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HYSTERIA AND MECHANICAL MAN\*

BY JOHN P. WRIGHT

For different ends the busy head is fill'd

With different spirits f,rom the blood distill'd.1

The study of hysteria and related diseases has played a central role in the development of a major twentieth-century conception of man and the nature of the human mind . It was research into these diseases by Charcot, Freud, and others which led to the belief that even "normal" people are affected by ideas and instincts which are somehow cut off from consciousness, and over which they have very little control. In hysteria these unconscious processes cause local loss of sensation, pains, paralysis, and gross motor disturbances. Freud claimed that these symp­ toms are substitutes for "wishes and desires which . . . have been pre­ vented from obtaining discharge in psychical activity that is admissible to consciousness."2 These wishes and desires , which represent universal innate sexual tendencies, are kept from consciousness by a process called "repression." Freud thought that neuroses develop out of an inevitable *"conflict* between ego and sexuality" which is somehow solved by normal people, but not by those who suffer from the illness in question. 3 Thus we are led to the view of man (and the human mind) as a bipolar creature whose ego is opposed by wishes and desires which are constantly seek­ ing for fulfillment.

Interest in hysteria and its explanation has not been confined to the late nineteenth and early twentieth centuries. Thomas Sydenham writes about hysteria in 1682 because hysteria, next to fever, is the most com­ mon disease, especially among women : ". .. If we except those who lead a hard and hardy life," there is rarely one who is wholly free from [it]."4 He also found the disease remarkable because of the multiformity of shapes which it puts on. It is a Proteus or chameleon and "whatever part of the body it attacks, it will create the proper symptom of that

\*An earlier version of this paper was read at the XVth International Congress of the History of Saience in Edinburgh, Augu st 1977. Research was supported by the Canada Council Killam Program . I am indebted to Renee Isenberg Wright for her criticisms of earlier versions of this paper, especially of my earlier views of Freud.

1. Sir Richard Blackmore, *The Nature of Man: A Poem* (London, 1711).
2. Sigmund Freud, *Three Essa y s on the Theory of Sexuality ,* trans. & ed. James Strachey (New York, 1962), 55.
3. *A General Introduction to Psych oanalysis,* trans . Joan Riviere (New York, 1966), 359.
4. *Epistle to Dr. Cole, The Works of Thomas Sydenham,* trans. R . D. Latham

(London: Sydenham Society, 1852), II, 85, cf. 56.

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part.''5 Observations about the multiform symptoms of this disease go back to ancient times. Sydenham cites a letter from Democritus to Hippocrates in which it is said that the womb (the seat of the disorder for the ancients) is the cause of "six hundred miseries, and innumerable calamities."6 Hippocrates himself describes how the womb wanders around the body causing disorders in the various organs it encounters. 7 If interest in this curious disease goes back a long way in the history

of western medicine, then so does its close connection with a theoretical interest in the nature of man. In his *Timaeus* Plato gives us an account of hysteria which is directly related to the physical description of the disease that we find in the Hippocratic writings. Plato describes the womb as an animal which becomes disobedient to reason and courses through the body causing disease. It is,

desirous of procreating children and when remaining unfruitful long beyond its proper time, gets discontented and angry, and wandering in every direc­ tion through the body, closes up the passages of the breath, and by obstruct­ ing respiration drives [the womanl to extremity., causing all variety of disease.8

This account is closely connected with Plato's general notion of the soul as consisting of three parts (appetite, spirit, and reason), each of which has its own motions. 9 Inactivity of one part, causes that part to become the strongest and results in imbalance and ill health. Plato's theory of hysteria fits in well with his account in the *Republic* ( 439d) of a war in the soul between reason and desire. Freud recognized that in associating hysteria with sexuality he was "going back to the very

beginnings of medicine and reviving a thought of Plato's." 1° For in Plato

one finds something very like the Freudian conflict of ego and sexuality,

though the teleological description of sexuality in the Platonic account, as bound up with desire of procreation, is foreign to the Freudian notion of sexuality. Freud insists that the sexual instinct exists quite apart from any procreative function. 11 However both accounts regard the ego as being opposed to a lower bodily soul which has its own desires and goals.

In the course of Sydenham's century, the seventeenth, the seat of hysteria shifted from the womb to the brain and nervous system. At the beginning of the century one still finds some of the elements of the wandering womb theory contained in Eduuard Jorden's *A Briefe Dis-*

*5 /bid.,* 85.

1. T. Sydenham, *Dissertatio Epistolaris ad Gulielmum Cole, M.D .* ... (London, 1682), 117. Latham is not faithful to Sydenham's Latin original here.
2. *Oeuvres Completes d'Hippocrates,* trad. E. Littre (Amsterdam, 1967), VIII, 33.

8 *Timaeus, Dialogues of Plato,* trans. B. Jowett (Oxford, 1964), Ill, sect. 91c.

*9 /bid.,* 89e.

10 S. Freud, *An Autobiographical Study,* trans. James Strachey (London, 1935), 42. 11 *Genera/Introduction,* 312 ff.

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*course of a Disease called Suffocation of the Mother* ( 1603) .12 Jorden speaks of the womb as "being grievously anoyed [sic] with the malig­ nity of those vapours" which (according to the Galenic theory) arise from putrified menses and female seminal fluid which have not been properly excreted from the body. 13 The womb rises upwards in the body in order to escape these noxious odors. It is significant that one finds this animism in Jorden who is looking for the best established medical theories in order to attack those who are prosecuting the sufferers of this disease as witches. The theory of the rising womb is still found in 1651 in the writings of William Harvey who, like Jorden, attributes hysteria to sexual abstinence. 14 However in 1618 the French physician Charles Lepois centered the disease in the head and more particularly in the seat of common sense *(sensorium commune). 15* Lepois attacks the womb theory by noting that almost all the symptoms occur in men as well as women. By the time the celebrated English "neurocartographer" Thomas Willis writes about hysteria in 1667 the womb theory is clearly on the decline. He cites both Lepois and Dr. Highmore as having shown that that theory is untenable. Willis considers the disease as primarily convulsive, due to the explosions of the "animal spirits" in the brain. 16 Between 1700 and 1765 no book-length English language study of hysteria and related disorders (I have discovered eight) regards the disease as centered in the womb.

12 Unless otherwise indicated works referred to are published in London .

13 *Op. cit.,* 5.

1. See llza Veith, *Hysteria: The History of a Disease* (Chicago, 1965), 130-31.

While it contains an extremely useful general account of the history of hysteria, Veith's book does not appear to me to give an entirely accurate picture of 17th and 18th-century views on the disease. The views of Sydenham seem to be closer to those of Willis than Veith acknowledges . See H. Isler, *Thomas Willis* (New York, 1968) , esp. 139-40. Veith comments that, in opposition to Willis, Sydenham held that hysteria was due to "an imbalance of the mind-body relationship ." But the real issue between Willis and Sydenham concerned the question of the extent to which visceral organs were involved in hysteria. Willis was generally regarded as holding that the disorder originated in the spleen : see, e.g., Sir Richard Black­ more's *A Treatise on the Spleen and Vapours* (1725), 237 . It also is important to carefully weigh Veith's contention (147) that Baglivi-an Italian iatromech­ anist, much influenced by Sydenham-introduced "the concept of psycho­ somatic medicine." *In a certain sense* most 17th-century iatromechanists were willing to allow for the influence of the mind on the body; the difficulty is to discover that exact sense.

1. C. Piso, *Selectorum Observationum* .. . (Pont-a-Mousson, 1618), quoted

in G. Abricossoff, *L'Hysterie aux XVl/e et XVII/e* siecles (Paris : These, 1897), 25-26. This work on hysteria by a former student of Charc011: was never pub­ lished . In contrast to Veith, Abricossoff gives high grades to authors who ascribe hysteria to a malfunction in the central nervous system. Curiously, she does not discuss the question of the ideogenic character of hysterical symptoms.

16 Willis, *Pathologiae cerebri et nervosi generis specimen* (Oxford, 1667),

148. Hereafter I will refer to the English translation, *An Essay of the Pathology of the Brain . .. ,* trans. S. Pordage (London, 1681), 77-78.

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Corresponding to this shift in the location of the disease there is a shift in the analysis of its essential nature. Hysteria is completely divorced from any connection with frustrated sexual desires. At best sexual appetite receives brief mention as one of the purely physical perturbations which can act upon an already overly sensitive nervous systern .17 For most physicians of the period 1667-1765 the essence of the disease lies in this heightened nervous sensitivity which causes the nervous system to react violently to stimuli of various kinds. It is this sensitivity, rather than an unsatisfied sexual appetite, which was used to account for the predominance of the disease among women. 18

At the same time it must be said that the nature of this disease as a *mental* disorder was clearly recognized, and is apparent in the descrip­ tion of the disease given by Sydenham, a description frequently repeated in eighteenth-century accounts of hysteria. Sydenham followed a Baconian methodology which led him to the presentation of what he called a "history of the disease," a careful listing of the symptoms of the disease which was preliminary to its reduction to a "definite and certain species."19 After a careful listing of the complex and varied physiological symptoms of hysteria, Sydenham notes that, in this disease, "the mind sickens [even] more than the body."20 He goes on to describe the severe emotional disorders of his patients. The worst passions of the human mind arise without any reason: despair, melancholy fore­ bodings , fear, anger, and jealousy. Their feelings toward others change suddenly, without any reason, from immoderate love to immoderate hatred . Sydenham gives a vivid description of the guilt felt by his patients: "... they are racked in both mind and body as if life were a purgatory wherein they expiated and paid the penalty of crimes com­ mitted in a previous state." He goes so far as to cite the passions them­ selves as the chief occasioning cause of the disease, that which leads to the onset of physical, as well as mental, symptoms .2 1

But while Sydenham shows this clear recognition of the mental character of the disease, he resolves both the mental and physical symptoms into a disorder of (what he takes to be) the microstructure of the nervous system. In giving "the efficient, internal, and immediate causes" of hysteria Sydenham describes what he calls "a disorder (ataxy)

17 *Ibid.,* 79. Willis speaks of the disordered spirits becoming "entangled with all the perturb ations both of the concupiscable and irrascible appetite." Sir Richard Blackmore (see below p. 244) may have the same thing in mind when he speaks of the latent causes of the diseases being "assisted and promoted by the ferments of puberty" (*op cit.,* 1 10).

*18 /bid.,* 82. Also Sydenham, *Epistle to Dr. Cole,* sect. 80.

1. *Medical Observations Concerning the History and Cure of Acute Dis­ eases,* Preface third ed., in *Works .* ..1, 13.
2. *Epistle to Dr. Cole,* sect. 75. *2 1 /bid .,* sect. 78.

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of the animal spirits,"22 a purely physical disorder due to the weakened state of the nervous fluids themselves which makes it possible for them to fly off in disarray at the slightest stimulus. Emotional dysfunctions, no less than purely physical ones, are caused by the improper disposi­ tion of the nervous fluids. To use terms later made famous by Syden­ ham's associate John Locke, the mental symptoms form part of the nominal essence of the disease, but not part of the real essence.23 The real essence consists in the peculiar structure of the nervous fluids which were supposed to form the basis of muscular movement as well as the passions of the mind.

Sydenham does not give a psychic analysis of the causes of the emo­ tional symptoms of hysteria. In spite of his vivid description of the guilt experienced by his hysterical patients, he never seems to have thought it relevant to ask the reason for that guilt. His theory stands in sharp contrast to the psychoanalytic one, where the reasons for the guilt of hysterical persons become all important. According to Freud's account the persons who suffer from this disease expiate and pay the penalty for the perverse infantile sexual desires which lie hidden in the unconscious part of their minds .24 These desires are the reason that these people feel ashamed, for the desires constitute a threat to the ego. Sydenham, on the other hand, thinks that the emotional states of his hysterical patients arise without any reason. Hence he turns to a discussion of their mechanical causes . For Sydenham the symptoms of hysteria have mechanical causes, but not reasons .

The role of mind in Sydenham's theory of hysteria is completely different from its role in the theories of Freud and Plato. For Sydenham, the mind plays an entirely passive role in the genesis of the disease. While Freud frequently claims that psychoanalysis showed the power­ lessness that human beings have over their destinies , the fact of the matter is that both his and the Platonic theory represent the mind, taken as a whole, as remarkably active. The desires of the unconscious part of the mind are essentially active forces involved in the production of the symptoms of hysteria. However, in Sydenham's account, all activity lies in the nervous system and purely physiological forces are responsible for the production of the mental symptoms of the disease. Sydenham's account of mental disease is fully in accord with the theory of the nature of the human being and the nature of the human mind that was gaining ascendency in his own day.

The rejection of the Platonic division of the soul is central to the

theory of man which became predominant during the period of the rise of modern science. Descartes, one of the major proponents of the

1. *Ibid .,* sect. 79.
2. John Locke, *Essay Concerning Human Understanding,* ed. J. W. Yolton

(London, 1964), II, 43 (3, 6, 2) . (First ed . 1690.)

24 *General Introduction ,* 318.

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theory, argued that "there is only one soul in us, and that soul does not have in itself any diversity of parts."25 The perceptions of will, desire, appetite, are reserved for the soul itself: there is no bodily soul in us with desires of its own. Strictly speaking there are no 'carnal' desires. The act of will is said to be the chief, or perhaps the only, operation of the soul itself.26 All appetites such as sexuality *belong* to the soul, though Descartes thought that their *cause* was a certain physiological process. 27 The will can only act indirectly on the appetites by making changes in the physiological processes of the body. 28 These processes must be understood to be purely physical, describable purely in terms of the categories of matter and motion. Anything that the soul suffers, that is passively received, is the result of purely physical motions. Thus all the actions which lie outside of the soul itself must be describable in purely physical terms. The Cartesian unconscious is purely physical.

Descartes is best remembered for his strict division of man into a mind and a body which are entirely distinct one from the other. He bases this distinction on the claim that one can have a complete con­ ception of oneself as a thinking thing quite apart from one's conception of matter, and one can have a complete conception of matter and material processes quite apart from any mental categories. 29 At the same time Descartes always insists as much upon the substantial union of the mind and body as he does upon their division. In his *Discourse on Method* he writes that the mind depends so strongly upon the body that, if it is possible to make men wiser and more intelligent than they now are, it is in medicine that the means must be sought.30 The medicine which Descartes proposed was not that practiced in his own day, but one which was founded upon the basic notions of his mechanical physics. He sees this medical progress as leading to the prevention of *mental* as well as purely physical diseases. While Descartes does not believe that thought as such is produced by the nervous system, he does believe that disorders of the faculty of thought in mental illness are caused, not by the mind itself, but by faults in the mechanical organs of the body.31

Descartes is a major proponent of the mechanical theory of

man. On the one hand the human body is held to be a machine or engine which responds in a reflex and frequently adaptive way to its environment. On the other hand man is said to have an active mind

25 Descartes, *Les Passions de L'Ame,* (Paris, 1649), *Oeuvres et Lettres,* ed. Andre Bridoux (Paris, ed. Pleiade, 1953), art. 47. All references to works by Descartes will be to this edition. I am responsible for the translations.

26 Art. 13. 27 Art. 47. 28 Art. 41.

1. *Meditations,* 6, 323-24 (first published 1641).
2. *Le Discours de Ia Methode* (Paris, 1637), 6e partie, 168-69.
3. *Reponses aux 4e Objections,* 447.

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which, through knowledge of the laws of the operation of this machine, can correct and improve both the condition of the machine itself, and that of the passive part of the mind which depends upon it. Hence the mind stands in two kinds of relation to the mechanical body. The mind relates to the body actively like the pilot of a boat who guides it through knowledge of its various parts. Robert Boyle, who employs this image, claims that the mind is capable, "especially if instructed in the physician's art," of going beyond the spontaneous adaptive processes of the machine itself, and making changes to preserve it, and correct any faults in its operation. 32 In the second place, as Descartes himself says, "I am not only lodged in my body like a pilot in his vessel, but, besides that, I am very tightly conjoined to it, and so confused and mixed that I compose with it a single whole."33 This union of the mind and the body into a substantial whole relates to the mind's passive receptive nature wherein it is dependent upon the laws of the mechanical operation of the body.

Descartes regards most 'psychological' processes as being dependent upon physiological structures and motions in the brain and nervous system. Among the psychological functions which he attempts to model in a purely mechanical way are sensation, memory and imagination, appetite and passions, and the automatic behaviour which results from stimuli from these various sources.34 These functions can all arise from purely physical processes. But even when these activities arise in the mind itself, as does the activity of imagination involved in geometrical reasoning, they depend upon the physical structures in the brain. 35 And judgment concerning the veracity of our senses, freely suspended during the process of doubt to which Descartes subjects himself in the first of his *Meditations,* is itself dependent upon the memory by which we join our present with our past experiences. 36 Such a memory is, according to Descartes' theory, dependent upon the traces left in the brain by these

32 *A Free Inquiry into the Vulgarly Received Notion of Nature, The Works of Robert Boyle* (London, 1772), V, 236.

1. *Meditations* 6,326. The words "besides that" are missing from the most commonly used English translation by E. Haldane & G. R. T. Ross, *The Philosoph­ ical Works of Descartes* (Cambridge, England, 1931), I, 192. These words are conveyed by the French "outre cela." The original Latin word "ille" *may* be ambiguous, but for Descartes' use of the French to resolve any ambiguity in the Latin see his introduction to the French translation in Adam & Tannery, *Oeuvres de Descartes,* IX, 2-3.
2. *Traite de !'homme,* 873, published posthumously in 1664. In his more mature works Descartes still attributed most of what his contemporaries called sensation and human action entirely to the body: "... pour ce qui est du senti­ ment et du marcher, je Ies rapporte aussi, pour Ia plus grande partie, au corps,

et je n'attribute rien a !'arne de ce qui Ies concerne que cela seule qui est une

pensee" *(Reponses aux 5e Objections,* 478; cf. *Reponses aux 4e Objections,* 448).

1. *Meditations* 6, 319; also *Regles pour Ia direction de !'esprit,* # 12, 78.

as *Meditations* 6, 333-34.

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earlier experiences .37 Thus failure in judgment itself, can, on Descartes' view, be attributed to faults in the physical organs of memory. 38

The extensive dependence of the mind upon the body is apparent in Descartes' theory of the passions. He defines the passions as certain perceptions which are "caused, supported and fortified by a certain movement of the [animal] spirits."39 In so doing he is assigning the pas­ sions to that physiological entity which, according to the Galenic theory accepted by most of the physicians of his day, was responsible for sensation and movement. In the Cartesian theory these spirits are purely physical: they consist of the finest and most agitated particles of the blood, which enter into the cavities of the brain after being rarified

by the heat of the heart.4° From the brain the animal spirits are directed

into the nerves (conceived of as hollow tubes) which lead to some

muscle or other. Muscular movement is caused by the elongation and shortening of opposing sets of muscles due to the increased flow of the animals spirits from the brain toward one of them .41 Thus the passions, by way of the animal spirits, have a direct relation to certain muscular movements. The direction and flow of the animal spirits from the brain into muscles depends upon the microstructure of these animal spirits themselves, as well as certain other conditions.42 This microstructure of the animal spirits, which is also the direct cause of the passions, is itself dependent upon two factors: in the first place, upon certain changes wrought in the body by the impressions of external objects upon the senses;43 and in the second place, upon the dispositions of the organs involved in the manufacture of the animal spirits, i.e., upon the disposi­ tion of the heart, the liver, the stomach, and the spleen.44

The objects of the senses constitute what Descartes calls the "most ordinary and principle cause of the passions."45 The object-stimuli agitate the animal spirits in an entirely automatic way causing a certain desire in the soul and certain disposition in the body to perform a certain action .46 The animal spirits of a healthy person are so constituted that, when stimulated by objects of the senses, they tend to form desires and actions which are adaptive in character. On Descartes' view the mech­ anism of our nature teaches us adaptive responses which we are to make in the light of certain environmental stimuli. Thus certain objects natu-

1. *Traite de l'homme,* 852-53; Letter to Hysperaspistes, Aug . 1641, 1131;

Letter to Arnauld, July 1648, 1307.

1. Cf. Michel Foucault, *Histoire de Ia Folie a l'lige classique,* 2nd ed. (Paris,

1972), 56-59. Foucault argues that madness, for Descartes, lies entirely outside

the realm of the *cogito.* But he seems to miss the fact that in the fully reconstituted Cartesian metaphysics, judgment concerning the accuracy of the senses, and hence concerning that which is useful for our ordinary lives, is equally dependent upon conditions outside the *cogito* itself.

1. *Les Passions de l'Ame,* Arts. 27, 29.
2. Art . 10; also *Traite de I'Homme,* 812 ff.

42 Art. 14; also *Traite de I' Homme,* 867 ff.

1. Art. 51.

4 ' *Ibid.,* Art. 11.

*4 " /bid .,Art . l3.* 44 Art. 15.

1. Art. 52. See also Art. 36.

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rally cause fear, the desire to flee, and the muscular responses which serve to that end.

But while our nature forms these original *prima facie* adaptive reac­

tions, it does not always do so. Passions can become linked to other stimuli than their original ones through a process of conditioning.47 Thus we might become fearful and desire to flee in the face of an entirely harmless object. I shall return to this point. For present purposes it is important to realize that, for Descartes , *faults* in the bodily organs themselves can cause useless or positively harmful desires to arise in the soul. What is remarkable is that Descartes attributes such "perverse" desires to human nature itself .48 He gives the example of the person suffering from dropsy who desires to drink even though drinking will cause him positive harm.49 Descartes compares the dropsical man to a clock which fails to indicate the correct time merely because of a change in its hidden mechanical parts . But, in contrast to the clock, Descartes considers the man's nature to be positively deceitful in such a case since, having both a mind and a body, he *d esires* what will harm his body. In attributing such a failure to the man's nature itself, Descartes is implicitly attacking a traditional notion which regards nature as a beneficial force, independent of the mechanism of the body, and always tending toward the good of the organism.50

Thus the difference between adaptive and reasonable responses to the environmental stimuli, and useless or positively harmful ones, reduces to a mere variation in the physical condition of the body mechanism. A qualitative difference of response reduces to a mere structural difference in the nervous system. Similarly inappropriate passions will differ from appropriate ones due to variations in the material conditions on which the passions depend.

Sydenham's attribution of hysteria to a disorder of the animal spirits

appears as a logical extension of the mechanical theory of the passions. Hysteria is characterized by distinctive muscular contractions (the hys­ terical fits) and certain disorders of the passions. In the Cartesian theory normal adaptive muscular movements and normal passions are deter­ mined by physical changes in the animal spirits. Thus it seems logical to conclude, as Sydenham does, that "the disturbance and inconsistency of both the mind and the body" in hysteri a is caused by a physical differ­ ence in the initial basic structure of the animal spiritsY Sydenham stresses in particular tlie close connection between thought and the animal spirits:

47 Art. 50.

48 *Meditations* 6, 333; "La nature de l'homme ... ne peut qu'eUe ne soit quelquefois fautive et trompeuse." *49 /bid.,* 6, 329-30.

50See also Robert Boyle's *Free Inqu iry* ... , *op. cit .,* 237. Boyle is explicitly discussing a common interpretation of the dictum of Hippocrates "Natura est

morborum medicatrix."

51Sydenham, *Epistl e to Dr . Cole,* Sect. 90.

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. . . The strength and constancy of the mind, so long as it lies in this our bodily crust of clay, depends most especially upon the strength and constancy of the spirits that lodge along with it.

It is, therefore, the lack of strength and inconsistency of the spirits which accounts for the unreasonable or inappropriate passions which arise in the mind of hysterical patients. At the same time Sydenham recognizes that the disorder of the animal spirits is merely "cognizable to the eye of reason ."52 For the microphysical imbalance of these fluids can only be inferred. Nevertheless Sydenham seems certain enough of the standard theory of the rarefaction of these spirits out of the blood that his cure of the disease lies in the restoration of the blood, "the fount and source of the spirits," with iron salts.53 ( Sydenham also recom­ mends horseback riding, but only beoause he thinks that this exercise helps in a purely physical way in ridding the blood of waste products.)5 4 It is the weakened state of the animal spirits which is used to explain

the fact that hysterical symptoms arise from external stimuli of various

kinds. Sydenham considers emotional upsets to constitute the chief "remote or external causes" of hysteria, 55 and Willis claimed that the symptoms of the disease often arise from "sudden fear, great sadness, or anger and other violent passions. "56 But there is no reason to think that either Sydenham or Willis conceive that the passions bring about any bodily change except through the motions of the animal spirits with which they are correlated. The same reduction would seem to apply here as in the case of the passions when they are considered as symptoms of the disease. The fundamental reason why passions which are stimu­ lated in normal ways have disastrous effects on hysterical patients is that their nervous fluids are in a weakened state. One can, thinks Sydenham, as easily cure the disease by recommending that a person become in­ different to their passions as cure a toothache "by a resolution for­ bidding one's jaws to give pain."57

One contemporary of Sydenham and Willis who seems to have a clear idea of the operation of external stimuli in the production of hysterical symptoms is Robert Boyle. In *Some Considerations Touching the Usefulnesse of Experimental Natural! Philosophy* (seconded., 1664), Boyle reports that it commonly happens that one hysterical woman, when she observes another undergoing a fit, will soon be "infected with the like strange discomposure." 58 Elsewhere, in *A Free Inquiry into the Vulgarly Received Notion of Nature,* he claims that there are certain odors which will bring about fainting fits in hysterical people. 59 These fits are so severe that the pulse is barely detectable. He also reports the case of a woman who fell into such a fainting fit merely at the sound

52 Sect. 80. 53 Sects. 94, 96. 54 Sect. 116.

1. Willis, *An Essay of the Pathology of the Brain,* 78-79.
2. Sydenham, *Epistle to Dr . Cole,* Sect. 90.
3. Boyle, *Op. cit.* (Oxford, 1664), 248.

55 Sect. 78.

1. *Op. cit.,* 235.

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of a bell .60 But in each of these cases Boyle thinks that there is nothing going on besides a purely physical process . To help his reader under­ stand this Boyle reminds him that the human body is an engine, the parts of which are so connected together, that great changes can be wrought by a "very weak and inconsiderable impression of adventitious matter. "61 This bit of adventitious matter is nothing else but the sensual stimulus which brings on such severe symptoms in hysterical patients. But what is crucial in these cases is not the stimulus itself; for the same bit of matter can affect a normal person without the same consequences. For Boyle the pathological reaction depends upon the "peculiar con­ trivance" of the body which he likens to a loaded and cocked musket. 62 Because of this peculiar contrivance the effects of very small disturbances can produce very great and abnormal alterations in the whole machine. The lady who suffered fainting fits when she heard a bell did so because of the "texture of her body in reference to physical sounds."63 The proof that the agencies operating are no more than physical lies in the fact that she was cured by merely physical remedies. And in the *Free In­ quiry* ... , where Boyle explicitly claims that the active elements in the human body are the fluids, he attributes the sensitivity of hysterical patients to certain odors to "the spirits and the *genus nervosum." 64* Clearly it was the attempt to say something about the cause of the "peculiar disposition" of these spirits which set the problem of hysteria for physicians like Sydenham and Willis .

Boyle thought that if the full meaning of the mechanist hypothesis

was grasped there would be no difficulty in admitting that the very ideas of imagination could bring about severe somatic disorders . He claims to have found a number of cases in the books of physicians to show "that imagination is able to so alter the imagining person's body, as to work such a disposition in the spirits, blood, and humours of it" to produce a disease which a person has very much feared.65 Boyle con­ sidered the ideas of imagination, no less than those of sense, to be merely physical entities which can bring about extreme changes m the body machine.

The role of imagination in the production of hysteria is taken

seriously in an eighteenth-century account of hysteria which closely follows that of Sydenham, Sir Richard Blackmore 's *A Treatise on the Spleen and Vapours* ( 1725). In the course of an argument against those who think that hysteria and related diseases should not be taken seriously, because they arise merely from delusive imagination, Blackmore allows that ideas can in fact be the source of the symptoms of hysteria. 66 How­ ever he argues that this does not provide any real comfort to the sufferers of hysteria since the painful effect is not less real than if it arose from any

1. *Some Considerations .* .. , 248.

62 *Ibid.* 63 *Ibid.,* 248.

65 *Some Considerations .* .. , 244.

66 Blackmore, *op. cit.,* 99.

61 *Ibid.,* 246.

64 *Free Inquiry* ... , 235.

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other source. In order to help his reader understand how ideas can bring about real bodily change Blackmore reminds him how dreadful objects presented to the mind in dreams can, by putting the spirits into a hurry and confusion , "cause great inquietude and grievous pains ."67 But clearly Blackmore considers the effects of images in the case of hysteria to be far more extreme than usual because of a difference in basic structure of the nervous system . Like Sydenham he thinks that the source of the disease lies in "the weak and too delicate texture of the nervous system and the volatile dissipable temperament of the spirits."68 This is the fundamental reason that, in hysterical people, ideas can have the severe effects that they do.

It should be recognized that the role of imagination in the production of passions and somatic effects of normal people was well accepted by the mechanistic philosophers . Boyle notes that the passions of the mind "are often excited by the bare , if attentive, thoughts of absent things."69 He claims that the memory of a "loathsome potion " excites such horror in him that he feels a slight convulsion in his stomach whenever he has the thought of it. But the clearest account of the role of past experi­ ence in the production of the passions of normal people was given by Descartes .

In the writings of Descartes we find a clear account of the uncon­ scious effect of early childhood experiences on later adult life.70 In the *Passions of the Soul* Descartes explains the strange aversions which people have to a certain odor, or to the presence of an animal, by the fact that the odor, may have caused a severe headache when they were still in the cradle, or the animal may have frightened them without their ''retaining any memory of it afterwards." He gives the example of a cat jumping into the baby's cradle and the resulting adult aversion to cats.71 Elsewhere, in a letter , Descartes recounts the fact that for a number of years he had had an attraction for cross-eyed women without knowing the reason why. Eventually , he claims, he remembered that when he was a young child he had loved a girl who had this defect. (In a curious anticipation of a psychoanalytic cure, Descartes notes that , when he finally made this reflection , he was no longer affected!) But Descartes attributes these effects totally to the body, and a certain "disposition of the parts of the brain ." Such adult behaviour and feelings have their source in the associational links forged in the brain of the child when a certain sensual stimulus is experienced together with a certain passion . Descartes' explanation of his attraction for cross-eyed women lies in the fact that "the impression which was made in (his) brain by the sense of sight," when he looked into the wandering eyes of his child-

67 *Ibid.* 68 *Ibid .,* 101.

1. *Some Considerations* . .. , 243.
2. 0 See the important book by Genevieve Lewis, *Le Probl eme de l'Inconscient et le Cartesianisme* (Paris, 1950), esp. 51.

7 1 Descartes, *op. cit.,* 136.

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hood sweetheart, "joined itself to such an extent with that which evoked the passion of love," that a resembling visual stimulus (wandering eyes) , made much later, evoked the same effect.72 Descartes conceived of latent unconscious ideas73 as the tendency of certain parts of the brain to bend

in a certain way when stimulated by appropriate impressions. The uncon­ scious ideas of Cartesian philosophy are purely physical dispositions .

Does this mechanical account of the unconscious effect of early childhood experiences bring us any closer to twentieth -century ideas of hysteria? One's answer to this question depends upon one's under­ standing of the twentieth-century idea of the unconscious . It is certainly true that writers around the turn of the century thought that hysterical attacks were at least partly due to unconscious ideational complexes which were connected with various traumatic experiences, often in the patient's childhood. From this point of view it seems that we can see the roots of their analysis in the suggestions of Descartes and his successors : for it would be easy to fit Descartes' conception of unconscious processes with the account of genesis of hysterical symptoms by ideas in Black­ more and Boyle. On the other hand, right at the beginning of the early psychoanalytic work on hysteria, Breuer insists on the distinction between ideas as immediate objects of experience and "cortical excitations" as

their merely hypothetical correlates.74 This suggests that there might be

an incompatibility between the psychoanalytic view and the fundamental principle of the Cartesian unconscious; namely, the unconscious ideas must correspond to some brain structures. Moreover, from the time of this early work, Freud insists, along with Breuer, on the existence of a resistance on the part of the hysterical person's ego that accounts for the fact that ideas which are so full of affect are cut off from conscious­ ness. This resistance is described in purely psychological language as an *intentional* repression of the traumatic ideas from the person's con­ sciousness.7 5 Though this process of intentional repression is itself not conscious, it is difficult to see how it can ever be described in purely physi­ ological terms . As the idea of innate perverse sexual desires tends to replace (or at least dominate over) that of traumatic experiences in Freud's theory of hysteria , the intentional processes of the ego become

1. 2 *Letter to Chanut ,* 6 June 1647, 1277.
2. Descartes' use of "idea" in *Passions,* Art. 136, appears to be at odds with his stipulation about the use of this word in his definition in *Reponses aux 2 e Objections,* 390. But that Descartes has an established use of the notion of a corporeal idea has been shown by Norman Kemp Smith, *New Studies in the Philosophy of Descart es* (London, 1952) , Chap. VI "The Embodied Self." See also

T. S. Hall's discussion in his translation of Descartes' *Treatise of Man* (Cambridge ,

1972), 87, n. 136; also notes 137, 140.

1. J. Breuer & S. Freud , *Studies on Hyst eria, The Complete Psychological Works of Sigmund Fr eud ,* ed. & trans . James Strachey (London , 1957) II, 185.

*15 lbid.,* 10.

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more important,7 6 For it is these processes that come to determine the difference between people who become abnormal and those who become normal. Such a description differs markedly from that which ascribes such difference to a difference in the structures of nervous fluids.

The structures and functions to which seventeenth-century philos­ ophers and physicians attributed mental functions were almost entirely hypothetical. According to the epistemology of Descartes the presence of a hypothetical cause is not an irredeemable fault: he thought that, for purposes of practical arts such as medicine, a good deal was accom­ plished by assigning physical causes which could conceivably produce effects like those that are in fact perceived , even if they are not the actual causes which do produce those effects.77 In assigning mechanical causes for psychological functions he was satisfied with what we today would call a *model.* Descartes thought that such a procedure was justified because the real causes of such phenomena were too small to be perceived by the senses.78 It is however a good deal more surprising to find Sydenham, a physician whose methodological works ring with warnings about avoiding physiological hypotheses, turning to the animal spirit theory in order to explain the disorders connected with hysteria. One explanation of this lies in the fact that Sydenham was willing to rely not only on "the testimony of our senses," but also on "anatomical investigations of long standing."79 The animal spirit theory of nervous and muscular action was so well established that , despite various experi­ ments which put it into serious doubt , it was still the prevailing view of nervous and muscular action in the mid-eighteenth century. But perhaps the real explanation of its resilience to experimental refutation lay in the need, felt by the leading thinkers of this time, to assign psychological functions to physiological processes . In any case one finds a number of leading 'empiricist' writers employing and even arguing for the animal spirit theory right into the eighteenth century .80

The methodological attitude of a sevente nth-century physician like

Sydenham stands in marked contrast to that adopted more than 200 years later by Freud who, after spending a number of years doing em­ pirical research which attempted to link psychological function with neurological structure, turned to a purely psychological analysis of diseases like hysteria. It seems that it was at least partly his empiricism which led Freud to label unconscious processes *mental* rather than physical. He claims that , while the physical characteristics of such processes "are totally inaccessible to us ," there are solid empirical reasons

1. *General Introduction,* 353ff . Despite Freud 's denials it seems clear that the importance of trauma h as waned considerably from his earlier studies.
2. *Les Principes de la Philosophie* (1644), lYe partie, 204, 667.

*1s Ibid.,* #203, 266.

79 *Medical Observations .* .. , *op. cit .* (n. 19 above), Sect. 20.

8° For example, Bernard de Mandeville, *Treatise on the Hypochondriack and Hy sterical Passions,* 2nd. ed. (London , 1730), 215.

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for applying to them the same "categories which we employ to describe conscious mental acts such as ideas, purposes, resolutions, and so on."81 He argues that premature identification of unconscious processes with physical ones would cause people to abandon empirical psychological research without having anything better to rely upon.

However there are good reasons to think that Freud goes beyond this methodological empiricism to challenge the basic "Enlightenment" con­ ception of man and the nature of the human mind. Freud goes so far as to speak of the "insoluble difficulties of psychophysical parallelism." 82 This implies that his application of psychological categories to the unconscious might be ultimate. We have also seen that Freud following Plato, considers the human being to be composed of an ego and a lower bodily soul from which it is distinguished. If Freud means to use the concept of "unconscious mental processes" in any ontological sense, to represent what really exists in the world, then the conscious ego would be opposed by a bodily will and bodily desires. We have seen that this involves the rejection of the conception of man and the human mind promulgated by Descartes, and a very different view of the nature of the forces which have to be mastered by the conscious ego.

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1. "The Unconscious," *The Complete Psychological Works of Sigmund Freud,*

XIV, 168.

1. *Ibid.*