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Embodied Minds: Hearts and Brains in Psychiatry and Chinese Medicine

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Abstract

This article explores a debate that emerged within the Chinese medical community in the late 1920s and early 1930s. The debate, which centered on the respective roles played by the heart and brain in functions related to thinking, movement, and the onset of psychiatric disorders, concluded that neuropsychiatry's overriding emphasis on the brain was shortsighted. Instead, participants resolved that the brain and heart, alongside other organs and systems, were inextricably entwined, with many thought processes being governed by the heart. Although the discussion only lasted a few years, the insights it generated offer valuable theoretical contributions to contemporary conceptualizations of the mind/body duality. By highlighting alternative ways of understanding "mental" malfunction – theories that go beyond a narrow focus on the brain itself – Chinese medicine might provide a model for rethinking the relationships among the brain, the body, and different organs, systems, and physiological processes. The article ends by drawing a parallel between the heart vs. brain debate and recent research that seeks to show how gut health and heart health affect psychological and emotional wellbeing.

Keywords China · Chinese medicine · Mental illness · Mind/body dualism · Neurology · Psychiatry

Introduction

In the late 1920s, a lively debate ensued among a geographically-dispersed group of Chinese medicine doctors. The discussion, which unfolded in the pages of several prominent Chinese medical journals, centered on the respective roles played by the heart and brain in functions related to thinking, emotion, movement, and the onset of

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madness. The debate was not spurred by a single event, but rather by the increasingly global circulation of psychiatric ideas, the rudiments of which appeared to undermine longstanding conceptions within Chinese medicine about the basic morphology of the human body.

Prior to the twentieth century, Chinese medical thinking offered a range of explanations for understanding the complex relationship between the material body and the metaphysical mind. Healers, who ranged from literate physicians and shamans to Daoist priests and midwives, each approached their patients with different assumptions about the functioning of the body and what caused it to experience poor health (Andrews 2014). By the 1930s, however, government legislation that sought to eliminate “unscientific” medicine, combined with the rapid spread of Western biomedical ideas throughout Asia, had compelled practitioners of Chinese medicine to forcefully articulate a rationale for their continuing legitimacy (Lei 2014). In the process of doing so, they began to more explicitly identify the theories and principles that underlay Chinese medical epistemology, particularly those that differentiated Chinese medicine from the type of scientific biomedicine that was being imported from the West. The debate over the heart and mind was one such moment in the gradual articulation of a coherent Chinese medical identity. Though each of the participants in the debate hailed from different regions and medical lineages, they nevertheless sought to explicate the core principles that gave Chinese medicine an internal coherence.

The progressive consolidation of elite Chinese medicine happened to occur against the backdrop of an ongoing trend in psychiatric research, one that increasingly foregrounded the role of the *brain* in the functioning (or malfunctioning) of mental activity. Beginning in Germany at the end of the nineteenth century, physicians began to collapse neurology and psychiatry into a single discipline, such that brain disorders and mental disorders were effectively viewed as one (Engstrom 2003: 89). By the 1930s, the conjoined practice of “neuropsychiatry” had penetrated China through the translation and dissemination of neuropsychiatric texts, the arrival of American and European physicians, and the establishment of neurological clinics and psychopathic hospitals in cities like Beijing and Shanghai (Baum, 2018). The overwhelmingly materialist orientation of those who taught, researched, and attended to psychiatric patients in China confirmed that the brain was the critical, if not the sole, hub of mental distress.

The neuropsychiatric focus on the brain posed a challenge to elite practitioners of Chinese medicine. Within traditional medical corpuses, the brain was not considered a dominant organ, and many of the functions attributed to it in neuropsychiatry were instead believed to be encompassed by the *heart* in Chinese medical theory. Given the widespread fetishization of “science” in China at the time, however, and given that many intellectuals within China viewed the scientific method as the primary source of Western wealth and power, Chinese physicians were forced to justify the persistence and utility of their longstanding theories. Through a series of thought exercises and philosophical inquiries, the physicians involved in the brain–heart debate began to reevaluate – or at the very least reconsider – the forms of knowledge that they had heretofore taken for granted, specifically insofar as they related to processes of cognition and their origins within the embodied self.

The discussion that ensued in response to this epistemic confrontation did not just highlight the differences between Chinese medicine and biomedicine, but more importantly the compatibilities between the two. In their efforts to reconcile the biomedical brain with the Chinese medical heart, the participants in the debate were able to flexibly incorporate alternative medical paradigms while also advocating for the utility of their own ideological truths. Rather than viewing the heart and the brain as two discrete and disconnected units – as biomedicine tended to do – the writers were able to merge the two organs into a single holistic system, thereby retaining the respective theoretical and physiological contributions of both neuropsychiatry and Chinese medicine. In so doing, the debate over the heart and the brain offered important conceptual counterpoints to the fundamental tenets of contemporary neuropsychiatry. By highlighting alternative ways of understanding “mental” malfunction – theories that went beyond a narrow focus on the brain itself – the debate provided a model for rethinking the relationships among the brain, the body, and different organs, systems, and physiological processes.

Part I: Theoretical Background

To understand the terms of the debate that unfolded in the 1930s, it is necessary to first consider how Chinese medicine has traditionally conceptualized the structure of the human body and the interrelation between “body” and “mind,” particularly in contradistinction to conventional neuropsychiatry. As the anthropologist Judith Farquhar (2020: 26) has pointed out, a hallmark of modern biomedicine is its emphasis on disease as a type of material *thing*. Concomitant with the rise of anatomy and laboratory-based bacteriology at the turn of the twentieth century, the sudden visibility of illness helped transform diseases into physical entities that could be isolated within contained biological structures. To physicians trained in the scientific style, illness and health could be conceived as either the presence or absence of *structural* deficiency. By contrast, Chinese medicine never developed a concept of disease as a discrete material object. Instead, illness has traditionally been viewed as a constantly evolving set of processual relations or patterns of change: dynamic operations that can mutate and migrate as the microcosmic body responds to the macrocosmic universe. For Chinese medicine, then, disease has been less a matter of structural defect than the product of imbalance, insufficiency, or decline within regular bodily *processes*.

The relational orientation within Chinese medicine had important implications for how the heart and brain were understood by turn-of-the-century practitioners. While biomedicine conceived of organs as discrete units with independent functions, Chinese medicine approached the viscera as simultaneously physical, interrelational, and metaphorical entities. That is to say, although organs in Chinese medicine have spatial properties – the heart, for instance, is acknowledged as residing in the chest – they do not operate as discontinuous or isolated objects. Rather, visceral systems are “functional complexes linking all parts of the body,” interpenetrating in their regulatory activities and pathological manifestations (Farquhar 1994: 93). At the same time, organs transcend a purely material form to additionally encompass a metaphorical and abstract dimension. In traditional medical thought, the individual body is conceived as a microcosm of the natural and political world, and its internal networks therefore mirror the organization of the external, social realm. Thus, organs (*guan* 官) are both

homophonous with and functionally analogous to government officials (*guan* 官), dispatching orders via channels (*jingmai* 經脈) along which information flows (Yu 2009: 130).

Because of the dynamic and relational quality of the Chinese medical body, traditional medical philosophy has never viewed the collective functions of the psyche as anatomically unified. Whereas scientific psychiatry tends to consider emotions, cognition, perception, and behavior as different variants of mental, and hence brain, processes, Chinese medicine conceptually and morphologically differentiates between them. In canonical medical texts like the *Yellow Emperor's Inner Canon* (*Huangdi neijing* 黃帝內經), different functions of the “mind” are typically depicted as being situated within, and dispersed across, the five *zang* 臟 and six *fu* 腑 organs. The kidneys, for instance, govern the emotion of fear and house the person's essence (*jing* 精); the spleen manages worry, intention, and wisdom; and the lungs are the depot from which sorrow emerges (Chen 2014).

Within this corporeal bureaucracy, the heart is often depicted as the ruler (*zhu* 主) of the organs. The reason for its esteemed position is due to its governance of *shen* 神, or spirit-mind. Although *shen* is considered a central component of mental processing, it is not equivalent to the biomedical “mind.” In contrast to Cartesian models of psychosomatic function, which view mind and matter as ontologically distinct, mind and body in Chinese medicine are conceived, articulated, and experienced as fundamentally inextricable. While, in some contexts, *shen* can refer narrowly to a person's thinking and emotions, in others it is used to evoke a person's “manifested vitalities,” the outward expression of her internal and emotive processes (Zhang 2007: 38; Yu 2009: 123). The embodied nature of *shen* also distinguishes it from the Western “mind” or “soul.” Although certain texts have contrasted the invisibility of *shen* with the physical concreteness of form (*xing* 形) or body (*shen* 身), a closer reading evokes the impossibility of such a facile duality. As the linguist Ning Yu explains, *shen* (spirit-mind) and *xing* (form) are inseparable and mutually constitutive, mediated by the unifying force of a person's *qi* 氣, or vital energy (Yu 2009: 375; also Hsu 2000: 200). Thus, in contrast to the Western “soul,” which exists somewhere *apart* from the material body, the Chinese *shen* is inextricably *a part* of it; indeed, the anthropologist Yanhua Zhang (2007: 33) argues that the very distinction between psyche and soma is grounded in a Western ethnocentrism that is not applicable to Chinese medical culture.

Regardless of how successive generations of physicians may have interpreted the form and function of *shen*, by the 1930s the general consensus was that *shen* was governed by the heart. Similar to the Aristotelian perspective, which also envisioned the heart as the nexus of mental activity (Gross 1995), practitioners of Chinese medicine viewed the heart as the primary site of thinking and knowing. The brain, by contrast, not only played little role in cognitive processing but was believed to be a generally subordinate organ, on par with the uterus and gallbladder (Unschuld 2003: 138). This is not to say that Chinese physicians accorded the brain no responsibility in mental functioning whatsoever. Recognizing the brain's proximity to the sensory organs, early medical texts elucidated a relationship between the brain and sensory perception; moreover, because the brain was believed to be the storage site of marrow (*jingsui* 精髓), it was also perceived to have a connection to the bones, and hence to movement. Although some physicians, most notably in the Ming and Qing dynasties, insisted that the brain played a part in the

formation of the intelligence and the storage of memory, this position remained subject to debate and was not universally held (Yu 2009: 131–132).

Because of the central role played by the heart in the governance of cognition, the onset of madness was typically attributed to a malfunction in the region of the chest, rather than to one in the head. Specifically, many medical practitioners in the early twentieth century posited that madness resulted when mucous had accumulated in the chest, thereby choking off or stifling the normal functions of the heart (Ding 2013). The connection between mucous and madness dated back to at least the fourteenth century, when it was popularized by the Yuan dynasty physician Zhu Danxi 朱丹溪. In an oft-quoted text, Zhu proclaimed that madness arose when mucous had obstructed the region of the chest; when such was the case, the natural remedy was to dispel the mucous and calm the heart (*zhen xinshen* 鎮心神) (Chen 2003: 115). By the twentieth century, the mucous model had become the dominant mode for understanding mad behaviors (Simonis 2010: 121). The etiological focus on mucous within Chinese medicine thus further concretized the relationship between the heart and abnormal psychic functioning.

Part II: The Psychiatric Challenge

The notion that the “mind” was housed within and governed by the heart would not be called into serious question until the advent of psychiatric medicine in China in the 1910s and 1920s. By that point, medical missionaries and neuropsychiatrists had infiltrated urban China, calling attention to (what they perceived as) the paucity of psychiatric knowledge and the inadequacies in Chinese approaches to treating mental and neurological disorders (Baum, 2018; Ma 2014). Despite ongoing debates as to what constituted and caused mental malfunctioning, the approach that became most influential in China was that of contemporary Germany. The father of German neuropsychiatry, Wilhelm Griesinger, had famously proclaimed in 1857 that “so-called ‘mental illnesses’ are really illnesses of the brain and nerves” (Brown 2008). Following this line of thinking, German physicians were taught to interpret mental diseases as species of neurological malfunction, rather than the result of intrapsychic or interpersonal conflict.

The German model initially infiltrated China indirectly via the United States and Japan, both of which had been greatly influenced by the progress that had been made in German neurological research (Kitanaka, 2012). Nevertheless, despite having achieved a modicum of success in identifying the localized functions of different motor and verbal processes, neuropsychiatric treatments in the early twentieth century were largely managerial in nature, emphasizing either the sedation or the stimulation of the nerves (Braslow 1997). These trends followed their practitioners to China. At the Peking Union Medical College, the preeminent American medical school in Beijing, physicians did not consistently distinguish between psychiatric and neurological disorders, but instead grouped both forms of distress under the uniform classification of “nervous system” (PUMC Annual Report, 1928). Their treatments therefore tended toward the somatic rather than the psychic, involving such approaches as sedatives, restraint, and warm water baths (Baum, 2018).

Regardless of the many shortcomings in contemporary neuropsychiatric practice, Western-trained physicians insisted on the accuracy of biomedical knowledge and the outright absurdity of Chinese beliefs. “[The Chinese] are entirely ignorant,” the American physician Charles Selden wrote in 1905, “of the fact that the seat of the [mental] disease is in the brain.” Instead, he continued, they attributed the cause of mental disorders to the ludicrous notion that mucous accumulated in the chest, choked up the vital organs, and stifled the flow of the fluids and *qi* (Selden 1905: 7). By the 1920s and early 1930s, Western physicians had committed to fixing the problem of Chinese psychiatric ignorance. At the refuge over which he presided in Guangzhou, Selden sponsored two massive “mental hygiene campaigns” to educate the Chinese masses on the scientific nature of mental pathology and the efficacy of Western cures (Kerr Refuge Annual Report, 1925). In Beijing, similarly, social workers at the Peking Union Medical College joined forces with municipal authorities to propagate the values of “modern psychiatry” to the local public (Hsü 1939). In both places, foreign physicians established psychopathic hospitals and neurological clinics as alternatives to traditional therapeutics and standard forms of domestic care.

While the extent to which psychiatric discourses penetrated the imagination of the Chinese masses is debatable, practitioners of Chinese medicine were both intrigued by these foreign epistemologies and highly concerned by them. Their concern stemmed, in large part, from recent attempts to ban non-Western forms of medical practice. In 1929, the Chinese government put forth a proposal to eradicate Chinese medicine and replace old-style practitioners with biomedically-oriented doctors and institutions. Citing the potential for “traditional” therapies to both damage the bodies of the Chinese people and sully the face of a modernizing nation, the Western-trained doctor Yu Yunxiu 余雲岫 recommended phasing out Chinese medicine over a period of several years. Traditional doctors recognized the obvious threat that such a motion would pose to their profession, as well as to their sense of cultural identity. Banding together to oppose the measure, they organized a series of strikes, demonstrations, and protests at government bureaus (Croizier 1968; Andrews 2014; Lei 2014).

Although the government’s proposal was ultimately scrapped, the palpable and immediate challenge that it had posed to traditional knowledge was something that Chinese medicine physicians could no longer ignore. To advocate for their own survival, many realized, they would have to engage directly with the terms of biomedical epistemology. The nature of the “mind” and its situatedness within the brain was one such topic that began to attract their sustained attention. Taking issue with the belief that mental processes were equivalent to brain processes, practitioners of Chinese medicine called attention to the discrepancies – and potential reconciliations – between Chinese and Western modes of thought.

Part III: The Debate

Starting in the late 1920s and continuing with greater momentum into the 1930s, practitioners of Chinese medicine pointedly articulated their response to the psychiatric challenge. An early salvo was cast by the Fujianese physician Li Jianyi 李健頤 in 1932. “Western medicine says that knowledge and movement are a product of the brain, but Chinese medicine claims that the heart is the clever [one],” he wrote in a publication

called *Chinese Medicine World* (*Zhongyi shijie* 中醫世界). Because “nobody had meticulously examined which [of these positions] is correct,” Li decided to place the two “in dialogue” to reach a definitive conclusion (Li, 1932: 25). The following year, Zong Zihé 宗子和, a physician from Jiangsu province, made a similar series of remarks in the monthly journal *Medicine of the People* (*Dazhong yixue yuekan* 大眾醫學月刊). In an essay simply titled “Speaking of the Brain” (*Shuo nao* 說腦), Zong posed the following question: “Western medicine states that one’s mind, talent, and wisdom are emitted from the brain. Chinese medicine conversely states that the heart is the master of the intellect, and the brain has nothing to do with it. How are the two so at odds?” (Zong 1933: 22). And in the same publication, Yu Shenchu 俞慎初, also from Fujian, framed the debate in the following terms: “Western medicine believes that thoughts and actions are all products of the brain. Chinese medicine claims that they are products of the heart. Of the two, which is correct?” (Yu 1933: 14).

In each of the above essays, alongside dozens of other commentaries on the same question, practitioners of Chinese medicine attempted to reconcile biomedicine’s emphasis on the brain with Chinese medicine’s focus on the heart. The way they did so was not necessarily to interrogate contemporary scientific research, nor even to refer to their own clinical successes in treating patients suffering from emotional or behavioral disorders. Rather, most aimed to find definitive answers by plumbing the theoretical knowledge contained within the ancient Chinese medical canon. Yu Shenchu, for instance, invoked the Han dynasty text *Yellow Emperor’s Inner Canon* to arbitrate between the Chinese and biomedical positions. “When I was investigating the *Inner Canon*,” he wrote, “I found two sentences that demonstrate how the heart and the brain are interrelated.” One of these sentences declared that the head (*tou* 頭) was the “palace of the essential light” (*jingming zhi fu* 精明之府). The other declared that the heart (*xin* 心) was the “sovereign organ from which the spirit-mind emits.” These two declarations, Yu realized, offered a solution to the medical mystery. Since a) the brain was a part of the head, b) the “essential light” was synonymous with the “spirit-mind,” and c) the role of the “palace” was to store the country’s goods, this necessarily meant that the brain “stored” the mind, while the heart “emitted” it. On this basis, Yu concluded that knowledge, thought, and movement *originated* within the heart and were then passed along to the brain. The heart thus emerged as the dominant organ of the two, even if it could not operate in isolation.

In another exposition on the *Inner Canon*, the Guangdong physician Ma Shizhi 馬師贄, writing in *Health Magazine* (*Jiankang zazhi* 健康雜誌) in 1929, followed a different logic to arrive at a similar conclusion. “The *Inner Canon* states that the brain is a sea of marrow and the marrow is the essence of the blood,” he began. Since blood was produced in the heart, essence (*jing* 精) was housed in the kidneys, and marrow was stored in the bones, blood and marrow could only reach the brain through a holistic interaction between multiple organic systems which crucially depended on the heart. In this way, the heart emerged as the “sovereign” (*junzhu* 君主) organ to which the brain “belonged” (*shuyu* 屬於), but neither could function in the absence of the other. Since external stimuli (sounds, smells, sights) were perceived by the brain but processed by the heart, and since internal stimuli (happiness, anger) manifested in the heart before being transmitted to the brain, the material (*wuti* 物體) and metaphysical (*lingti* 靈體) aspects of the individual depended on a symbiotic interaction between both the heart and the brain – even if the heart occupied the dominant position (Ma 1929: 18–19).

As other participants began to chime in, the debate revealed itself to be more of a collaborative consensus than a heated dispute. Zong Zihé resolved that the “heart is the master organ, and the spirit emits from it”; the brain, meanwhile, “stores the heart’s spirit,” and therefore had an “unspeakable value” (Zong 1933). A physician named Wang Qiuyuan 汪秋元 emphasized that the heart “ruled” the body but acknowledged the vital role played by the brain in thinking and movement. Since the brain was attached to the nerves (*shenjing* 神經), a person’s thoughts first had to pass through the brain in order to be diffused to the limbs (Wang 1934: 4–5). And Li Jianyi, who articulated his position in perhaps the most succinct fashion, noted that Western medicine “only investigates what is close, but doesn’t extend [its investigation] to what is further away.” Since biomedical physicians assumed that thinking originated in the brain, they never bothered to examine the more remote causes of cognition as they manifested in the heart. Chinese physicians, on the other hand, “researched the source” (*yuan* 源) of mental disorders. In so doing, they were able to determine that the brain merely *reacted* to the signals that had been emitted from the heart but did not *produce* those signals on its own (Li 1932).

For many of the participants, the debate highlighted the inadequate, and potentially harmful, implications of a brain-based approach to treating mental disorders. While clinicians trained in German-style neuropsychiatry focused their attention – as well as their cures – strictly on the brain, physicians trained in the Chinese fashion immediately understood why these strategies were so rarely effective: they failed to consider the interdependence between the brain, the heart, and the rest of the body. Despite the fact that neurologists and psychiatric researchers had, by this point in the 1930s, uncovered the cerebral lesions and neurofibrillary tangles that accompanied disorders such as general paresis or senile dementia, practitioners of Chinese medicine were unconvinced that this evidence incontrovertibly signaled the triumph of psychiatric epistemology. Since Western physicians had not yet discovered a “magic bullet” for the treatment of *all* such cognitive and behavioral disorders, the epistemic basis on which they based their treatments must have been flawed.

The Shanghai physician Ding Ganren 丁甘仁, from the famous Menghe lineage of medicine (Scheid 2007), expounded on this line of reasoning in a 1928 essay titled, “On the Relationship between the Heart and Brain.” When a patient exhibited symptoms of madness or mental deficiency, Ding argued, the heart and brain had to be approached as an inextricable unit. For instance, if an elderly person experienced signs of dementia, this was because the brain’s marrow was deficient (*kui* 虧) and the heart’s *yang* had declined. And if those who were ill experienced problems with their thinking or memory, it was inevitably the result of a multi-sited deficiency: when illness resided in the brain, then the heart would become muddled (*hu* 糊), and when illness resided in the heart, then the brain would become confused (*hun* 昏). “Brain and heart must be treated together,” Ding stated definitively, “and must not be treated separately (*fenzhi* 分治)” (Ding 1928: 1). The fundamental interconnectedness between the organs and vital fluids required such an approach.

Li Jianyi further elucidated on this point in his 1932 contribution. Even if the physical manifestations of madness may have appeared in the brain, he suggested, this did not necessarily mean that they had originated there. Li’s thinking proceeded as follows. The heart, he began, was the ruler of the body, and it therefore controlled the blood and the vessels. Blood produced a person’s vital essence, and the vital essence

produced the brain's marrow. If the blood was poor, it could not produce the vital essence; if the vital essence was weak, it could not produce the marrow; and if the marrow was empty, an illness of the brain would necessarily ensue. In this sense, Li concluded, the brain still contributed to the onset of madness, but it was only an "immediate cause" (*jinyin* 近因) of the disorder. The more "remote cause" (*yuanyin* 遠因) – but also the more important one – was a malfunction within the *heart*. This was the reason, Li triumphantly affirmed, that Western medicine was ultimately powerless to cure so-called psychiatric infirmities: they only employed treatments that "nourished the brain" (*bunao* 補腦) but did not attempt to uncover the underlying source of the brain's deficiencies. Chinese medicine, on the contrary, "clarified the profound and rendered the hidden visible" and was therefore "sincerely superior" (Li 1932: 25–27).

The main disparity between Chinese and Western medicine, these physicians concluded, was that psychiatry merely recognized the "tip" (*biao* 標, i.e. symptomatic expression) of madness whereas Chinese medicine paid attention to its "root" (*ben* 本, i.e. source). In other words, even if madness may have physically manifested in the brain, its originary cause resided further afield: namely, in the heart and its complex interrelations with other vital systems and processes. In certain superficial circumstances, this disparity was unproblematic. But, as physicians like He Diruo 何棣若 and Yang Huanwen 楊煥文 cautioned, when the disorder lay deeper in the body, doctors would need to consider its more profound origins, particularly as they materialized within the heart, chest, kidneys, and other crucial regions (He 1935: 6–8; Yang 1933: 64–69). In the debate over the respective functions of the heart and brain, Chinese medicine practitioners ultimately did not seek to subvert the critical role of the latter in somatic and psychological functioning. At the same time, though, they refused to relinquish their own time-tested conception of bodily morphology, one that placed the heart at the pinnacle of the bodily order and saw all of the organs and vital fluids as inextricably entwined.

Part IV: Conclusion and Implications

Although the debate over the heart and brain had no formal verdict, the writers who participated in the discussion still arrived at certain collective resolutions. On the one hand, each of the participants acknowledged that the brain played a role in cognition, bodily movement, and the onset of madness, and they therefore agreed to incorporate biomedical knowledge into extant practices so as to enable Chinese medicine to progress and evolve. As Zong Zihe pointed out, "Chinese medicine knows that the heart is precious, but it does not know that the magical effects of the heart are stored in the brain." Biomedicine, he thus insisted, was not just a useful addition to the Chinese medical canon, but an altogether *necessary* one if Chinese medicine was to advance to a more complete state (Zong 1933: 23).

On the other hand, however, these practitioners refused to surrender to the epistemic power of scientific psychiatry and its exclusive claims to medical truth. While neuropsychiatry, they resolved, may have been useful insofar as it could fill unexplored gaps, the underlying ways in which it framed bodily morphology was fundamentally incorrect. In contrast to Chinese medicine, Western medicine viewed each body part in isolation, ignoring the connective channels and energies that linked them together. And

while Chinese medicine recognized the inherent dynamism of the body, Western doctors acted “without regard to changing circumstances” (Li 1932: 27). Their view of the body was therefore a static one, characterized by a series of discrete and disconnected units. Such a vantage point, practitioners of Chinese medicine insisted, would necessarily render them powerless in the face of chronic, deep-seated, or complex problems such as those that linked soma and psyche, inner and outer worlds, and the emotional and vital life of the patient.

What could such a conclusion mean for us today? While the debate itself may have come to an unceremonious close in the late 1930s, I believe it is still possible to apply its lessons to contemporary concerns. In particular, recent scientific studies have begun to explore the ways in which mental and emotional states – conditions which biomedicine typically reduces to brain behavior – both affect and are affected by processes occurring outside of the nervous system itself. For example, clinicians are now paying closer attention to the connection between depression and gastrointestinal activity by focusing on the bidirectional relationship between brain and gut health (e.g., Carabotti et al. 2015).¹ In 1998, the Columbia University physician Michael Gershon suggested that the stomach could perhaps be considered our “second brain.” Having conducted extensive research on the enteric nervous system, or what he refers to as “the brain in the bowel,” Gershon determined that the gut is lined with upwards of 100 million neurons – more than can be found in either the spinal cord or the peripheral nervous system alone. As he writes in his book, *The Second Brain* (Gershon, 1998), 95% of the body’s serotonin is located in the bowels, while only a small fraction is located in the brain; consequently, gastrointestinal disorders can contribute to depressed moods, while anti-depressants – which raise the body’s serotonin levels – can also cause problems in the GI tract. Highlighting the dialectical connection between gut and brain health, Gershon’s research indicates the ways in which seemingly psychic ailments are also enmeshed in the gastric system. He refers to this field as “neurogastroenterology.”

It is not just the brain-gut connection that has attracted recent scientific attention; so too has the heart-brain nexus. Noticing that vascular pathology can lead to neurodegeneration, some researchers have strengthened their inquiries into the relationship between cardiovascular disease and cognitive impairment. This research, though typically emphasizing unidirectional linkages between the two organs – that is, how cardiovascular disease can lead to stroke or how severe depression can lead to acute cardiomyopathy – is tentatively adopting a perspective that approaches heart and brain disease as co-occurring. The neuroscientist Hari Manev has advocated for the establishment of the cross-disciplinary field of “Cardiovascular Psychiatry and Neurology,” one that would join psychiatry, neurology, medicine, and cardiology into a cohesive unit. Part of his inspiration for this undertaking derived from his observation that the same word for “heart” and “mind” is used in some Asian languages (Manev 2009).

Studies such as these have served to critically rethink the brain’s role as the single corporeal embodiment of the mind. Nevertheless, they continue to perpetuate a model of bodily functioning in which one organic system exists in an enclosed and mechanistic relation to a second; that is, instead of focusing narrowly on mind-health-as-

¹ Although various doctors throughout Western civilization – including the French physician and early founder of modern psychiatry Philippe Pinel – have posited a connection between the brain and stomach (Williams 2007, 2010), such ideas were not seriously pursued until fairly recently.

brain-health, they have simply included an additional specialization into their analysis. If we return to the 1930s debate over the heart and brain, however, we are reminded that the conversation was never *strictly* about the two organs in isolation. For practitioners of Chinese medicine, the brain – whatever its role – was not an independent unit, nor was the “mind” necessarily affixed within a single biological structure. Instead, the mind was dispersed across the various organs, each of which were linked by the blood, channels, and *qi*, and could hence communicate with and be influenced by all of the other parts of the psychosomatic constitution.

By focusing on the dynamism of the body, the interrelations between its various parts, and the vitality of its communicatory methods, the debate over the heart and brain proposes a radically different interpretation of bodily morphology than those given by past and present neuropsychiatry. To that end, Chinese medicine and its historical vicissitudes can perhaps offer a useful alternative perspective on what it means to inhabit a body and to possess a “mind.”

Declarations

Conflict of Interest No conflict of interest. (See attached title page.)

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