



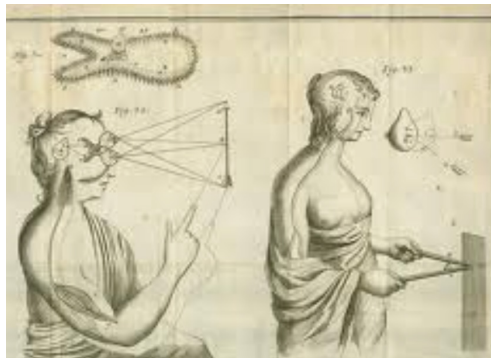
# Worn out Philosophical Ideas Still Pervade the Practice of Medicine: The cartesian Split Lives On

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## ARTICLE HISTORY

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Cartesian philosophy has significantly influenced modern Western medicine, in ways that have been detrimental to the doctor-patient relationship and holistic patient care. By reducing the diagnosis to what can be observed and measured the sum total experience of illness and pain often escapes the diagnostic taxonomies leaving the patient frustrated and doubting self without a “label”.

### Separation of Mind and Body

Descartes' mind-body dualism led to a sharp division between mental and physical health in medicine:

- It facilitated biological reductionism, where diseases are viewed purely in terms of physical/biological causes, ignoring psychological and social factors.
- This resulted in the separation of psychiatric care from other medical specialties until relatively recently.
- The mind-body split discounts the significance of mental states in physical health and privileges objective evidence over patients' subjective experiences.

### Mechanistic View of the Human Body

The Cartesian view of the body as a machine has led to:

- A dispassionate, mechanistic approach to patient care that lacks compassion.
- Treating the body like a machine that needs to be "fixed" rather than a whole person that needs healing.
- Neglecting the patient as a subjective being with personal experiences and social/cultural context Overemphasis on Objectivity.

The Cartesian framework prioritizes objective, measurable data over subjective patient experiences:

- It discourages more humanistic, holistic ways of thinking about patients.
- There is an overreliance on tests and measurements rather than listening to patients' own accounts of their illness.
- This approach can disempower patients and discount their lived experiences of illness.

### Reductionist Approach to Illness

Cartesian-influenced medicine tends to:

- Focus on specific physical causes of disease rather than looking at the whole person
- Ignore personal, interpersonal, and cultural reactions to disease
- Fail to consider how environmental and social factors contribute to illness

### Barriers to Holistic Care

The dualistic foundation has:

- Blocked the development of more effective holistic interventions
- Made it difficult to conceptualize and treat conditions with both physical and mental components
- Hindered a more integrated understanding of how mental and physical health are interconnected. While
- Descartes himself had a more nuanced view of mind-body connections than he is often credited with (see below), the exaggerated dualism that developed from his ideas has had lasting impacts on medical practice



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## Enlightenment Legacy

Our modern medical system reflects Descartes' most notable legacy: his concept of body-mind dualism [1]. While Cartesian dualism initially freed medical professionals from the ethical bounds of the church, these philosophical foundations for medicine formed the basis for how care is delivered today. Mind-body dualism has historically presented a challenge to delivering holistic care, as it assumes the mind and body to be two completely different substances with completely different properties. This concept was primarily responsible for the separation of psychiatric care from other medical specialties until 1994, when it was recognized as a medical specialty just like any other.

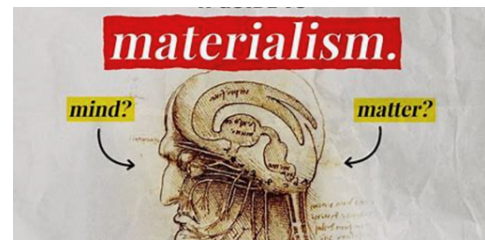
To understand how Cartesian dualism translated into the medical field, we need to examine how Descartes understood illness to present in the whole person. Ultimately, Descartes was much more advanced in his understanding of the mind-body connection than he is given credit for, as the dualism that is often criticized in our medical system is an exaggerated extension of Descartes' attempts to mechanize the body for the scientific practice of medicine. Clinical psychologist Neeta Mehta explains that there are several factors influencing why dualism remains influential in medicine today. First and foremost, all biomedical knowledge is built on dualism. Mehta states:

*"Descartes, through mind-body dualism, demythologized body and handed over its study to medicine. Thus, the way was paved for progress in medical science through the study of physiology and anatomy;"* however, *"by isolating mind, mind and body dualism denied its significance in individual's experience of health"* [2].

As Mehta explains, the holistic picture of health was lost when medicine and the body were mechanized. But mechanization was also necessary to advance medical knowledge. This had significant implications for explaining how the body and mind worked together, as the debate continued as to whether the mind could be mechanized or not. As previously noted, this problem became especially apparent when efforts were made to treat mental illness.

Another factor behind the continued use of a dualistic philosophy of care is that the healthcare field itself has become commercialized and economically powerful [3]. Pharmaceutical companies have no interest in challenging the highly lucrative status quo. Furthermore, these companies have done a fantastic job at presenting drug therapies as the go-to, creating culture that values quick fixes. This culture does "not allow paradigmatic change to take place in favor of alternative and complementary medicine based on a holistic view of human beings". Even more shocking is that physicians are seldom aware of the philosophical framework in which they're educated and in which they practice. Eric Matthews offers an alternative to classical materialism. Classical materialism sees the mind as synonymous with the brain, and the brain as an organ of the body. Therefore, this view would require "a philosophical shift from thinking of a human being as composed of two substances, mind and body, to thinking

of ourselves as composed of a single substance". Under this framework, our minds would be susceptible to disease in the exact way that our bodies are [4].

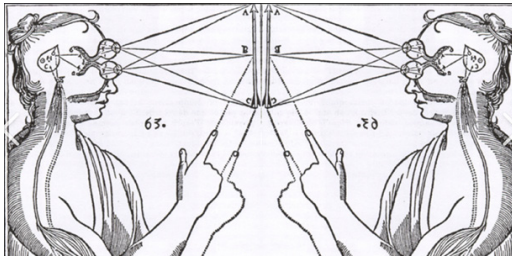


Proponents of this materialism argue for a "complete neuroscience" that seeks to explain every neurological process, effectively eliminating the need for a philosophical approach to understanding the mind. Critics of this alternative to dualism argue that "thoughts, emotions, desires, and other mental phenomena have certain essential properties which brain states and processes cannot have. The two properties are subjectivity and intentionality". Regardless, both Cartesian and classical materialism agree that the mind is a substance. They simply differ on how they think that substance correlates to the body. For materialists, the mind equates to the brain. For Cartesians, the mind is separate from the body, including the brain [5]. Moving towards more holistic, integrated models of care that recognize the complex interplay between mind, body, and environment may help address some of these longstanding issues in modern medicine.

The challenge which Barlilan and Sharon call "the humane gap in medicine" is a gap between the capacities of biomedicine as a bureaucratic and scientific establishment and the medical needs and expectations of its beneficiaries [6]. It is argued that successful medicine relies on two pillars. The first is the corpus of biomedical knowledge, while the other is knowing the patients within their bio-psycho-social life-world.

Both the second pillar and the bridging of the two pillars are dependent on the Humanities. The humanities in medicine also provide healthcare professionals with means of support against devastating encounters with suffering, disability or the relentless pressures of academic careers and overwhelming physical labor. The humanities serve as a shared platform for all healthcare providers, diminishing traditional, and sometimes obstructive, boundaries such as those that may exist between doctors and nurses. Marcum describes biomedicine as responsible for the "miracles" of modern medicine, yet paradoxically it has also led to a quality-of-care crisis in which many patients feel disenfranchised from the health-care industry [7]. To address this crisis, several medical commentators make an appeal for humanizing biomedicine, which has led to shifts in the philosophical boundaries of medical knowledge and practice. He attempts to compare metaphysical, epistemological, and ethical boundaries of biomedicine and its humanized versions. Biomedicine is founded on a metaphysical position of mechanistic monism, an epistemology of objective knowing, and an ethic of emotionally detached concern. In humanizing modern medicine, these boundaries are often shifted to a metaphysical position of

dualism/holism, an epistemology of subject knowing, and an ethic of empathic care. What is left unanswered however, is whether these shifts in the philosophical boundaries are adequate to resolve the quality-of-care crisis.

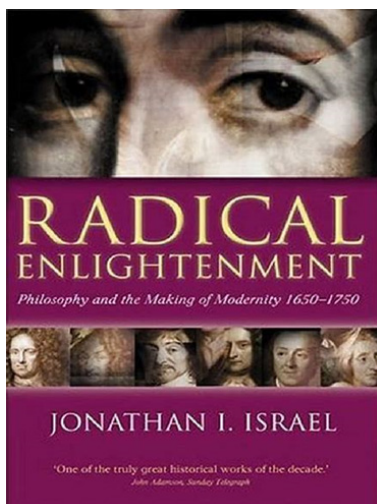


### Mind Body Split Affects Healthcare

Above we have described the materialism and reductionism affecting medical practice however this went beyond the profession itself. The very cultural life following the Enlightenment radically changed. Prior to this, theological categories abounded, but these became denied as only the observable, replicable, and reproducible were considered true. Any phenomena that were merely experienced but not visible were excluded if they could not be validated using the scientific method. Faith and religion were excluded from the new worldview.

Faith and religion were also excluded from scientific truth and relegated to the same category as superstition. Hegel identified one of the main negative aspects of the Enlightenment as its dismissal of traditional Christian dogma. The result was an empty abstraction that is meaningless from a religious perspective. This perspective is further explored in Voltaire's "God and Human Beings," which calls for a separation of church and government, promoting secularism and a deistic view of God as a creator who does not interfere in human activity.

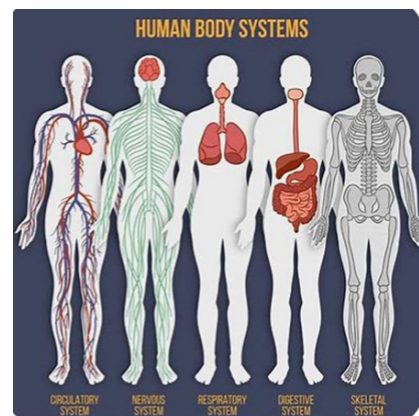
In his monumental work, Jonathan Israel challenges traditional accounts of Kant, Hume, and Voltaire regarding their claims that we were cleansing the European mind of superstition, thereby allowing the light of reason to shine on human problems. Scholars of the enlightenment have since challenged these ideas, questioning even the notion of the Enlightenment as inherently good or rational.



Postmodern scholars have challenged the notion of the Enlightenment as inherently good or rational, arguing instead that it is often Eurocentric, colonial, and racist. Israel critiques the project of *questioning in light of philosophical reason*, which seeks to overthrow the hegemony of theology. In his book, "Radical Enlightenment," he confronts Democratic Enlightenment and revolutionary ideas. Yet he is critical of the language and imagery used by Hawks, suggesting that figures such as Locke, Voltaire, and Hume should not be viewed in isolation. He invites us to examine the heart and soul of the Enlightenment through the works of Diderot Condorat and Spinoza and distinguishes between those who prioritize reason above all and those who believe that reason must be constrained by faith and tradition. Whereas morality was once defined by scripture, it has evolved to emerge from the body politic, being defined by right and wrong behaviors within each particular society.

Morals emerge from the duties, rights, and obligations of every individual, rooted in a social and political order. For Spinoza, freedom of worship was peripheral; he was more interested in the promotion of individual liberty than in the salvation of the soul. He expressed concern that ecclesiastical power could undermine individual liberty and advocated for the use of the state to limit the size and power of congregations. In an age where church and state were intertwined, his argument was considered radical. However, in our current society, where church and state are separate, the effects of this split have also impacted the internal spiritual architecture of the individual.

The 17th and 18th centuries saw significant developments in natural philosophy, particularly in medicine, and the work of doctors and surgeons, which laid the foundation for the scientific medicine that emerged in the 19th century.



The Enlightenment during these centuries witnessed fundamentally new perspectives on the human body, encompassing both physiology and pathology. This shift also led to changes in theories regarding the nature of disease and the development of pathological states. However, some forms of medieval knowledge persisted well into the Enlightenment period, such as humoral theory and Galenic anatomy.

The doctrine of the four humors, sometimes referred to as the four temperaments, was prevalent during the medieval period. Humoral theory began to recede in the 17th century

with the rise of experimental philosophy and the emergence of competing physiological frameworks, notably William Harvey's ideas about blood circulation.



Thomas Sydenham 1624-1689

New approaches to classifying diseases, as articulated in the writings of Thomas Sydenham, gained widespread influence in the evolution of European medicine and pathology. By 1700, Galenism was largely defeated. Additionally, significant events in natural philosophy, including the revolutions initiated by Copernicus, the onset of transatlantic exploration and colonialism, and the humanistic ideas presented in the works of Leonardo da Vinci and Andreas Vesalius, directly challenged the Galenic doctrine and the broader Christian scholastic system.

Chief among the 18th century's theoretical models was a working hypothesis that before assessing an individual's physical or moral disposition, one first had to determine how that person reacted and interacted with the world as a sensitive being. Various threads were woven into the rise of sensibility as a concept that bridged the body, mind, and the milieu. One factor was the revalorization of sentiment and the passions that took place in European moral philosophy and literature during the preceding century. Within French medicine, the most important response came from physicians trained or based in Montpellier.

The medical philosophy surrounding sensibility also fostered new methods of reading the body in a state of illness. One such method was an expanded system of pulse taking that was heavily promoted, based on the premise that the body was abuzz with various pulses. For every organ or center of sensibility, there was a corresponding pulse, such as a stomach pulse, a pectoral pulse, and a nasal pulse.



Another important component of effective diagnosis was the holistic approach to patient care. The clinician had to consider not only the body in its present state but also all factors that could be involved in its ailments, including diet, climate, living and working circumstances, sex, temperament, and habits. Investigation of the full range of the patient's living and working circumstances was central to hygiene, a branch of medicine that expanded significantly during the 18th century. There were, of course, skeptics like Diderot, who dismissed the claims of doctors or moralists who held themselves up as experts.

In conclusion, many people living in the 18th century were fascinated with new knowledge, and those who catered to that fascination actively drew on print and their connections within polite society to establish credibility. The therapeutic methods promoted by Enlightenment-era doctors can be deeply unsettling for modern readers. For example, the use of Leyden jars and other electrical devices to treat diseases attributed to the obstruction of vital fluids, which included paralysis and women's ailments.



### Descartes

There is a widespread antipathy towards the dualistic mental philosophy of René Descartes (1596-1650) in the 'holistic' literature which began to appear in the 1970s and 80s. It is observable in 'systems theory' [8] and in the 'new physics' [9,10].

Descartes has also been attacked from feminist and phenomenological [11] viewpoints, and on more traditional philosophical grounds [12,13].

Recent attempts by medical thinkers to overcome organic reductionism in favor of a more holistic representation of disease and health routinely begin by attacking Cartesian dualism. (Examples will be cited below.) Cartesian mental philosophy is seen, often in concert with Newtonian physics, as ushering in an era in which the body is reduced to mechanistic, organic processes, quite separate from the mind. In contrast, contemporary psychosomatic theories of health and illness are credited with taking a radical new approach which, it is often claimed, counter the supposed effects of Cartesianism by hypothesizing an interdependence of mental and biological factors. Biopsychosocial models go even further, placing the

sick person in social context, hypothesizing, for example, that environmental contingencies may reinforce certain illness behaviors, such as chronic pain [14].

The mental philosophy commonly called 'Cartesian dualism' by many contemporary medical critics may, however, bear little resemblance to the dualism which Descartes himself actually proposed.

For Grant Duncan [15]:

1. *While Descartes describes bodily processes in mechanical terms, and defines mind and body as separate substances, the unity of the human body and mind are an integral part of his dualism. While there is considerable uncertainty about precisely how he thought this separate but-unified relationship works, Descartes should not be associated with mechanistic theories that ignore the effect of the mind on the body.*
2. *That contemporary biopsychosocial theory may not altogether escape mind-body dualism, even if it rejects the Cartesian version. And that Descartes has more in common with the biopsychosocial model of pain than he has been given credit for.*

The fact that Descartes in the Treatise explores the possibilities for a mechanical explanation of reflex responses to acute pain does not prevent him from proposing that people may experience pain emotionally, think about its causes, etc. That is, pain may be produced by mechanical bodily responses, but it requires a choosing, thinking mind to "know" pain emotionally, rationally and morally. Hence, the connection between an injury to the foot and the perception of pain is not just a mechanical, causal reaction in Descartes' view, especially if one takes the occasionalist standpoint on mind-body union.

An approach to the question of Cartesian dualism is simply to consider the concepts of 'soul' that Descartes was seeking to overturn, especially the distinction between vegetative, sentient and rational souls, and the heritage of Aristotle's theory of psyche. Put simply, what we refer to as 'soul' when talking about Descartes' philosophy is altogether different from what we refer to as 'soul' in Aristotle's philosophy. Aristotle held that soul (psyche) was the substantial form of a living body, the very principle of its being alive. This meant that soul is co-extensive with body, and that all living beings have soul. Descartes has surely had a role, then, in the modern history of the "mind-body problem."



Among Aristotle's four causes, efficient causality took precedence and reigns supreme in all technological thinking. At least since Bacon, it has been understood that knowledge is power gained to relieve the human condition (Bacon, 2000 [16], 60, 221/Book I, LXXIII, Book II, LII) [17]. That is to say, true knowledge can do things with the real world, and the real world is what can be manipulated with real power/true knowledge. The purpose of knowing the end of knowing is to bring about effects in the world. Yet, medicine seems to deny having a metaphysics and thus gives no thought to its metaphysics. Thus, for Western medicine, indeed perhaps all scientific and technological thought, the important bit about the world is how to manipulate it in order to get the effects that we desire.

It is in this sense that Eric Krakauer has said that medicine is the standard bearer of Western metaphysics [18]. The world stands before us as a manipulable object and all thinking about the world becomes instrumental doing, and to be good and to do good, we must manipulate the world and show our effects.



Drew Leder describes the "Cartesian Body" [19].

*In the 17th century, Rene Descartes introduced a fundamentally new paradigm of embodiment. Attacking the Aristotelian and magical views of nature that were popular in his day he banished all animation and teleology from the natural realm, attributing such properties to the creator God alone. The human body was fully identified by him with this passive nature. As such, it appeared as mere res extensa, manifesting no intelligence or power of self-movement. These activities were ascribed to mind, res cogitans, the essence of self and the divine aspect of the human being. By way of contrast to the sublimity of mind, the human body was merely a machine driven by mechanical causality and susceptible to mathematical analysis like any other component of res extensa. Descartes meant for his philosophy to bear medical fruit.*

*In his Discourse on Method he resolved to dedicate his life to the advancement of medicine and followed through in the Treatise of Man and Passions of the Soul with elaborate theories of human physiology. Even in his more philosophical Meditations and Principles of Philosophy he attempts to show the relevance of his metaphysics of mind-body interactionism to such vexing medical problems as the "phantom limb" phenomenon and the effects of peripheral nerve blockage.*

*Though Descartes's theories of pineal gland transmission and his hydraulic model of the human body were soon out-moded, it must be said that he fulfilled his early dedication to medical advancement. His metaphysics of embodiment did more to permit the achievements of modern medicine than could any particular scientific theory, for it opened up the very possibility of applying post-Galilean science to the human body. By purging the body of spontaneity, willfulness and occult desires, Cartesian dualism did away with all properties which might have impeded the mathematical-causal analysis of physical functioning. Viewed as a machine, the body can be tested experimentally and blueprinted in detailed anatomical study.*

*This Cartesian paradigm has more or less dominated not only the scientific but popular and philosophical views of the body for the last 300 years. However, in the 20th century, arising diversely out of existentialism, Husserlian phenomenology, and German philosophical anthropology, a new concept of the body has emerged. We will focus on two of its most original and articulate spokesmen in Erwin Straus and Maurice Merleau-Ponty.*

The paradigm they advance is referred to as that of the "lived-body". While seldom employed in the original writings under scrutiny, this term has served in English as useful shorthand. Both Straus and Merleau-Ponty grounded their initial work in a careful, at times laborious critique of the Cartesian portrayal of mind and body and its influence on current psychologies. In their view, the Cartesian categories lead to systematic misdescription of human activity. Bodily acts are not merely mechanical. Nor are all acts with cognitive and volitional status truly "mental", as Descartes envisioned them, arising out of explicit judgments and acts of will. Rather, an examination of experience reveals that it is the body which first "understands" the world, grasping its surroundings and moving to fulfill its goals. In phenomenological terms, the body is not just a caused mechanism, but an "intentional" entity always directed toward an object pole, a world.

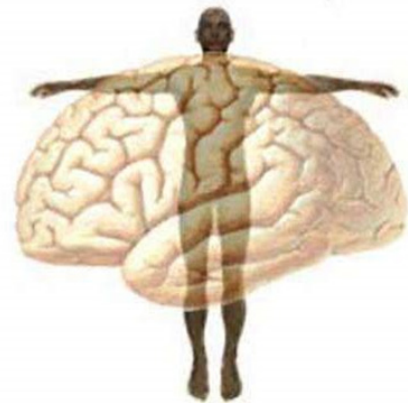
Currently the doctor examines a physical body. Much of her/his medical training has de-emphasized lived embodiment from the first "patient" encounter - that with a cadaver. The predominant task at hand is to search for a mechanical precipitant of disease, be it toxin, trauma, or bug. The physical locus of pathology is isolated such that a focused and efficacious intervention can be made. As Straus and others have commented, when suffering the body can come to appear as Other [20].

*The painful body is experienced no longer as the immediate agent of our desires, but as an alien presence we would be rid of. Similarly, the disabled body appears as exterior to the self by virtue of frustrating our personal intentions. Furthermore, the unity of the lived-body begins to fall apart in disease as our stomach cramps, our breathing emerges in dyspnea. The body then reveals itself as a nexus of semi-autonomous biological processes Merleau-Ponty [21] discusses this as the ever-present "organismic" or "pre-personal" aspect of the lived-body. Thus the Cartesian body, interpreted as "thing", a mechanical collection of parts extrinsic to the self, is itself brought to the*

*fore as a latent experiential possibility rooted in the illness of the lived-body.*

*The objectification of the body is often sought for affective reasons by patient and doctor alike. The attitude of clinical detachment may help the patient to remove the self from experienced suffering and attendant fears. Similarly, the doctor may need distance. Merleau-Pont [22] discusses how the lived-body can recognize and take up the expressiveness of the bodies it communicates with such, for instance, that we feel the sadness of a tearful face. The doctor, confronted by a seemingly endless chain of suffering, may need to effect a break in this linkage of lived-bodies. Thus the aforementioned conflict of embodiments which can arise in the clinical encounter is often resolved largely in favor of an hegemony of the object body. But such a resolution is always incomplete for doctor as well as patient.*

Straus [23] analyzes how the scientist in conducting an investigation of the objectified body always remains within her/his own lived-body while proceeding with the exploration. Similarly, the trained, intelligent hands of the doctor, her/his skillful experienced eye are not seen as bones and tendons, cornea and retina, as are the corresponding organs of the patient this would only bring the diagnostic work to a halt. The doctor remains a paradigmatic instance of the lived-body in praxis.



When the body docs become ill Cartesian medicine has much to offer in the way of efficacious treatments, prolongation of life and the alleviation of suffering. Yet while few shun the services of the modern physician at times of serious illness, many patients experience aspects of their treatment as reductionist or dehumanizing. Once again, the Cartesian metaphysics underlying medical practice is not incidental to this happenstance.

The unpleasantness which accompanies dehumanized treatment can no longer be regarded as a peripheral concern. Research has suggested that such factors as the emotional state of the patient, the quality of the therapeutic alliance, the patient's self-image and attitude toward illness, recent life changes and current environmental stresses and supports are crucial in predicting the onset and progression of illness.

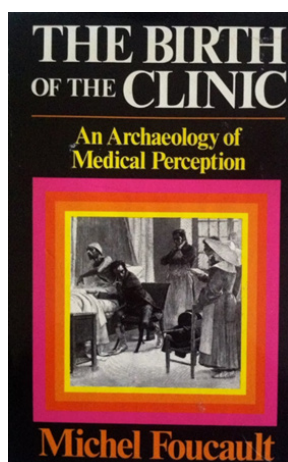
These sorts of "subjective" factors indeed form the general background to almost all clinical research and therapy under

the name of the "placebo effect". It is clear that the patient's belief in and experience of her/his treatment is often the most important mechanism in determining its efficacy, but this is often neglected by the mechanistic approach. Flaws in medical practice can thus arise from the Cartesian tendency to isolate the body from the essential self and its life-context, and to further divide the body into isolable parts and functions.

The traditional options of treatment reflect the Cartesian dualism from which they derive. One may utilize the resources of physical medicine, such as drugs, surgery and the like. Or if personal and psychosomatic factors are clearly primary in the etiology of illness, one is usually referred to the psychiatrist, treater of the mind. A talk therapy is often employed, healing through words, the penultimate mental construction. However, if many diseases arise from an intermediate bodily intentionality these separated physicalistic and mentalistic approaches may not always best serve. Medications and surgery, while crucial modalities of treatment, often do not address the intentionality behind disease.

Conversely, as primarily actualized in a pre-linguistic bodily expressiveness, the intentionality of illness may not always be transformable through language and introspection. However, many new therapies have appeared, ranging from the medically accepted to the distinctly "alternative". They seek to foster health not via mechanical interventions or talk but by directly realigning the intentions and processes of the active body.

Some (albeit untested "scientifically") examples include the use of biofeedback in the clinical setting; yoga exercise for flexibility and internal toning; the induction of the "relaxation response"; art and dance therapy for psychiatric patients; "Rolfing" and other forms of massage; the employment of visualization techniques to combat cancer; primal scream therapy for the release of trauma and tension; behavioral programs to modify phobic responses; methods such as the "Alexander technique" which reshape bodily posture and movement; autogenic training and other modes of deep muscle-relaxation.



In contrast, *Birth of a Clinic* Foucault documents how different spaces came to influence the practice of medicine for the purposes of controlling bodies, diseases, and death. There was the intellectual abstract space of formal medicine, bent on the formal arrangements of knowledge in tables; there was the

qualitative space of the disease and how it manifests itself in qualities of the body; there was the tertiary spaces of the home and society and the natural space for the occurrence of both disease and healing. And finally, there is the space of the body, which became possible due to a mutation in medical thinking.

The space carved out by the clinic is a coming together of each of these; each of these spaces described in *Birth of the Clinic* has a separate genealogy, and each arrives on the scene in the political space surrounding the French revolution in the late eighteenth and early nineteenth centuries. Taking a Foucauldian look at medicine, one can see medicine at work, where bodies and psyches are efficiently and effectively molded, manipulated, controlled, and even coerced, by surgery, drugs, technologies, and techniques deployed by physicians, surgeons, machines, psychologists, social workers, and chaplains. Medicine's metaphysical stance then is a metaphysics of efficient causality, concerned with the empirical realm of effects and the rational working out of their causes for the purposes of bringing about some good [24].

Jeffrey Bishop writes [25] that because Foucault sees deeply into the metaphysical position of the West that his work on medicine remains relevant even today because medicine continues to deploy, in the name of care and concern, the same metaphysical violences over and over again. No one dares to acknowledge these violences. It is hard for us to accept that our practices continue to repeat these violences, even while they are meant to do good, to bring good effects into the world. Medicine as a discipline is mostly concerned with the effects it brings about in the world and how to pragmatically produce or cause those effects in the world. It is perhaps in this sense that medicine has become thoughtless as it is mostly about pragmatic doing, utilitarian maximization, and efficient control. It is the possibility of controlling the world that justifies information as knowledge, to be able to do something with it.



#### "Physical" Versus "Mental" Disorders Erroneous Split

Philosopher Searle [26] and others (Singh and Singh) [27] have suggested that consciousness is a physiological process just like respiration, circulation, and immune function.

In their work, the "mind" is viewed as a dynamic product of the brain, just as digestion is a product of gastrointestinal tract. Indeed, there is no specific category of "mental" diseases that exist separately from the physicality of the central nervous system any more than there is a specific category of "digestive" diseases that exist separate from the physicality of the gut. If this logic is extended to the practice of behavioural medicine,

the intentional separation of mental health services from other medical specialties seems preposterous.

### Questions

1. How might subjective mental states specifically arise from interactions between an individual's internal physiological processes, experiential history, and surrounding environment?
2. Neuroscience is the only branch of biomedical science where the organ system being investigated is also the very thing doing the investigating (“brains studying brains”). Does this present particular challenges to objectively studying inherently subjective phenomena? Does this make us “cognitively closed off” from the objective study of mental states?
3. Given the inherently subjective nature of mental events, is it even possible to completely cast off dualism as a way of conceptualizing how these events come into being?
4. Is physiological nonduality a meaningful theoretical/conceptual step forward for the field of behavioural medicine?
5. In our theoretical model clinic where we will refuse the cartesian split between mind and body, how will our unconscious biases and training need decoding from our addiction to our learned verbal behaviours.

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