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METAPHORS IN THE CLINICAL GAZE: TRAUMA, MEMORY, AND UNCONSCIOUS

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ABSTRACT

Building upon writings of William James, Pierre Janet, Jacques Lacan, Sigmund Freud, and others, we here examine the history of three metaphors and their relation with the evolution of key ideas in psychological theory, aiming to illustrate to what extent epistemic heterogeneity characterizes scientific inquiry more broadly. Such heterogeneity, often unawarely taken on board, may include not only metaphysical assumptions and social constructions, but also the extensive adoption of metaphors as means to validate theories, guide inquiries and help imagine new possible worlds. The concepts of trauma, memory and unconscious are taken into account as bridging empiricism and the theory of meaning. We hereby outline their role in validating scientific statements around hysteria, on the liminal field between philosophy and science. Following the general orientation outlined by Lakoff & Johnson, Danziger and Reynolds, we investigate how the validity conditions of numerous scientific statements are deeply embedded with the truth of the metaphors and analogies historically adopted to formulate their model-based reasoning.

KEYWORDS: Epistemology, Metaphors, Philosophy of Medicine, Psychology, Psychiatry, History of Ideas

In a culture where the myth of objectivism is very
much alive and truth is always absolute truth,
the people who get to impose their metaphors
on the culture get to define what we consider to be true
— absolutely and objectively true.

George Lakoff & Mark Johnson (1980, 161)

THE CANON AND THE KING

In 1533, in a letter addressed to the Clergy of York, King Henry VIII wrote this much fascinating passage:

> He that [should] say he rode beyond the sea, were not conveniently interrupted in his tale by him that would object sayling upon the sea, where he could not ride at all; and rather then men would note a lye, when they know what is meant, they would sooner by allegory or metaphor draw the word to the truth, then by cavillation of the word note a lye. [...] The truth cannot be changed by words. (Haddan 1869, 385)

Henry VIII, King of England and Ireland, here prettily describes metaphor and allegory as forces able to "draw the word to the truth", and truth itself as something that "cannot be changed by words".

A century and a half later, in 1691, John Hartcliffe, Canon of Windsor, redacted an ambitious *Compleat Treatise of Moral and Intellectual Virtues*, aiming to describe their nature and attest their value. There, metaphors and allegories are said to have quite a different relation with knowledge and truth:

> let not Men think they can be Holy without Moral Vertue; [...] Devout and Pious, without all sober and sincere use of their Understandings in spiritual Matters, for this Mischief will certainly ensue upon it, that Men will embrace Metaphors and Allegories, Fancies and Forms of Speech, instead of the Substance of true and real Righteousness. (Hartcliffe 1722, 284)

Suspicion against trust, the Canon and the King looked at metaphors with very dissimilar eyes. One of those writings depicts metaphors and allegories as advisers of the truth; the other, as harmful impediments, or derails against its achievement.

Metaphor itself, on its part, could rather be considered as somewhat of a neutral ambassador, an impartial carrier. The Greek verb μεταφέρω derives from *meta*, meaning "over", and *pherein*, "to carry". Metaphoric thought carries over, it allows to establish connections, among others, between concepts and experiences, words and ideas. The debate around the relations between analogies and truth, which may today be considered as a segment of the wider discussion around words and things, as developed by Michel Foucault in *Les Mots et les Choses* (1966), has soon pervaded scientific reasoning and the philosophy of science, under the awareness that nature does not come with its own language and human beings can not be sure whether or not their thoughts, symbols, and languages actually represent or correspond to what they call the natural world. As for human understanding, chances are that metaphors might be inextricably connected with the very way we think:

> Though the use of metaphorical language in science has been historically criticized by some philosophers of science and scientists on the grounds that metaphors are figurative, ambiguous, and imprecise, their generative potential cannot be ignored. It is, in fact, metaphor that makes theory possible, and a great number of scientific revolutions have been initiated through novel comparisons between natural phenomena and everyday experiences. (Taylor & Dewsbury 2018, 2)

Besides that, Cynthia Taylor & Brian Dewsbury remind that the choice of a specific metaphor, or a set of them, may have an impact that goes well beyond the design of a scientific theory itself. It might influence perception, policies and behaviours:

> A growing body of literature also suggests that metaphors shape the mind, structure our experiences, and influence behavior. Experimental studies reveal that changes in the framing of policy-relevant issues (such as crime, natural disasters, and climate change) through metaphors can subtly, and covertly, influence the perception of risk, the sense of urgency, and the level of support for proposed "solutions" by acting on pre-existing cognitive schemas and prompting affective responses. (Taylor & Dewsbury 2018, 1)

On the sway of such a rich epistemological subject, we would here like to briefly consider the history of some particular metaphors and analogies, that have been placed at the heart of the medical approach to the psyche, or mind, as well as to further discuss their validity in terms of truth attributions and their general function within scientific knowledge as producers of discursivity. To do so, we will refer to the very beginnings of psychoanalysis and dynamic psychology, along the XIX and XX centuries, when concepts like dissociation, subconscious, conversion, unconscious, somatization, and more, have been created to account for the clinical phenomena that ended up constituting a necessary scientific myth: the nosological category of hysteria. Curiously, although hysteria has been dismissed as a scientific kind, virtually all the concepts and metaphors created to support it came to stay, and survived till today.

TRAUMA, MEMORY, UNCONSCIOUS

Kurt Danziger (1997, 11) wrote in *Naming the Mind* that: "ignoring the fact that scientific categories have a history makes it possible to avoid fundamental questions", thus allowing to operate in a scape where "history is replaced by essentialism". Inspired by such concerns, we would like to illustrate how the category of hysteria, and the dilemma of its symptoms, progressively brought physicians, philosophers and psychologists to reshape traditional concepts, develop novel ideas and give life to entire subject areas. We will focus

on the analogical, more than logical, forms of thinking as they evolved within the history of those ideas, showing how scientific reasoning progressed by means of metaphorical shifts and analogical association.

In order to play a functional role under the clinical gaze on hysteria, as well as to help validate the reality of such category, the most diverse entities of memory, trauma, unconscious and behaviour have historically been subject to metaphorical readjustments, particularly along the XIX and XX centuries. More precisely, the metaphorical and analogical relations between those entities under the scientific outlook came to significantly alter their status, their respective place within a model of understanding and their very meanings for the time to come.

As a start, let us consider the very peculiar journey of the word "trauma", which has been responsible for transposing sets of meanings and properties, originally belonging to medicine, from materialist reductionism to the arena of metaphysics, that is to describe the mind, psyche, or soul. A crucial idea in psychology, according to which dysfunctional behaviours can be brought back to an original psychological experience (*psychogenesis*), has precisely been dependent on the legitimacy of a metaphor: the metaphor of *psychological trauma*. The idea that psychological traumas, or mental injuries, are real entities is today taken for granted, both in the scientific and in the popular domains, mainly because of the riddle of hysteria. Etymology suggests that the word "traumatic" is derived from the Latin "traumaticus" and the Greek "τραυματικός", meaning "pertaining to a wound", where the word "τραῦμα" designated precisely the "wound, or external bodily injury in general; also the condition caused by this; traumatism" (OED). In fact, "in medical terminology, trauma refers to physical injuries caused by external forces, including mechanical, thermal, or chemical factors" (Tekiner et al. 2025, 168).

Originally meant to describe an external, physical injury of the body hitting against an object, or being damaged by the contact with a harmful substance, for centuries trauma remained strictly a medical term for bodily harm, up until the late XIX century. Then, the meaning of the word trauma has expanded its semantic spectrum to include an internal, abstract, emotional kind of experience, conceived as a "harm", precisely when authors like William James, Sigmund Freud, Josef Breuer and Pierre Janet began to use it metaphorically to describe "psychic wounds" or emotional shock.

The general metaphor underlying this extension could be phrased as: "some experiences are wounds", or "some thoughts are injuries", with an extremely significant shift of domain from physical matter to human feelings and personal experience. If we consider the symbolic system of meanings surrounding such conception, we can further observe how such metaphors work together with another metaphorical pair, this time spatial in nature: namely the assumptions "body is exterior", "mind is internal", which allows for the

attribution of physical, dimensional, orientational properties to ideas, memories or feelings. From the rhetorical device of a simile (*some experiences act on memory as wounds act on the body*), a shortcut produced the metaphoric statement "some experiences are wounds". Through such metaphors, which might appear to be more conventional than true, psychological distress has gradually been equated to physical pain, emotional experiences to body collisions, and bad memories have been equated to physical wounds, metaphorically enabling the formulation of true statements in clinical research, at the very beginning of psychoanalysis and dynamic psychology.

This pivotal figure, that of psychological trauma, was first introduced by Breuer and Freud in 1893, and soon after echoed by philosopher William James — the first teacher to offer a psychology course in the US — in the volumes of the American journal «Psychological Review», as we shall see.

Following the pages of *On the Psychical Mechanism of Hysterical Phenomena* (a title that itself includes a metaphor from physics) Freud and Breuer collected some theoretical premises, where they observe:

> The experiences which released the original affect, the excitation of which was then converted into a somatic phenomenon, are described by us as *psychical traumas*, and the pathological manifestation arising in this way, as *hysterical symptoms of traumatic origin*. (1981, Vol. 2, 209 [1893])

Still aware of the embryonic, metaphorical status of that expression, in the following year William James published a brief review dedicated to the colleagues' work. He there traced the figure of speech back to the original research on memory by Pierre Janet, often neglected by Freud, who nonetheless was reading him very closely. Janet was in fact the first psychologist to systematically study psychological trauma and to describe dissociation as the primary mechanism through which overwhelming experiences lead to psychopathology. James resumed the theory as follows:

> Hysteria for them [Breuer & Freud] starts always from a shock, and is a 'disease of the memory'. Certain reminiscences of the shock fall into the subliminal consciousness, where they can only be discovered in 'hypnoid' states. If left there, they act as permanent 'psychic *traumata*', thorns in the spirit, so to speak. (1894, 199)

The adoption of italics in both quotes pertains to the originals, and is relevant. In fact, as by now, in contemporary society, one hardly ever employs the word "trauma" to describe a physical injury out of a hospital, it is only recently that this expression has gradually undertaken a process of resemantization, coming to exclusively designate a psychological kind of event. In other words, trauma has become a dead metaphor, losing its original meaning while

being progressively detoured towards a new referent: unintegrated memories (see Janet 1889).

In that new outfit, the idea kept on evolving significantly through key historical moments. In the late 1800s the term was adopted in psychology to describe mental distress. In *L'Automatisme Psychologique*, Janet argued that vehement emotions interfere with proper appraisal, causing traumatic memories to dissociate from general consciousness rather than being integrated. Later, during World War I, "shell shock" was the term popularized to describe the trauma suffered by soldiers affected by explosive-induced psychological responses, although symptoms were often dismissed as moral weakness. In the mid XX century, the term "traumatic neurosis" was used for survivors of industrial accidents and war, recognizing that mental symptoms could occur without visible physical injury. Then, in the 1980s, the diagnosis of Post-Traumatic Stress Disorder (PTSD) was added to the American DSM (*Diagnostic and Statistical Manual of Mental Disorders*), solidifying trauma as a recognized psychiatric condition rather than just a character flaw or physical ailment (see Loughran 2012; Crocq & Crocq 2000). Today, the concept has expanded even beyond individual psychological harm, to include collective, historical, and intergenerational trauma, reflecting a broader understanding of how overwhelming events may impact societies and cultures (see Keaney et al. 2024).

Considered under the conventions of objectivity and scientific realism, such journey of meanings, conducted via analogies and predication, begs the questions: doesn't the metaphorical status of such statements and theories foreclose their possibility of conveying a scientific truth? How exactly are metaphors and analogies different from the logics of scientific reasoning? And how are they related to invention, or discovery? Before we discuss such questions, let us consider some further instances.

In the history of psychology, trauma has not been the only concept to be metaphorically assigned to the transference of systems of meanings from one domain to another. Memory as well has been variously associated to a series of analogical relations, inaugurating alternative sets of conventions and various outlooks on reality. It is not our ambition here to draw, or even outline, a comprehensive history of the metaphors of memory, as such a task would require a dedicated research on its own, possibly exceeding our abilities. For the reader who may be interested in such journey, we refer to the fascinating work of Douwe Draaisma: *Metaphors of Memory: A History of Ideas about the Mind* (1995). What we take on us here, before we pass on to the unconscious, is simply the brief appreciation of the cognitive, knowledge potential that metaphorical and analogical thought comes with when it intertwines with the idea of memory. In the XIX and XX centuries, when dynamic psy-

chology and psychoanalysis were brewing, several conceptions of memory had already been proposed to help think about its nature.

In ancient times, Plato famously compared human memory to a "wax block" in his dialogue *Theaetetus*, describing it as a gift of Mnemosyne (the mother of the Muses) located within the soul. He proposed that when we perceive or think about something, we imprint experiences onto this internal wax block, using the impressions of seal rings. Whatever is imprinted is remembered, while what cannot be imprinted, or is rubbed out, is forgotten. This metaphor suggested that the quality of one's memory depends on the nature of the wax. Likewise, Aristotle utilized his master's wax block (or wax tablet) as a primary metaphor to explain memory and perception, describing it in his works *De Anima* and *On Memory and Reminiscence*. He there argued that sense perception acts like a signet ring, pressing into soft wax, leaving a permanent impression or memory trace (an engram) in the soul's bodily seat, which persists until it is overwritten, or until it fades. This model served as a physiological explanation for how external objects imprint forms onto the mind without transferring matter, distinguishing his view from Plato's more complex theories involving immortal souls and pre-existing knowledge. While Plato regarded memory as an imprint in the immortal soul, Aristoteles considered memory as a modification in the mortal soul, imprinted like a cast at birth time (see Engelhardt & Levy 2023). But even more figures had been advanced by Plato:

> The 'aviary metaphor' was proposed (also in *Theaetetus*) as an alternative to the former. There, birds are captured and gathered in an 'aviary' (birdcage), each representing different kinds of knowledge [memories]. The aviary is empty [blank] in the newborn, and any bird that is captured and encaged corresponds to a learned topic [knowledge] [memory] (Engelhardt & Levy 2023, 2)

In the *Philebus*, Plato's Socrates describes memory not as a physical inscription but as the preservation of perceptual awareness (*sōtēria* of *aisthēsis*) within the soul (see Harte 2014). Socrates there compares the soul, in which memories are recorded, to a book that contains true and false reports, recorded by a writer and illustrated by a painter. Those recordings would trigger hopes and fears, pleasant and unpleasant feelings in the soul that views them. That internal "book" allows the soul to compare current perceptions with stored memories, forming the basis for opinions and judgments. Socrates further argues that because these internal recordings can be erroneous (as the writer can draft something false), they can generate false pleasures and illusions, distinguishing the soul's intellectual capacity from mere bodily sensation.

Much later, Descartes brought the body more heavily into the equation, and provided a new idea defining memory as a trace, or pattern, left in the brain by past sensations. He distinguished between bodily memories (stored in the brain's physical traces) and intellectual memory, which depended solely on the soul. Finally, Richard Semon postulated concepts and terms centralized by the "engram" concept, accompanied by "engraphy" (encoding) and "ecphory" (recall) (see Schacter et al. 1978). Each new proposal, each new analogy, emphasized different features that could be adopted to think about memory, reshaping its look and reconsidering its functions.

In the XX century, under the medical surveys on the hypnotic state, memory has been associated with the idea of a set of perceptual data, well stored from childhood and available for recollection, based on a metaphor that could be phrased as "memory is an archive". In those same years, the development of psychotherapy as a talking cure enabled Pierre Janet as much as Sigmund Freud to operate in the delicate realm of memory editing, providing evidence that the metaphor "memory is a storytelling" could also deliver relevant clues, and indicate otherwise unimagined research outlines to be developed (see Hacking 1995).

We were mentioning that, according to Janet, "unintegrated memories" manifest as fragmentary reliving experiences, including somatic sensations, visual images, and behavioral reenactments, summarized under psychological traumas. Janet acutely identified fixed ideas as complexes resulting from failed adaptation, which disrupt effective action and lead to conditions he categorized as hysteria or, as he actually called it, *psychasthenia*. Interesting detail: the treatment, there, was only possible because memory was considered as an entity that could be "cured", an idea first introduced by Philippe Pinel at the end of the 1700. The idea that lost reason could be restored, instead of being lost once and for all, was back then an absolute innovation, which inaugurated the use of medical knowledge and treatment in respect of the "madmen", who gradually became patients. In Janet, as well as in Freud, memory became the very object of such therapy, considered as an entity that could get sick, and therefore could be cured.

There is more. Philosophers like Edmund Husserl and Maurice Merleau-Ponty seemed to further justify another early Greek intuition, that can be metaphorically stated as "memory is imagination", or "memory is fantasy". In the clinic, Freud himself (1981, vol. 16, 386) pointed out that traumatic memories were often nothing more than pure fantasies, acting nonetheless as experienced events in the patient's life and body.

What we wish to highlight, with this brief historical overview on the ideas of memory, is that by connecting apparently unrelated domains, each of those metaphors and analogies revealed a particular net of meanings and relations, a new possible morphology for the entity described, and several opportunities

for further interactions with other entities and disciplines. An archive is typically an available register of information, ready for consultation. It may contain images, sounds, words, bodily feelings, emotions, affections; but it is also a "read only" kind of device. A wax block, on the contrary, is not something stable, but it can progressively be carved, it can be moulded, melted down and remarked again from scratch. In a similar way, a text allows for modification, being subject to writings and rewritings, not so much a printed book. Even more interestingly, a statement in the form of text can be false, negative, illogical, paradoxical, or just wrong, as suggested by Socrates in the *Philebus*. Its underlying logical structure allows for contradictions or forbids them in a way iconic images can not. By further considering memory as a mode of fantasy (see Husserl 2005), the connection between inner life and external experience in the social or material world is loosened up to the point that it does not deserve much attention anymore, providing the psychic subject with full sovereign power over her or his rememberings, in the open domain of pure imagination. Such panic autonomy is however somehow challenged by the metaphor according to which memory is a storytelling. As reported by Janet (1914; 1889), psychotherapy and talking cure give raise to a co-working relation between therapist and patient around traumatic memories, creating peculiar narrations where both the therapist and the patient are equally assuming the role of authors of the memorial storytelling, fostering new, shared interpretations of experiences. Together, they are changing their meanings.

The pairs memory-archive, memory-text, memory-wax block, memory-image, memory-story, and memory-fantasy, inaugurate as many opportunities for the creation of theoretical models about the entity of memory. Our digression aims to elucidate the much stimulating idea that every metaphor employed in the understanding of an entity may inaugurate a new set of affairs, novel meanings to be explored and new possibilities for research around a certain subject, in this case memory.

Next to the metaphorical shifts of trauma and memory, and in some way together with them, the concept of the unconscious represents no exception in the history of psychology. In fact, all three ideas have been deeply and reciprocally reframed under the medical theorization of hysteria, right at the turn of the XX century.

The first known use of the word "unconscious", initially used as an adjective, appears in Thomas Hobbes' *De Mirabilibus Pecci*, in 1678 ("*unconscious of its fault which tortur'd cryes"*), where it meant "unaware" or "not marked by conscious thought" (OED). English poet Samuel Taylor Coleridge later adopted it in his 1817 *Biographia Literaria*, where he wrote: "conscious or unconscious, the freewill, our only absolute self, is co-extensive and co-present" (2014, 82).

In 1800, Schelling's *System of Transcendental Idealism*, whom Coleridge read passionately, for the first time mentioned *das Unbewusste* [the unconscious] as a substantive, "which indicates that the concept 'the unconscious' was established in Germany in the last quarter of the 18th century" (Otabe 2019, 96). Later, in *On the Origin of Species* (1859), also Charles Darwin used it as an adjective, to refer to the "unconscious selection" processes in nature (see Bargh & Morsella 2008). From the 1860s, the writings of Wilhelm Wundt and Charles S. Peirce present the concept of "unconscious inference", which came to incorporate the latter's broader theory of knowledge. Wundt even described as a fact the continuity of consciousness and the unconscious, suggesting that "it is never possible to establish a clear-cut boundary between consciousness and unconscious" (in Cristalli 2020, 437).

While the term was employed in general English for over a century, its current psychological sense, and its proper thematization, was developed later, precisely through the theories of Janet and Freud, although recent studies "agree that it was in *Philosophical Aphorisms* (1776) by Ernst Platner, German anthropologist and physician, that the concept of 'the unconscious' first appeared" (Otabe 2019, 95).

Prior to Freud, philosopher Eduard von Hartmann popularized the concept with his 1869 work *The Philosophy of the Unconscious*, while Janet initially used "subconscious" to describe a mental state inaccessible to introspection. In *L'Automatisme Psychologique*, he defined the subconscious not as a separate entity, but as an act which kept an inferior form amidst others of a higher level, resulting from a narrowing of the "field of consciousness". An action there, not an entity.

In his seminal 1890 work *The Principles of Psychology*, William James examined how psychologists and other experts had used the term unconscious, drawing precisely on XIX century writings by figures like Arthur Schopenhauer, von Hartmann and Janet. The early, uncertain physiognomy of such concept, still under debate and definition, can be fully appreciated through the analysis of the metaphors and analogies that Freud himself put in place to help outline and establish his theory.

In his 1915 *Papers on Metapsychology*, Freud allowed himself to play with a general metaphor that can be phrased as "the unconscious is a place", or "the unconscious is a space", giving rise to a theory of the topography of what Freud called the mental acts (another metaphor). That figure would involve the possibility to describe ideas, feelings and memories as entities subject to the coordinates of a dimensional space (up-down, in-out, depth-surface, front-back, etc.), as well as to imagine thoughts and memories as units that can be moved, located, extracted or displaced. Freud soon realized that such metaphoric treatment would have required the ability to even design a map of the unconscious:

> If we are to take the topography of mental acts seriously we must direct our interest to a doubt which arises at this point. When a psychical act [...] is transposed from the system Ucs.[1] into the system Cs. (or Pcs.), are we to suppose that this transposition involves a fresh record — as it were, a second registration — of the idea in question, which may thus be situated as well in a fresh psychical locality, and alongside of which the original unconscious registration continues to exist? Or are we rather to believe that the transposition consists in a change in the state of the idea, a change involving the same material and occurring in the same locality? This question may appear abstruse, but it must be raised if we wish to form a more definite conception of psychical topography, of the dimension of depth in the mind. (1981, Vol 14, 173-4 [1915])

Next to this topographical model, from 1923 on Freud introduced a different framework, a structural model, a tripartite account of the mind dividing the psyche into three interacting systems. His focus had changed. While the topographical model concentrated on the accessibility of mental content, the structural model centered on the functional conflict between these three agencies, with unconscious processes attributed primarily to what he called "the id" and "the superego". We can clearly see here how a shift in the intentions of an author may shape different theories, representations and ideas, and how those can intertwine with the adoption of various metaphors and analogies. Or the other way around.

Despite its tremendous success, the model of Freud was not the only one defining wide horizons to conceive the unconscious in the XX century. Moving towards a quite different ontological register, and proposing a separate, radically distinct set of hybrids and opportunities, French psychiatrist Jacques Lacan later proposed a powerful alternative idea. Lacan's model of the unconscious fundamentally redefined the concept by changing its reference metaphor, asserting that the unconscious was structured like a language, rather than being a chaotic reservoir of repressed biological instincts. His theory posits that the unconscious is not an individual, intra-psychic entity, but a trans-individual symbolic order, operating as the "discourse of the Other". The Lacanian, Saussurian-based analogy of the unconscious as a language (*the unconscious is structured like a language*), was first outlined in his 1953 work *The Function and Field of Speech and Language in Psychoanalysis*. His vision originated a whole different ecosystem of reasoning. Under such analogy, human thoughts and feelings become something alike representations of an acoustic image, symbolically associated with a concept and further subject to the rules of natural languages. Such a representation of the unconscious allowed, inter alia, for the consideration of human behaviours as forms

[1] [Ucs: unconscious / Cs: conscious / Pcs: preconscious].

of communication. A few years before Thomas Szasz, and some thirty years after the intuition of André Breton, who wrote that "hysteria is not a pathological phenomenon but may be considered a form of expression" (1928, 20), Lacan suggested the fertility of considering the close correspondence between behaviours and language. Thus, he wrote in *The Formations of the Unconscious* (Seminar V, 1957-1958), again dealing specifically with hysteria:

> Obsessional or hysterical behaviour is overall structured like a language. What does that mean? It isn't enough to say that beyond articulated language, beyond discourse, all of a subject's acts would have this sort of equivalence to language that is there in what is called 'un geste', gesture, inasmuch as a gesture is not simply a well-defined movement, but is also actually a signifier. The expression that fits perfectly is 'une geste', a gest in the sense of a 'chanson de geste', a gest such as *The Song of Roland* — that is, the sum of one's history. It's ultimately speech, if you will. The sum of the neurotic's behaviour presents itself like speech, and even like full speech, in the sense in which we saw its original mode in the engagement in the form of a discourse. It's full, but entirely cryptographic speech, unknown to the subject as to its sense, even though he pronounces it with all his being, in everything he manifests, everything he evokes and has ineluctably realized down a certain path of completion and incompletion, if nothing in this order of oscillation called analysis intervenes. It's speech pronounced by the barred subject, barred to himself, which we call the unconscious. (2017, 450)

Further widening the extent of such line of reasoning, contemporary researches brought the hermeneutics of that analogy further into social sciences and anthropological models. In particular, psychiatrist and anthropologist Arthur Kleinman argued that physical symptoms are to be considered as metaphors through which individual and collective distress can be voiced (Kleinman 1977). He emphasized that the plot lines, core metaphors, and rhetorical devices deployed in illness narratives are drawn from cultural and personal models that help patients arrange their experiences in meaningful ways. These metaphors are critical for sense-making, allowing individuals and their social networks to communicate the distinctive events and long-term course of suffering. Kleinman further illustrated the power of metaphors through the concept of the "wounded healer", describing ideal physicians who use their own pain to empathize with patients. He also criticised the use of some metaphors in public health and media, arguing that images of suffering are there often appropriated and commodified, ultimately distorting the authentic experience of those in affliction (see Gaines 2016).

In those same years, Deleuze and Guattari conceptualized the unconscious not as a theatre of representation or a linguistic structure, but as a "machinic factory" driven by the desiring-production. The metaphor is there strictly me-

chanical. They describes the machinic unconscious as a signifying and subjective aggregate of flows and breaks, functioning like a machine that connects with other machines rather than interpreting hidden meanings. In *Anti-Oedipus* (1972), they argued that human desire is a positive, productive force that constructs reality through assemblages, rejecting the psychoanalytic focus on lack, castration, and the old-fashioned, dismissed Viennese Oedipal family drama.

Recently, in *Mastery of Non-Mastery in the Age of Meltdown*, anthropologist Michael Taussig conceptualized the "bodily unconscious" as a visceral, non-semiotic faculty that responds to affective contagion and mimetic fluxes, operating beneath conscious awareness to shape perception and social reality (Taussig 2020). He claimed that the unconscious is fundamentally mimetic, meaning it functions through imitation where copies generate creative refigurations of their originals, a process he terms the "metamorphic sublime". In his view, metaphors are not merely linguistic devices, but literalized strategies for understanding the world, akin to delusions or conspiracy theories that make complex realities available for representation. Taussig contends that the bodily unconscious processes these metaphors through sensory and rhythmic engagement, such as dance or spirit possession, where the boundary between observer and observed dissolves, allowing ideas to resonate through atmosphere and tone rather than abstract logic.

Metaphors And The Scientific Gaze

We followed above the journey of some sets of metaphors and concepts as they integrated the medical gaze around the understanding of hysteria, in order to show how such interaction contributed to the evolution of some key ideas in the history of psychological theory. Below, we would like to illustrate to what extent epistemic heterogeneity characterizes scientific inquiry more broadly, with a further evaluation of metaphors, analogies and representations as producers of discursivity within scientific knowledge. We will move from an epistemological assessment of the apparent conflict between material reductionism and abstract or metaphysical figures in psychiatry, to investigate how the validity conditions of scientific statements are deeply embedded with the truth of the metaphors and analogies historically adopted to formulate their model-based reasoning.

We have seen that, on the sway of the "linguistic turn", psychiatrist Thomas Szasz claimed that hysterical behaviours were to be considered not as symptoms of a disease, but rather as a form of communication, just like physician and poet André Breton had argued back in 1928, with Louis Aragon. By denying scientific citizenship to the entity of mental illness, Szasz was

simply honouring the tradition of medical material reductionism. Crucially, he formulated that distinction in terms of a demarcation between "real" illnesses and "metaphoric" illnesses, as follows:

> My claim [...] rests on the materialist-scientific definition of illness as a pathological alteration of cells, tissues, and organs. If we accept this scientific definition of disease, then it follows that mental illness is a metaphor, and that asserting that view is stating an analytic truth, not subject to empirical falsification. (Szasz 2011, 179)

Szasz (1974, 455) further argued that the fact of dealing with the diagnosis and treatment of metaphors would be enough to place psychiatry within the class of the pseudosciences, together with alchemy and astrology, echoing a demarcation criterion first outlined by philosopher Karl Popper, an enthusiast admirer of Szasz's work (see Buchanan-Barker & Barker 2009). Although the absence of a widely accepted clearcut demarcation criteria makes it hard to support that captivating claim (see Laudan 1983), or to formulate the philosophical debate around the reality of mental illnesses in terms of a science/pseudoscience distinction, it is true nonetheless that the one of "mental illness" is a metaphor, and that such metaphor has long been adopted as a guideline principle for scientific inquiry. The critique of Thomas Szasz was meant to dismantle the social ontology of mental illness by means of denying empirical truth value to metaphors. An analysis of such critique, directed to a system of metaphors, or a mythology of assumptions, would go as follows. According to that distinction, there would be a key difference between accepting, or proving, the truth of these two medical sentences, or diagnosis:

(1) "the patient has conversion disorder";

(2) "the patient has an HIV infection".

Such difference would rest upon an ontological distinction in the status of the entities taken into consideration, namely: the fact that the latter diagnosis (2) is likely to be based on the scientific evidence that there is, out there in the world, a material, objective, observable entity at play (the HIV virus) that has been found in the patient's organism by means of a blood test, detecting the presence of a microorganism in accordance with the germ theory of disease. In contrast, in the first statement (1) the psychiatrist is assuming the existence of an unproven entity which is an immaterial, unobservable, theoretical construct and is held to be responsible for someone's observable behaviours and declarations, in accordance to a latent theory of disease, to be confirmed when and if scientific research will ever be able to identify a biomarker. Furthermore, the first statement is related to another series of infer-

ences, none of which goes according to materialist scientific reductionism. Such system of assumptions would proceed as follows:

(3) "There are normal and abnormal behaviours";

(4) "Some abnormal behaviours are to be considered as symptoms of a disease";

(5) "There are out there in the world several supposed, latent, unobserved entities responsible for those observable abnormal behaviours";

(6) "Such unobservable, undetectable entities are to be considered as diseases, and reliably correspond to the behavioural descriptions listed in the DSM and ICD catalogues";

(7) "The theoretical construct psychology calls 'the mind' can get sick";

(8) "Physicians are able and entitled to identify and treat the sickness of the mind";

(9) "Social scientists like psychologists as well are entitled to treat — and cure — the sicknesses of the mind, but not to identify them" (in fact, they can not produce diagnoses recognized by State authorities; their ontological statements can not be true).

Etc.

According to Szasz, this system of unproven beliefs would be nonsensical enough to classify psychiatry as a pseudoscience. However, this is also where the argument against the metaphor of mental illness ceases to be endorsable. The most obvious objection, at this point, shall be: if the expression "mental illness" is a metaphor, so is the sentence "hysterical behaviours are a language", or a protolanguage, which is the premise of both his model and the model of Lacan, Breton and others. The only difference rests on the premises and consequences of the metaphorical proposal under consideration: one set of analogies invites to explain a class of elements in terms of diseases, the other suggests to translate them in terms of communication acts. Therefore, if the former statement is to be considered pseudoscientific on the base of a "metaphorical bias", so should be the latter. If the latter is legitimate despite the use of a metaphor, so should be the former. The claim gets even more interesting as metaphors are there considered in terms of "analytic truths not subject to falsification". In fact, it is not tenable that the presence of metaphors alone prevents a scientific statement from being true. Or better, neither the presence nor the absence of metaphors can guarantee around the truth or false-

hood of a scientific statement, or theory. Numerous fascinating researches have been conducted on the matter.

As known, in the 1980s George Lakoff and Mark Johnson rejected the "objectivist myth" that has long dominated Western philosophy, arguing that it falsely claims the mind can access absolute, objective truths independent of human experience. The authors contended that objectivism is a myth, for it ignores the fundamental role of the body and metaphors in shaping human thought, treating concepts as inherent properties of the world rather than products of an interaction. Instead of objectivism, Lakoff & Johnson proposed an "experiential realism", which holds that the mind is inherently embodied, meaning reason is tied to our physical bodies and sensorimotor systems rather than being a disembodied, transcendental faculty. In *Metaphors we Live by*, thus they summarized the relation between metaphors and understanding:

> an understanding of truth in terms of metaphorical projection is not essentially different from an understanding of truth in terms of nonmetaphorical projection. The only difference is that metaphorical projection involves understanding one kind of thing in terms of another kind of thing. That is, metaphorical projection involves two different kinds of things, while nonmetaphorical projection involves only one kind. (1980, 171)

If any scientificity hallmark required one to drop metaphors entirely, then also the theory that "dysfunctional behaviours are protolanguages" would have to be abandoned, or labeled as pseudoscientific. Caution: with this remark we are not advocating for psychiatry and its dramatic epistemological inaccuracy; we are rather taking up for the relevance of metaphors within scientific inquiry more broadly. In doing so, we are aware that there are indeed some risks involved in the adoption of metaphors like that of "mental illness". For instance, a confirmation bias may well be at work under the surface, creating a loop effect precisely by validating inaccurate observations supported by the application of metaphors:

> Metaphors may create realities for us, especially social realities. A metaphor may thus be a guide for future action. Such actions will, of course, fit the metaphor. This will, in turn, reinforce the power of the metaphor to make experience coherent. In this sense metaphors can be self-fulfilling prophecies. (Lakoff & Johnson 1980, 157)

Nonetheless, metaphors are fundamental to scientific inquiry, serving as essential tools for heuristic discovery, cognitive understanding, and public communication. Scientists rely on metaphorical language to bridge the gap between abstract, unfamiliar phenomena and concrete, everyday experiences, effectively mapping known concepts onto unknown ones. Metaphors guide

model-building and hypothesis generation by highlighting structural similarities between different domains, as seen with psychological theory. Research revealed quite a nuanced scenery, where metaphors are not merely literary devices, but conceptual mechanisms that facilitate theory formation and innovation. Economic "growth", black "holes", inflation "rising", magnetic "carpet", genealogical "trees", "dark" matter: all such expressions are dependent on metaphoric thought. Scientific methods and descriptions in biology, the life sciences, medicine, are inextricably infused with metaphors, at many levels. As recently noted by Andrew Reynolds (2022), mechanic metaphors of the human body in medicine are used to promote the manipulation of its components; engineering metaphors portray organisms and cells as machines that can be disassembled and rearranged. Quantum entities associated with the particle kind are expected to behave in a certain way; associated with the wave kind they are expected to behave in a different way (and surprisingly they go both ways). Metaphors deeply operate in classification, or taxonomy, as well as in observation, demonstration and scientific reasoning in general. On this matter, some much interesting cases of marine biology classification types based on resemblance metaphors have meticulously been collected by Ureña & Tercedor (2011), who have extracted and classified several terms from a bilingual corpus of marine biology academic journals. Metaphors may be considered at play even in the simple act of naming reality, before even entering theorization. Consider the cases of the species named *bailarina española*, *manta*, *ochavo* or *pufferfish*:

> the Spanish metaphorical common name *bailarina española*, which designates a species of nudibrach (scientific name *Hexabranchus sanguineus*). [...] This metaphor combines physical appearance and behavioural patterns. [...]
>
> The Spanish term ochavo refers to a fish that is compared to an *ochavo*, a coin (source-domain concept) that was exclusively used in Spain during a specific time span. [...]
>
> The word '*manta*' literally refers to a rough-textured cotton fabric or blanket made and used in Spanish America and the southwest United States. The metaphorical motivation is shape because of the extensive flattened body of the fish designated [the *mobula*]. [...]
>
> *Pufferfish* receive their name because they inflate with air or water to scare their predators away. (2011, 233, 223, 226, 229)

But metaphors in science do not intervene only at the level of resemblance, and do not just serve the basic purpose of classification. The very understanding of the relations among entities is intertwined and guided by meta-

phoric thinking. As claimed by Reynolds (2022, 2): "metaphor involves talking about, describing, or thinking about one thing in terms typically ascribed to another quite different sort of thing". Moreover, thinking and knowing happen within a cultural context, driving observation and understanding. Metaphors participate both as a cultural product and as a general tool for framing further inquiry. Analogical or metaphorical thought is both a determined and determining force, shaping the very objects of scientific study. This may also come with some risks of misconception, when analogies and metaphors happen to convey ideological biases or political agendas:

> Our choice of words not only reflects deep cultural cosmologies and historical influences but also reinforces cultural norms, ideologies, and beliefs. Though metaphors are indispensable tools for communicating science, they are sometimes misleading to the general public and can be easily exploited in attempts to further social and political agendas. [...] Remnants of colonialism also echo within scientific discourses through the use of metaphors that equate the practice of science itself with penetrating the unknown, conquering nature, and pioneering new frontiers. Many science-related metaphors harbor traditionally masculine values and may activate implicit associations between science, gender, and/or race, thus reinforcing dominant stereotypes about who does science. (Taylor & Dewsbury 2018, 3)

A crucial illustration of such relation in objectivation has been provided by two feminist researchers in the field of the biological sciences. So far, in this writing, we have been largely advocating for the King, by exploring the way metaphors integrate knowledge and discovery; let us also consider now the Canon's disclaimer, and observe how certain images, models, and representations may actually invalidate, interfere with, or impair clear thinking and scientific observation.

In the 1990s, philosopher Kathleen Okruhlik and anthropologist Emily Martin paid close attention to the role that the "Sleeping Beauty waiting on Prince Charming" metaphor has been playing in the scientific understanding of fertilization:

> Just as women are seen to be passive and men active, so traditionally have egg and sperm been assigned the traditional feminine and masculine roles. The egg waits passively while the sperm heroically battles upstream, struggles against the hostile uterus, courts the egg, and (if victorious) penetrates by burrowing through, thereby excluding all rival suitors. The egg's only role in this saga is to select which rival will be successful. [...] using electron microscopy it can be shown that the sperm doesn't just burrow through the egg, as previously thought. Instead, the egg directs the growth of small, finger-like projections of the cell surface to clasp the sperm and slowly draw it in. This mound of microvilli extending to the sperm was discovered in 1895

> when the first photographs of sea urchin fertilization were published; but it has largely been ignored until recently. (Okruhlik 1994, 21)

According to Martin (1991), societal stereotypes have been applied also to the gamete cells of even non-human animals. And since we are mentioning cells, it may be not irrelevant to highlight that even the very term "cell" is a metaphor:

> In 1665 the English naturalist Robert Hooke, in one of the first written accounts of observations made with the newly developed compound microscope, described the tiny little boxes he saw in the tissue of dead cork plant as "cells," because they reminded him of the hexagonal cells of a bee's honeycomb. [...] What caught his attention was the appearance of a series of little spaces distinctly separated from one another by rigid walls. (Reynolds 2022, 68–69)

The situated approach suggests that the kind of metaphors and the modes of understanding adopted in the scientific community may be determined, or at least strongly influenced, by the cultural background of the scientists. In this sense, if some sets of behaviours are presented to a Western doctor, it is likely that a system of metaphors involving symptoms, dysfunctions and disease is proposed as an explanation. The same set of behaviours presented to a religious hierophant in rural Malaysia will be likely to be semanticized, for instance, in the terms of spirit possession (see Ong 1988).

Going back then to the relations between psychiatry and the mental illness metaphor, it is clear how properties of a source domain have been attributed to the target domain by means of metaphoric relations. It is by means of analogy, more than logic, that under the medical gaze human behaviours received a symptomatic character, allowing for the description of syndromes, for diagnosis as well as therapy and pharmacologic prescriptions. It is also true that the metaphor of mental illness can be a dangerous one, as long as the prescriptive function of metaphors invites doctors to keep on thinking in accordance with the metaphor, with the risk to end up caught under the influence of a self-fulfilling prophecy, having the release provided by psychodrugs. One should not overlook that better metaphors may be out there to be considered, tested, and invented. And again, it has been well documented that the deployment of the "mental illness" metaphor was responsible for the unforgivable violation of basic human rights, brutal surgical procedures, sexual abuses and social stigmatization on the part of the scientific community (see Arbex 2013, Basaglia & Ongaro Basaglia 1975). However, while we welcome the proposal to consider behaviours as symbolic forms of expression, the simple idea that being based on metaphors would be enough to qualify psychiatry as a pseudoscience seems philosophically too challenging to uphold. In fact, besides

the ontological and epistemological problems discussed above, studies on the life of metaphors within scientific understanding provide that:

> metaphors play at least two important roles in science: (1) a heuristic role, suggesting analogical models or hypotheses to be explored in order to discover important unifying similarities or patterns in nature [...] and a cognitive role in the development of explanations that increase our understanding of nature and its mechanisms. (Reynolds 2022, 7)

CONCLUSIONS

> The sign requires nothing more than the possibility of being apprehended, even in the absence of a sender. Consequently, the symptoms of diseases are also considered signs, and to a certain extent medical semiology borders with semiotics, the science of signs. (Jakobson 1979, 9)

As nature does not come to scientists with its own language (albeit a door should be kept open towards mathematics), the understanding of the world requires that human beings adopt symbolic thinking and communicative tools to interact both with nature and between themselves while studying the world. Therefore, one has to acknowledge that the properties given to the objects found in the external world "are not properties of objects in themselves but are, rather, interactional properties, based on the human perceptual apparatus, human conceptions of function, etc.". Further following Lakoff & Johnson (1980, 165), consider that "true statements made in terms of human categories typically do not predicate properties of objects in themselves but rather interactional properties that make sense only relative to human functioning". Those dynamics involve logic, analogic, symbolic as well as metaphoric thought at various stages, also within science, to the point that no demarcation can be easily sketched under a simplistic empirical/metaphoric distinction model.

We have to further acknowledge that a change of metaphor changes the way one thinks about reality, by altering the relation between the two domains put in relation by that metaphor. Metaphors are one with knowledge and scientific knowledge, with imagination and scientific imagination; therefore, their presence alone can not, anyhow, qualify good or bad science, let alone a science/pseudoscience demarcation:

> So here is an important lesson: The distinction between metaphor and literal terminology is not a hard and fast one; one can transition to the other, even in science. [...] Rather than changing how we think about the metaphor, in some cases the metaphor actually ends up quite literally changing the thing

> to which it is applied. This is what happened with the metaphor that "cells are chemical factories." (Reynolds 2022, 70-71)

A better distinction may be considered, especially within psychiatry, somehow shadowing Imre Lakatos' separation between progressive and degenerative research programmes. Thinking about medicine and psychology, one would probably expect physicians to be committed to the understanding of what system of metaphors may represent the best conventional option for the sake of their patient. All things considered, we suspect that the linguistic metaphor, as provided by brilliant doctors like Breton, Bernheim, Lacan and Szasz, among others, still represents a good try in addressing psychopathology. Besides, one should never forget that the emergence of novel scientific paradigms may well also depend on the ability to invent new, unconventional, revolutionary metaphors.

> What is most often missed in medical treatises, and certainly in psychiatry — the most conjectural and risky of these fledgling sciences — is precisely the true scientific spirit, which is not satisfied with a *magister dixit* or conventional formulas. (Borges 1999, 172–173)

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