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DUALISM AND THE TRANSFORMATION OF PSYCHIATRIC LANGUAGE IN THE SEVENTEENTH AND EIGHTEENTH CENTURIES

Akihito Suzuki
The Thomas Reid Institute, University of Aberdeen

INTRODUCTION

Psychiatry as a more or less independent medical speciality emerged in the late eighteenth- and the early nineteenth-centuries.[1] One should only remember that Pinel in France and the Tukes in England were hailed as the fathers of modern psychiatry by their contemporaries, descendants, and historians. Recent historical studies, however, have shown that the innovative nature of the works done by these "reformers" has been widely exaggerated, and this in turn has compelled us to see the events around 1800 less in terms of abrupt revolution than that of long-term growth.[2] This historiographical shift has turned our attention to the eighteenth century in search of the origins of the psychiatry of Pinel and the Tukes, and interdisciplinary attempts at intellectual and cultural history of discourse on mind in the eighteenth century are now gaining momentum.[3]

Reflecting the importance of the asylum, moral treatment, and the creation of a new professional group of psychiatrists in the early nineteenth century (or "alienists" or "mad-doctors", as contemporaries called them), much of the recent social-historical and sociological re-assessment of eighteenth-century psychiatry has been centred around the techniques of managing patients and asylums utilized by the specialists.[4] Roy Porter has shown that eighteenth-century cosy and up-market madhouses for wealthy patients were the breeding ground of the prototype of "moral treatment", or subtle face-to-face psychological manoeuvring of patients by acting on the latent rationality in their mind: market-conscious proprietors of private madhouses, who were keen to attract, please, and impress genteel clientele, developed a new species of psychological therapeutics and regimen, combining the power of their personal charisma and therapeutic efficacy of elaborately prepared and carefully arranged institutional settings.[5] Following Porter's lead and emulating William Parry-Jones's model, there is now an increasingly sophisticated body of monographs on individual private madhouses in seventeenth- and eighteenth-century England.[6] Public-sector institutional care in the eighteenth century, too, has been examined and re-evaluated. Refuting the one-sidedly negative view of "Bedlam", Jonathan Andrews has

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demonstrated that Bethlem Hospital in the eighteenth century was a place where progressive or even innovative cure was offered by highly respected doctors.[7] These studies have shown that the nineteenth-century 'new model' psychiatry, which was centred around the psychological means of control and care dispensed at specialized institutions, had been practised long before it was propagated by Pinel and the Tukes. The challenge of these works has led to the revision of the view that represents Pinel and the Tukes as a radical departure.[8]

The aim of the present paper is to offer yet another reassessment of eighteenth-century psychiatry, in the context of the medico-philosophical conceptualization of mental disease, and to suggest a way to supplement the historiography of psychiatric institutions and professions with that of conceptions of mental disease.[9] Needless to say, there have been several attempts to put the conceptual history of psychiatry in the context of the history of psychiatric institutions and professions, and vice versa. George Mora suggested that the reformist social science and sensualist psychology of the Enlightenment provided the major drive toward a psychiatry with a more modern outlook.[10] W. F. Bynum, Roger Cooter, and L. S. Jacyna have shown that somatic understanding of mental disease in nineteenth-century Britain served to provide the new specialism of psychiatry with what psychiatric practitioners believed was a medical-scientific basis.[11]

My concern in this paper is, however, different from the historians of the interaction of the conceptual and the institutional mentioned above. While they focus on psychiatrists' *adaptation* of their language to describe mental disease, I shall examine the discovery of mental disease itself and the *creation* of a new type of language to describe the new core object of their research. To put it strongly, my major thesis is that in British medical writings from *c.* 1600 to *c.* 1760, to talk about "mental disease" in its strict sense was impossible in the language of learned medicine, because there was no such thing as diseased mind. When doctors talked about madness, they were talking about a disease of the body in which the soul of the patient remained absolutely intact. The problematics of diseased mind, which started to occupy the central place in the medical language of madness from around the 1760s, was absent in its earlier counterpart. The most important issue involved in the shift was, therefore, that of dualism and mind-body relationship.[12]

The metaphysical issue of dualism was, I shall argue, not a remote philosophical puzzle, but affected doctors and early psychiatric practitioners to a considerable extent. The eighteenth century witnessed not only the growth of a new pattern of psychiatric practice based on specialist institutions, but also the transformation of the conceptual model of madness in reference to which doctors understood the disease. This fundamental conceptual shift expressed in late eighteenth-century medico-philosophical works created a more 'psychologized' understanding of madness and compelled medical theorists and practitioners to employ language of the contemporary philosophy of mind in their description of the symptoms and cure of madness. In other words, in the late eighteenth-century practitioners of the new-model institutional psychiatry were provided with a new type of language, which enabled them, if they so wished (and a lot of them did), to upgrade their day-to-day experience of observing and caring for insane patients into learned knowledge. The device for turning the raw material of mad-doctoring into the science of diseased mind was absent before *c.* 1760. The shift in the medical concept of madness and the scheme in dualism contributed to transform the former site of craft and business into a site for the production of specialist knowledge.[13]

The chronological scope of this paper is between *c.* 1600 and *c.* 1780, a period that allows me to look at the makings of psychiatric concepts before the time of Pinel and the Tukes, as well as the impact of major philosophical schemes on them, especially those of Descartes, Locke, and Hume. Geographically, I have limited my account mainly to England and Scotland, and I have looked at the Continent only when Continental writings were directly influential on or relevant to the British conceptualization of madness.[14] I have also concentrated on the writings of 'learned' and regular doctors with MDs or even medical chairs.[15] The first section will describe the structure of the medical language of madness *c.* 1600–*c.* 1750 and its consequences. The second section will focus on the creation of the new types of language and its repercussions.

THE OLD UNDERSTANDING OF MADNESS

From around the Renaissance well into the late eighteenth century, the immortality of the soul had been one of the major problems in theological, philosophical and medical debates over human nature.[16] The problem went far beyond a mere metaphysical puzzle, for the doctrine of immortality was regarded as the basis of society and virtue. Many orthodox believers argued that the fear of eternal punishment after death inflicted on the soul was the very ground of morality. In their search for enlightened alternatives to Christianity, atheists and materialists argued that the doctrine of immortality was an invention of sinister churchmen to terrify the superstitious into obedience.[17]

The interpretation of madness had been one of the central issues of this debate over immortality ever since Lucretius. The core of Lucretius's argument was that madness demonstrates the mortality of the soul: "whether mind is sick ... or whether it is changed by medicine ... gives signs of its mortality." The soul, though it was alleged to be immortal, lost its power of reasoning in madness, which meant that soul was actually corruptible and therefore mortal. Moreover, the cure of madness by somatic methods such as purging and medication was incompatible with the doctrine of immateriality: the success of medicine acting on the body to cure madness meant, Lucretius argued, that the mind was made up of the same substance as the body.[18] The orthodox were well aware of the strength and the threat of the argument. One eighteenth-century philosopher wrote, "this objection is so plausible, that the generality of men allow it to be

matter of fact".[19]

The immortalists' reaction to the threat of the Lucretian position and their attempt to re-interpret madness in a different light produced the fundamental framework for the medical understanding of madness in the seventeenth century. The crux of orthodox physicians' argument was that the essence of the soul remains absolutely intact during the most violent fit of madness, and the disorder takes place only in the body. Timothy Bright, a late sixteenth-century English physician, published *A treatise of melancholie* in 1586, one of whose professed aims was to refute the Lucretian argument or what the author called "Stoical prophanes of Atheisme".[20] In the work, Bright insisted that madness affected only the instrument of the soul, not the soul itself:

> This affecting of the minde, I understand not to be anything empairing of the nature [of the soul]; or decay of any faculties therin; or shortening of immortality: or any such infirmities inflicted upon the soul from the bodie: but such a disposition, and such discontentment, as a false string lute giveth to the musician: or a rough and evill fashioned pen, to the cunning writer: which only obscureth, the shew of either art, and nothing diminisheth of that facultie, which with better instruments, would fully content the eye with a faire hand, and satisfie the eare with most pleasant harmonie.[21]

In the same vein, André du Laurens, another late sixteenth-century physician, argued that the soul does not suffer at all when it seems to lose its power of reasoning, just as "the sunne doth never feele any diminishment of brightness" when it is darkened or eclipsed by thick clowd or the moon coming in between. Even when a mad person behaves like a beast and "thou shalt not find therein anything worthy of a man", Laurens warned not to be deceived by the appearance: "I would not have thee (O thou atheist whosoever thou art) hereupon to conclude, that the soule of man suffereth anything in his essence...: it is never altered or changed, neither can it suffer anything."[22]

While arguing that the soul of a mad patient did not change at all even in the rage of madness, the doctors had to explain the manifest fact that the patient did not exhibit the same working of his or her mind as other people. This dual concern to defend the doctrine of the immortality of the soul and at the same time to save the appearance of madness led medical theorists (1) to locate madness primarily in the body of a mad patient, and (2) to secure some essential part in the patient unaffected by madness. Madness was therefore conceived as a twofold process which involved two different kinds of damage and disorder in two types of faculties of the soul, namely (a) those mental faculties which were directly damaged through failures in the body (e.g. excessive melancholy or disordered flow of the animal spirits), and (b) those faculties which did not suffer any change in themselves but were indirectly affected because of the failure of the former types of faculties. The former were the faculties of imagination, fantasy, and memory: they were 'interactive' faculties because they directly interact with the body, and they were 'lower' because of the hierarchical ladder going upward from coarse body to pure spirit. The latter were 'purely spiritual' and 'higher' faculties, such as judgement, reason and rational will. Faculties of imagination, fantasy, and memory were therefore conceived to be directly damaged in madness, and those of judgement and reason were regarded as misguided by the lower faculties, themselves remaining intact.[23] Daniel Sennert wrote that in melancholy the memory and imagination were "either abolished or diminished, principally through the fault of ... the brain", whereas reason was "not diminished nor abolished of its self" but lost its power "because the fantasie is hurt".[24]

The key pathological step involved in this twofold process of becoming mad was the creation of a false image, which was represented by the lower faculties to the higher ones: the faculty of reason or that of judgement in a mad person was deceived because the vitiated faculties of imagination or memory present false, distorted and mis-composed images to reason. Under the humoral medical scheme, the process of making a false image was often understood as that of the darkening and blackening, with the humour of melancholy as the agent to blame. Lazare Rivière maintained that when a melancholic humour infects the animal spirits with "thickness, darkness, and blackness", the contaminated animal spirits stain and distort the image, "as a colored glass doth represent the species of the object to the eye with its own tincture".[25] More importantly, the blackness of the humour of melancholy carried with it the quality of darkness, which *darkened* the mind. Bright explained as follows:

> that natural and internal light is darkened, their fancies arise vayne, false, and void of ground: even as in the external sensible darkness, a false illusion will appeare unto our imagination, which the light being brought in is discerned to be an abuse of fancie.[26]

The physical quality of blackness of melancholy and its metaphorical quality of darkness played the pivotal role in staining both the animal spirits and the power of reason. The logic underlying the argument here is the transmission of the quality of darkness from the humour to the idea, from the material to the spiritual: because the melancholic humour is black in colour, it darkens the light of reason.

Quite understandably, this rather free transmission of quality from the corporeal to the incorporeal was totally incompatible with the philosophical system of Descartes, one of whose major concern was the strict distinction of the ontological status of *res cogitans* and *res extensa*. Descartes thus proposed a radically different model of the creation of false images in madness, when he criticized Aristotelian epistemology and offered his own. Denying the theory of intentional species which holds that the idea we have of an external object resides in the object perceived, Descartes argued that nothing but mechanical shocks are transmitted from the object in the external world, via the sensory organs and the nervous system, to the seat of the soul: "There is no need to suppose ... that there

is something in the objects which resemble the ideas or sensation that we have of them."[27] Trying to explain how nothing but mechanical shocks could trigger an idea in our mind, Descartes used the example of seeing fire when struck on the eye:

> people struck in the eye seem to see countless sparks and flashes before them ... hence this sensation can be ascribed only to the force of the blow, which sets the optic nerve-fibres in motion as a bright light would do.[28]

He went on to argue that this process of "seeing fire" takes place in the mind of madmen:

> madmen ... often see, or think they see, various objects, which are nevertheless not before their eyes: namely, certain vapours disturb their brain and arrange those of its part normally engaged in vision exactly as they would if these objects were present.[29]

Descartes thus argued that our normal perception of the external world is possible without intentional species residing in the perceived object, on the basis of the (alleged) fact that in madness people have false perceptions which do not have any counterpart in the real world. Note that the same status was given here to normal perception and to the false one of madness. Denied direct access to the external world and enclosed within the curtain of representational ideas, the mind's right perception of external object now ontologically resembles the madman's illusion. In other words, both normally perceived ideas and mad illusions are triggered by occurrences at the seat of the soul, rather than coming directly from the perceived object. Contrary to what Michel Foucault maintained, Cartesian epistemology established a close parallelism between the normative operation of the mind and madness.[30]

Descartes's new mechanical epistemology and his model of madness as illusion were embraced by a variety of late seventeenth-century natural philosophers and medical writers. In his *Experiments and considerations touching colours*, Robert Boyle adopted the Cartesian theory of vision and mad illusion *in toto*, and Thomas Willis speculated on the process by which the acidified animal spirits, cutting irregular pores and paths in the brain, triggered strange, melancholic and fixed ideas by their irregular motion.[31]

Examination of the notions of madness expressed by post-Cartesian writers tells, however, that despite his radical reformulation of the theory of perception, basic doctrines of Descartes and philosophers inspired by him were often used to *confirm* the old medical-philosophical framework for understanding madness I have examined above.[32] That is because Descartes consolidated the centrality of false image in the explanatory model of the pathology of madness, and because his out-and-out distinction between the body and the soul could be used to support the claim that madness was a problem of the body, not the soul.

The fusion of the Cartesian model of perception/madness and the concern for

making madness an essentially or even exclusively corporeal problem is most evident in the concept of madness put forward by British iatro-mathematicians, a short-lived school led by Archibald Pitcairn around 1690–1720.[33] Pitcairn and Richard Mead, his young protégé, out-Descartesed Descartes, so to speak: they intertwined the Cartesian model of madness as illusion with another Cartesian concept, involuntary muscular motion. A mad person, Mead argued, suffered from the irregular representation of a false idea triggered by the shock of the animal spirits flowing in a disorderly manner, which in turn was re-directed into the muscular fibres to produce involuntary and disorganized motion of the body:

> a delirium is the representation and various composition of several species to the mind without any order or coherence; together ... with irregular, or as it were, undesigned motions of the body; that is, such a wandering and irregular motion of the nervous fluid, whereby several objects are represented to the mind, and upon this representation divers operations performed by the body, tho' those objects are not impressed upon the organs, not those operations or motions deliberately commanded by the soul.[34]

Mead suggested that the mad person was a hydraulic machine in disarray, in which the irregular flow of the animal spirits gave rise to erroneous sensation and incoherent locomotion of limbs. Edward Strother, apparently another follower of iatro-mathematics, pushed this concept to its laughable extreme, when he attempted to attribute a madman's extraordinary strength to his inflated blood pressure:

> suppose a person has in his vessels 20 pounds of blood, and the strengths equivalate 5 pounds; then if we consult Sir Isaac Newton's Law of Motion, it will stand thus $ac=m$, or 20 multiplied by 5, is equal to 100 lb. which this person can lift. If then any one falls ill of madness, and can lift up 140lb., then the Moment or Strength in each pound of blood, amounts to 7lb., for 20 multiplied by 7, is 140.[35]

This hydraulic model of madness helped doctors to reinforce the somatic understanding of the disease. The whole process of the representation of false image and the subsequent involuntary motion did not involve any damage to the soul/mind. Note that this was modelled after an *involuntary* motion, in which the faculty of will was not involved. Neither was the power of reasoning vitiated in madness. From the alleged fact that a mad patient in delirium sometimes revealed a little reasoning, Mead argued that delirium was "*not a distemper of the mind but of the body*". Or, in other words, "it is very manifest that in reality the defect is not in the rational but corporeal part".[36] John Locke was simply echoing contemporary medical opinion, when he wrote that madmen had not lost the faculty of reason but "by the violence of their imaginations, having taken their fancies for realities, they make right deduction from them".[37]

In the eighteenth century, this concern to limit madness within the body was

codified in a more systematic way in the doctrines preached by Herman Boerhaave, the extremely influential medical professor at Leiden. Following Descartes, Boerhaave and his numerous disciples (especially Albrecht von Haller) maintained that madness was initiated by the representation of a false image, or an idea which did not correspond to the external world. At the same time, well aware that a mere illusion was not madness *per se*, they sought to create a more sophisticated version of the Cartesian model. As Wright has pointed out, this was all the more necessary because of the keen desire to distinguish *sensation* as a material change in the body from *perception* as a mental state correlated to the material state, a position motivated by attempt to refute what they regarded as the renewed threat of materialism, especially that posed by Spinoza and La Mettrie.[38]

In his attempt to reinforce the distinction, Haller utilized an amusing example:

> Suppose yourself to be born in America, and never have heard a word of Latin: if now you hear me speaking in that Language you will certainly perceive no ideas from my words, notwithstanding your ears receive the same impression with my own.[39]

The lesson Haller drew from this example was that something other than mere sensation as a bodily change is involved in our perception of external objects. This something was the immaterial soul, possessed only by man. In his refutation of La Mettrie, Samuel-August Tissot explained that both brute and man had sensation, "but in brute the result of this sensation is confined to a mechanical determination consequent upon it ... while in man the soul perceives that sensation, this perception from the idea, and passage from the sensation to the idea is the essential character which distinguishes man from brute".[40]

Likewise, it was argued that there must be a difference between having a false sensation and being mad. For a mind to become mad, it must be *persuaded* of the reality of what the false image stands for. Boerhaave explained that a person who presses his eye with his finger does not always believe that he sees fiery sparks but concludes that he sees an illusion, finding that "the cause exciting the idea of a rainbow is within him". When the idea is convincing, however, the mind is deceived into an error:

> If now there is a strong resemblance of a similar idea excited formerly by the action of some external object, and at the same time the present idea arising from the internal disposition be vivid, there follows a strong persuasion in the mind, that the cause exciting the idea is then present [outside] the body.

When the mind "perceives such an idea, and believes it to be true", there will follow the extravagant actions of the madman: in such a case, "we usually call such people raving mad".[41] To identify madness with illusion would have been materialistic, as it implied the identification of the bodily event and the mental

one; the crucial pathological step was made when the mind was persuaded into believing the reality of the illusion.

This Boerhaaveian model of madness represents a fundamental continuity with the pre-Cartesian model of madness I have examined above.[42] It adopted essentially the same concept as that of pre-Cartesian medical writers in that both located madness in the bodily side of the mind–body interaction. Boerhaave and those who followed him argued that madness involved two stages: first, the representation of a false image triggered by a bodily disorder, and secondly, the mind being deceived into believing the reality of the image. What is important here is the passive role of the mind, an echo with the early doctrine of the intactness of the soul and the higher spiritual faculties. In his *Observations on the nature, kinds, causes and prevention of insanity* (1782 and 1786), Thomas Arnold observed that physicians' emphasis on the role of false image in madness had been essentially the same from the time of Galen up to his own time, including those of Sennert, Hoffman, Boerhaave, and Haller.[43] We must not, of course, take this assessment by Arnold uncritically, but Arnold had a point so far as the continuity between pre-Cartesian and post-Cartesian notions of madness was concerned.

For early eighteenth-century medical theorists, the crucial step from a mere illusion to madness lay entirely in the false idea's power to deceive the mind; its strength, its vivacity, and its ability to mimic a real idea. In short, madness consisted in what the mind *received* from the body. On the other hand, doctors omitted the whole problematics of what the mad mind *did* from their realm of concern. Boerhaave sought to codify this omission of the medical problematics of the mind *per se*:

> It is not the business of the physician to be acquainted with what the mind is, how it passes from one thought to another.... Though all these properties of the mind are real, yet is the knowledge of them of no use to the physician, so far as they have no relation to the body: for allowing him to be acquainted with all these particulars, and supposing that he endeavours to correct the inconsistent ideas of the madman by the most authentic reasoning ... yet with all his wisdom, he will be able to do nothing.[44]

Although one should not overestimate the influence of this dictate from Leiden, British medical writers on madness in the early eighteenth century were quite loyal to the sentiment expressed here. With all their intimate acquaintance with Locke in their first or second year of study at Oxford or Cambridge or at dissenters' academies, almost none of them utilized Lockean psychology when discussing insanity.[45] Mental operation became a doctor's concern, Boerhaave insisted, only to investigate its underlying bodily change: "I do not here ask what judgement is, to avoid running into a metaphysical question: but I only enquire what condition of the body that is from whence judgment results."[46] In the Boerhaaveian discourse on madness, there was actually no room for Locke's philosophy of the mind without "physical consideration of the soul".[47]

NEW PSYCHIATRIC LANGUAGE IN THE LATE EIGHTEENTH CENTURY

The exclusively bodily interpretation of madness, or psychiatry without the problematics of the mad mind, had been dominant up to *c.* 1760. There took place, however, a drastic change in the language of psychiatry from around 1760. In this section, I will show that the alternatives came from the different views toward the same problematics of the philosophy and physiology of sensation and perception.

As I have discussed already, earlier medical theorists were well aware of the distinction between having an illusion represented to the mind and being persuaded by it. This concern was derived from the theories of perception current among eighteenth-century philosophical writers, who were keen to investigate and distinguish the two processes in the perception of external objects, following Locke's lead.[48] Locke is usually regarded as the first philosopher who divided the process of man's sense-perception into what are today called sensation and perception, or to use his own terminology, sensation and judgement: it is judgement which correlates raw data of sensation to the external objects they stood for.[49] To elucidate this point, Locke posed the famous "Molyneux's question": whether a man who was born blind and gained his sight when grown up could tell the difference between a cube and a sphere without touching them.[50] Major British philosophers such as Berkeley and Hume tackled the question, which crossed the Channel, where it received enormous attention from the Continental *philosophes*, mainly because of the publicity given to the question by Voltaire.[51]

The wedge Locke drove between sensation and judgement turned out to be crucial in the construction of a new model of madness in the late eighteenth century. It was Voltaire who shrewdly gave the old Lucretian position a new edge by combining the Lockean theory of perception and the problem of madness. The fact that Molyneux's ex-blind person can see right but cannot judge right shows that inability to judge correctly does not necessarily mean that one's sensation is wrong. In his *Philosophical dictionary* (1764), Voltaire applied this observation to madness, and turned the Cartesian model upside-down:

> It may be asked how [a madman's] spiritual, immortal soul, lodged in his brain, receiving all ideas very clearly and distinctly through the senses, nevertheless never judges sanely. It sees objects as the souls of Aristotle and Plato, Locke and Newton saw them. How then, receiving the perceptions experienced by the wisest, does it make of them an extravagant combination, without being able to help itself?[52]

Voltaire made Boerhaave answer back to the madman: "your soul is as spiritual, as pure, as immortal as ours. But our souls are well housed, and yours badly, the windows of its house are blocked up, it lacks air, it suffocates." This represents the familiar doctrine of the incorruptibility of the soul, with the notion of madness as a disorder of the body: what is wrong in madness is not the soul but the passage between the soul/mind and the external world, because of which "when the wise man hear music, my madman hears the braying of a donkey".[53] In the end, however, Voltaire let his madman refute this metaphysically and medically established orthodox opinion and cast doubt on the doctrine of the incorruptibility of the soul:

> My friends, as usual you take for granted the matter at issue. My windows are as open as yours since I see the same objects and hear the same words: it must therefore follow that my soul makes bad use of my senses, or that my soul is itself only a vitiated sense, a depraved quality.[54]

Voltaire's critique reveals that the old model of madness was riddled with serious inconsistencies at its theoretical core. On the one hand, earlier medical writers located madness in the body, in order to defend the doctrine of the immateriality and incorruptibility of the soul and the higher faculties. There the mind was passively deluded by false sensation or imagination. When they talked about normal perception, however, they emphasized the active role of the mind, again to reinforce the distinction between the bodily and the mental and to demonstrate the existence of immaterial soul. They maintained that a mere sensation as a bodily process did not automatically lead to the formation of an incorporeal idea, arguing the vital necessity of the active involvement of the soul. Here they were saying something somewhat similar to Locke's distinction between sensation and judgement (Haller's illiterate Americans were an aural version of Molyneux's blind person, so to speak). In short, they utilized two arguments, which were contradictory to each other, in order to defend the same doctrine of immaterial soul. They were saying that when the false image was strong enough, the passage from its representation to its persuasion was just *automatic*, despite their insistence on the ontological difference of the two processes. Voltaire's renewal of the materialist polemic of Lucretius was devastating to the orthodox, all the more so because Voltaire utilized the very argumentative device adopted by the antagonists to his own favour.

Because of this built-in dilemma, the old model of madness was actually prone to criticism *from within*, not necessarily by those with a materialistic agenda like Voltaire. The best exemplification of this is the dispute between William Battie and John Monro, which took place in 1758. Although historians usually paint Battie as progressive and Monro as traditionalist, reflecting Battie's and Monro's institutional affiliation (the former being a physician of newly established St Luke's, the latter at centuries-old Bethlem), I would like to argue that the reverse was the case, so far as the theoretical core of their interpretations of madness was concerned.[55]

Battie closely followed Boerhaave's model of madness as illusion in which the mind was passively deluded, although he was, again like Boerhaave and Haller, well aware of the difference between sensation and perception:

> that man ... is properly mad, who is fully and unalterably *persuaded* [my

emphasis] of the existence or of the appearance of any thing, which either does not exist nor does not actually appear to him, and who behaves according to such erroneous persuasion.... Suppose that the idea of flame really excited by a blow is by him referred to an house on fire, or the idea of sound excited by the pulsation of vessels, &c. is referred to a musical instrument: the man who is so mistaken, and who cannot be set right either upon his own recollection or the information of those about him, is in the apprehension of all sober persons a lunatic.[56]

For Battie, the key to understanding madness was the physical and bodily changes which caused the false idea, or what he called "delusive sensation". The great bulk of his book was, therefore, dedicated to speculative searching of areas around nerves for pathological signs of delusive sensations, conceived after the manner of Haller's celebrated experiments on the sensibility of living animals.[57]

No doubt inspired by wounded pride, Monro insisted that Battie was unconvincing.[58] Whatever his motive, Monro's criticism hit the nail upon the head, revealing the fundamental logical fault in Battie's position. Monro criticized Battie's virtual identification of delusive sensation, deluded imagination and false perception:

In one paragraph madness is called a deluded imagination, and in the next false perception, and perception is either confounded with, or not sufficiently distinguished from sensation; yet I cannot think these three the same; for how close soever the connection may be between sensation and perception, there is certainly a very wide difference between either of them and imagination.[59]

Full appreciation of the difference would lead, argued Monro, to a model of madness different from Battie's. Similar to Voltaire, Monro disputed that false sensation was *not* necessary for madness as a false perception to take place. Monro illustrated his argument from Classical medicine, by citing the following observation of Aretaeus:

[Melancholics] are mistaken in their perception, they see objects that are not present, as if they were present, and they fancy they were what appears to no other person: whereas, [maniacs] see exactly as they ought, but they do not judge of objects as they ought to judge.[60]

Monro took the latter example of maniacs as his own model of madness. In short, as he put it, insane patients "see right, but judge wrong". Monro therefore maintained that "vitiated judgment", rather than "deluded imagination", was a better definition of madness.[61] What Monro brought forth was the shift toward the integration of the mind in the process of madness: while Battie's madman was passively deluded, Monro's madman actively made a wrong judgement.

Monro was to find an ally very soon. Four years after the dispute, Battie

published another work, *Aphorismi de cognoscendis et curandis morbis*, which contained two chapters on mania and melancholia. The next year, an anonymous review of the book appeared in *The gentleman's magazine*.[62] Criticizing Battie's definition of madness in his new work ("*phantasmata ficta*"), the author maintained that the cause of a madman's error in perception must not be sought in the disorder of the faculty of image-making, but in his "very erroneous judgments concerning [sensation]".[63] The author proceeded to argue that madness consisted in failure in decoding signs:

The phenomena [such as thunder and rain] thus connected may be said to form a chain, the several distinct links whereby are perceived by madmen as well as others; but here lies the difference: madmen do not perceive their concatenation. They see the signs, but they do not know what is signified by them.[64]

The reviewer's conclusion was identical with Voltaire's and Monro's: "a man is not mad for perceiving this or that species, but for making a wrong judgment concerning it." In other words, Voltaire, Monro, and the anonymous reviewer all maintained that the crucial thing in madness was the mind's action on the received images, rather than the images themselves.

There is no sign, however, that suggests that either Monro or the anonymous reviewer shared the materialist polemic with Voltaire. Indeed, the shift of focus from the body to the mind could be a piece of counter-argument against materialism, as the case of François Boissier de Sauvages, a celebrated medical professor at Montpellier, exemplifies.[65] Voltaire criticized the old model of madness and showed that in madness the mind actively committed an error, in order to criticize the doctrine of the immaterial soul. Sauvages attacked the old model for the diametrically opposite reason. He believed that the Boerhaaveian model of madness, in which the mind played only a passive role, had promoted materialism by minimizing the involvement of the soul/mind, and proposed a new model of madness in which the soul/mind actively became mad.

In his first nosological work, *Nouvelles classes de maladies* (1732), he divided diseases into ten classes, and the sixth class dealt with madness or "maladies spirituelles", which was further divided into three sections, disorders of imagination, judgement, and will.[66] The young Sauvages, following Boerhaave and many others, maintained *maladies spirituelles* were essentially illusions, whose seats were located in the brain. The way in which cerebral indisposition caused madness was explained by an iatro-mechanical argument framed around perception of the external world: when the fibres lost their proper tension, there would follow ideas and judgements that did not agree with the impression of an external object.[67]

The tripartite classification of the diseases of the mind was widely accepted by mid- and late-century medical writers and Sauvages himself retained it in his second and by far more voluminous work of nosology, *Nosologia methodica*

published in 1763.[68] Despite their apparent similarity, however, the class of "maladies spirituelles" in *Nouvelles classes* and that of "folies" in *Nosologie méthodique* were framed by radically different principles. The most crucial departure was that the mature Sauvages now believed that in madness the mind *actively* committed errors. He illustrated this point with an example of the different results of hallucination in a peasant and a philosopher: a peasant who had a hallucination was easily led to believe that he really saw a fly before his eyes because he had not cultivated his mind, while a philosopher in the same bodily condition could tell the error of sight and prevent himself from falling into the false belief.[69] This contrast showed, Sauvages argued, that one needed not only a defective brain but also a defective mind to be mad: "madness depends on the dual conditions of the mind and the body."[70] Unlike in the older scheme, the mind here is not passively persuaded, but actively commits the mistake.

Madness for Sauvages was, therefore, not simply the result of the disordered body, but also the result of "the abuse we make of our liberty".[71] The more active role assigned to the mind/soul arose partly from his interest in the animism of Georg Stahl and Christian Wolff, and partly from his ideological concerns.[72] Sauvages was not satisfied with the model of the passive mind, because he thought it was materialistic, deterministic and left no room for free-will:

> It is materialistic to wish to deduce the madness and sane reason of man only from the consonance and disconsonance of fibres of the brain, without considering the power which the liberty has over the actions proper to the soul and over the affections. If it were possible to assign a cause purely mechanical to the errors, one could no longer ascribe the errors to those who committed them and the moral philosophy and justice would be annihilated.[73]

Sauvages's repudiation of the somatic attribution of madness was thus backed by his anxiety over the danger of moral licentiousness caused by materialistic determinists, whom Sauvages called "the partisans of Spinoza". Explaining the mental disorders only by the mechanism of the body, as many other doctors and he himself had done before, was morally dangerous.

Sauvages therefore understood madness as a disease essentially caused by vitiated will. This led him to compare madmen to "Americans, peasants, women, and libertines". Neither madmen nor Americans, according to Sauvages, pursued true happiness and perfection, cultivated their intellect, or applied themselves to the study of the true goodness: instead, they found pleasure only in sensual and vulgar things, and hence could neither judge nor desire the true good.[74] Given that madness and wilfully committed moral vice were fundamentally analogous, the task of moralists and the duty of physicians should overlap with each other:

> It is a duty of a philosopher to try to cure mental maladies. For the origin of the diseases is the idea which the patient forms about a good thing that is, in reality, not at all as good as he believes. And it is a task of a well-educated physician to prove to the misled person, by reasoning, that the good which he desires is nothing but a seeming good and really a bad thing.[75]

Thus the moralist should cure madmen, and the physician should instill in Americans true judgement and will. In defiance of Boerhaave's dictum, Sauvages's physicians no longer limited their target of intervention to the body of the patient, but looked at and acted on the moral and mental part.[76] As the late Roselyne Rey perceptively pointed out, here is a germ of "moral treatment" as a technique to intervene directly in the mad mind.[77]

Sauvages's shift from *Nouvelles classes* to *Nosologia methodica*, therefore, involved a fundamental reformulation of the whole problematics of madness, centred around the question whether the mind became mad actively or passively. The somatic view of madness as illusion was replaced by the more psychological characterization of madness as a failure in promoting one's own true happiness or perfection. Since madness was a mixture of bodily disorder and moral/mental vice, physicians and moralists shared their object of discourse and action, i.e., the mad mind *per se*. The *genre* of language utilized by Sauvages, too, was transformed. As Roger French has shown, Sauvages gave up locating a disease in the Boerhaavean "mechanical structure-function map of the body".[78] Freed from the framework of the anatomical and pathological grid of the body, Sauvages's discourse on madness was now mapped on the Wolffian philosophy of mind. This was another fundamental departure from Boerhaave, who maintained that acquaintance with the philosophy of mind was useless for a doctor, even in the context of describing and curing madness.

William Cullen, the most successful professor at Edinburgh in the late eighteenth century, produced another version of psychologized psychiatric language, different from Sauvages's but sharing numerous things in common. To begin with, he was quite straightforward in making madness a disease of judgement rather than imagination. Curtailing Sauvages's class of '*vesaniae*', Cullen included only disorders of judgement in his order of *vesaniae*, omitting disorders of imagination and of will.[79] The omission of disordered appetites from madness signals Cullen's disagreement with Sauvages's model centred around the faculty of will, while his exclusion of hallucination suggests his departure from the former illusion-centred model.

This was partly because of Cullen's commitment to the bodily understanding of diseases in general, and of madness in particular.[80] He mapped madness onto the brain, and located hallucinations and erroneous appetites on different parts of the body: hallucinations were disorders of the sense organs, and erroneous appetites resided in the organs that were related to respective appetites. His classification thus gave priority to the pathological seat of the disease rather than its symptoms; he wrote that the two excluded genera could be included in madness "so far as they depend on the brain itself".[81] Reflecting the centrality of the

nervous system in his theory, the degree of excitement of the brain was the key to both the etiology and the therapeutics of madness.[82] Cullen believed that maniacs' extraordinary strength, their vigilance, their resistance to the power of drugs all showed their excessive vitality and indicated that their brains were in an extreme state of excitement. Cullen thus prophesied that more careful post-mortem dissection of the brain would confirm his brain pathology of madness as the state of over-excitement.[83] Erect posture, he argued, would contribute to the cure of madness because "a horizontal always increases the fulness and tension of these vesels [of the brain], and may thereby increase the excitement of the brain": exposing maniacs to an extreme coldness was good, as it would diminish their excitement.[84] Following long tradition, Cullen's various 'psychological' means had the body as its ultimate target: instilling fear would cure madness, because fear is a passion that diminishes excitement of the brain.[85] In short, in pathology and therapeutics, Cullen failed to psychologize madness and relied on more or less traditional bodily means. Unlike Sauvages, whose nosology and Stahlian animism compelled him to adopt exceptionally psychological and exclusively symptom-based framework to understand madness, Cullen did not expel the body from his understanding of the disease.

This does not mean, however, that Cullen understood madness exclusively in bodily and anatomical terms. Quite the reverse. Just as Sauvages followed Wolff's philosophy of mind, Cullen's inspiration was David Hume, whose influence on Cullen is most evident in the latter's account of judgement and its disorders, i.e., madness.[86] Echoing Hume's famous account of our understanding of causal relationships, Cullen explained what he meant by judgement as follows:

> simple perceptions and their relations are laid up in the mind by associations, and it is in following these associations that the mind brings back before it the relations which it is to judge of.[87]

Thus, according to Cullen, the key to judgement was custom and association of ideas, which Hume regarded as the basis of all our intellectual operations: "without the influence of custom, we should be entirely ignorant of every matter of fact beyond what is immediately present to the memory and senses."[88]

Since judgement, the normative mental operation whose disorder was identified with madness, was thus a matter of custom and the association of ideas, insanity for Cullen consisted in deviation from habit: "delirium is where we do not follow our ordinary train, but, on the contrary, pursue one inconsistent with all our former established principles or notions."[89] As Cullen's "custom" meant not only personal patterns of behaviour dictated by particular associations of ideas but also norm of behaviour, sanity of judgement for Cullen, therefore, consisted also in the propriety of one's behaviour; hence, improper behaviour deserved the name of madness:

> if a man comes into a company, there are certain observances which custom has established, and his behaviour is suited according to the company he comes into; if it is a company of his usual merry companions, the laugh arises and the joke goes round; but it if is a company for business that he is to take a part in, he sits down seriously, speaks of the business in hand, and attends to what the other persons are engaged in; but if he were to treat the last company as he does the first, he would pass for a madman; thus too in the first company I supposed, he may speak of his amours or of his mistress; but if he finds the same men among a number of ladies of honour and virtue, and he renews his discourse there, he would be thought a madman.[90]

Taste, politeness, propriety of conversation and adaptation of behaviour to the situation constituted sanity of the mind. Although Cullen here held a more relativist and pluralist conception of morality than Sauvages, they both subscribed to the belief in the role of the doctor as the guardian of moral behaviour.[91] A social code of behaviour, however, was not the ultimate measure of madness for Cullen. As "there is a certain latitude admitted in judgment", and as "men differ greatly from one another without any of them being reckoned delirious", a simple deviation from common sense did not constitute delirium in itself. Instead, the ultimate criterion was the habit of one's own: "we must farther observe that he is deviating from his ordinary judgment, and from his usual train of thinking."[92] A man was mad, in the final analysis, when his judgement became different from what it used to be.[93] To understand madness, it was necessary to locate it in the individual's own custom or behavioural pattern.

In its theoretical core, therefore, Cullen's model of madness involved the observation of the mind of the patient, despite all his emphasis on the physiology of the nervous system and the pathology of the brain and the somatic etiology of madness.[94] While Cullen's approach is rightly called somatic in the sense that he tried to underpin the mental by the bodily or the cerebral, it is important to note that he newly introduced the mental in the medical discourse on madness, and medicine in general. In bold defiance of Boerhaave, who restricted the physician's concern to the human body, Cullen declared at the beginning of his lecture:

> The doctrine which explains the condition of the body and of the mind necessary to life and health, is called physiology: I have added here a particular in my physiology that is not common — "and of the mind": ... I find that the conditions of the human mind must engage our attention more than they have done hitherto.[95]

Put at the centre of his physiology, Cullen's discourse on the conditions of the human mind was an elaborate one. Just as Sauvages's entire system was underpinned by Wolff's philosophy of the mind, Cullen's medical system relied on the Humean philosophy of mind, with full resonance with the contemporary intellectual movement of the Scottish Enlightenment.[96] As P. B. Wood has shown,

one major focus of the Scottish Enlightenment was to produce "the natural history of man" that encompassed both his mind and body. The research programme of the natural history of man was accordingly eagerly promoted by Scottish literati and doctors, including Adam Ferguson, the professor of pneumatics and moral philosophy at Edinburgh, John Gregory, Cullen's colleague at the medical school of Edinburgh, and Andrew Duncan, another medical professor at Edinburgh.[97] Cullen's more synthetic approach to the question of man, disease, and madness was thus an integral part of the Scottish Enlightenment.

Riding the wave of the Enlightenment, the departure from the old exclusively somatic and illusion-based understanding of madness was fairly established by around 1780. It is true there were those who clung to the old model. One of them was James Gregory, the son of John and the successor to Cullen's chair at Edinburgh. Despite being a close friend of Common Sense philosophers such as Thomas Reid and Dugald Stewart and an able metaphysician in his own right, philosophy of mind does not figure prominently in his *Conspectus or brief view of the theory of medicine* (1790) and he returned to the characterization of madness as an illusion, refusing to see the faculty of judgement as crucial in the pathology of madness.[98]

Gregory notwithstanding, however, there proceeded the search for alternatives to illusion as the model of madness and the integration of the philosophy of mind into the medical understanding of madness. In Britain, some graduates from Edinburgh were actively promoting the new model, applying Cullen's new physiology with philosophy of mind to their specific study of insanity. Around 1780, Thomas Arnold, who studied medicine directly under Cullen, constructed his nosology of madness explicitly on the basis of Lockean philosophy of mind, distinguishing between "ideal insanity" and "notional insanity". While Arnold's ideal insanity was an hallucination or a wrong perception of external things, his notional insanity was an active error of the mind that did not depend on persuasion by illusion.[99] Moreover, Arnold's pathology of the active madness was underpinned by the philosophy of active mind: "[the mind] can scarcely for a moment be merely passive; ... the mind must have a perpetual motive, of some kind or other, for the exertion of its active powers...."[100]

Many others followed the pattern of searching for a non-illusion model of madness and the use of the philosophy of mind. James Makittrick Adair's *Philosophical and medical sketch of the natural history of the human body and mind* (1787) included a chapter titled "The natural history of the human mind", where he defined madness just as Cullen had: "Delirium is a general term, which implies an error of the judgment produced by some morbid change in the brain."[101] *An inquiry into the nature and origin of mental derangement* (1798), by Alexander Crichton, who had early surgical training at Edinburgh, argued that philosophy was an essentially part of psychiatric discourse: "It is evidently required that he who undertakes to examine this branch of science [study of insanity] should be acquainted with the human mind in its sane state."[102] To this end, Crichton acknowledged his debt to "our British Psychologists, such as Locke, Hartley, Reid, Priestley, Stewart, Kames". Pinel echoed Crichton when a few years later he wrote "I have ... felt the necessity of commencing my studies with examining the numerous and important facts which have been discovered and detailed by modern pneumatologists" such as "Locke, [James] Harris, Condillac, [Adam] Smith, Stewart, etc".[103]

This infusion of the language of the philosophy of mind had a far-reaching impact on the making of psychiatric discourse and the psychiatric profession. As I have examined above, the old model of madness constructed around the problematics of the immortal soul and the passively deluded mind, there was no room for the problematics of psychology of madness *per se*, best exemplified by Boerhaave's dictate to keep away from the philosophy of mind. One of the consequences of this Boerhaaveian position was that the observation of what a mad mind does was *not* a learned knowledge, but lay outside the proper realm of medical discourse. William Battie, the first physician to St Luke's hospital for lunatics established in 1751, illustrates the point so well. Battie thought he must provide a nosological definition of madness, which should consist in the description of the symptoms of madness without recourse to its etiology or pathology.[104] The status of the nosology of madness was, however, perceived as inferior to that of pathology by Battie himself: "we must for sometime at least quit the schools of philosophy, and content ourselves with *a vulgar apprehension of things* [my emphasis]."[105] The description of the mad mind, Battie thought, belonged to the domain of commonplace or "vulgar" knowledge, while the wording of the cited passage suggests that he thought that the nervous pathology of madness he elaborated in the rest of his work was a more genuine part of medically learned discourse. Accordingly, with all his experience as a physician at St Luke's, his work, *A treatise on madness*, does not include a single case history of an insane patient.

Some eighteenth-century medical writers even stated that describing the symptoms of madness was useless. They argued this, not because it was too difficult (as many nineteenth-century alienists were to lament), but because madness was too obvious a disease. In his *Treatise of disease in general* (1741), Charles Perry gave a brief definition to each disease and explained its causes. When he came to explaining madness, however, he omitted its definition and went directly to its causes, writing madness "is so well understood that it needs no particular description". Likewise, William Buchan did not give any definition to madness, writing "there is no great occasion to be solicitous about the definition of a disease which every body knows".[106] The description of mad behaviour was, the doctors were saying, not a problem that required medical expertise but was everybody's business; it thus did not deserve their serious concern.

The new conception of madness as the disease of active mind, buttressed with the intellectual device of the philosophy of mind, brought a radical change in the scope and structure of the field of psychiatric knowledge. It has been

perceptively pointed out by Dora Weiner that Crichton's use of German philosophy of mind convinced Pinel of the necessity of close clinical observation of the patient's feeling, discerned through the study of the patient's verbal and behavioural expressions.[107] This example suggests that the new psychological model of madness provided Pinel with the new core object of research, i.e., the observation of the mad mind of a patient. What the mad mind *per se* did was not a concern of early doctors: it had been *explicitly* excluded from the realm of medical knowledge into the realm of everybody's business. In other words, it had been a relatively unimportant something, through the observation of which a learned doctor had to uncover a hidden bodily vitiated process, such as reflexive motion of the animal spirits and vitiated blood pressure, as is exemplified by the cases of Mead and Strother discussed above. Now, a doctor had to look into the mad mind of the patient. A sign of the premium put on the observation of the mind of individual patients was the proliferation of detailed case histories in the late eighteenth and early nineteenth centuries: in fact, some books published around 1800 consisted entirely in the collection of case histories, in sharp contrast to early and mid-century lack of them.[108]

The new conceptions of madness acted, therefore, as a device to transform the specialist craft of caring for the insane into the occasion for bedside observation in which medical knowledge was produced. From around 1780, there was a rapid growth of psychiatric publications by proprietors of private madhouses: William Perfect's *Methods of cure, in some particular cases of insanity* (1778) and Thomas Arnold's *Observations on insanity* (1782–86) represented the early type of publications by owners of private madhouses, followed by Joseph Mason Cox, William Hallaran, Thomas Bakewell, and so on in the first and second decades of the nineteenth century.[109] The significant point is that although private madhouses had been increasing since the late seventeenth century, they had been hardly a place where medical knowledge could be produced: owners of private madhouses rarely published their observations and findings before around 1780, with the exception of William Battie (who had, besides his appointment to St Luke's, his own private madhouse) and David Irish, whose *Levamen infirmi* (1700) was a collection of extracts from learned authors.[110]

Of course, the construction of new psychiatric language was far from the single cause of the rapid emergence of the learned proprietors of private madhouses. The general rise of the intellectual standard of medical practitioners in the eighteenth century, the increased interest in madness triggered by the mental disease of George III and the negative publicity given to private madhouses (which lead to 1774 legislation to regulate them), all contributed to transform the owners of private madhouse from those engaged in craft to those aspiring to psychiatric knowledge.[111] The role of the new conception of madness was to underpin the expanding and socially upward-moving business and craft with an intellectual basis. Or, in other words, the new framework, centred around the problematics of an individual patient's mind, created an intellectual space relatively open to

those who were engaged in day-to-day practical treatment of the insane. Unlike the earlier model which was centred around the abstract, arcane and esoteric issues of the metaphysical substance of the soul and the natural philosophy of the human body, the new language put a premium on the observation of an individual patient's mind, which owners of madhouses had occasion to practise everyday. In short, the shift in the conceptions of madness had the effect of moving the site of the production of medical discourse on madness from the metaphysical and natural philosophical speculation to the close day-to-day observation of insane patients. Roy Porter is certainly right in pointing out that English psychiatry in eighteenth-century developed as a *practical science* of madhouse-keeping.[112] For the business of madhouse-keeping to become a practical *science* or *learned* practice, a vital role was played by the new conception of madness incorporating contemporary philosophy.

CONCLUSION

The shift in the medical concept of madness I have examined suggests a few points that seem important for further discussion. Firstly, the problem of the brutality and humanity of madness. Andrew Scull obviously overlooked the issue of the intactness of the soul and underestimated the complexity of pre-1800 psychiatric discourse when he argued that the period was dominated by the brutal image of the mad person needing to be disciplined and whipped into subjection, whether in medical theories or literary and visual representations of madness.[113] Despite the recourse to images of lunatics as wild beasts employed by a host of medical theoretical writers, the very same writers were adamant in arguing that even in the most raving madness, the soul or the essence of humanity did not suffer at all.[114] Under the new configuration of the problem of madness, the essence of madness became abnormality and deviation from humanity. With nineteenth-century integration of animal instinct into human nature, some forms of madness became regarded as the breaking loose of the brutal, anarchic, and violent passion inherent and hidden in apparently civilized man. Around 1870, Charles Darwin studied the physiognomy of madness to discuss the built-in animality in man.[115] Simultaneous with the Victorian belief that the insane were now being treated more as human beings than as brutes, the identification of madness and bestiality was creeping into the core of the medical theorizing of insanity.

Secondly, madness constructed within the dominant medical systems was *not* conceived as a disease of the mind until the latter half of the eighteenth century. Earlier medical writers conceptualized madness exclusively as a bodily disease, locating the problem in what the body represented to the mind and maintaining that the soul and the higher mental faculties of the patient remained intact. With the shift of emphasis from what the mind received to what the mind did, madness became the disease of the mind *per se*, its deviation in judgement and

passion.[116] Earlier in the century, doctors refused to take up the mind of a madman as an object of research, saying that it was not their concern and that it was not diseased. Later, doctors constructed the problematics of the mad mind and equipped themselves with a new language and the tool to tackle the problem, i.e., the philosophy of mind. The problem of the mad mind was forged, not discovered, as an object of scientific discourse and medical intervention, most conspicuously by means of moral treatment. By switching the focus from the immutable and transcendental soul to the mind moulded by this-worldly experience, the path to the empirical study of the mad mind was opened up.

Thirdly, there is the question of the threat to 'traditional' doctors of moral treatment as a therapeutic innovation, an issue which occupies a central place in the present mainstream historiography of early nineteenth-century psychiatry. In their widely accepted model of the development of early psychiatry, W. F. Bynum and Andrew Scull have identified moral treatment as non- or even anti-medical, and have accordingly seen the history of English psychiatry in the early nineteenth century as the regular medicine's reaction to and incorporation of the new psychological elements.[117] Likewise, Roy Porter has observed that given the division of labour between philosophers of the mind and physicians of the body, "when a new discourse about insanity emerged, it developed outside the traditions of both regular medicine and metaphysical philosophy".[118] Although there is a certain truth in this conception of a non- or anti-medical origin of the new therapeutic technique and its threat to the emerging psychiatric profession, Bynum, Scull and Porter have obviously overestimated doctors' commitment to bodily means and their lack of interest in issues related to philosophy of mind in the late eighteenth century. In the light of the present paper, the characterization of the psychiatric discourse around 1800 as essentially or exclusively or even stubbornly somatic seems anachronistic, appropriate more to the seventeenth and early eighteenth centuries. Late eighteenth-century regular medicine discarded the former somatic limit on its realm of discourse and practice, claiming that the mind was their proper concern. As Jan Goldstein has perceptively pointed out, it was not the anatomical pathology of the Paris school, but Cabanis's *idéologie* or the Locke-inspired psychology of the human mind, to which Pinel turned when he wanted to transform the moral treatment of an asylum superintendent into a 'scientific' means of intervention.[119]

This leads to my fourth and final point about the driving force behind the birth of psychiatry. As I hope is evident from my account as well as from other scholars' works, there was no single intellectual trend that created psychological psychiatry at the end of the eighteenth century. Further study is necessary to clarify in more detail the intellectual, social and ideological backgrounds of those individuals who contributed to the formation of the new models of madness, as diverse as the anti-clerical Voltaire, the irate Monro, the conservative Sauvages, and the liberal Cullen. One thing that especially Sauvages and Cullen shared was their concern to expand the realm of medicine to integrate into it the total man, both his mind and body. In contrast to Boerhaave, who urged his disciples to be careful not to encroach upon the pure spiritual realm of the moralists, philosophers and clergymen, the late-century professors were confident in their belief that doctors could claim their right to, if not monopolize, the task of describing, studying, and treating the human mind. In that sense, the psychiatry in the late eighteenth century was a part of the secularized Enlightenment power/knowledge complex which, replacing Christian theology, set up the mind/body complex of man as the object of scientific knowledge and the target of action.[120] Despite Foucault, *why* this pattern of power/knowledge came into existence is a question still to be answered.

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12. Especially I owe a debt to two papers by John P. Wright on the different versions of dualism of Boerhaave and Cullen: John P. Wright, "Boerhaave on minds, human beings, and mental diseases", *Studies in eighteenth-century culture*, xx (1990), 289–302; *idem*, "Metaphysics and physiology: Mind, body, and the animal economy in eighteenth-century Scotland", in M. A. Stewart (ed.), *Studies in the philosophy of the Scottish Enlightenment* (Oxford, 1990), 251–301.
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14. For the medico-philosophical questions over psychiatry in eighteenth-century Germany, see Klaus Doerner, *Madman and the bourgeoisie: A social history of insanity and psychiatry* (Oxford, 1981), 164–226; G. Verwey, *Psychiatry in an anthropological and biomedical context* (Dordrecht, 1984); Johanna Geyer-Kordesch, "Passions and the ghost in the machine: or what not ask about science in seventeenth- and eighteenth century Germany", in Roger French and Andrew Wear (eds), *The medical revolution of the seventeenth century* (Cambridge, 1989), 145–63.

15. For popular or non-regular healing of madness, see Michael MacDonald, *Mystical Bedlam: Madness, anxiety, and healing in seventeenth-century England* (Cambridge, 1981); *idem*, "Religion, social change, and psychological healing in England, 1600–1800", in W. J. Sheils (ed.), *The church and healing* (Oxford, 1982), 101–25.
16. For sixteenth- and seventeenth-century debate on immortality, see Emily Michael and Fred S. Michael, "Two early modern concepts of mind: Reflecting substance vs. thinking substance", *Journal of the history of philosophy*, xxvii (1989), 29–48.
17. John W. Yolton, *Thinking matter: Materialism in eighteenth century Britain* (Oxford, 1983); Margaret C. Jacob, *The radical Enlightenment: Pantheists, freemasons and republicans* (London, 1981).
18. Lucretius, *De rerum natura libri sex*, ed. and transl. by Cyril Bailey (3 vols, Oxford, 1947), i, 325–29; John Henry, "The matter of souls: Medical theory and theology in seventeenth-century England", in French and Wear (eds), *op. cit.* (ref. 14), 87–113.
19. Andrew Baxter, *An enquiry into the nature of the human soul*, 2nd edn (2 vols, London, 1737), i, 382–3, 386. See Yolton, *op. cit.* (ref. 17).
20. Timothy Bright, *A treatise of melancholie* (London, 1586), "Epistle dedicatory" and 188.
21. Bright, *A treatise of melancholie*, 36–38. For discussion of popular perceptions of doctors as atheists, see Henry, "The matter of souls" (ref. 18).
22. André du Laurens, *A discourse of the preservation of the sight: of melancholike diseases; of rheumes, and of old age*, transl. by Richard Surphlet (London, 1599), 81–82. For the similar concern to refute atheistic polemical use of madness in the eighteenth century, see Akihito Suzuki, "Anti-Lockean enlightenment?: Mind and body in early eighteenth-century England", in Porter (ed.), *Medicine in the Enlightenment* (ref. 5), 336–59.
23. For the distinction between interactive and purely spiritual faculties in the seventeenth century, see John Cottingham, "Cartesian trialism", *Mind*, xciv (1985), 218–30.
24. Daniel Sennert, *The institutions or fundamental of the whole art, both of physick and chiurgery*, transl. by N. D. B. P. (London, 1656), 29; for different opinions on this issue held by ancient and medieval medical writers, see Robert Burton, *The anatomy of melancholy*, ed. with an introduction by Holbrook Jackson (New York, 1977), Part I, 171–2.
25. Lazare Rivière, *The practice of physick, in several books ... by Nicholas Culpeper, Abdiah Cole and William Rowland. Being chiefly a translation of the works of ... Lazarus Riverius* (London, 1655), 49. See also Laurens, *op. cit.* (ref. 22), 91.
26. Bright, *op. cit.* (ref. 21), 103. For the complex concept of melancholy and its metaphorical role, see Jean Céard, "Folie et démonologie au XVIe siècle", A. Gerlo (ed.), *Folie et déraison à la Renaissance* (Brussels, 1976), 129–48.
27. René Descartes, *Optics*, in *The philosophical writings of Descartes*, ed. by John Cottingham *et al.* (3 vols, Cambridge, 1984–91), i, 153. For the medical use of the theory of intentional species, see, for example, *Anthropologie abstracted: or the idea of humane nature* (London, 1655), 102.
28. Descartes, *op. cit.* (ref. 27), 167–8.
29. *Ibid.*, 172.
30. Foucault, *op. cit.* (ref. 3), 56–59.
31. Robert Boyle, *Robert Boyle on natural philosophy: An essay with selections from his writings*, ed. by Marie Boas Hall (Bloomington, 1965), 255–6; Thomas Willis, *Two discourses concerning the soul of brutes*, transl. by Sydney Portage (London, 1683), 188–90; *idem*,

Thomas Willis's Oxford lectures, transl. and ed. by Kenneth Dewhurst (Oxford, 1980), 54 and 65–66.

32. There is now a debate over the place of Descartes in the history of psychiatry. See C. E. McMahon, "The role of imagination in the disease process: Pre-cartesian history (the role of imagination in the disease process)", *Psychological medicine*, vi (1976), 179–84; Theodore M. Brown, "Descartes, dualism, and psychosomatic medicine", in W. F. Bynum *et al.* (eds), *The anatomy of madness: Essays in the history of psychiatry* (3 vols, London, 1985–88), i, 40–62; Wright, "Boerhaave on minds" (ref. 12), 302.
33. For detailed study of the school of Pitcairn, see Anita Guerrini, "Archibald Pitcairn and Newtonian medicine", *Medical history*, xxxi (1987), 70–83; *idem*, "The Tory Newtonians: Gregory, Pitcairne and their circle", *Journal of British studies*, xxv (1986), 288–311.
34. Richard Mead, *A mechanical account of poisons in several essays* (London, 1702), 64. See also Archibald Pitcairn, *The philosophical and mathematical elements of physick in two books* (London, 1718), 186. As for Descartes's and Willis's concepts of involuntary and 'reflex' motion, see Georges Canguilhem, *La formation du concept du réflex aux XVIe et XVIIe siècles* (Paris, 1977), 27–78.
35. Edward Strother, *Criticon febrium* (London, 1718), 20. There is no sign that Strother was joking here.
36. Mead, *op. cit.* (ref. 34), 82 and 64.
37. John Locke, *An essay concerning human understanding*, ed. with an introduction by Peter H. Nidditch (Oxford, 1975), 2.11.13; *John Locke 1632–1704: Physician and philosopher*, ed. by Kenneth Dewhurst (London, 1963), 70, 71 and 89–90. Dewhurst's crucial mistranslation of a relevant passage is pointed out in John P. Wright, "Association, madness, and the measures of probability in Locke and Hume", in Fox (ed.), *Psychology and literature in the eighteenth century* (ref. 3), 103–27. For expressions of a similar view to Locke's, see Michael Etmueller, *Etmullerus abridg'd: or a compleat system of the theory and practice of physick* (London, 1699), 532.
38. Wright, "Boerhaave on minds" (ref. 12). Boerhaave, Haller and Jerome Gaub (another disciple of Boerhaave who succeeded his mentor to the chair at Leiden) were worried at the new onslaught of materialism, all the more because they themselves were sometimes associated with Spinoza and La Mettrie. See Aram Vartanian, *La Mettrie's L'homme machine: A study in the origins of an idea* (Princeton, 1960), 201; Jerome Gaub, *Mind and body in eighteenth century medicine: A study of Jerome Gaub's De regime mentis*, ed. by L. J. Rather (London, 1965), 115–22.
39. Herman Boerhaave, *Dr. Boerhaave's academical lectures on the theory of physic* (6 vols, London, 1742–46), iv, 239. The passage cited is Haller's commentary on Boerhaave's lecture.
40. "Preface" by Samuel-August Tissot to Albrecht von Haller, *A dissertation on the sensible and irritable parts of animals* (London, 1755), p. xxix.
41. Boerhaave, *op. cit.* (ref. 39), iv, 258–9. See also Albrecht von Haller, *First lines of physiology*, reprint of 1786 edn, with an introduction by Lester King (New York, 1966), ii, 35–37.
42. The essential continuity in the disease concepts of melancholia of Laurens, Willis, and Boerhaave is discussed in Thomas Harmon Jobe, "Medical theories of melancholia in the seventeenth and early eighteenth centuries", *Clio medica*, xi (1976), 217–31.
43. Thomas Arnold, *Observations on the nature, kinds, causes and prevention of insanity*, 2nd edn (2 vols, London, 1806), i, 30–43.
44. Boerhaave. *op. cit.* (ref. 39), v, 270. See also his exclusion of the problem of the mind itself from the entire realm of medicine at the beginning of the work, which says that physiology

should study man as the body, "not as a metaphysical entity, not as a mind ... for consideration of the two do not at all come under the province of the physicians". *Ibid.*, i, 53.

45. In Hunter and Macalpine's *Three hundred years of psychiatry*, there is an entry from Locke's own *Essay* published in 1690. The next time that Locke's name appears in the book is in the entry for David Hartley's *Observations on man*, published more than half a century after. Richard Hunter and Ida Macalpine, *Three hundred years of psychiatry* (London, 1963), 236–39 and 379–82. As far as I am able to find, John Hollings, *The state of human nature delineated, as delivered in a Latin oration before the President and Fellows of the College of Physicians 1734* (London, 1734), 10, is the only favourable reference to Locke in the context of medical psychology, and it is but a passing remark. See Suzuki, *op. cit.*, (ref. 22).
46. Boerhaave, *op. cit.* (ref. 39), v, 273.
47. Locke, *Essay* (ref. 37), 1.1.2.
48. For a general account of the theories of perception in the eighteenth century, see John Yolton, *Perceptual acquaintance from Descartes to Reid* (Oxford, 1984).
49. Locke, *Essay* (ref. 37), 2.9.8. As for philosophical interpretations of this passage, see Richard I. Aaron, *John Locke*, 3rd edn (Oxford, 1971), 133–6; John Yolton, *Locke: An introduction* (Oxford, 1985), chap. 5. As for the philosophical problem of perception, see Yolton, *op. cit.* (ref. 48).
50. Locke, *Essay* (ref. 37), 2.9.8. See Michel J. Morgan, *Molyneux's question: Vision, touch, and the philosophy of perception* (Cambridge, 1977); Ernst Cassirer, *The philosophy of enlightenment* (Princeton, 1979), 108–18.
51. George Berkeley, *Philosophical works*, ed. and intro. by M. R. Ayers (London, 1975), 161; David Hume, *A treatise of human nature*, ed. by P. H. Nidditch (Oxford, 1978), 112. See Morgan, *op. cit.* (ref. 50); Yolton, *op. cit.* (ref. 48).
52. Voltaire, *Philosophical dictionary*, ed. and transl. by Theodore Besterman (Harmondsworth, 1972), 210. See Foucault, *op. cit.* (ref. 3), 227–31.
53. Voltaire, *op. cit.* (ref. 52), 210.
54. *Ibid.*, 211.
55. For the interpretation of Battie as a progressive theoretician and Monro as a reactionary, see especially Hunter and Macalpine, *op. cit.* (ref. 45), 402–16.
56. William Battie, *A treatise on madness* (London, 1758), 6 and 43.
57. For a similar account of madness apparently inspired by mid-century experiments on nervous sensibility of animals, see Christian Uvedale, *The construction of the nerves, and the causes of nervous disorders* (London, 1758), 11–13. See Akihito Suzuki, "Mind and its disease in Enlightenment British medicine", University of London Ph.D. dissertation, 1992, 228–45.
58. [Tobias Smollett], "Review of Monro's *Remarks*", *Critical review*, v (1757), 224, observed that Monro was motivated to publish the tract because of Battie's attack to Bethlem and its former physician James Monro, John's father.
59. John Monro, *Remarks on Dr. Battie's Treatise on madness* (London, 1758), 9.
60. *Ibid.*, 4.
61. *Ibid.*
62. "To Dr. Battie", *Gentleman's magazine*, xxxiii (1763), 20–21. The article is signed "T.I". There is no clue to its authorship. Internal evidence seems to suggest that the author is competent in the philosophy of Scottish Common Sense school.
63. *Ibid.*, 20.

64. *Ibid.*, 21. The author rendered the contrast clearer by twisting the example of an optical illusion: "Suppose a man, through a disorder in the optic organs, perceiveth that phenomenon which is called lightening; this man, if he consideres the species as connected with a distemper in the eye, is not thought mad; but if he take it to be a sign of thunder, rain, etc., we do not hesitate him fit for Bedlam."
65. The best study of Sauvages's nosology is Julian Martin, "Sauvages's nosology: Medical enlightenment in Montpellier", in Andrew Cunningham and Andrew Wear (eds), *The medical enlightenment of the eighteenth century* (Cambridge, 1990), 111–37.
66. François Boissier de Sauvages, *Nouvelles classes de maladies* (Avignon, [1732]), 288–322.
67. *Ibid.*, 291. Understandably, this explanatory model did not explain the section of diseases of will, and Sauvages left it rather isolated from the other two sections.
68. François Boissier de Sauvages, *Nosologie méthodique, dans laquelle les maladies sont rangées par classes...* (3 vols, Paris, 1770–71), ii, 587–759, "Huitième classe, des folies". Carl von Linné, *Genera morborum* (Upsala, 1763); J. B. M. Sagar, *Systema morborum symptomaticum* (Vienna, 1771); Diderot and d'Alembert (eds), *L'Encyclopédie* (Paris, 1751–80), article, "maladie", adopted the tripartite classificatory scheme.
69. Sauvages, *op. cit.* (ref. 68), ii, 593. Likewise, a drunken man sees two candles and believes there are two when there is actually one, while a sober person suffering from a disorder of sight sees two but can tell there is one.
70. *Ibid.*, ii, 601.
71. *Ibid.*, ii, 593.
72. Sauvages had been sympathetic to Stahl since the 1730s (Sauvages, *op. cit.* (ref. 66), pp. ii–iii). Sauvages's debt to Wolff was most evident in Sauvages, *Ouvres diverses* (2 vols, Paris, 1776), i, 12–13.
73. Sauvages, *op. cit.* (ref. 68), ii, 592. As for the background of the Montpellier Medical School, see Colin Jones, "Montpellier medical students and the medicalization of eighteenth-century France", in Roy Porter and Andrew Wear (eds), *Problems and methods in the history of medicine* (London, 1987), 57–80.
74. Sauvages, *op. cit.* (ref. 68), ii, 601.
75. *Ibid.*, ii, 602. Here again, Sauvages repudiating his own earlier idea of the division of labour between moralists and doctors, according to whether the mental disturbance was spiritual or corporeal. Sauvages, *op. cit.* (ref. 66), 289.
76. The young Sauvages had believed that a clear distinction line should be drawn between the medical and moral realms, according to whether the undesirable behaviour had organic cause or not. See Sauvages, *op. cit.* (ref. 66), 289, and Foucault, *op. cit.* (ref. 3), 267–8.
77. Rosélyne Rey, unpublished paper read at the Second European Congress on the History of Psychiatry and Mental Health Care, held at London in August 1993.
78. Roger K. French, "Sickness and the soul: Stahl, Hoffmann and Sauvages on pathology", in Cunningham and French (eds), *The medical enlightenment of the eighteenth century* (ref. 65), 88–110, p. 103.
79. William Cullen, *Nosology, or a systematic arrangement of diseases* (Edinburgh, 1800), 130; *idem*, *The works of William Cullen, M.D. containing his physiology, nosology, and first lines of the practice of physic* (2 vols, Edinburgh and London, 1827), ii, 509 and 518. See also Jerome Gaub, *The institutions of medical pathology*, transl. by Charles Erskine (Edinburgh, 1778), 271; William Cullen, "Lectures on the Comment on Gaubius' Pathology (1767)", Wellcome Institute for the History of Medicine, Western MS, 1927, 159.
80. Unlike Sauvages who insisted that nosological classification should be based only on the symptom of a disease, Cullen took its anatomical site into consideration. Sauvages, *op. cit.* (ref. 66), pp. ix–x; Cullen, *Works* (ref. 79), i, 424.

81. Cullen, *Works* (ref. 79), ii, 518.
82. Christopher Lawrence, "The nervous system and society in the Scottish Enlightenment", in Barry Barns and Steven Shapin (eds), *Natural order: Historical studies of scientific culture* (Beverly Hills, 1979), 19–40.
83. Cullen, *Works* (ref. 79), i, 131–2 and ii, 519.
84. Cullen, *Works* (ref. 79), ii, 524; "Lectures by Dr. William Cullen on the practice of physick, *c.* 1770", Wellcome Institute for the History of Medicine, Western MS, 1968, "Ordo IV Vesaniae". James Gregory, his successor in the chair of the practice of physic, lectured that he knew the case of a madman in St Petersburg, who was cured by staying out at "59 degree below the freezing point". James Gregory, "Lectures on the practice of physic, *c.* 1795", WIHM, Western MS, 2606, 8–9.
85. "Lectures by Dr. William Cullen", *ibid.* The somatic justification of psychological treatment had a long history. See, for instance, Robert Burton, *op. cit.* (ref. 24), Part II, 103, and Willis, *Two discourses* (ref. 31), 193–4 and 206.
86. Hume and Cullen were intellectual allies as well as close friends since Cullen supported Hume's application for the chair of logic at the University of Glasgow, formerly occupied by Adam Smith (1723–90) in 1751. See Christopher Lawrence, "Medicine as culture: Edinburgh and the Scottish Enlightenment", University College London Ph.D. dissertation, 1984, 312–14.
87. Cullen, *Works* (ref. 79), ii, 510. See Hume, *op. cit.* (ref. 51), 98–106, 130–42, and 155–76. See also David Hume, *An abstract of a book lately published; Entitled, a Treatise of human nature* (London, 1740), in Hume, *op. cit.* (ref. 51), 649–55. Another example of Hume's influence on Cullen was the effect of the custom on sensation, which is discussed in Lawrence, *op. cit.* (ref. 86), 325–36 and 340–7.
88. David Hume, *Enquiries concerning human understanding and concerning the principles of morals*, ed. by P. H. Nidditch (Oxford, 1975), 45.
89. Cullen, *Works* (ref. 79), i, 44. See also the following: "[judgement] is *nothing but* [my emphasis] pursuing our ordinary train of associations ... that constitute what is called a sensible man" (*ibid.*).
90. *Ibid.*, 144.
91. As for the problem of virtue and propriety, see Nicholas Phillipson, "The Scottish Enlightenment", in Roy Porter and Mikuláš Teich (eds), *Enlightenment in national context* (Cambridge, 1981), 19–40. Cullen raised the issue of the subtle distinction between madness and moral failure, and Arnold wrote that madness is a severe form of moral folly, almost identifying them. See Cullen, *Works* (ref. 79), i, 145; Arnold, *op. cit.* (ref. 43), i, pp. viii, 54–77.
92. Cullen, *Works* (ref. 79), i, 145.
93. The individualistic understanding of madness seems to have existed since the Classical medicine. Robert James, *A medicinal dictionary* (London, 1743–45), art. "delirium", cited the definition of delirium by Celsus which says that "when any thing is done by the patient contrary to custom, and without a cause, as when he talks much or little, *contrary to his usual custome* ... [my emphasis]", he is mad.
94. For his somatic etiology, see Cullen, *Works* (ref. 79), ii, 513, where he wrote "although [vesania] seems to be chiefly, and sometimes solely an affection of the mind ... yet these affections of the mind must be dependent upon a certain state of our corporeal part".
95. *Ibid.*, i, 5–6. For a perceptive discussion of Cullen's move toward "functional dualism", see Wright, "Metaphysics and physiology" (ref. 12), 292–301.

96. Lawrence, *op. cit.* (ref. 86), 325–36; Wright, "Metaphysics and physiology" (ref. 12), 300. Cullen was familiar with Lockean argument as well. See Cullen, *Works* (ref. 79), i, 35 and 49; Locke, *Essay* (ref. 37), 2.1.1–2 and 2.8.21.

97. P. B. Wood, "The natural history of man in the Scottish Enlightenment", *History of science*, xxvii (1989), 89–123; Jane Rendall, *The origins of the Scottish Enlightenment* (London, 1978), 20; Andrew Duncan, "Lectures on the practice and theory of physic", WIHM, Western MSS 2238–40, i, 386–9.

98. James Gregory, *A conspectus or brief view of the theory of medicine* (Edinburgh, 1823); *idem*, "Theory of medicine: Notes of lectures", WIHM, Western MS 2597, 377. See his definition of insanity: "The mind is deranged, when one confounds the objects of memory, or imagination, with the perceptions of the external senses, and thus ascribes existence to things which never did nor do exist; or when one's judgment of things is perverted, and foreign from the common sense of mankind. But this seldom or never happens. A deranged person usually judges rationally, though from false premises" (Gregory, *Conspectus*, 82). See also the Gregory-inspired third edition of *Encyclopaedia Britannica*, art. "delirium".

99. Arnold, *op. cit.* (ref. 43), i, 84. As for the active aspect of reflection, see *ibid.*, 51.

100. *Ibid.*, 51–52.

101. James Adair Makittrick, *A philosophical and medical sketch of the natural history of the human body and mind* (Bath, 1787), 54–96 and 83.

102. Alexander Crichton, *An inquiry into the nature and origin of mental derangement* (2 vols, London, 1798), i, pp. ix–x. For Crichton and Pinel, see the detailed study in Weiner, "Mind and body in the clinic" (ref. 2).

103. Crichton, *op. cit.* (ref. 102), p. xxvii; Philippe Pinel, *A treatise on insanity*, transl. by D. D. Davis (Sheffield, 1806), 135.

104. Battie, *op. cit.* (ref. 56), 3–4.

105. *Ibid.*, 4.

106. Charles Perry, *A treatise of diseases in general* (2 vols, London, 1741), i, 53; William Buchan, *Domestic medicine: or the family physician* (Edinburgh, 1769), 516. See also John Trusler, *The physical friend: Pointing out the symptoms of every distemper incident to man* (London, 1776), 51.

107. Weiner, "Mind and the body in the clinic" (ref. 2), 334.

108. For clinical observation of madness, see Weiner, "Mind and body in the clinic" (ref. 2). John Haslam, *Illustrations of madness: Exhibiting a singular case of insanity...* (London, 1810; facsimile reprint, with introduction by Roy Porter, London, 1989); William Perfect, *Annals of insanity* (London, 1809; facsimile reprint, New York, 1976).

109. Parry-Jones, *op. cit.* (ref. 6); Ackerknecht, *op. cit.* (ref. 5).

110. Hunter and Macalpine, *op. cit.* (ref. 45), 279.

111. Irvine Loudon, *Medical care and the general practitioner 1750–1850* (Oxford, 1986); Ida MacAlpine and Richard Hunter, *George III and the mad-business* (London, 1969); Porter, *op. cit.* (ref. 2), 169–228.

112. Porter, *op. cit.* (ref. 2), 228.

113. Scull, "The domestication of madness" (ref. 8).

114. The best example of contrasting attitude in the same author is that of Nicholas Robinson, *A new system of spleen, vapours, and hypochondriack melancholy* (London, 1729), 33–40 and 241–3.

115. Martin J. Wiener, *Reconstructing the criminal: Culture, law, and policy in England, 1830–1914* (Cambridge, 1990), 26–28; Janet Browne, "Darwin and the face of madness", in Bynum *et al.* (eds), *The anatomy of madness* (ref. 32), i, 152–65.

116. The place of the passions and emotions in the history of psychiatry remains to be written. For a general overview, see G. E. Berrios, "The psychopathology of affectivity: Conceptual and historical aspects", *Psychological medicine*, xv (1985), 745–58; Ernest R. Hilgard, "The trilogy of mind: Cognition, affection, and conation", *Journal of the history of behavioral sciences*, xvi (1980), 107–17. For the eighteenth century, see Weiner, "Mind and body in clinic" (ref. 2).

117. Bynum, *op. cit.* (ref. 11); Scull, *op. cit.* (ref. 1), 175–231.

118. Porter, *op. cit.* (ref. 2), 205.

119. Goldstein, *Console and classify* (ref. 1), 64–119. For Pinel's fundamentally anti-anatomical viewpoint, see Edward M. Brown, "French psychiatry's initial reception of Bayle's discovery of general paresis of the insane", *Bulletin of the history of medicine*, lxviii (1994), 235–53.

120. Michel Foucault, *Discipline and punish: The birth of the prison*, transl. by Alan Sheridan (Harmondsworth, 1979); Simon Schaffer, "States of mind: Enlightenment and natural philosophy", in Rousseau (ed.), *The languages of psyche* (ref. 3), 233–90.