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not played - the same as before
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No reference to author quoted

Verbalized concepts to various

Thesis by John Ross. ^{never separation + soul - The} Aristotelian

The Influence of the Mind
in
Disease



Richard Brown
as a case in the workhouse
James Brown another case in the workhouse

1860

University of Edinburgh
1860

Δει μεταχειν την σοφian εις την ιατρικην και
την ιατρικην εις την σοφian; ιατρος γαρ
φιλοσοφος ιδαθεος- Ρηοδo.

Introduction.

There are few who will deny that our varying mental and moral states exert an extraordinary influence upon the human frame, especially in the induction and cure of many of the maladies to which it is subject, and although the consideration of this influence has been deemed the exclusive province of the Psychologist, a knowledge of it cannot be neglected by the Physician without serious detriment to his success in the practice of his profession. Unfortunately until within the last few years, the investigation of this and some other cognate questions, lying as they do, on the confines of Psychology and Physiology, has been altogether left to the Psychologist, and even now, Physicians in their minute investigations of the symptoms of a malady, are too apt to ignore or neglect the influence of mental emotion on its development, its progress and its termination.

The immense and rapid strides which all the Physical Sciences have made within the last century and the resuscitation of many of the old forms of materialism, have no doubt contributed to the neglect of what is now termed Psychological Medicine.

The value of the subject, demanding as it does a knowledge of what in these latter days few Physicians possess. viz. Psychology, presents greater difficulties than most of the other sciences, while the almost universal darkness in which it is shrouded presents few inducements to the scientific inquirer.

But already the mists which so long enveloped it have begun to be dissipated by the labours of Morell, the younger Jichse, Herbert Spencer and others among Psychologists and those of Laycock, Carpenter, Vane, Sir Henry Holland among Physiologists. Within the last few months however a work has appeared which may be said to mark the beginning of a new epoch in Psychology. The work is "Lectures of Dr. Laycock on the Mind & Brain" and it is a subject of deep regret to the Author of this Thesis that he was unable to take advantage of the learning, philosophical insight & critical acumen of that author while casting his investigations into the present subject.

Before entering on the consideration of the subject proper, it will be necessary to make a few general remarks, by which some idea of its practical bearings upon Therapeutics & Pathology

may be found - In all ages, the influence of the Mind upon the Body, has been recognised. In the earliest period of European Civilisation, we find the Asclepiades or Priests of Esculapius, who combined with their sacred office that of the Physician, using it as an agent in the cure of disease.

In their Sanatoria or Temples, all that was calculated to act upon the evaporation, and strengthen a belief in the power of the God, was brought to bear upon the Patients - At the same time the total seclusion of the Patients from the outer world, & the substitution of a religious emotion in place of ordinary anxieties & cares, tended to bring about a favourable issue to the disease - In short a strict regimen both physical & mental

the tendency of any disease to end in a favourable issue, did the rest. The striking resemblance between these Sanatoria and our modern Hydropathic Establishments is very remarkable & it would be interesting to institute a comparative examination of the power of their several physical remedies - The success of Paracelsus & others of the Mystical School of Medicine, in the Middle Ages, can only be accounted for on the supposition that their cures were of a physical

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Character. That they used antimony and other
medicines of great power, proves nothing or
rather proves too much for the prof ignorance that
at that time prevailed of the human body and
the crude notions entertained at that time of the
nature of disease, could only render the adminis-
tration of such drugs the more dangerous. These
charlatans surrounded themselves with a halo of
mystery, which completely captivated the
imagination of the people, while the activity
of their remedies aided the deception.

"Populus vult decipi et decipiatur."

Among the many charlatans (out of the
profession of course) who in our own times have
achieved the most wonderful cures, St. John Long
and Prince Hohenlohe are the most remarkable.

The former of these St. John Long differed but
little from his predecessors, but Prince Hohenlohe
was a genius of a higher order. He dispensed
with medicines of a physical character altogether,
confining himself solely to the psychical & spiritual.
His Therapeutics were of a very simple character;
being neither more nor less than the action of prayer.

Instead of Metallic tractors, he used prayers;
& the results of his practice would contrast severely
with those of many physicians of our day practicing

all the appliances of modern Science - But the most successful Psychological Physician, for Charles Lee cannot be called, was William Prince of Orange, who but that he was the greatest Statesman & General would have been the greatest Physician of his age; for when the garrison & inhabitants of Antioch, in 1625 were suffering so severely from Scurvy (the town being then blockaded by the Spaniards) that surrender seemed almost inevitable, their fresh provisions being exhausted, he caused proclamation to be made, that he had succeeded in procuring a famous Remedy, which on its arrival should be distributed to all suffering from the disease - In the mean time, he ordered Phials containing Colored water to be prepared, (the account varies as to nature of the so called Specific) and on the day appointed, he distributed it to all; with most marvellous success - Many who had seemed at the very gates of death, recovered their strength, and were enabled to return to their duties, and so effectual was the remedy in its operation, ^{that} the Hospitals which a few days before, could with difficulty accommodate the number of the patients, were entirely supplied -

And in our own day the followers of Paragons & Haknemann, one many of their Cures aided in the case of the former, by a restoration of the much

reflected function of the skin, and ^{that of the latter} in both a
due appreciation of the influence of Feels to an
unconscious recognition of certain psychological
principles which the more popular practitioners, by
virtue of his very popularity fails to obtain. But even
in popular practice, how much of the temporary
benefit of many remedies, in chronic diseases is
owing to their psychical effects? He do not it is
true, suppose the Patient as those ancient Greeks
did, by meditation & religious exercises for the reception
of the remedy, but we raise his hopes, & we excite
his imagination & work upon his fears - as long as
the novelty lasts. He experiences in some cases but of
ten, great benefit, but when it wears off, he is in
very much the same position as regards health, as
he was before it was taken. Hence the maxim,
so often insisted on, in Medical Books,

"That a frequent change of Medicine, is absolutely
necessary to the satisfactory treatment of disease".

The case related by Dr James Gregory very forcibly
illustrate the position. The effect of mental
attention upon our bodily organs is familiar to all.

Many illustrations of this influence could be
adduced, but the labours of Muller, Laycock and
Carpenter have exhausted the subject. My far
the most powerful Psychical Agents in the

production of disease, are however the Emotions
& Passions. When riper they not only produce
disturbance of function but death. The grief that
"saps the Mind" too often lays up the springs
of life, and brings the sufferer to a premature
grave by Tuberculosis or Carcinoma; while on the
other hand, excessive joy has proved fatal, as in
the case of the Pope mentioned by Plautus who
when he received news of an unlooked for victory,
fainted by his troops, almost instantaneously
died. Fear is not less baneful. In one extreme
it approximates to the character of fright,
it causes Epilepsy or Insanity, in another extreme
of a less severe & more Chronic character, it
causes either a partial or general change in the
pigment cells of the cutis. Anger is a prolific
causing cause of emism & a violent fit of passion
may end in apoplexy. The pangs of disappointing
love, so quaintly described by old Keats,
give rise to a train of symptoms which some-
times puzzle the Physician, & the student
disappointed of the much-coveted Medal, as
often sinks into an early grave from the effects
of over-ambition as from those of over-study.
The prevalence of diseases of the heart
among speculators is well known and functional

disorder of the stomach pursue the too anxious
man of business like an avenging Nemesis
for his Mammon worship.

Having then indicated the importance of the
present inquiry to the Physician, I shall proceed
to a consideration 1.st of the relation which subsists
between the mind & the body, health, 2.^d the
modus operandi of the mind in disease and 3.^d
the mind as an agent in the cause & in the
cure of disease.

As a correct Pathology must be founded on
a true Physiology it will be necessary to de-
termine the character of the connection wh-
exists or is said to exist in the human organism
between Spirit or Soul & matter or body.

Various Philosophical systems have arisen
each professing to explain the nature of this
to them inexplicable union, but pursued as
they all have been on a false method this
failure to give satisfactory solution of the problem
is not to be wondered at. I shall however,
before enunciating that theory, wh- I consider to
be the only one wh- explains the facts of the case,
indicate some of the difficulties which attend
the reception of either the Dualistic or the

on the Realistic Hypothesis -

Realistic -

No greater difficulty presents itself anywhere than to form any intelligent conception of substance at all, whether material or immaterial. Whether therefore the soul be developed in this or that kind of matter cannot be but a most perplexing inquiry - In that system etc. as far as regards logical consistency has never been approached either before or since, the Philosophical system of Spinoza, the following definition of Substance occurs "De Substantiam intelligo id quod in se est et per se concipitur hoc est id cuius conceptus non indiget conceptu alterius rei; a quo formari debeat -

This definition logically without a flaw only serves to make the darkness more visible. There are some metaphysicians who triumphantly point to the idea of substance as one, which convinces them that we do not form our ideas from the Senses. He classes this idea they exclaim, & we do not owe it to sensation, we draw it from a separate source of intelligence - In answer to such statements all that can be said is, that when we examine an atom of matter, we find no substance, only points of resistance or sensible properties - The Counter Lack of our own

sensations, & certain relations of position - space
& position are found, but not substance -

We know that certain substances presenting
differences the most diverse, are yet as regards
their essential nature of the same family, &
that the whole Science of Chemistry is founded
upon the Hypothesis that bodies, i.e. the
various forms of matter, differ not in their
essence but only in the arrangement of their
atoms - Matter therefore although protean in
its form, is one in its nature - If then we
know matter only in the phenomenal and not
in the real, how great our ignorance regarding
the nature of the Soul? But although we
are thus unacquainted with the essential nature
of either, it is entirely impossible to conceive
of thought as the function of a material and
constantly fluctuating organisation - There
can be no doubt of the immateriality of that
which is ultimately conscious - We want a
something permanent - and altogether different
from the Matter of our body, acting in & through
the material organisation, in order to render the
process of thought in the last degree intelligible
to man. For in the vital action of every
organ whether muscle, nerve or brain, there

takes place a partial disintegration and dissolution of the organ itself. In the brain therefore some chemical decomposition and re-composition is perpetually going on, as the precursor of every state of consciousness.

Is it the atom of matter that goes on the atom that says, that actually feels & thinks?

Or ^{can} the thought stand poised between the two? Or will the active alone that takes the place of the outgoing one put in its claim? Or does the thought in some incomprehensible manner reside in the whole mass? Is the human consciousness in this pulpy state, which is changing, while each one thinks & feels?

There must be something permanent, if only to be acted on, let the cerebral movements be of all the importance that can be claimed for them.

Again, it is impossible to conceive of a nerve or ganglion perceiving a feeling the relationships between different sensibilities i.e. comparing or judging. The perception of relationships is from the very beginning of intellectual life. An analogy is very hastily and, erroneously, drawn between the vital

junctions and those of the Brain - We find
no difficulty, it is said, in attributing Con-
tractility to a muscle, although it is continually
changing its parts, for if similar particles of
matter continue to occupy the same relation
to each other, it is to all intents and purposes
the same muscle. It is then added, why
may we not in like manner give the
function of consciousness & thought to the
whole Brain, or a specific function of this
kind to any specific portion of the Brain,
although the organ may consist of parts
which are continually undergoing change?

The power of contractility however, is
nothing but motion, it can be distributed
over every separate Atom of muscle - It is
but an aggregate or result of the motion
of every individual particle - To make the
analogy at all serviceable we must be
able to distinguish our sensibilities in like
manner; I must suppose that every Atom
of the Brain takes its own part in
thought, & that it is then perfect similar-
ity of sensibility or their perfect harmony
that gives rise to the consciousness -
We must therefore admit that

every particle of A or C can in its turn, by juxtaposition with other particles become sentient or percipient - Quod abundum est. In short to say that the property of extension exercises the property of thought, it would be necessary to show an invariable connection between the two properties - To conceive of any relation between the extended substance & one which has no extension is impossible.

Difficulties attending the Reception of Dualism

Realistic Hypothesis

The combination and succession of ideas is undoubtedly a purely mental act, but we know that certain material agents have the power not only of modifying our mental states, but even of abrogating for a time their exercise & disaffirmation. The effects of Chloroform, Alcohol, Opium and Nuchuk are well known. A few drops of urine.

A few inhalations of Chloroform, will produce a more wonderful metamorphosis than was ever dreamed of by the ascetic Pythagoras. At first an exaltation of the mental powers may be produced, and the speaker may give utterance to thoughts which in his more sober moments he was utterly unable to appreciate - the feelings may then predominate and new sensibility arises, which gradually

degenerates into Maudlin Sensibility, and the last
~~scene~~ of the drama - insensibility. Hachish, however,
if we may believe the account of Bayard Taylor, Colqu-
houn and others, exerts a more extraordinary
effect than any of the others. It causes a very
curious hyperaesthesia by which ~~sound~~ the organs
of sight and hearing have their functions inten-
sified to a most painful degree, at the same
time the control of the will is removed, and
a Phantasmagoria of all that's strange and rare
is witnessed - The use of this drug by the chief
of the Apapinis, (Hachapinis) - the old man of the
Mountain, is ~~another~~ ~~a~~ historical fact -

The energy of the inhabitants of colder climes and
the capitude and indolence of tropical races,
is a fact that has been often insisted upon -
But too has no inconsiderable influence (at
least as far as a series of limited observations
will enable us to judge) upon our mental consti-
tution. This has very painfully illustrated some
few years ago, by the discovery of the alarming fact,
that in those workhouses in the Midland Counties
of England, where the inmates suffered from an
insufficient diet - insanity occurred in at least
one half of those who previously ~~had~~ to their
admittance had lived in a tolerable degree of con-
-fort - where is the proof?

where
stated?

-fort- That such was the case - their recovery on the
substitution of a more nutritious diet - sufficiently
proved - Cretinism, unquestionably is owing to certain
physical conditions; for when the depraved condition
of the blood is altered by the physician, a correspon-
ding improvement of the mental faculties takes
place - The action of certain noxious agents
circulating in the blood, upon our mental &
moral states is incontestable - The effects of Lactic
acid upon the temper is a matter of painful expe-
rience to all who may have come into immediate
and close connection with any suffering from
an incipient attack of Gout, and the fearful
mental depression, which generally follows the action
of many animal poisons, can only be explained on
the supposition that ~~many animal poisons~~
Many organic and morbid substances, circula-
ting in the blood, affect in some way not
yet understood the innervation - Insanity is now
recognized by all, as dependent on somatic conditions
and many forms of moral delinquency are clearly
to be attributed to some abnormal condition of the bodily
organs - - We might enlarge still further, but
we have sufficiently indicated the nature of the proofs
advanced by the Realist -

It will be observed that the proofs advanced by the one are more of a negative character, while those of the other of a positive. Each containing a modicum of the truth, while each destroys (logically) the other. Advancing, indeed, by different parties, it is not surprising that they should have arrived at different termini. The disciple of the one School, starting from the facts of self-consciousness and certain a priori truths never ventures beyond the to him, sacred precincts of the Psyche, while on the other hand, the Realist, basing his inquiries upon the physical language of organization, strictly confines himself to the truths of Human Cerebral Physiology. The two schools stand in exactly the same position to each other, that the two Knights did in the story, who, having met each other began to converse of a shield ~~wh~~ they had seen, the one insisting that it was of silver, the other as vehemently contending that it was of gold - Froward words they came to long, but as the dispute assumed a serious character - a deus ex machina appeared, in the person of another Knight, who upon coming up & learning the cause of the quarrel, informed them to their great disgust, that they were both wrong, for that the shield was of gold on the one side and silver on the other. Error has been called half truth.

- one of the few really profound observations of Coleridge. The fong
Chongo Mali is generally a defective Method. Auguste Comte
who in many respects one of our greatest thinkers, has established
the great truth 'that no one science is independent of another -
but that they are all one organic whole, mutually interlacing and interdepend-
ent.' But as we have already seen, in the investigation of the
question of the relationship of soul and body, Man has been separated
from the great organic life of the universe divorced ~~from~~ as it were,
from the great harmonizing Law, which all are parts of one
interdependent whole. Human Anatomy & Physiology were only
raised to the dignity of Sciences, when Comparative Anatomy
& Physiology came to their aid, and Psychology must
be no less indebted for any satisfactory progress, to
Biology & Comparative Psychology.
"Man, according to others" is the entire image or likeness
of the world; all the functions of animals have attained to
unity, and self-consciousness in Man; and ~~Ersted~~ expressed
a great idea when he wrote "Everything depends upon the past
preparation for the future and is connected with the whole". be in
the words of the Roshanians.

"For I know that through the ages one increasing purpose runs
And the thoughts of men are widened by the progress of the suns."

An Examination of Nature is therefore indispensable to the study of
Man. And taking for granted certain needful psychological
principles. I shall proceed to an investigation of that theory which
I propose to make the basis of further inquiry.

The simplest element of the consciousness is the knowledge of
I and feeling of corporeal pain & pleasure.

of the external object, it presents itself to us as something different from ourselves, but also equally with ourselves having existence in space - The external object is said to be composed of certain something called atoms, but which are only known to us by their attributes, forming to form ~~the~~ external world - In this external world, we find, that these atoms are related to themselves and to our sensations in a most wonderful manner, and that we are able to make between the great distinction - that of the organic and that of the inorganic - Though the passage from the inorganic to the organic cannot be clearly traced, the dependence of the latter upon the former is not now a matter susceptible of doubt - the one rises and by subtle gradations gliding into the other. At each instant the vital organism and the surrounding material world with its chemical & vital laws, form together the living creature we see. For not only is the earth needed as a constant support to the vegetable & animal, but there is a continual interchange of parts between the organic and the inorganic, without which there is no life - Life therefore cannot be accurately described as some property belonging exclusively to the organism; for whatever may be the peculiar contribution of the organism, or to speak more correctly, whatever it is that is first and exclusively developed, this alone would not be life - Here then is a great law - the Law of Dependence - In the organic world we find the vegetable elaborating food for the animal & in the

the process of Nutrition, becoming complicated with
very higher functions. Advancing upwards in the scale of
complexity we see organ added to organ, Sense to Sense, or the
Sensation becoming specialized in an appropriate organ, and thereby
raised to greater and greater Potency. These organs become one by
means of a network of nerves, whose filaments run up to a
common centre of Consciousness; - and while the brain is at
first no doubt called into activity by some affection of the Nerves,
it may subsequently become by some internal Stimulant, the state
of Consciousness, or one associated with it, without the aid
of the Nerves. Thus, Perception is due to the nerves of
Vision and Touch (all the Senses are however but a modification of
Touch*) ^{acting} resulting in some way not yet known, on the Brain;
but a Memory of that Perception is independent of these Nerves
though if very vivid, it is noticed to have an effect upon them.
- In other words, the Revival then embraces the affection of
the Nerves and we seem to see and we shrink as if we
felt. So too, Pain, feeling or motion, is in the first place
due to the Brain as affected by certain Nerves running
through the body. It is subsequently revived as a modifi-
fied form with the affection of these Nerves. - In the case
of Pain there is an internal extension of the ~~feeling~~
impulse from Nerve to Nerve, which has led many Erroneous
to suppose, that the Pain in the first instance comes
down from the Brain. The study of animal life around
us, proceeding as it does from the simple to the complex

and structureless Amoeba to the complex organization of the higher animals, advances us far in the study of Psychology. Those lower forms of Reason which are exhibited by the lower animals differ only in degree not in kind from the higher and purer Reason of man, and while the unity of parts in each organic whole fills the mind with admiration, in this unity or harmony ~~consists~~ lies the oneness of the creature - The dog with his manifest though limited intelligence, displays a perfect consciousness of powers and sensations, desires and acts. He as well as man perceives, remembers, and combines in his memories, so as to employ in the emergency of the present the experience of the past. He is but an arrested development of man. He has his fears and joys, strong as those of a more limited nature, those of his master.

Hertbert Spencer in his Psychology has worked out this view, with his accustomed ability, and we would refer to his work for a full and philosophical survey of the question of Instinct &c. - He thus sees, that the psychical element of man is so metrically connected with the higher animals of creation that the introduction of an entirely new entity mind is unnecessary. Man is one continuous and rising development - though separated from the lower animals by a vast gulf. The development of the human race seems apparently to follow somewhat similar organic laws of development, a

truth clearly & ably illustrated by Mr Buckle (following Comte) in his great work on the "History of Civilization"; so that we have in History and not less in Biography, no unimportant aid to Psychology. It is to be regretted that this branch of inquiry has been so much neglected - Herder, being as far as I know, the only philosophical author who has availed himself of such assistance. (Herder's Philosophy of History).

Our feelings and emotions in their genesis are of a very simple & uncomplicated character. The passion of Anger, for instance, as exhibited in many of the lower animals is simply a tumultuous movement of the whole organism, combined as it becomes more complex with the idea of resistance, and becoming as we rise in the scale of development more & more inter-mixed with the intellectual life - You strike a parrot, and instantly every feather and muscle is quivering with rage, the eyes emit a lurid fire, and the head is stretched forward in a hostile attitude: In what does the passion consist? Not certainly in the purely physical, but in the sum total of the movements. Approach the cage of the same bird, a few days afterwards, and the same movements are repeated, though less violent in their character. You caress a young child, movements of a soothing nature ensue, soft emotions vibrate through its frame, you have touched a cord with notes & harmonious numbers. When you approach the child again, the child experiences the same feeling of pleasure,

wh^{ch} becoming interwoven with memory & intelligence, become known to the Self-consciousness as Love—

For we know that Motion is the primary element of all Emotion (Ex, moreo). Look at the lower animals or better still a little child. How joyous its movements every muscle of the body is in active play, — the whole frame is bursting with delight, — the child is happy.

In what does the happiness consist? It consists in the free unimpeded movements of the body, caused by certain impressions upon the nerves. ~~It~~ ^{It} act as the exciting cause. The sight of a new toy, or ~~something~~ ^{the caring hand} ~~equally~~ ^{of the mother} ~~important~~, is sufficient to set this wondrous machinery in motion. But ~~what~~ an unaccustomed or unpleasant face, a harsh word or a disagreeable frown, checks the exuberant bursts of happiness — the emotion assumes a different phase, — movements of totally dissimilar nature take place. A different key note has been struck and the response is ~~of the same~~ follows as the shadow follows the substance — The emotion is clearly this — the sum total of the movements.

From these simple and homogeneous states, arise the complex psychological life of man — The same great law of development wh^{ch} obtains in the physical holds good regarding the Psychological — The laws of vitality in their earliest manifestations are hardly to be distinguished from those of Crystallization and

progressing upwards the physical becomes eliminated
from the physical. In all both physical and psychical,
the Great Law, first enunciated by Oken, and afterwards by
Goethe and von Baer - that development is always from
the General to the Special, from the Simple to the Complex -
From the Homogeneous to the Heterogeneous, - by a gradual
series of differentiations, gives continuity and harmony

"All nature widens upward, Evermore
The simpler species lower lie;
More complex is more perfect, owning more
Discourse - More widely wise."

But while thus able to formularize the process of nature
into this Great Law, certain limits are to be recognized to
its application; and another law, the Law of Limitation,
exercises an influence as powerful. - By the Law of
Limitation, we mean, certain circles within which the
development of the various organs is confined and beyond
which an impartial survey of the facts of nature, force
us to conclude, it cannot proceed. - We would compare
the development of the various forms of organization, to a
series of circles ever widening, the last containing
but differing from that gone before - In other words, the
plastic power of nature, seems to us, to have a striking
resemblance to the tidal flow. - Rushing from
the great ocean of Eternity, it advances then recedes
only to advance still further, until it reaches the
boundaries beyond which the Divine Spirit, has

Said "Thus far shalt thou go, but no further" -
Although the introduction of an entirely New entity
has stated by us, as unnecessary, we by no means
wished to be understood as denying the existence and
influence of some entity or principle - exception being
only taken to the introduction of a principle not found
in Nature -

In every organized being there is an inherent
force, creative & energizing, by the operation of which
a certain form and character is communicated to
the organism, according to the Great Law of Design.
We are in the habit of conceiving the various stages
of development, as something akin to accretion, but
such a view is in the highest degree unphilosophical.
No doubt, until the laws of Crystallization can be dis-
covered, we find in the inorganic world a plastic
power, which seems to be of a similar nature to that
of organic growth. There may be, there probably is, a some-
thing which they have in common, for the tendency of
modern Scientific research is towards a recognition
of the common origin of all the forces of Matter (See address
of Sir M. Faraday at Brit. Assoc. Bristol) - Be this as it may
the existence of some force, acting on, and through the
organism is absolutely necessary to an intelligent con-
-ception of the organic process.
- Mr Hutton in the Brit. and Foreign Review -

has propounded what may be called a chemical theory of life, wh^{ch} however is so far from being satisfactory, - certain premises being assumed, wh^{ch} ought to have been proved -

The vis plastica is in constant operation in the organic world. It exists in the germ or embryo, however simple & homogeneous its structure, evolving the organs wh^{ch} give to the future animal its rank in the scale of created being - Existing in the lower organic forms in wh^{ch} no nervous system has ^{yet} been discovered and in the earliest stages of the development of the animal as unity, it becomes specialized as the differentiation of organs takes place, in certain structures not different from the others as far as regards their chemical constitution (being composed of proximate principles), the matter of wh^{ch} we distinguish by the name of neurine or nervous -

That some special difference exists between the vis plastica of the lower order of beings, and that of man, there can be little doubt, in what the distinction ^{essentially} consists we are entirely ignorant - It may be a distinction of degree, it ~~may~~ certainly is not one of kind, but this question is one foreign to our present inquiry - We have now to consider this influence with regard to man - In him it is not only found to be the cause (tho' the neurone system) of the processes of assimilation, secretion & reproduction, as well as the concurrent action of all the assimilating

upward, in the correction of those subtle material changes induced by disease (*vis medicatrix naturae*), but is also the germ from which is educed the psychical life - I shall now proceed to elaborate this doctrine, more fully with regard to man.

(The very plastic)

12 This principle is prior to all consciousness, and exists from the earliest period of uterine life. In its manifestations and development it is however subject to certain conditions. When those conditions are not fulfilled, an arrest of development is said to take place.

Evolution of the organism from the simple cell it confers upon it unity and form, as well as peculiarities of a physical, if not of a psychical nature also. The physical peculiarities predisposing to certain changes in the fluid and solid constituents of the body, are termed *diathetic states* or *Diatheses* (too much neglected by physicians); and the psychical, to which as yet little attention has been in default of a more exact term *Idiosyncracies*. It is ~~very~~ in the highest degree probable, that future scientific research will show some invariable connection between *Diatheses* and *Idiosyncrasy*.

2^d. As the embryo becomes developed into the foetus, we find this principle becoming specialized in the ganglionic or Sympathetic System. This position is proved by the following facts. a. According to most physiologists, who have directed their attention to the physiology of the Sympathetic, the ganglionic is that portion of the Nervous System, first developed in the foetus. B. It is the System first developed in the Animal. γ. Various pathological and physiological such as, the perfect development of such monsters as have been born without Brain or Spinal cord; the rapidly fatal character of injuries which affect any of the ganglia (Volar formist); the experiments of Ludwig and Brown Sequard show its intimate connection with the most important viscera, as a modifying & controlling influence - all go to prove that it is the main-spring of organic life -

Dr Alison in his Pathology compares the Sympathetic System to a parasitic plant existing within the Body - a simile in our opinion very faulty. It seems rather to occupy the same position, in the body, that the Key Stone does in the Arch -

3^d. Complexity of function ~~pre-supposes~~^{implies} Complexity of Structure - and vice versa. The ganglionic System is also no doubt associated in Man with the earliest instinctive movements. For we know that instinctive movements have been observed in the Beroe and Actinae - animals destitute of Spinal Nerves, and

those monstrosities where neither the Brain nor Spinal cord were developed.

4^o. From the ganglionic we advanced to the Cerebro-Spinal - the next in the series of differentiations of the energizing force - when man brought into relation with the Universe, becomes susceptible by virtue of this inherent principle, of an almost infinite development. Thus the whole Nervous System is the seat of this energizing force; a force which is the cause alike of the Bodily & Mental functions; or rather the Bodily and Mental functions are the manifestations of one force, which has become specialized in the Nervous System.

A Natural Classification of the Nervous System necessarily follows from the above exposition, into the Ganglionic which subserves the purely organic processes of assimilation & secretion &c; and the Cerebro-Spinal which bringing the organism into connection with the outer world; becomes the more appropriate centre of self-consciousness of feeling and thought. An essential unity however pervades both, and it is impossible to dissociate the one from the other. A disturbance in the equilibrium of the one, affects that of the other. The connection between the two Systems is however so intricate & has been so little investigated that future investigations

Who?

are needed, ^{to make} that wh^{ch} is as yet but a mere Hypothesis,
a Scientific truth. Various Physiological writers
in treating of the Functions of the Sympathetic, assert
that it has ^{cap} little or no influence on the bodily
organs, because ~~that~~ it is so intimately connected with
Cerebrospinal Nerves. ^{fallacy of this} The statement is of course at
once apparent, - an inconsequent conclusion both
logically & physiologically, for we have every reason to
believe that it is by means of these Cerebro Spinal
Fibres that the Sympathetic ~~Spokes~~ ^{knows} known
the wants of the System to the Consciousness -
But more on this subject anon -

Many objections will be made to this theory here
propounded - of the essential nature & unity of
the body & Mental functions, and to some of
these we may briefly allude -

The Metaphysical objections will be first disposed
of -

It will be said, that as the Mind neither
energizes nor is the Subject of modifications of wh^{ch} it
is not conscious, and ^{as} Consciousness gives us no
information save ~~of the~~ ^{of the} outer world (& that doubtful)
and certain Mental & Emotional States

Such a theory as the above must fall to the ground — In answer to wh^y it may be replied, that a fallacy exists, in using the word Consciousness as synonymous with ~~that of~~ Soul. We have here one of those ambiguities, w^hich Whately has shown to be the most fertile cause of controversy.

Secondly, it is very doubtful if Consciousness is a separate faculty, many thinkers of eminence considering it to be merely a state or condition of the mind — We may cite the opinions of some of the Psychologists who hold this view.

Locke in his treatise on the Human Understanding says "Consciousness is the perception of what passes in a man's own mind."

V. Cousin says "La condition necessaire de l'intelligence c'est la conscience" : Hist. de la Philosophie, vol. 1.
Robert. in his New System of Philosophy observes. "We have¹¹³¹ a consciousness of our consciousness."

Thirdly. It seems very probable that we are unconscious of many of our mental states, whose existence only becomes known to us by their effects. — Doctrine of latent Ideas
And the phenomena of Dreaming, Somnambulism &c are only becomes intelligible on such a supposition.

Prof H^r Hamilton has devoted one or two of his lectures (see lectures on Logic & Metaphysics) to the consideration of this subject. And comes to the conclusion that we are not conscious of every mental state.

Dr Laycock, who was the first to discover the unconscious action of the Brain, has developed & illustrated the doctrine, in the Medical Chirurgical Review for 1846 (?). (Reflex Cerebration)

The purely physiological objections to the theory, are likely to be of a more formidable character, seeing that the reception of it would entail the rejection or at least ~~strip off~~ the modification of the doctrine commonly known as that of Reflex Action -

These objections will be most probably of the following nature -

Experiment has proved that the Brain is the sole seat of consciousness and that the Sympathetic System ^{& that it is satisfactorily proved that the} and the Spinal Cord are ~~wholly~~ functionally distinct from the Brain -

In answer to w^h we would say, that it is by no means proved, that the Spinal Cord and Sympathetic are destitute of consciousness, and that it is not at all necessary to the truth of our views that they should - see propos.

The vis plastica or Soul, we held to be a unity. Manifesting itself in the organism thro' a nervous system, differing functionally & structurally in its different parts, but still at the same time one system, in so far as ~~being~~ one part was dependent on and ^{capable of being} influenced by another. And as we find the one structure becoming blended into the other, it will not be anomalous if the function does the same -

Ganglionic -

To assert that the ganglionic nerve system possesses consciousness, in the usual acceptation of that term would be

Somewhat difficult to prone, but it seems to be the seat of a peculiar and vague consciousness in health, the seat of the feeling of Corporeal Sensation, which Feuchtersleben was the first to point out under the name of Coenesthesia, and which in disease becomes more manifest & less vague, making known the wants of the system. That the mandates of the will proceed from the cerebrum and to the voluntary Muscles, is sufficiently obvious, but that the involuntary Muscles & the viscera are also subject to its control many well authenticated cases attest. That the cerebral wave is continued from the one system to the other therefore, is a very strong proof of their essential unity; while at the same time the frequent influence of the Sympathetics upon the Cerebro Spinal is not less instructive.

The case of ~~Cecil~~ Colonel Lounshend mentioned by Cheyne in his English Malady is too well known to be repeated. The celebrated Physiologist Weber of Leipzig found that he was able to control the action of his heart - and on one occasion he carried the experiment so far that he fell into a state of Syncope. The converse of this is no less wonderful in showing the reaction of the Sympathetic on the Cerebro Spinal. Corvisart forcibly alludes to the aggravated forms of ~~Mental & Cerebral~~ disturbances of the Mental and Cerebral functions in aggravated diseases of the heart - Goethe, it is well known, was able by a strong effort of the will, to arrest when incited by it, a diarrhoea to which he was occasionally subject, and Kant by a voluntary effort was able to forget

1 Allating this describes the direction for securing the Celestial joys of Omphalopsy, Chian Contemplation.

" Prep thy beard upon thy breast, turn thine eyes & thoughts upon the middle of thy abdomen, persevere for days & nights & thou shalt know uninterrupted joys, when thy spirit shall have found out thy heart & illumined itself - "

where

the pain of Gout. The wonderful but well attested facts mentioned
by Maud (Maud on Hypnotism) and others regarding the power possessed
by the Fakirs of India have not received the attention
their importance deserves - Our space does not allow us
to expatiate on these curious phenomena presented by these
Fakirs, we would only mention that the state of ekstasis
(standing out) of the Neo-Platonists & Neo-Platonic Christians
and that of the Nirvana of the Brahmings present a
curious analogy. The attainment of the Nirvana (annihil-
ation) is equivalent to a state of mind destitute of consciousness
in fact, thinking of nothing, and that of the ekstasis
(according to Plotinus) to a disunion & separation of
the soul from the body - In the one we have the
stories of St Simon Stylites and of many Saints who
remained for days and weeks in a state of trance,
in the other, the trance or lethargy of the Hindoo Fakirs.
To conclude these already too tedious illustrations, some
men have learned to illuminate their food; and
some are said to have the power of perspiring at will -
To conclude the experiments of Ludwig have almost
put beyond the reach of doubt, the ~~fact~~ truth that the
Sympathetic has an immediate influence on the
processes of Secretion &c

Claude Bernard

where?

Spinal Cord

The Spinal Cord was formerly believed to be but a nerve trunk, and even now its functions have been limited to the transmission & reflexion of impressions — The experiments of Pfliiger have however, rendered such a limitation of function to the cord, inconsistent in the extreme —

Spontaneity of actions & choice of actions unequivocally indicate the presence of volition. By spontaneously to mean the prompting of some inward impulse.

Spontaneity and choice are thus palpable characteristics of volition & consciousness —

Experiments on decapitated animals when first seen almost lead to the conviction of the existence of sensation, but all such doubts are settled by an appeal to the admitted hypothesis that the Brain is the seat of consciousness.

Legallois, Prochaska, Goldmann, Sir Gilbert Blane Sir Benj. Brodie & others have observed & put on record many striking facts, which since have been explained by the Reflex Hypothesis —

The experiments of Pfliiger White & Triplo are clear & demonstrative, and as they are less likely to be known than those of Legallois & the others, have accordingly been preferred by us —

In the child when awake the voluntary character of the movements was indisputable - they are prompted by sensation and determined by volition - Children "says Pfluger" sleep more soundly than adults, and seem to be more sensitive in sleep. I tickled the right nostril of a three year old boy. He at once raised his right hand to push me away and then pulled the place, when I tickled his left nostril, he raised the left hand. I then softly drew both arms down and laid them close to the body imbedding the left arm in the clothes and placing on it a pillow, by gentle pressure on which I could keep the arm down without awakening him. Having done this, I tickled his left nostril. He at once began to move the imprisoned hand, arm, but could not reach his face with it because I held it firmly though gently down. He then drew his head aside, and I cont. tickling, whereupon he raised his right hand, and with it pulled the left. An action he never performed when the hand was free.

From this experiment we see, that the so called reflex actions of sleep are not unaccompanied by sensation and volition. The sleeping child behaves exactly as the waking child except that his actions are less energetic; and we are forced to assume the existence of a dim Cerebral Consciousness in order to escape the conclusion that the Spinal cord is also the seat of consciousness -

Paul H. Lewis

The actions of the sleeping and the waking child are so similar that both must be credited with volition and sensation, if not both, then neither must be so credited - In the same way, it may be, that a child continues to suck when the nipple is put into its mouth, by a reflex action, but the continuing to suck so long as the sensation of hunger ~~is felt~~ ^{is felt} to the ceasing when that sensation ceases are truly volitional acts -

The actions of ^{many} ~~Animals~~ ^{both} before and after decapitation are so exactly similar, that ~~either~~ both must be credited with volition and sensation, if not both then neither.

Either Animals are unconscious machines as Descartes & Dr. Hall would have us believe, or that when decapitated they exhibit sensibility and will.

Result of Exp.^s

In many frogs wh^{ch} I decapitated (12) I found the most of only one of them show any decided difference from those which took place before decapitation.

Spontaneity of Movements of decapitated animals -

In a water newt whose cord was divided between the fifth and sixth cervical vertebrae, bubbles of gas were ^{at first} expired. In twenty minutes, it turned round, and crawled forward dragging hinder segt. In a quarter of an hour more sensibility could be detected in hinder segt, wh^{ch} when

irritated the limb was simply withdrawn. When acetic acid was applied to the tail the whole post. segment began to move, and the legs set up the crawling action, attempting to push the whole body forward, which could not be effected because the ant. segment was motionless.

From wh. it appears that each segment has its own volitional centre.

In the exp.^s made by Pfliiger on Frogs, unmistakably ^{proofs} were exhibited of choice of motion.

Moreover the movements of all the frogs were co-ordinated wh. I decapitated, therefore sensibility or consciousness exists in them.

Conclusions -

Actions in decapitated animal sensorial. In human beings evidence seems to prove that such actions are reflex - but what is true of the lower animals (see ante p.) can also & must also be predicated of man, & therefore these actions **although** apparently ~~contradictory~~ irreconcilable must admit of reconciliation. For if an animal is such an organized machine that an external impulse will produce the same actions as would have been produced by sensations and volition, we have absolutely no ground for believing in the sensibility and volition of animals at all. And we as well at once admit the old hypothesis of Descartes, that they are mere automata. In short, if actions can be performed unconsciously as well as they can be performed consciously,

the presence of consciousness is altogether unnecessary

Many cogent arguments might be brought forward, against this reflex system, but we are persuaded and believe that ere long physiologists will see the necessity of discarding a theory that is not equal to the explanation of many of the phenomena of health & disease.

The ^{Platonic} vis nervosa of Marshall Hall is honored neither more nor less than a recognition of the power of the Soul & (the energizing principle of this Essay) in unconsciously moulding & directing our actions. Philosophers have always been unwilling to recognise the unity which pervades and regulates our organism, and have attempted by the ~~use~~ ^{invention} of new terms to ignore if not ~~at~~ in the idea, at least in the nomenclature, so unpalatable a conclusion —

Marshall Hall following Haller and Müller has only rendered the identity of the vis nervosa with the Soul more striking, as may be seen by an attentive and unbiased perusal of his work on the Nervous System.

In the *εντελεια* of Aristotle and his classification of the Soul into vegetative, sentient and rational; in Plato's division of the faculties into appetites, passions, & Cognitive faculties; in the "*Impetum faciens Naturae*" and ~~idea~~ ^{theory} of Hippocrates; in the "*Natural faculties*" of Galen, Fernellius and Lennertius; in the *Archæus* of von Helmont & Paracelsus; the formative, organizing and Plastic power of Harvey, Grew & Caduorth; the *vis essentialis* of Wolff; the *Life* of Humboldt; the *Nervus*

formations of Blumenbach; the vis plastica of Francis Borelli;
the Anima of Stahl; and the vital principle of Berthollet &
other Modern Authors; we recognise an essential Identity.

The system of Stahl bears a ~~strong~~ resemblance to the
one here propounded, but is in many respects and indeed al-
together essentially different. It was our intention to have pointed
out, in what respects they are alike, and in what they
differ, but want of space forbids us.

The Influence of the Mind in Disease

In considering this branch of our subject, little remains to be done by way of elucidation, for, from what we have already written, it will be seen, ~~that~~ ^{an essential identity being recognised between the psychological & the physical, both being viewed as the manifestations of one principle,} the vast subject of Nervous Diseases would have to be investigated.

~~We will~~ ^{We will} however before bringing this already too long dissertation to an end, consider as briefly as possible the influence exerted on the organism generally by ^{certain} ~~the~~ Emotional and Ideational States.

Emotional -

Perhaps the most important scientific discovery of Modern Times is that of the "Correlation of Forces". We find traces of this doctrine in the Physico-Philosophy of others, but merely as a speculative idea - He says "That Light could be nothing but a polar tension of the ether, looked by a central body, in antagonism with the planets, and that heat is none other than the motion of that ether". So Mr Grove of Lincoln's Inn, belongs the merit of having demonstrated it to be scientific truth - This he did, in a series of lectures delivered at the Royal Institution in 1842 - Since that time, Dr Carpenter has further extended & developed it in a paper published -

in the Philosophical Transactions, entitled "The Mutual Correlation of the Physical & Vital Forces."

According to this doctrine, Molecular changes in Matter are capable of producing various phenomena, as Light, Heat, Electricity, Magnetism, without any alteration of exterior form, density or chemical composition. This has an important bearing upon the settlement of the much disputed question, as to the nature of the nerve force — Into this, however, we enter not later —

The power of the Emotions in causing disease, has been already alluded to, so that we will now proceed to consider more particularly the nature of their influence.

Every Emotion or state of feeling is accompanied ^{by} ~~with~~ certain diffuse action throughout the Nervous System — without which there can be no emotion — For could we re-vivify all the outward gestulations, the play of the features, the vocal tones, and altered secretions, we should have the very emotion enacted in our Mental experience —

In all then, Physical Motion is the Correlate of Mental. But we may have the Physical without the Mental, the converse never —

What then consists ~~does~~ the essential element of Emotion? In answer to this, we must investigate the origin, and laws which regulate the production of.

Certain Molecular changes in the terminations of a Nerve fibre, are rapidly propagated to the Nervous Centres.

A Sensation is the consequence. This Sensation being, e.g., of a painful character (Terror, Grief) has an appropriate Manifestation and is relieved by various Movements in the Muscular System, - wh^{ch} is excited into a state of activity - the correlate of the Sensation -

Terror, for instance, in its effects, has a wider area of Manifestation than Grief or Joy - being an emotion of a much more powerful character -

Thus, then, we have first the Molecular change taking place in the Nerves - the evolution of a certain forced force - by the Brain - or in other words, certain Molecular changes in the Cerebrum, communicated to the voluntary Muscles (involuntary also) - a series of changes in the Muscles ^{fall} ~~involving~~ the expenditure of so much power first of the Nervous System - and secondly of the Muscular ~~system~~. Molecular change or Motion may be thus said to be the basis of all emotion -

That Muscular exertion is compensative ~~and~~ or rather Correlate with Nervous power, was clearly pointed out as long ago, as the time of Darwin (Darwin's Economy) - Soldiers in the heat of battle are rendered less susceptible of the pain of their wounds, by the exertion of their Muscular System, and in severe bodily pain a wonderful relief is experienced by an ~~involuntary~~ grasping tightly ~~some~~ the hand of friend or some inanimate object.

The various Emotions have not only an influence upon the Muscular System, but also upon the Secreting apparatus— They have each a limited area, within ~~which their action being~~ ^{is} intensity of their action ~~being~~ ^{is} confined, for they ^{all} affect the whole Nervous Syst^m more or less— Thus grief excites the secretion of the lachrymal gland—

But it is when, relatively to the individual, they are in excess, that these Emotions can be said to be the cause of Disease— A greater amount of Nervous power being engendered, than ~~it~~ can get an appropriate vent, a complete disturbance of the equilibrium (electric perhaps) of the Nervous centres takes place— The emotional wave (i.e. molecular changes) is diffused throughout the whole Nervous System (the Muscular being thrown into convulsions) to the derangement of the processes of organic life— Excessive terror in this way, not only causes Chorea, & Hysteria— but even Epilepsy— And I am convinced along with Dr Brown Sequard, that the exciting cause of that peculiar Condition of the blood vessels ^{manifests} ~~found~~ in Epileptic convulsions, is due to ~~the~~ the altered function of the Sympathetic—

In opposition to the foregoing statements, it may be ~~and~~ asserted, that such a theory will not explain

the loss of consciousness, which is characteristic of every epileptic fit. In answer to ~~this~~ it may be said, that, the lesion of the Sympathetic Nerves of the Face & Neck (which are more immediately as seen & closely connected with the Centro-Spinal system) has induces contraction of the vessels of the Neck, and consequent engorgement of the Brain —

Van Sieten relates a case of Epilepsy caused by excessive laughter, where it would be difficult to explain the occurrence of the disease on any other theory. We may remark in passing, that the epileptic aura is evidently dependant on some morbid change taking place in the tips which affect the peripheral extremity of some nerve and inducing molecular changes and as a consequence the evolution of nervous force which destroys the equilibrium of the nerve centres.

The gradual deterioration of the mental powers in epilepsy is no doubt to be accounted for, by the fact, that the ordinary and enduring currents of activity of the nerve force can be converted into an extraordinary discharge, at the expense of the future.

Dr. Laycock in his work on the Nervous diseases of women thus speaks of the Emotions

"By far the greater number of violent

And unmanageable Symptoms in Hysteria have been excited by grief and fear, and their modification as terror and despair, the effects varying according to their intensity and the circumstances of the individual and the causes which excite them." She goes on to give the immediate effects of fear or terror upon women. '1° Chorea, convulsions, hysterical paroxysms, Syncope, coma Cataplexy. 2° Spasm of occipito-frontalis, paleness of the face, & Spasm of the facial Muscles &c'

In

In all the emotions however, we find a correlation subsisting between the psychological & the physical - Convulsions have been known to follow on a disappointment of the sensual feelings, and active exercise is one of the best antiphrodisiacs.

Chorea ~~is also~~ i.e. involuntary action of the Muscles without loss of consciousness is also (if might almost invariably) caused by excess of Emotion - generally Terror -

It is a frequent concomitant of Religious excitement hence the Synonym - Chorea Sancti Spiritus.

For an interesting account of this and other nervous affections, see Keek's Epidemics of the Middle Ages.

Religious Emotion (a composite feeling) is peculiarly liable among the ignorant or weak, to induce those epileptiform convulsions, out of which so much religious capital was

Attempted

to be made in Ireland - In many, especially women, or men of an impressionable nature, various forms of Cataplexy, ^{or hysteria} were the consequence of the strong appeals made, not to the feeling of Terror - Hell-fire & the other delightful accessories, ^{which} ignorant and uncultivated men love to place so prominently before their hearers, are not pleasing subjects of contemplation to the minds of those perhaps a few degrees lower in the scale of civilization than the preacher himself; in addition to all this, the spectacle of a man, ~~thus by all the more beautiful~~ wrought up to the high pitch of excitement, and who he manifests in ^{every} look & tone & gesture, appeals too strongly to that imitative faculty, by which all emotion is propagated, to be resisted. Excessive emotion ~~unhinges~~ unhinges the whole nervous system, as we have seen, and the unhappy convert is "struck down".

A religion founded on Terror, appeals to one of the lowest ~~forming~~ faculties of our nature, and will have no enduring existence.

It is interesting to find, from, Doblado's "letters from Spain" (Blanes White), that the Church of Rome was in the habit of systematically reviving, any district where the Religious flame was having died & smouldered - The congregations were sent to a convent, in which they remained three or four days, during that time religious exercises were conducted by a certain priest. Luchas Poma as a revivalist was great in

the Chapel of the Convent. In this Chapel was a large crucifix, on ~~wh~~ by an artistic arrangement, all the light was thrown, the rest of the chapel being left in darkness. Before this crucifix the priest prostrated himself, in such a position, ~~that~~ the whole congregation might see him - and making no appeal to the feelings by the voice, he exhibited in his gestures & movements, in the play of his features & his attitude - the most overpowering emotion - ~~wh~~ by degrees was communicated to the audience - This mode of procedure needs no comment, - the only feeling is, one of disappointment, that this priest should not have adorned the legitimate drama, & increased his extraordinary powers, for the ~~benefit~~ ^{instruction} of mankind. The Convulsives of St. Medard, the barking mania in the Convents of Germany, and the leaping ague of Scotland are sufficiently familiar -

In the great epidemic of St. Vite's dance, so ably described by Necker, the tympanitis and remarkable swelling of the abdomen, bear a striking resemblance to some of the more obscure nervous diseases of our own time - Spurious Pregnancy, for instance, has for long seemed to the Author of this Thesis, to have a close connexion with the tympanitis & swelling (muscular action of abdominal muscles) of the Chorea Sacra Viti -

To conclude it may be accepted as a truth of some importance to the well-being of Society,

that every thing wh^{ch} tends to produce great & enduring excitement should be avoided, more especially with regard to women, for we know that this state of excitement ~~but~~ produced how it may, being diffused throughout the whole Nervous System, certain feelings are evoked, unconsciously perhaps to the individual, the gratification of wh^{ch} is much to be deprecated - A case in point ~~is~~ ~~and~~ ~~to~~ was the Revival of Kilsyth, some ten years ago, wh^{ch} certainly ~~has~~ ~~not~~ promote the morale of the district, and probably in the way here mentioned -

The influence of Emotions on the various Secreting organs is well known, and seems to take place through the Sympathetic System, - wh^{ch} is modified in its action, in some way not yet clearly known, by the nature of the Emotion -

Dr Asch Cooper* points out the great injury inflicted on the Child by a Mother who indulges the exercise of the fierce Passions, - this influence, no doubt, acts through the Nerves.

The secretion of the Skin is well known to be affected by Terror Sexual Instinct &c.

The function of the Liver seems to be vitimally affected by one Emotion, in particular, Anger. Cases are on record, of Jaundice supervening on Burst

of Rage, and popular language (not always to be trusted) recognizes this connexion in such expressions as "keep plate" &c - These attacks of Laundice and incurable - Functional disorder of the Stomach, have a most intimate connexion with the Emotions, especially Ideational - Under this head, we will merely glance at the influence of certain dominant ideas. Hope, (belief in coming good), Despair &c -

The nervous diseases dependent on ^{primarily} & caused by Imagination are very numerous - To this class belong many of the forms of Hysteria, Hypochondriasis &c - Paranoia in the Middle Ages, and the Delirium of ~~Abyssinia~~ ~~Abyssinia~~ & Bonats of Abyssinia, in our own time, are purely Ideational Nervous Diseases.

For an interesting account of the Bonats, see Mansfield Parkyns' Life in Abyssinia -

Our space however, warns us to conclude ~~the~~ ~~work~~ we cannot more fitly and appropriately do - than in the words of Schiller.

"A Physician whose horizon is bounded by and historical knowledge of the human machine, and who can only distinguish terminologically & locally the coarser wheels (of the human machine) of this piece of intellectual clock-work, may perhaps be idolized by the mob, but he will never raise the Hippocratic Art. above the narrow sphere of a bread-winning craft." (Inaug. Discurs. on the connexion between Mind & Body) -