of selves" (p. 156). In fact, One health is a third Millennium revelation in contemporary biomedicine [1-4].

In the Kichwa population (inhabiting the Ecuadorian forests around Àvila), the *kawsanguichu* greeting sounds "Are you still alive?" (p. 80). Such a bonding, empathic ceremony is the occasion for Kohn's reflections and speculations about the inevitable networking which envelopes all the living beings that populate the forest. The paragraph "Of and into the world" again represents a pivot for elegantly disentangling the subtle, yet very robust bond between all forest inhabitants, as a generalized approach explaining the difficulties to maintain a decent level of wellness in a variety of anthropogenically-modified contexts. The urban, inner cities well represent a special case, not rarely hitting the psychophysical equilibrium of people, in particular in the case of vulnerable subjects with a biography of mental suffering.

Dogs seem indeed a special case. Dreaming dogs, dogs warmly empathic with forest humans, dogs predated by jaguars. "The canine imperatives" (p. 252) represent "a delicate interspecific negotiation". The neuroscientific approaches by Terrence W. Deacon, an author of paramount importance or human brain evolution, embedded in a narrative, fluid text, reveal a truly original perspective.

The interaction of the human mind in those forest population is not at all limited to humans. India rubber and especially "green venoms" extracted by local plants all represent a complex network of survival, maintained in equilibrium by an intricated ensemble of living "Like traders, Amazonian dolphins congregate at the confluence of rivers".

Kohn based his essay on four years of field research in one of the world's most complex forest ecosystems. As the author recalls in the fascinating concluding chapter, the main objective of this complex essay is to build an anthropology "beyond the human" that includes the possibility of thinking with images beyond the semiotic mode of human thought. In the ecology of the Amazon rainforest the complexity of the relationships between all living beings and their interdependence put into action a "thinking mind" endowed with harmony and inclusive of the phyletic history of each living species. A food for thought perhaps for those eager of understanding the healing power of nature on the human mind.

The nice, little essay by Oliverio (Associate Professor of Logic and Philosophy of Science, University of Chieti) and Oliverio-Ferraris (Full Professor of Developmental Psychology, Sapienza University of Rome) starts with an apparently trivial consideration, i.e., that until a few decades ago our cities provided open spaces where children could freely meet and play. Green zones, streets, squares. It was indeed sufficient to go down to the courtyard or to go out from home to find playmates. Then, slowly but inexorably this picture mutated and a variety of social and "green" stimuli evaporated for the subsequent generations. Natural times and developmental times (p. 22) are implicitly suggested along the text. The volume enlists some reflections on the actual dangers for urban children by the well-known British architect, town planner and anarchic thinker Colin Ward. Charles A. Lewis, author in 1996 of *Green nature, human nature* is present along with Maria Montessori and John Dewey (p. 128). Proposals to regularly cordon off some streets to allow children playgrounds or outdoor kindergartens or forest kindergartens are already a reality, mostly in selected areas of Northern Italy or around Rome (Ostia). Such a selected, yet wide, series of readings make this book a quite excellent introduction to the matter. A few agile schemes (list of commonest urban pollutants, Natural elements for outdoor play activities, etc.) represent a very useful complement.

Chapters and paragraphs summarize "Bird fountain and tv laboratory", "Naturalistic mind", "Attention deficit or deficit of nature?", "Play: evolutionary advantages, Hidden significance", Green cities and transition towns". They all touch relevant and emerging issues, stimulating readers of different sectors to elaborate on.

These, and similar books, may profitably attract professionals interested in both children and\or adult mental health as well town or hospital planners, architects, municipality, or citizens worried by the increasing loss of urban biodiversity and local and global change of the environments where they spend their lives. It is likely that new lines of research will be launched, therefore young investigators could benefit from considering those two and similar books.

Gemma Calamandrei, Enrico Alleva
Centro di Riferimento per le Scienze comportamentali e la Salute mentale, SCIC Istituto Superiore di Sanità, Rome, Italy
enrico.alleva@iss.it

REFERENCES

1. Bertinato L, et al. How can we manage the COVID-19 infodemics? A case study targeted to health workers in Italy. Ann Ist Super Sanità 2021;57(2):121-7. Available from: https://annali.iss.it/index.php/anna/article/view/1250/737.
2. Casà C, et al. COVID-19 and digital competencies among young physicians: are we (really) ready for the new era? A national survey of the Italian Young Doctors Association. Ann Ist Super Sanità. 2021;57(1):1-6. Available from: https://annali.iss.it/index.php/anna/article/view/1170/707.
3. Petrini C, Minghetti L, Brusaferro S. A few ethical issues in translational research for medicinal products discovery and development. Ann Ist Super Sanità 2020;56(4):487-91. Available from: https://annali.iss.it/index.php/anna/article/view/1169/662.
4. Petrini C, Brusaferro S. Ethics committees and research in Italy: seeking new regulatory frameworks (with a look at the past). Ann Ist Super Sanità 2019;55(4):314-8. Available from: https://annali.iss.it/index.php/anna/article/view/958.