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Past, present, and future of conversion disorders: toward a neuropsychological redefinition of the body-brain-mind unity

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ABSTRACT. – Conversion disorders have accompanied the history of medicine since the time of Hippocrates, and only with Charcot, Freud, and Breuer were they "codified": hysterical symptoms do not have direct organic causes but represent the somatisation of a profound psychic disorder, originating from a traumatic event inaccessible to the patient's awareness. More than a hundred years have passed since these definitions. Conversion disorder seems to have "converted" into new symptoms, making it necessary both to redefine it hermeneutically and to reconsider it from a broader perspective – one informed not only by recent neuroscientific discoveries but, above all, by the new implications and comprehensive theoretical frameworks these developments entail. By reconstructing the historical and social context of the various definitions and manifestations of conversion disorder, and by drawing a parallel with psychosomatic disorders and pathologies, a unified "borderline" interpretation is proposed here for both. What clearly emerges is a single body-brain system from which an embodied mind arises. Conversion disorder can thus be reinterpreted as a "message" concerning the individual's condition, "without their awareness", and psychoanalysis, understood as a "talking cure", may be the means to uncover and comprehend an interrupted body-brain-mind dialogue.

Key words: conversion disorder, psychology, psychoanalysis, psychosomatic.

Introduction: the definition of conversion disorder

To benefit from any meaningful discussion today on conversion disorder, we must begin with its definition.

> "*Conversion disorder is a form of somatisation in which a mental disturbance is involuntarily converted into a physical symptom comparable to those that arise in a pathology of the nervous system. Since there is an incompatibility between the physical manifestation of conversion disorder and the patient's neurological con-*

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> *dition, it is commonly held that the cause of this disorder is linked to mental factors such as stress, emotional tension, psychological trauma, or conflict. The symptoms are both motor and sensory, and they may impair the subject's normal daily activities. They include weakness, tremors, limb paralysis, gait abnormalities, loss of tactile or pain sensitivity, seizures, blindness, deafness, hallucinations, loss or reduction of voice volume, difficulty swallowing, sensation of a lump in the throat, and manifestations resembling epileptic seizures.*" (Maugeri Research Institute)

This is the classic definition which, in its aseptic coldness, raises serious interpretative problems rather than providing answers. From the outset, this definition rests on a clear conception of a sharp body-mind division. We see this in the phrase "*a form of somatisation in which a mental disorder is involuntarily converted into a physical symptom*", where it is made explicit that what is mental is not somatic and vice versa.

Things do not improve if we attempt a closer analysis. What could it mean that "*a mental disorder is involuntarily converted*"?

Could there be a form of voluntary conversion (and here I refer to the paragraph on symptoms)? For if so, we would be faced either with a pathology whereby a person voluntarily converts (and would therefore possess some currently unknown power or ability), or else with simulation – yet this would, in any case, exclude the hypothesis of "voluntary conversion".

Nor is the situation better in the second sentence, where it is stated that "*since there is an incompatibility between the physical manifestation of conversion disorder and the patient's neurological condition, it is commonly held that the cause of this disorder is linked to mental factors*".

Here, one must "make peace with oneself", because more than confusion or lack of clarity, what emerges in the drafting of this definition is a veritable inner conflict.

The phrase "*incompatibility between the physical manifestation of conversion disorder and the neurological condition*" immediately recalls a mechanistic-behaviourist view in which given A produces B; that is, locationally speaking, to a given state of a specific *locus* in the brain, there must correspond a particular status in the body (implicitly regarded as other and separate). But in this case, we are not speaking of a physical lesion, and hence follows the second sentence, in which it is asserted that "*the cause of this disorder is linked to mental factors*".

At this point, it is necessary to clarify what we mean by the term "mind". Here, we can define it as "that which emerges from a living brain", where by living we must necessarily understand not simply a connected brain, but one that is an integral part of a body (for the concept of emergence, I am generally referring to Polanyi [1966], and in the specific field of neuroscience to Edelman [1992]).

If, therefore, "mental factors" are the emergence of the brain, the distinc-

tion made in the two parts of the sentence makes neither ontological nor teleological sense (even if it appears so, being written in rigorously medical-scientific terms).

The cause of a disorder emerging from the mind is nothing other than a disorder that emerges from the brain (which generates a mind). At this point, if by "neurological" one intends only physiological, we face another semantic problem: how to define "physiological".

It is clear that if one limits oneself to considering "parts of the brain" as though they were separate organs, the physiological perspective focuses on neuronal-glial structures, thus at the cellular level.

And yet we know – indeed, I would say with certainty – that the brain is not like the digestive system, where we can distinguish a liver from a pancreas or a spleen (even if interconnected).

The mind emerges from a unique and connected brain. And we know well that – more than in any other organ – the whole is far greater, but above all profoundly different, from the sum of its parts. Indeed, even when "all the parts are intact" (as classical physiological investigation would have it), many pathologies emerge from what has been defined as "connectopathy", that is, dysfunctions and imbalances of the connections (Seung, 2012).

This should not appear surprising given the numbers we are dealing with: 150-180 billion cells (not only neurons), each with from 100 to 20,000 connections... and these already enormous numbers become virtually incalculable if we consider the entire nervous system, which, as we now know, is spread throughout the whole body (Kandel *et al.*, 2000; Seung, 2012).

And it is precisely this diffusion – which has a precise meaning and a precise evolutionary and physiological utility – that prevents us from considering not only the brain as "other" with respect to the body, but also the mind – its emergence – as separate from it: the mind is embodied (because the brain is embodied) physiologically, not only conceptually.

Moreover, even from a strictly neuroscientific point of view, as Vittorio Gallese (2015) has argued, the study of the brain, if separated from the analysis of the close interdependent relationship between brain, body, and world, is not sufficient to study human nature and, in particular, to shed new light on the theme of intersubjectivity and its mediated forms:

> "The body represents for us the principal source of pre-reflective awareness of self and others, and the root and foundation on which every form of explicit and linguistically mediated cognition of objects themselves develops. The body, conceived in this way, is the ultimate a priori, the not further reducible source of the experience of ourselves and of our relationship with the world." (Gallese, 2015)

It is not even helpful to continue the analysis; if anything, it only generates further confusion, when we read: "*it is commonly held that the cause of this*

disorder is linked to mental factors such as stress, emotional tension, psychological trauma, or conflict".

First of all, the idea that the process of conversion is a "disorder" is something that needs clarification, which I will attempt to provide later; here I will limit myself, briefly, to defining conversion as the symptomatic manifestation of a condition at the level of somatic perception – in short, a message.

One of the semantic and procedural pathologies of medical practice is the relentless search for a cause for everything and at any cost: at times, the phenomenon itself is simply an emergence.

Finally, there is a genuine error in this part of the statement, where it says: "*mental factors such as stress, emotional tension, psychological trauma, or a conflict*".

It is not clear whether the expression is meant to indicate that stress and emotional tension, as well as psychological trauma ("*a conflict*" is offensively too generic to be even considered), are here to be understood as "mental factors", *i.e.*, "elements of the mind", or rather as "facts that concern the mind".

Very briefly, it is worth recalling with LeDoux (1996) that psychological trauma, such as post-traumatic stress disorder, has precise physiological correlates (Di Salvo, 2025). So that rather than mental factors, they are in fact genuine "brain injuries".

Likewise, stress – through cortisol, which acts directly on the amygdala and hippocampus – creates an actual "brain trauma".

When people are exposed to a stressful situation, the adrenal glands release into the bloodstream a steroid hormone (specifically cortisol, a glucocorticoid) (Gray, 1987; Selye, 1978). Adrenal steroids help the body mobilise its energy resources to cope with stressful situations, and the amygdala plays a critical role in regulating their release. When the amygdala detects danger, it sends signals to the hypothalamus, which in turn sends signals to the pituitary gland; the sum of all this activity results in the release into the bloodstream of a hormone called adrenocorticotropic (ACTH), which reaches the adrenal glands and triggers the production of steroid hormones (McEwen & Sapolsky, 1995).[1]

In addition to reaching its targets in the body, the steroid hormone flows through the blood to the brain, where it binds to receptors in the hippocampus, amygdala, prefrontal cortex, and other regions. Since ACTH and cortisol are

[1] The process described here is, for obvious reasons, a simplified one. The amygdala does not directly regulate the release of adrenal hormones; instead, as outlined, it triggers a cascade process that proceeds from the amygdala through the hypothalamic-pituitary-adrenal (HPA) axis. The adrenocorticotropic hormone (ACTH) is secreted by the pituitary gland and reaches the adrenal glands *via* the systemic circulation, stimulating the production of glucocorticoids (such as cortisol).

substances typically triggered by stressful events, they are referred to as stress hormones.

If stress lasts too long, becoming chronic, it impairs the hippocampus's ability to regulate cortisol release through feedback, as well as its capacity to carry out its routine functions. Stressed rats are unable to learn and remember behavioural procedures that depend on the hippocampus (Jacobson & Sapolsky, 1991). Stress also interferes with the hippocampus's ability to produce long-term potentiation, which may explain memory problems – for example, the fact that in humans, stress also damages the functions of explicit conscious memory.

Bruce McEwen (1992) demonstrated that severe but temporary stress can cause the dendrites of the hippocampus to shrink. He also showed that these changes are reversible only if the stress does not persist. Otherwise, hippocampal cells begin to degenerate, and memory loss becomes permanent.[2]

The human hippocampus is smaller in trauma survivors, in children repeatedly subjected to abuse, and in Vietnam War veterans with post-traumatic stress disorder: they exhibit a significant memory deficit, without any reduction in IQ or other cognitive faculties. Stressful events can therefore alter the hippocampus and its mnemonic functions. It seems clear that adrenal steroids account for the physical changes in the hippocampus and the resulting memory problems (for an in-depth discussion, see Bremner *et al.*, 1993, 1995; Diamond & Rose, 1993, 1994; Diamond *et al.*, 1994a; Diamond *et al.*, 1994b).

Likewise, the so-called "emotional tensions" can only have a direct correlate in the circuits related to different emotional states and to emotions in general (see Changeux, 1983; Davis & Panksepp, 2018; Kandel, 1983; LeDoux, 1996; Panksepp, 2010a, 2010b, 2011a, 2011b, 2011c, 2011d; Solms & Turnbull, 2002).

Here too, what emerges is a clear view: on the one hand, a Cartesian mind-body split and an almost Skinnerian approach; on the other, an even more forced and unexplained separation between mind and brain. Thus, the psychological is completely severed from the neurological.

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[2] The studies conducted by McEwen and collaborators show that acute stress can induce a retraction of hippocampal neuron dendrites, and that this effect is reversible if the stress terminates within a relatively short period. When stress becomes chronic, however, more lasting structural damage and neuronal loss may occur, leading to a permanent impairment of memory functions. The statement "memory loss becomes permanent" should therefore be understood as indicating an increased risk rather than an inevitable outcome in all cases, since neuroplasticity allows for possible adaptations or partial recoveries, particularly at a young age. In this respect, subjective factors of resilience, individual characteristics, environmental conditions, nutrition, and the interventions employed all play a significant role. On the topic of memory, see the works of Kandel (1983, 2005), Selye's revised study (1978), and Van der Kolk (2015).

The symptomatic picture is significant: "*The symptoms are both motor and sensory, and can compromise the subject's normal daily activities. They include weakness, tremors, paralysis of the limbs, gait abnormalities, loss of tactile or pain sensitivity, seizures, blindness, deafness, hallucinations, loss or reduction of vocal volume, difficulty swallowing, the sensation of a lump in the throat, and manifestations resembling epileptic seizures*".

Apart from the macro-evidence that already reveals the approach (speaking of subject rather than person), the symptoms defined here constitute a set that does not hold together as a set.

Moreover, a distinction is drawn and implied – unfortunately, a classic one – between the motor cortex and the sensory cortices.

We now know that the motor cortex is not limited to managing the "motor reflex": endowed (also) with mirror neurons, it is active when imagining a movement or an action, when observing another's action, but it goes further still. It maps the intention of the action, and activates – even when the animal does not perform an action – by simulating withdrawal in the face of a danger perceived as threatening another animal, and by suffering pain "as if" it were itself undergoing a painful experience (Gallese, 2005, 2007, 2008, 2013, 2017; Gallese & Morelli, 2024).

In turn, the sensory cortices, in addition to their own perceptual autonomy, are integrated into a system whose protagonist is movement. In this sense, they constitute the perceptual access point that provides the information based on which action is carried out, either involuntarily or "deliberately", thanks to the intervention of the prefrontal cortex (Gallese, 2005, 2007, 2008, 2013, 2017).

In this context, incidentally, it is misleading to speak of voluntary and involuntary action: the spontaneous withdrawal (not mediated by the prefrontal cortex) of the hand from a source of heat, or the "deliberate weighing" of the appropriateness and benefit of moving the limb away from a potential burn, are both acts of the body's *will* (body-brain) to perform an act aimed at self-defense against danger.

In the words of Gallese (2024):

> "The contingency of our action-perception-resonance in space emerges from the relationship between movement, bodily proprioception, and the context that observes and includes us. Embodied simulation, regulated by the brain's mirroring systems, designates the corporeal paradigm as a significant pathway to knowledge and to understanding the origin and meaning of the landscape in our experience."

The body wants and acts: whether it chooses the long way or the short way (Kahneman, 2012) is, in the example given, almost more a matter of necessity and effectiveness than of cognition.

Similarly, it makes just as little sense to speak of a conscious or uncon-

scious act: for the body to withdraw from the flame, it must be aware of it, and it cannot perform the movement except through the brain. That the urgency dictated by the imminence of the danger to be avoided triggers the action before the emergence of the conscious mental phenomenon through the intervention of the prefrontal cortex is, if anything, something to be grateful for: otherwise, we would have long since become extinct.

The example I have proposed is immediately confirmed by the, fortunately rare, case of people who "do not feel pain": in cases of congenital analgesia (Piña-Garza, 2013), it is well known that the condition prevents experiencing pain, ever, in any way; the lives of these individuals are complicated, and they often die young, because the number of dangers to which they are exposed is enormous, especially in childhood. Through pain (here understood as a sensory experience), the body "communicates to the brain" a situation, and the brain activates in order to protect the body: often there is the emergence of a mental state, to assess the response, but at other times the body-brain acts "without our knowing it", that is, without a deliberative process.

If we adopt this viewpoint – not so much holistic as simply "as a whole" – then the set of symptoms listed can finally be seen together, and we realize that "*weakness, tremors, paralysis of the limbs, gait abnormalities, loss of tactile or pain sensitivity, seizures, blindness, deafness, hallucinations, loss or reduction of voice volume, difficulty swallowing, sensation of a lump in the throat, and manifestations resembling epileptic seizures*" are all motor symptoms. And even where the individual symptom considered in isolation (blindness, deafness, loss of tactile sensitivity) may appear to be merely sensory, in fact, in "conversion disorders" it is always accompanied by at least one other correlated symptom of a motor nature.

A new unified definition of conversion disorder

In the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision* (DSM-5-TR; American Psychiatric Association, 2022), "conversion disorder" has been redefined as "*functional neurological symptom disorder*" to describe the condition more accurately and to emphasise the functional origin of the neurological symptoms.

This is not enough, but it is nonetheless a step forward.

This new definition has clear implications: the symptoms are neurological (*i.e.*, symptoms produced by the brain, symptomatic correlates of cerebral pathologies) and functional (*i.e.*, they involve aspects related to function).

We now need to understand which functions we are discussing.

Indeed, even a single symptom (it would be more accurate to call them "events", in the sense of occurrences that happen and are experienced by the person) can make "a normal life" difficult and painful; yet, if we pause to

observe them as a whole, none of these events affects or concerns "vital functions".

No form of conversion disorder stops the heart (though a certain tachycardia may be experienced in some cases), nor is there ever a complete arrest of breathing (even in cases of difficulty swallowing, sensation of a lump in the throat, or manifestations resembling epileptic seizures), and so on.

Does this make conversion disorder less severe, non-urgent, something to be underestimated?

Absolutely not. Instead, this makes it, as a whole, a disorder that needs to be redefined.

Conversion disorder is not about death, nor about the danger of losing one's life; it is about life itself, and it tells us something about it.

It is a message from life about its quality.

Conversion disorder should be read and interpreted as the body in dialogue with the brain; and when from this dialogue no cognitive (mental) emergency emerges that can "save life" in the sense of making it qualitatively acceptable, the body-brain expresses itself symptomatically.

It sends a concrete message so that a cognitive-mental standpoint may emerge on the state of things, to remedy it, to act concretely (once again, a motor reaction in the broadest sense).

Thus, almost as a play on words, we may read conversion disorder as the conversion of a disorder.

What is wrong and not cognitively understood is translated into a symptom "so that the person may see", and thus act accordingly.

A return to hysteria and Freud

In its typical 19th-century form, hysteria manifested itself with symptoms very similar to epilepsy: paralysis of the limbs, temporary blindness, loss of consciousness, and loss of the ability to speak (Bannour, 1992; Kandel, 2012). Once the attack was over, it was often followed by an intensely emotional phase, in which the subject performed unpredictable actions and expressed deep feelings with a few words or gestures, in a semi-hallucinatory state.

It is therefore not far removed from – or perhaps even more concrete than – the definition from which we began.

The term *hysteria* derives from the Greek ὑστέρα (*hystera*), meaning womb. For Hippocrates, however, ὑστέρα did not mean what modern physiology defines as the uterus-organ, but rather functioned as a kind of synecdoche, that is, "a part standing for the whole": in this case, the entire internal female organism.

The derived adjective, ὑστεραῖος, may help us more, since it has three meanings: posterior, that which follows behind, and subsequent.

Thus, in its etymological adjectival sense, hysteria acquires a new meaning: there is a before, an after, and in between "something".

This also connects to Freud's early idea (1895, 1917), whereby the causes were traced to a childhood trauma repressed by the individual, which, thanks to the technique of psychoanalytic sessions, could be brought back to consciousness and neutralized.[3]

If we look at this definition with the eyes and knowledge (which Freud himself [1912] admitted he lacked, and at the same time considered absolutely necessary and to be pursued) of biology and neuroscience available today, we can take a further step.

Hysteria, understood in the sense of an "updated" conversion disorder, is the product-message of the body-brain (and such a message can only take the form and substance of a somatic symptom!) resulting from an event that has occurred (a *trauma*, in Freudian terms) and that does not – in concrete terms – guarantee the body's homeostasis and allostasis, conditions indispensable to survival.

A brief evolution of hysteria, or a brain embodied in its own time

The people typically affected by such attacks were women of good social standing. Sigmund Freud (1895, 1917) founded much of his theory on the study of these kinds of situations. The psychoanalytic method was developed in an attempt to understand the triggering mechanism and to seek a therapy.

Let us pause for a moment.

Freud belonged to turn-of-the-century Vienna's middle class (for an extraordinarily enjoyable as well as instructive account, see Kandel's *The Age of Insight*, 2012), and his patients – those who could afford a doctor like Freud – were people of his same social and economic background, if not higher.

Why women? From reading Freud's own texts (he explicitly qualifies hysteria as female), there do appear cases of typically "hysterical" men. The limitation lay in the fact that at the time hysteria was considered a "direct physiological emanation" of the uterus, which prevented a physician (such as

[3] It should be noted that as early as 1897, in his famous letter to Fliess, Freud reformulated the trauma theory, moving toward the theory of drives. In the lectures given between 1915 and 1917, the initial "trauma theory", which attributed neuroses solely to the presence of real childhood traumas, was integrated with the recognition of the role of unconscious fantasies and subjective psychic activity. In this context, the term *neutralised* should also be clarified. From the perspective of classical Freudian theory, analytic work aims to make the unconscious conscious. Through interpretation and recollection, the subject can work through trauma and symptoms; however, *neutralisation* is a modern term. Freud rather spoke of the *working through*, *integration*, or *overcoming* of conflicts.

Freud!) from speaking of male hysteria (it would sound much like speaking today of a male menstrual syndrome).

The first two decades of the 20th century were crucial, perhaps the peak of awareness of the diachronic condition of women: formal emancipation still had a long road ahead, but the years before and after the First World War were the height of the discomfort in which middle-class European women could live. Aware of their own abilities and increasingly culturally independent, they were at the same time constrained by family and legal structures over a century old. Actively involved in, and sometimes prime movers of, the artistic and cultural life of Vienna, Freud's patients lived a domestic existence that oscillated between the repressive and the humiliating.

It is therefore not surprising that Freud's typical definition of hysteria could be understood as "the means" by which the body-brain concretised and communicated this existential distress.

One may then ask why, in those few cases where it was attempted, hysterectomy seemed to have some effect.[4]

In my view, the answer is simple: ask a woman. Take a woman living with deep existential distress – more capable than her husband, yet obliged to entrust her estates to his management; a patron of the arts and often learned herself, yet barred from universities and the professions (except in cases so rare and exceptional as to widen the general sense of disparity even further).

Her body-brain manifests this existential distress through paralysis of the limbs, temporary blindness, loss of consciousness, and loss of speech (all coherent and intelligible), followed at the end of the attack by an intensely emotional phase (a sign of the release of forcibly repressed emotions), during which she might perform unpredictable actions and express profound feelings with few words or gestures, in a state that appeared semi-hallucinatory… and then, to this woman, who finally finds release and relief, thanks to the attack, you forcibly (whether by court order or by "medical compulsion") and violently remove the uterus, her primordial genital identity.

This woman, I believe – but I repeat, ask any woman – is not cured: she is annihilated definitively.

After all, this was the period when lobotomy was regarded as the definitive treatment for schizophrenia (Burckhardt, 1891; Moniz, 1948).

From the second half of the 20th century (Veith, 1965) onward, the substantial disappearance of such phenomena and the shift in theoretical paradigms in psychology and medicine led to new interpretative frameworks.

Such attacks come to be seen as manifestations of depressive states or

[4] Hysterectomy (Wertheim, 1906) is a surgical technique involving the removal of the uterus. It may also involve the removal of the cervix, ovaries, fallopian tubes, and surrounding structures.

existential crises, expressed through a codified representation that the person knows. The individual uses the hysterical reaction to communicate an extremely negative emotional state in which she finds herself and from which she sees no way out; such aspects are also present in Ganser syndrome (1994).

On this point, we can make the same observations as those we proposed for the early 20th century.

The Second World War completed a radical transformation of society that had begun with the First. With men at the front, societies required women to "take their place" at nearly every level of production. By the time the men returned, society had changed within the span of three or four years. The male world was shaken, and the effort to "bring back to the domestic hearth" women who had become aware of their own abilities and potential – women who had been engines of society and borne the weight of the economy – led to tensions and excesses never seen before.

In the two decades immediately following the Second World War, on the one hand, formal rights increased – from the right to vote to access to universities and employment; on the other hand, wage inequality, access to top and intermediate positions, the right to divorce, and equal decision-making were severely restricted. The culmination would be the decade of "social protest", which was above all a protest against cultural, institutional, economic, and legal structures.

In this context, we see two frustrations coexisting: that of men who have seen their total domination and exclusive economic position taken away, and that of women who are now aware but frustrated by the concrete possibility of achieving full emancipation and equality, which they have, in effect, achieved by right. The last two decades of the past century represent a macroscopic social mass anaesthesia.

The economic boom and hyper-liberalism give the illusion that everything is going well, that the socio-economic model is the right one, and that it should not be questioned, often using and citing the opposite model of the Soviet bloc as a negative term of comparison, one that reveals a self-produced truth.

In this new version of mass society, depression and antidepressants triumph; alcoholism reaches levels of diffusion even greater than during the Great Depression; the massive, widespread use of drugs; instruments of mass distraction are sought and produced everywhere, and in every form. It is also the age in which the dominant model of nutrition, involving the addition of glucose, hydrogenated fats, and refined sugars, becomes indispensable (see more broadly Hillman and Ventura, 1993; Lembke, 2021).

The era of mass anaesthesia is also the era of dependence, in all its forms.

In this context and using this interpretation, it is possible to read what has been affirmed regarding the transformation of the symptomatic complex in which hysteria is now described as a manifestation of depressive states or existential crises. The person expresses these crises through a codified repre-

sentation that they know… the person uses the hysterical reaction to communicate an extremely negative emotional state in which they find themselves and from which they see no way out.

It is not difficult to ground this reaction in its context, and to see once again how the body-brain symbolically communicates through the conversion of the disorder a malaise, "within the context of its environment and its time".

The distress underlying Freud's hysteria is as consistent with his environment and his time as contemporary hysteria is with our environment and our time.

There is always a body-brain unity which, failing to bring to the fore a mind conscious of what is happening, of the looming environmental danger to the person's well-being, so that it might produce a "movement strategy" that changes the state of affairs, chooses instead the path of conversion of the disorder to make it manifest: visible and tangible. In a word, somatic.

The boundary between conversion disorder and psychosomatic disorder

Psychosomatic disorders can be considered real illnesses that involve organic damage and are caused or aggravated by emotional factors (McDougall, 1982, 1989).

A psychosomatic disorder is defined as the physical response to psychological distress.

In particular, situations of emotional stress, pathological anxiety, constant fear, or strong worry can lead the body to express deeper distress.

Psychosomatic symptoms do not derive from a general medical condition or the direct effects of a substance, but rather from the presence of mental distress.

Psychosomatic disorders can manifest in: i) the gastrointestinal system (psychosomatic gastritis, psychogenic irritable bowel, peptic ulcer); ii) the cardiovascular system (tachycardia, arrhythmias, ischemic heart disease, essential hypertension); iii) the respiratory system (bronchial asthma, hyperventilation syndrome); iv) the urogenital system (menstrual pain, impotence, premature ejaculation or anorgasmia, enuresis); v) the skin system (psoriasis, acne, psychosomatic dermatitis, itching, hives, dryness of the skin and mucous membranes, profuse sweating); and vi) the musculoskeletal system (tension headache, muscle cramps, chronic fatigue, stiff neck, fibromyalgia, arthritis, spinal pain, occipital headache).

Moreover, psychosomatic disorders can also appear in the form of eating problems.

At first glance, there seems to be an overlap between conversion disorder and psychosomatic disorder, with differences limited to the intensity, frequency, and duration of the symptom.

This apparent similarity is due to two factors: the first is the somatic aspect – unsurprising, since the body, being one, manifests its symptoms through its parts, and in this sense, the overlap is topographical; the second is the causal aspect, since "situations of emotional stress, pathological anxiety, constant fear, or strong worry" are among the common causes of both disorders.

The resemblance ends here, at these two boundaries and these two appearances.

Stress, anxiety, fear, and worry are declensions with several common roots. They revolve around small variations and variables of the same neurological circuit (see LeDoux, 1996).

Furthermore, anxiety, fear, and worry are all emotions linked to general stress, essentially due – in their various emotional forms – to external factors that call into question the individual's safety and therefore survival (see Davis & Panksepp, 2018).

Given these shared premises, on what does the profound distinction between conversion disorder and psychosomatic disorder depend?

In the framework and interpretation I proposed, what changes is the subjects in communication with each other.

In conversion disorder, the body-brain somatically converts a condition of danger and homeostatic instability into a disorder that manifests essentially through behavioural symptoms.

The recipient of the message is the mind.

In psychosomatic disorder, the body communicates a condition of stress, distress, worry, and allostatic instability directly to the "mind that does not see" through somatic symptoms – conditions that the body lives and feels.

The recipient of the message is the mind.

Obviously, this distinction is not all-or-nothing and is not meant to be razor-sharp (or cut with a scalpel), to neatly separate conditions of stress that are inevitably connected at various levels and intensities.

These distinctions do, however, help us understand "the place where equilibrium is broken".

If we consider the body-brain-mind as a single entity, the mind, as an emergent property of an embodied brain, whenever an imbalance occurs in the levels of internal communication within the organism, the body – which is what sees, feels, and knows, and of which, at the physiological level, the brain is a part – communicates by somatising the state of insecurity, discomfort, or danger, so that the brain-mind may strive to bring about a change in the situation.

In this context and within these limits, the distinction between conversion disorder and psychosomatic disorder becomes so subtle that it is almost possible to read transparently through both as messages of the same kind.

Unlike conversion disorder – which, although powerful, painful, pervasive, and disabling, does not in itself endanger biological life – if we look

deeply into the areas involved in psychosomatic disorder, the situation changes.

As we have seen, psychosomatic disorders can manifest in the gastrointestinal, cardiovascular, respiratory, urogenital, skin, and musculoskeletal systems – vital systems.

We can further distinguish two clusters of symptoms: gastritis, irritable bowel, tachycardia, arrhythmias, bronchial asthma, hyperventilation syndrome, menstrual pain, impotence, premature ejaculation or anorgasmia, enuresis, psoriasis, acne, dermatitis, itching, hives, dryness of skin and mucous membranes, profuse sweating, tension headache, muscle cramps, chronic fatigue, stiff neck, fibromyalgia, arthritis, spinal pain, occipital headache, and others – all organic pathologies that, when of psychosomatic origin, can only be alleviated by medication.

In such cases, one can observe that the unresolved underlying problem intensifies the symptom and gradually transforms it into its more serious degenerative form, such as peptic ulcer, ischemic heart disease, or essential hypertension.

We must assume in these cases that the situation of distress and danger the body is experiencing, "without our awareness", is so deep that the body itself considers it 'healthier' and less dangerous to express it through a somatic message in these forms, rather than to continue 'anaesthetised' in the current condition.

This gives us a concrete and somatic sense of how debilitating and painful a psychologically "unhealthy" condition can be.

In the words of Gallese and Morelli (2024):

> "In our experience, it often happens that we do not see. Even things that are clearly before our eyes. It is not a pleasant condition, but when someone points out that we are not seeing – for example, an obstacle – we can realise it and avoid danger. Quite another matter is the condition of not seeing that we do not see. In that case, it is not only the organs of sight that are at work, but what we might call the mental or inner gaze. In some respects, it is a paradox: we mistake what we are seeing for what it is not, or we even go so far as to deny the evidence itself."

Places and forms of conversion

"God does not play dice", said Einstein, but neither does the body.

If we start from these considerations, we must ask ourselves on what basis and according to what criteria someone will manifest certain somatic symptoms rather than others.

The answer, once again, is: "the body knows".

At first glance, the symptoms of conversion disorder appear quite varied: weakness, tremors, paralysis of the limbs, gait abnormalities, loss of tactile or

pain sensitivity, convulsions, blindness, deafness, hallucinations, loss or reduction of voice volume, difficulty swallowing, a sensation of a lump in the throat, and manifestations resembling epileptic seizures.

In reality, a first group of symptoms (weakness, tremors, paralysis of the limbs, gait abnormalities, convulsions, and seizure-like manifestations) relates to situations of blockage, immobility, stasis, and clearly indicates the inability to "go away" from a situation.

A second group of symptoms (loss of tactile or pain sensitivity, blindness, deafness, hallucinations) indicates a block in perceptual reception, as if to say, "you are not hearing, you are not seeing" that the situation you are in is painful, is not right (on this form of blindness, see also Mazziotti, 2000).

The third group of symptoms (loss or reduction of voice volume, difficulty swallowing, sensation of a lump in the throat) relates to the capacity to speak, assert, process, and communicate, as if to signify that the person does not know how to respond to their environment, cannot "get it down" (see in greater detail Lowen, 1958, 1972, 2005).

As we said earlier, the body knows, and it "knows" because it uses one sense in particular: proprioception. Not only in terms of "awareness of its position in space", but also in terms of homeostasis. To do so, it relies on two systems: the cervical trunk, which involuntarily regulates overall physiological balance, and a specific organ of the body, also known as the brain.

Spatial recognition, with the differentiation between proprioception, exteroception, and peripersonal space, is one of the outcomes of the development of our neoteny (as argued and clarified, for example, by Mazzeo, 2003, 2014, 2019).

The body-brain knows, and it follows two pathways of meaning, not through linguistic grammar, but through physiological syntax. How do we know this? Because it is the same syntax through which the organism is kept alive, while we are busy doing something else. Breathing, heartbeat, and temperature are all regulated and managed without the intervention of a conscious mind: the body-brain "knows and does". It does so through the processes of the autonomic and vegetative nervous systems rooted in the cervical trunk and cerebellum, and through the vagal system (for the latter, in a broader sense, see Porges' *Polyvagal Theory*, 2011).

Through the same syntax, the body knows where its "weak points" lie, its fragile points, and uses them to communicate, just as it knows "what" to communicate and therefore "where" to communicate it.

If we learn to read this syntax, we can engage in dialogue with our body-brain by asking ourselves, "How am I?" – and if we learn to listen, we can also feel the answers from our body.

In this inner dialogue, which asks, "How are you?" and in which we sense the body-brain's response, a mind emerges, one that is connected and aware of "our state" in its entirety and complexity.

The contribution of the "talking cure"

Since Freud introduced the psychoanalytic method, understood as a "talking cure", its effectiveness has often been attacked and questioned, essentially on one point: its neurophysiological correlate.

No one has ever found "the location of the Ego" or "the seat of the Id", nor had the slightest idea how, "through words", one could heal the somatic correlate of conversion disorder, psychosomatic illness, or any other condition.

In reality, the effectiveness of words in changing History (with a capital "H") was evident, if only because otherwise the "miracle of language" would not have received such prominence, to the point of being regarded as a unique and precious quality, bordering on a divine gift.

To speak means to make explicit, and to make explicit means to transform something we do into something we can say (see Gargani, 2005).

Language makes us unique, and at the same time, it shapes History – it changes events.

But how? Through language, we can "persuade others", mobilise crowds, influence electoral outcomes, and inspire and motivate armies.

And what about stories, the stories of each of us, those too often written with a lowercase "s"?

Through language, we can comfort and encourage our daughter, court the woman who may choose to be our wife, but also attack an opponent, insult, and thus wound someone deeply.

In this way, too, language leaves a mark and changes stories, the ones with a lowercase "s".

All this is evident and part of our everyday life, something so simple that we no longer even stop to observe it.

It is not merely the exchange of a message "from one mind to another", but a relational exchange between bodies; in spoken language, the entire phono-acoustic apparatus is "movement" in both sending and receiving. It is a mind-brain-body message, with its neurological correlates engaged in the acquisition, interpretation, and transmission of meaning.

The neural correlate of language is not simply a set of coordinated areas that perform, refine, and define this function.

The brain is more than the sum of its cells, and the human mind does not emerge merely from them, but above all from the connections between neurons (Seung, 2012).

These connections remain plastic throughout life: changing a thought, changing one's mind, forming memories, reshaping a narrative, reliving and reconstructing one's past, redefining one's expectations, attitudes, intentions, dreams, hopes, and desires, reinterpreting and giving a new, or simply different, meaning to these things all have a neural correlate: the transformation of synaptic connections.

That is what the "talking cure" does, today, in Freud's time, and long ago, in a cave, by the light of a fire, between two *Homo sapiens* gifted with language, engaged in conversation.

Words redefine the connectome; they help tell one's lived experience, answer the question "How are you?", connect the feelings of a single experience or similar experiences, and share memories seen and lived from different perspectives.

They challenge our formal "I'm fine" with a "You don't seem fine, you don't look well".

The exchange of life that takes place in dialogue is the opportunity for change of the one body-brain that can transform the mind as an emergent phenomenon.

According to Giorgio Agamben (2023), "the voice is the anthropogenetic threshold that marks the articulation between nature and culture, between sound and meaning, between the living being and language".

Conclusions: from survival to life

Until, through the "talking cure", our mind begins to see "what others see", namely, our own suffering, and in seeing it, we are led to change what needs to be changed, our body-brain will continue to communicate through some chosen form of conversion disorder, with outwardly disruptive and debilitating phenomena, or through one or more psychosomatic disorders – in the latter case, sometimes with serious organic consequences.

Recognition is certainly not the easiest of possibilities for us humans.

We tend, first of all, toward reification – that is, turning everything into an object – as a way of knowing and acting in the world (Honneth, 2017). Immersed in reality, we experience it as something ordinary and a given. Of all the realities of our lives, the landscape is perhaps the most reified, taken so much for granted that it goes unnoticed.

It takes trauma, distance, absence, wonder, or aesthetic experience to recognise it. We must unlearn the force of habit, interrupt the flow of common sense, to arrive at a form of recognition. We need a crisis of our self-definition.

I once met a woman, I'll call her A., who was repeatedly hospitalised for serious urogenital problems. These symptoms persisted until "her mind" understood that the violence she suffered from her partner (which she verbally justified, alternately saying that it was her fault or that he was just stressed from work) was not only wrong but also endangered her very life.

After leaving her abusive marriage, within a few months she had no further problems of that kind, and, in fact, she later realised (on her own!) that

"those days [in the hospital] were really the only days of peace I had known' in those years".

Psoriasis and gastritis are very common among people who live in distressing work environments, for various reasons (stress, pace, hours, atmosphere, colleagues), and they are often "patched up" with medication (cortisone, antacids), antidepressants, alcohol… The pathway changes, and what begins as a psychosomatic disorder becomes an organic one: cardiovascular disease, cirrhosis, and addictions.

If we view it this way, perhaps psoriasis and gastritis can be seen as better and less debilitating signals, signs that prompt us to "see what we are not seeing", to face the need to listen to our body (which always knows things we do not) and to change, in the sense of "moving from the current situation to another" not merely to survive, but to live.

Where in psychosomatic disorders, it "seems" or "appears as if" there is something physically wrong on an organic level; in conversion disorder, it "seems" or "appears as if" there is something wrong at the neurological level.

As we recalled earlier, the symptoms are both motor and sensory, and they can severely impair normal daily activities. They include weakness, tremors, paralysis of the limbs, gait abnormalities, loss of tactile or pain sensitivity, convulsions, blindness, deafness, hallucinations, loss or reduction of voice, difficulty swallowing, a sensation of a lump in the throat, and seizure-like manifestations.

Conversion disorder, also known as "functional neurological symptom disorder", occurs when the body-brain borrows not merely somatic symptoms, but symptomatology that "normally" belongs to the grammar and syntax of neuropathology.

Seen head-on, these are all manifestations that impede movement. Seen in transparency, they reveal that the core of the problem lies precisely in immobility, in the failure to acknowledge the necessity of radical change.

In the words of Eric Kandel (1998): "To the extent that psychotherapy succeeds in producing substantial changes in behaviour, it does so through alterations in gene expression that lead to structural changes in the brain".

And even more incisively (Kandel, 2005):

> "Psychotherapy not only contributes to the treatment of mental disorders; it also provides a tool for studying the functioning of the mind by stripping behaviour of its superficial layers and revealing its deeper motives. Until a few years ago, few tools were available to empirically test psychoanalytic theories or to evaluate the relative effectiveness of one approach versus another. Brain imaging can be invaluable in this respect, as it allows us to reveal the dynamics of the psyche and the functioning of the living brain. Had it been available in 1894, the year Freud wrote his *Project for a Scientific Psychology*, this technique might have steered psychoanalysis in a different direction, keeping it in close contact with biology, as Freud sought to do in that essay. […] Psychotherapy likely serves to create an environment in which

> people learn to change. If these changes endure over time, it is reasonable to conclude that psychotherapy leads to structural transformations in the brain, just as occurs in other forms of learning. Even today, for certain disorders, we can visualise the patient's brain before and after therapy and observe the consequences of psychotherapeutic intervention."

This brings us to re-view, reconsider, and rethink our existence – our past, our remembered present (Edelman, 1989) – and thus to re-evaluate our position, offering us the opportunity to act, to move, to change our position: to pass from a state in which we merely "survive in suffering", which our body communicates through its symptoms, to a full, free life, far from pain: a life alive.

Conversion disorder, in light of what we now know about the neurobiological foundations of the brain-mind, becomes the "conversion of the disorder", the ultimate and powerful way our body-brain finds, in the places and through the means closest to our individual physiological vulnerabilities, to tell us what the mind cannot see: that we are not well.

Ultimately, the conversion of the disorder calls us to a conversion from survival to authentic life.

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