Photography and the Unconscious

The Construction of Pathology at the Fin de siècle

Temenuga Trifonova

INTRODUCTION

The eighteenth century and the first half of the nineteenth century were dominated by physiognomic theories of madness, which posited a one-to-one correspondence between mental states and body states: the body was seen as an undistorted image of the mind. Paradoxically, at a time when an 'objective' recording device (the camera) had not been invented yet, skepticism had not yet proven itself as serious a problem as it would become *after* the invention of photography. Indeed, I would argue that precisely the absence of an external recording/mirroring device (the camera) made it possible to assume the presence of an internal mirror i.e., to conceive of the body as an 'image' of the mind. In the second half of the nineteenth century the new media of photography and film contributed to a shift in the understanding of attention, thereby influencing the development of the new sciences of mind (psychology and psychiatry). Challenging the assumption of the mind and the body as 'co-expressible' — functioning as 'mirrors' of each other — photography and film foreshadowed the 'discovery' of the unconscious and were instrumental in the reconceptualization of pathology and in the transition from physiognomic to psychological theories of madness. As materialist theories

constructing madness as purely organic and visually inscribed gradually gave way to a new understanding of consciousness and sanity in terms of *attention*, it became increasingly clear that inattention, distraction, automatism or absence from oneself, are, in fact, primary rather than secondary states. Paradoxically, precisely when a sophisticated technology for providing visual records of pathology was introduced, theories of pathology as visually inscribed became obsolete and pathology came to be seen as inherent in normal psychological processes.

Photography and film undermined physiognomic theories of insanity, thus blurring the distinction between sanity and insanity and contributing to the 'discovery' of the unconscious in three significant ways. First, photography and film gave rise to a new concept of the self as inherently *theatrical* and, by extension, of insanity as performative. Second, through its inherent, *technical automatism* photography revealed at the heart of *any* photographed movement — not only the movements of those diagnosed with some form of insanity — a similar, previously unsuspected, *human automatism*. Instantaneous photography demonstrated that what appear to be rational, purposeful movements/actions are often carried out automatically or unconsciously. Distraction and inattention — absence from oneself — which had previously been considered particular types of pathology now appeared to be inherent in normal psychological processes. Third, while photography was expected to provide objective records of insanity, most *scientific* applications of photography were driven

by *aesthetic* concerns. To grasp the specific ways in which photography and film challenged materialist theories of insanity, it is helpful first to trace the historical transition from physiognomic to psychological theories of madness.

I. FROM PHYSIOGNOMIC TO PSYCHOLOGICAL THEORIES OF INSANITY

Early physiognomic theories of mind assumed the equivalence of mental and brain states, positing the mind and the body as 'mirrors' of each other. In *Physiognomy, or the Corresponding Analogy between the Conformation of the Features and the Ruling Passions of the Soul* (1775-1778) J.C.Lavater argued for "a certain native analogy between the external varieties of the countenance and form, and the internal varieties of the mind."[1] He praised physiognomy for its ability to distinguish "what is permanent in the character from what is habitual, and what is habitual from what is accidental."[2] The repetitious, regulated contraction of facial muscles, he argued, produces normal facial expressions that become deformed when an element of disproportionate change and randomness is introduced into the habitual work of the muscles. Lavater thus identified *the normal* with *the habitual/recognizable* and *the pathological* with *the accidental/unpredictable*; by extension, immobility (the immobile body/face) was a sign of normality whereas mobility (the body/face in motion) signified abnormality. In *A Treatise on Insanity* (1801) Pinel claimed to oppose the popular view of insanity as a result of an organic lesion of the brain, considering it instead a 'functional disturbance'

produced by psychological causes. Nevertheless, he listed numerous exceptions demonstrating a connection between "certain malconformations of the cranium [and] a state of insanity."[3] Building on the work of Lavater and Pinel, in *The Physiognomy of Mental Diseases* (1843) Sir Alexander Morison linked sanity to the*habitual* contractions of facial muscles, which produce a *visually recognizable* expression: "The appearance of the face is…dependent upon the state of the mind; the repetition of the same ideas and emotions, and the consequent repetition of the same movements of the muscles of the eyes and of the face, give a peculiar expression, which, in the insane state, is a combination of weirdness, abstraction or vacancy."[4]

The connection Benjamin Rush and J.E.D. Esquirol drew between *inattention* and *madness* — a connection reinforced by popular studies like Robert Macnish's *The Philosophy of Sleep* (1830)[5]which compared madness to dreaming — were the first cracks in dominant physiognomic theories. In "Of Reverie, or Absence of Mind," chapter XVI of his *Medical Inquiries and Observations upon the Diseases of the Mind* (1812), Rush described insanity in terms of *inattentiveness*, a predisposition to reverie or distractedness that could be induced either by "the stimulus of ideas of absent subjects being so powerful as to destroy the perception of present objects [or] by a torpor of mind so great as not to feel the impressions of surrounding objects upon the senses."[6] In *Mental Maladies: A Treatise on Insanity* (1845) Esquirol also identified *the loss of attention* and thus of the ability to reason, an ability *not* natural to us, as the

essential feature of insanity: “[W]e are not naturally reasoning beings…our ideas are not conformed to objects, our comparisons exact, our reasonings just, but by a succession of effort of the attention, which supposes in its turn, an active state of the organ of thought.”[7]

In *The Mechanism of Human Facial Expression* (1862) G. B. Duchenne de Boulogne recorded the results of his experiments with ‘localized electrization’, the purpose of which was to ‘decompose’ general facial expressions — the elongated face of the melancholic or the changeful features of the maniac — into the series of particular facial muscles that produced them in the first place. On the basis of his accidental discovery that a single contraction of a facial muscle does not cause all other muscles to contract, he classified the isolated or combined contractions of the face as ‘expressive on their own’, ‘expressive only in a complementary way’, or ‘partly expressive’. Duchenne was essentially thinking of facial expression, on analogy with language, as a universal, immutable code: “To be universal, the language must always be composed of the same signs or, in other words, depend on muscular contractions that are always the same. [...] [E]ach emotion is always represented on the face by the same muscular contractions, which neither fashions nor whims can change.”[8] Reviving Lavater’s ideas, he proposed that a ‘normal’ or ‘natural’ facial expression is formed by the habitual contractions of the same muscles working in harmony to produce a general *visually recognizable* expression that can be compared to similar ones in the past. Conversely, Duchenne considered the face in motion as an example of deformity or abnormality: a deformed

expression is not immediately recognizable because it is no longer the product of the habitual contraction of the same series of muscles; instead, individual muscles contract in new, unpredictable (non-habituated) ways. Duchenne thus defined pathology as a failure of recognition as a result of *excessive localization* (the autonomous and random manner in which isolated muscles contract). The physical deformity of the face (and the internal deformity it pointed to) was analogous to the disruption of the codified, conventionalized relation between signifier and signified, resulting in a dispersal and randomization of meaning. In such abnormal cases, even if a person's internal state of mind remained the same (e.g. melancholy) the system of facial muscles (signifiers) that used to produce that particular expression in the past was disrupted, with the result that the individual contractions of isolated facial muscles failed to produce one recognizable expression i.e. a single, recognizable signified (melancholy).

Duchenne's major contribution to the new sciences of mind lies in his novel conception of *mental deformity as a kind of illegibility*: the deformed mind cannot be 'read' through/'on' the body. His experiments challenged the conventional belief in the correspondence between the visible (body) and the invisible (mind). Even as he held on to the familiar notion of physical deformity (the contraction of the facial muscles in non-habituated ways) as a sign of mental deformity, Duchenne's emphasis on the illegibility (the 'non-habituated' as 'illegible') of the visible (physical deformity) pointed to a parallel illegibility of the invisible (mental deformity). Abandoning Esquirol's *holistic* theory of correspondence, Duchenne proposed instead

an *analytic* conception of the subject and of facial expression, underscoring the fragmentary/illegible nature of the body and, by implication, the fragmentary/illegible nature of the mind. By distancing himself from earlier physiognomic theories and using photography to capture the ephemeral and the instantaneous, Duchenne was already beginning to understand the human face*cinematically*: "instead of seeking a permanent physical imprint of fate or character [Duchenne] sought to understand the face in motion, describing facial expressions as a mobile muscular phenomenon."[9]With Duchenne, "the human face became less a realm described in generalities [as had been the case with physiognomy which focused on classifying faces into types] than a zone of intense scrutiny on an individual basis."[10]

The heyday of physiognomic theories was 1810-1840; by the 1870s and the 1890s the scientific basis of such theories was beginning to be seriously challenged.[11] In *Degeneration* (1892) Max Nordau argued that the main causes and symptoms of insanity were mental rather than physical: degeneracy is the result of a breakdown of the normal association of ideas, which depends on habitual responses to external stimuli based on the memory-images of similar past stimuli. The mind of the insane stops functioning as a screen for external stimuli: instead of taking the path of least resistance it allows presentations that have nothing to do with the present stimulus and fails to match past perceptions with present ones based on the four laws of association.[12]|

> [A]ttention is the faculty of the brain to suppress one part of the memory-images which, at each excitation of a cell or

> group of cells, have arisen in consciousness, by way either of association or of stimulus-wave; and to maintain another part, namely, only those memory-images which relate to the exciting cause i.e. to the object just perceived. [...] Inability to be attentive accompanies all forms of exhaustion. Untended and unrestrained by attention, the brain activity of the degenerate and hysterical is capricious, and without aim or purpose.[13]

Nordau conceived of degeneracy in terms of a *gap* between the input of external stimuli and the subject's motor response to those stimuli (the transformation of idea into action):

> With the incapacity for action there is connected the predilection for inane reverie. The degenerate is not in a condition to fix his attention long, or indeed at all, on any subject, and is equally incapable of correctly grasping, ordering or elaborating into ideas and judgments the impressions of the external world conveyed to his distracted consciousness by his defectively operating senses. It is easier and more convenient for him to allow his brain-centers to produce semi-lucid, nebulously blurred ideas and inchoate embryonic thoughts, and to surrender himself to the perpetual obfuscation of a boundless, aimless, and shoreless stream of fugitive ideas.[14]

Reviving a line of thought going back to Rush and Esquirol, Nordau described degeneracy as a form of*inattentiveness*, a break in the psychic-motor apparatus of stimulation and response[15] i.e., he assumed that that the structuring of the random series of associations into conscious/voluntary thought and action is a natural process which, when stopped or prevented, leads to degeneracy.[16] Nordau's account of degeneration in terms of a lack of discrimination or inattentiveness could just as well be read as a reference to the non-discriminatory nature of the

photograph. Early photographers struggled with the medium's automatism, its tendency to record disinterestedly all kinds of disorderly, irrelevant incidents, suggesting that the instrument was only partially under the photographer's control. It is likely that the unprecedented overabundance of irrelevant details recorded automatically by the camera shaped contemporary views (including Nordau's) of 'the insane, degenerate mind' as similarly inattentive, automatic and prone to digressions. Simply put, the degenerate mind functioned like a camera: failing to screen out the irrelevant or the incidental it recorded everything.

Nordau identified dual personality as the epitome of degeneracy, referring to the explanation given by Pierre Janet, in *Les actes inconscient et le dédoublement de la personnalité* (1886) and his brother Paul Janet, in *L'Hystérie et l'hypnotisme d'après la théories de la double personnalité* (1888): "Every person consists of two personalities, one conscious and one unconscious. Among healthy persons both are alike complete, and both in equilibrium. In the hysteric they are unequal, and out of equilibrium. One of the two personalities, usually the conscious, is incomplete, the other remaining perfect."[17] The conscious part is incomplete inasmuch as it has no recollections of the actions of the unconscious part, whereas the unconscious part is fully aware of the primary (conscious) state and is, therefore, complete. Degeneracy, Nordau concluded, manifests as a certain *lack of self-presence* (in this case, one-directional amnesia). A few years later, however, Breuer and Freud put forward the hypothesis that lack of self-presence, inattention, diffusion and

reverie represent our natural state of mind rather than a form of pathology, that mental pathology is rooted in normal psychological processes, for example day-dreaming.[18] Based on their analysis of the case of Anna O., in *Studies in Hysteria* (1895), Breuer and Freud concluded that pathology results from the compartmentalization of consciousness, part of which continues to exist automatically in the real world (usually performing some kind of mechanical action) while another part becomes dissociated. They attributed this process of dissociation to particular private or social circumstances, in this case Anna O.'s monotonous private and public life, which left a large amount of her mental energy unemployed. Breuer and Freud proposed to think of consciousness and the unconscious in terms of *attention* and *energy*: being unconscious begins in the normal state of being*inattentive* or *distracted*, which presupposes the availability of surplus energy that has not been tapped into. The dissociation of personality starts out as a dissociation from reality, which fails to make a strong enough claim on the individual thereby leaving her free to disengage that surplus energy somewhere else (in unconscious acts, reveries, and hallucinations). Anna developed a

> second state of consciousness which first emerged as a temporary absence and later became organized into a 'double conscience'. [...] But whereas the paralysis experimentally provoked by Charcot in his patients became stabilized immediately…[Anna's] contracture, as well as the other disturbances that accompanied it, set in only during the short absences in her 'condition seconde' and left her during her normal state in full control of her body and possession of her senses.[19]

Freud and Breuer believed that the second state, which disposed of everything 'mentally toxic', was necessary for the proper functioning of the normal self. *Studies in Hysteria* was symptomatic of an important shift in the conceptualization of pathology: since consciousness, understood in terms of attention, functioned mostly as a mechanism *inhibiting* the normally diffused, involuntary, and multiple self, inattention, involuntariness and automatism could no longer be construed as pathological. By the time Ribot published *The Psychology of Attention* (1890) the old hierarchy of conscious and unconscious, attention and inattention, recognition and amnesia, had been reversed. Whereas in his earlier study, *The Diseases of the Will* (1884), Ribot described the hysterical constitution in terms of*inattentiveness* and inconstancy, in *The Psychology of Attention* he posited attention as an *abnormal*state, the natural state supported by consciousness being *diffusion*: "The normal condition is plurality of states of consciousness, or…polyideism. Attention is the momentary inhibition, to the exclusive benefit of a single state, of this perpetual progression: it is a monoideism."[20]

Numerous studies corroborated Ribot's claim that diffusion, rather than attention, is the natural state of consciousness, thereby encouraging the conceptualization of *consciousness as an inhibitory mechanism*and reversing the negative associations of 'the unconscious', 'the diffused' and 'the multiple' with 'insanity'. Various cases reported at the end of the century demonstrated the difference between spontaneous and artificial somnambulism. In 1875 L'Académie de Médicine de Belgique asked M.

Warlamont to do a report on the subject of 'double conscience', of which there had been many reported cases. His report insisted on "la realité scientifique du phenomena dit 'dédoublement de la vie', 'double conscience', 'condition seconde', états qui peuvent être spontanés ou provoqués."[21] Warlamont recounted a 1875 case of a girl who fell into 'somnambulism avec catalepsie' whenever she worked "à des bontonnieres" — a line of work requiring great focus — and concluded that "c'était une hystérique qui s'hypnotisait elle-même."[22] The more famous case of "Felida X" was discussed in Dr. Eugene Azam's study *Amnésie périodique ou dédoublement de la personnalité* (1877). Significantly, Azam's use of the term "dédoublement de la vie" departed from the dominant terminology in American studies at the time, 'fragmentation of the ego'. In most other cases of amnesia, the patient felt as if they were double but had no memory of their double existence; however, Felida had no such feeling and in her 'second' state she had perfect memory of her first state. Indeed, Felida did not think of herself as being a different person — she always felt 'semblable à elle-même."

These studies reinforced the already established tendency to conceptualize consciousness and memory in terms of *attention*. The cataleptic girl became somnambulist whenever she engaged in some form of activity requiring absolute attention: her somnambulism was the result *not* of a memory dysfunction but of an *imbalance of attention*. The part of her existence to which she was not paying attention while she was focusing on her button-work became irrelevant — it did not produce a strong enough impression

upon her or made no immediate demands upon her — and, therefore, forgettable/unreal/non-existent. Her case raised the question whether, given our ability to consciously or purposefully regulate our attention — our ability to focus on something to the exclusion of everything else — we are also capable of 'hypnotizing ourselves': indeed, Warlamont claimed the girl was capable of *inducing* a somnambulistic state herself. Along similar lines, Azam interpreted Felida's amnesia as *a loss of attention rather than the result of a memory dysfunction*. As he put it, it is not that one forgets because one cannot remember (amnesia is not the result of memory disturbance); rather, one forgets that of which one was not completely conscious (or completely attentive to) in the first place, and which therefore left an "insufficient impression" upon him. Amnesia has nothing to do with memory in the conventional sense of memory as 'the ability to recollect' the past. Instead, amnesia presupposes at least a minimum awareness that we have lost something: whatever fails to register or become conscious, thus producing amnesia, must have still 'registered', however slightly, or else we wouldn't be able to 'have no memory' of it.

For Bergson, as for Azam, amnesia no longer had to do exclusively with the past: to be amnesiac was not to be fully conscious of/attentive to what is going on 'now'. In *Matter and Memory* (1896)[23]Bergson defined consciousness in terms of memory — matter is deprived of memory — thereby linking amnesia to the unconscious: the 'forgotten' is simply that which we have not perceived consciously i.e., the unconscious. Elaborating further on Ribot's premise that the normal state of consciousness is

diffusion, Bergson identified both madness (particularly the doubling/multiplication of personality)[24]and dreams as the *substratum* of mental life, insisting that the real question is not why some people are mad but rather why we are not all mad or dreaming all the time. Bergson's refusal to distinguish categorically the waking state from the dream state, or perception from memory,[25] was an implicit attack on essentialist theories of sanity and madness for it suggested that the processes assumed to be symptomatic of insanity are *always already* going on under normal circumstances[26] but are "prevented from emerging, when about to appear, by one of those continually active inhibitory mechanisms which secure attention to life."[27] It was becoming increasingly clear that attention — and therefore sanity — was by no means a state one would describe as 'natural' to us; on the contrary, sanity and consciousness now appeared as 'selections' within a vast, nebulous realm alternatively called Pure Memory (Bergson) or the unconscious (Freud). Inasmuch as the photograph framed a portion of the world, it served as an appropriate metaphor for the new understanding of the brain/mind relationship in terms of 'selection'. Bergson made use of that metaphor when he compared the brain to a frame and the mind to a picture:

> The frame determines something of the picture, by eliminating beforehand all which has not the same shape and size. [...] So also with the brain and consciousness. Provided the comparatively simple actions — gestures, attitudes, movements — in which a complex mental state would be materialized, are such as the brain is ready for, the mental state will insert itself exactly into

> the cerebral state. But there are a multitude of different pictures which would fit the frame equally well; consequently the brain does not determine thought and, at least to a large extent, *thought is independent of the brain*.[28]

II. THE NEW MEDIA AND PATHOLOGY

It is now time to consider the three ways in which photography and film contributed to the transition from physiognomic to psychological theories of insanity that I traced above.

1. Theatricality

At the fin de siècle photography and film played an important part in the rethinking of selfhood as a*specular process*. Writing in the 1880s and 1890s, French sociologist Gabriel Tarde argued that selfhood originates in imitation, a process he compared to "inter-psychical photography" i.e., "the action which consists of a quasi-photographic reproduction of a cerebral image upon the sensitive plane of another brain."[29] The self is constructed by adopting the gestures and behaviors of those around us in a process similar to taking photographs. If self-consciousness is a product of imitation, early cinema made this self-objectification manifest.[30] According to Jonathan Auerbach "the early movie camera functioned as a distinct apparatus of self-objectification, at once triggering self-consciousness and registering it as a visual process."[31] However, this self-objectification had already happened in still photography. In 1856 Dr. Hugh W. Diamond pioneered the use of photographic portraits in the study and treatment of the insane.[32] Rather than trying to isolate specific signs

of malfunction, Diamond was interested in capturing the overall appearance of his patients. He would show them a 'before' and an 'after' photograph (e.g. the patient during a manic attack versus the patient convalescing) so that they could *see* the improvement they had made in the course of their treatment. The photographs made patients aware of their illness, sometimes provoking a degree of self-consciousness that allowed them to objectify their condition as a sort of *performance* from which they could distance themselves instead of being trapped by it. One patient imagined herself a Queen but when she was presented with a photograph of herself 'posing' as a Queen she found the photograph ludicrous. Although patients had no choice but to *pose,* since the technology available at the time depended on long exposure times, Diamond remained convinced that the use of professional models did not undermine the evidential value of photography. By 1859 Diamond's photographs were being criticized, in *The Photographic News,* not for failing to be objective or scientific but, on the contrary, for lacking the justification of an art work.[33]

Diamond's photographs inspired a series of essays by John Conolly on *The Physiognomy of Insanity*, published in 1858 in the *Medical Times and Gazette*. Conolly's essays were illustrated with lithographs based on Diamond's photographs, but there were some significant differences between the two, differences that undermined photography's claim to provide an objective record of insanity. In her unpublished study *Frames of Mind: An Investigation into the History of the Photography of Psychiatric*

Patients (1993)[34] Kamilla Porter draws attention to one particular photograph of a woman suffering from melancholy:

> The two pictures are similar and clearly of the same patient, but in Conolly's illustration the subject looks downwards, whereas originally she was gazing directly into the camera (2.7) [...] Had this particular patient been photographed in a different pose, for example without resting her cheek on her hand, and if she had not been wearing a crucifix, the diagnosis of religious melancholy would no doubt have been far less obvious to the observer of the photograph (2.8). [T]he diagnosis of melancholy depended on the reproduction of a classic image of melancholy, which in turn demanded that Diamond's original photograph be slightly modified in order to fit that image. Ultimately, the medical diagnosis depended on the patient's *pose* rather than on the photographic medium's supposedly inherent objectivity.[35]

On the basis of her examination of the casebooks of photographs by Hering at Bethlem (c. 1850), by Diamond at the Surrey County Asylum (c. 1856) and by Dr. Clarke at Wakefield (c. 1869) Porter concludes that by the late 1860s photography was used not to study the physiognomy of the insane but rather for identification and record keeping, especially once new technological improvements allowed photographs to be taken more efficiently. Porter wonders whether the very development of photography might have contributed to the *decline* of physiognomic interpretations of insanity.

The writings of Albert Londe, medical researcher and chronophotographer appointed as head of the photographic service at La Salpêtrière, suggest that the decline of physiognomic theories might have to do with a growing awareness of ability of the camera to reproduce the object it is supposed to

record. Londe emphasized the reproduction capacity of photography, which made possible a taxonomy of madness since different *types* of madness could be recognized only through comparisons across patients and across time. He derived the *persistence* or *recurrence* of the *visual signs* in which madness manifested itself — which he read as *essential* or *inherent* precisely because of its recurrence — from the*reproducibility of reproductions* (photographs).[36] The very nature of the apparatus — its 'double identity' insofar as it offered a means of mechanical reproduction but it also made possible the application of exactly the same process of reproduction to the result obtained through reproduction i.e., to the photographs themselves — reproduced the object of which it claimed to provide a record:

> Il est même certaines affections qui donnent au malade une physionomie toute spéciale, *qui ne frappe pas l'observateur dans un cas isolé, mais qui devient typique si on la retrouve chez d'autres personnes atteintes de la meme maladie*. La comparison de photographies prises quelquefois à des années de distance permettra, comme l'a fait M. le Professeur Charcot a la Salpêtrière, de décrire la facies proper à telle ou telle affections dy système nerveux. Ce résultat est important; car le type, une fois défini, reste gravé dans la mémoire et il peut, dans certain cas, être précieux pour le diagnosic.[37]

Londe was aware of the danger of theatricality due to the sheer presence of the camera: "Il est évident, en effet, que si nous voulons saisir des attitudes, des mouvements qui soient pris sur le vif, il ne faudra pas éveiller

l'attention de nos modeles involontaires qui ne manqueraient pas de se croire obligés de poser."[38] Indeed, he understood that the behavior of the insane more often than not conformed to the apparatus used to represent it, an apparatus that functioned according to the same principle of decomposition and analysis that governed the attacks of the hysteric or the epileptic and was thus unusually suitable for recording them:

> Dans sa clinique des maladies du système nerveux M. le professeur Charcot a toute une série de maladies atteints de paralysie, d'hystérie, d'épilpsie, de chorée etc., qui semblent mettre au défi la Photographie; il s'agit, en effet, d'étudier des tremblements, des attaques, de les analyzer et de les decomposer. D'ou la nécessité d'un appareil spécial qui permet de prendre un certain nombre d'épreuves à des intervalles quelconques, aussi rapproches ou aussi eloigner qu'on le voudra les uns des autres. Prenon comme type l'attaque hystéro-épileptique, attaque qui se subdivise en périodes parfaitement distinctes, composées chacune de mouvements rythmes et caractéristiques. Le medicin a interet a décomposer: 1. l'attaque en periodes caractérisées par le mouvement; 2. le mouvement lui-même.[39]

For E. Frippet, one of Londe's students at La Salpêtrière, the good photographer was recognized by how artistic — well-posed — his photographs were. Frippet devoted himself to the study of different lighting conditions and the exact 'temps de pose' corresponding to each, for he believed that instantaneous photography had to be as exact as possible in its *simulation of a natural attitude*: "Il faudra donc, pour avoir d'excellents resultants, recourir a la pose, et avoir soin de placer son modele dans les

meilleures conditions possible au point de vue de la lumière, tout en lui donnant une attitude naturelle."[40] The inherent sincerity and precision of photography soon came to be seen as obstacles to its establishment as a true art:

> Cette precision excessive, aveugle même, precieuze dans certain cas, sera ici plutôt un obstacle. Il faudra donc que l'opérateur compose son sujet de manière a attirer l'attention sur l'objet principal, qu'il l'éclaire de manière à mettre en lumière tel ou tel point, qu'il lui donne une attitude naturelle, qu'il fasse ressortir la physionomie qui lui est habituelle, *en un mot qu'il exécute ce travail préparatoire tout comme le ferait un artiste; mais comme, d'autre part, il se sert d'un instrument particulier qui, àcertains points de vue, peut modifier les effects, qui'il prevoie tout, qu'il calcule*

In the course of explaining why he could not use the *fusil photographique* of his excellent colleague Marey, Londe inadvertently acknowledged the extent to which the recording of madness and mental illness depended on *the precise match* between the mechanical progress of the apparatus and the 'natural' progress of the hysterical or epileptic attack: "la durée de l'attaque n'a absolument rien de régulier, et [il] fault pouvoir régler la marche de l'appareil sur celle de l'attaque. De plus l'appareil doit obéir au médicin, de facon que celui-ci puisse agir au moment précis qu'il croira utile de choisir."[42]There was something pathological in the very capacity of photography to freeze time, a kind of*technological catalepsy* matching the *'natural' catalepsy* of which it provided a record: "Catalepsy retains by way of the body what photography retains by way of the camera: it freeze-frames and retains the body in isolated position that can be viewed and theorized outside a sequence of motion.[43]

The possibility of taking multiple records of the insane over a period of time in order to study the effect of various treatments and to perform other kinds of comparative analysis rendered the idea of an essentially unified and static self obsolete. Indeed, that idea had already been put into question by the 'boom' in hysteria cases at the end of the nineteenth century. Hysteric patients could reproduce poses that were suggested to them under hypnosis as if there was a second self 'in' them. By the end of the century this second personality, associated with automatism, was recognized as the unconscious, a concept that would undergo numerous redefinitions and destabilize traditional definitions of 'sanity' and 'insanity'. The privileged place of hysteria in fin de siècle culture can be attributed to its role in the development of the idea of the unconscious in terms of 'performance'. Charcot's name features prominently in histories of dynamic psychiatry, especially in relation to hysteria and the*theatricalization* of the cogito by the emerging new media.[44] Charcot contributed to the development of dynamic psychiatry by drawing a distinction between 'dynamic' and 'organic' paralyses: the latter resulting from a lesion of the nervous system, the former provoked through auto-suggestion or hypnosis and thus reversible. Similarly, he demonstrated that unlike organic amnesia, which involved the irreversible loss of memories, patients suffering from dynamic amnesia were capable of recovering their lost memories. Dynamic amnesia and dynamic paralysis were thus, in a manner of speaking, 'simulations'. Charcot went on to argue that, like dynamic amnesia and dynamic paralysis, hysteria was the result of suggestion and could therefore be cured in the same way, by suggestion. His studies

depended on the analogous dynamics of popular melodrama: at the Bal des Folles, very popular with the public, Charcot induced, through hypnosis, localized hysterical symptoms, which the patients then 'acted out' in front of an audience.[45] Conversely, after the introduction of film hysterical patients would often imitate cabaret performers and early film comedy actors, thus drawing attention to what Rae Beth Gordon calls 'the performative nature of corporeal pathologies':[46]

> Is there a relationship between ways that movement was staged in early cinema and corporeal pathologies — contractures, tics, catalepsy, and convulsive movement — related to hysteria and epilepsy? [...] It seems plausible that café-concert performers provided models for potential hysterics who couldn't resist imitating the tics, grimaces, and convulsive movements that later came to characterize the medical journal *Nouvelle Iconographie Photographique de la Salpêtrière*.[47]

According to Kamilla Porter, Charcot's use of photography differed from that of his predecessors:

> Charcot's approach to hysteria emphasized the external and visual rather than the unseen and purely psychological. [...] Thus Charcot's use of photography differed from that of Diamond and Conolly in that he was interested in recording the bodily postures of the patients and not just their facial expressions. Also, Charcot's photographs were more elaborately framed and staged than Diamond's pictures and some of the patients were

> photographed many times to the extent that some made sort of a career out of modeling for the iconographies.[48]

The presence of the photographic camera destabilized the ontology of the mental state of which it sought to provide ocular proof. If ocular demonstration and record were essential to the continued study of madness and mental illness, then the camera was called upon to keep producing and reproducing the object of study (madness): to demonstrate the cure meant to provide the illness first. Even as the camera claimed to be the most objective and technologically advanced method of studying insanity, its sheer presence challenged the reality of the object it was supposed to represent objectively.

As soon as photography and film were 'invented' they were used for medical documentation. In 1885, ten years before the first film screening of the Lumière brothers, the first clinical case of a multiple, Louis Vivet, was photographed in his ten personality states. Two years later Albert Dad, the first person whose dissociative fugues were studied in detail, was photographed in his three states (normal, hypnotized and during a fugue).[49] Between 1899 and 1902, Romanian neurologist Gheorghe Marinescu wrote (for French medical journals) a series of articles on hysteria, basing his research on cinematographic documents. In 1883 Albert Londe studied the 'large hysterical arc' with serial cameras. And yet, as early as 1910 Dr. Hans Hennes of the Provinzial-Heil-und Pflegeanstalt Bonn observed (in his treatise *Cinematography in the Service of Neurology and Psychiatry*) that, paradoxically, film 'produced' madness precisely by

providing reliable records of it. Although film was instrumental in what Hacking calls the re-conceptualization of the 'soul' — under the new disguise of 'memory' — as an object of scientific inquiry, it also contributed to the *theatricalization* of the cogito, provoking a shift in our understanding of rational thought from Descartes' notion of the cogito as "a perpetual recession of the body" to the cinematic proof of the cogito through the "perpetual visibility of the self, a *theatricality* in my presence to others, hence to myself."[50] Overexposed by the film camera, constantly on display, the cogito would from now on derive the proof of its own existence only from the realm of appearances: the camera compromised the previously stable distinction between reason and unreason, opening it up to manipulation. By offering incontrovertible visible evidence of the reality of a mental illness like multiple personality, for instance, film also demonstrated the increasing obsolescence of the idea of a transcendental subject, thereby contributing to a new discourse of the self as inherently multiple and reproducible, existing in a constant state of metaphysical embarrassment, a 'perpetual theater' involving other minds. The camera introduced an element of *theatricality* or *insincerity* that would eventually permeate the larger intellectual climate of modernity and play a central role in the birth of existentialism with its emphasis on the inherent inauthenticity or theatricality of the self (Sartre). By registering automatically both our conscious *and* unconscious movements/gestures, the camera condemned us to a perennially *exposed* mode of existence, of which it provided an inevitable *surplus of proof.*

Film did not only contribute to the anxiety of drift that Leo Charney identifies, in *Empty Moments: Cinema*, *Modernity and* Drift,[51] as the defining experience of modernity; it also participated in the total *restructuring of attention* at the fin de siècle. Insofar as film perception mimicked the drifting, distracted perception of the flâneur, film was just one manifestation, among many, of modernity's tendency to drift; on the other hand, film served as a bulwark against the threatening tendency to drift by *structuring the viewer's attention* — structuring contingency — into 'peaks and valleys'. In *The Emergence of Cinematic Time: Modernity, Contingency, the Archive* [52] Mary Ann Doane identifies the tension between contingency and rationalization (the rationalization of time and space)[53] as central to modernity, and to film. Early cinema, argues Doane, was about instants and their accountability with respect to meaning: cinema resolved the pressing conflict between meaning and contingency by offering an *automatic* inscription of contingency (as distinguished, for example, from Impressionist painting's *purposeful* attempts to capture contingency) thereby making rationalization tolerable. Contingency was thus constructed both as a lure (film's promise of indexicality, of the re-materialization and archiving of time) and a threat (the threat of nonsense, illegibility and arbitrariness:*any* — empty — moment can be filmed). Film's role in the structuring of attention exposed the natural predisposition of consciousness to drift, to 'valleys' rather than 'peaks', to involuntary rather than voluntary perception and memory: film promised to keep at bay the vertigo of drift by arresting time into moments that give us the illusion of presence.

The ambivalence toward film that informs both Benjamin's writing (film embodies the modern experience of being overwhelmed by the constant shocks to the eye but, at the same time, it holds the key to the 'optical unconscious')[54] and Charney's and Doane's takes on modernity (the discourse of 'drift' as both a danger and a lure) informs, as well, Stanley Cavell's writing on film, in which he seeks to demonstrate film's potential to function as a defense against the skepticism brought about precisely by photography's and film's challenge to physiognomic theories that positioned body and mind as mirror images of each other.[55] According to Cavell, Freud's unique contribution was his suggestion to look at the body's relationship to the mind not simply in terms of *expression* but in terms of *exposure*,*betrayal* and *embarrassment* (e.g. Freud's description of Dora's 'symptomatic acts' as a 'pantomimic announcement')."[56] Even the ultimate failure of psychoanalysis, which, while promoting itself as a new 'science of the mind' deteriorated from a critique of metaphysics to a kind of quasi-metaphysics, did not lead to absolute skepticism, simply because, argues Cavell, the modern cogito exists in the mode of having always already *betrayed* itself. Under the present circumstances — the alienation of the cogito from itself — the human survives only in the body's unconscious gestures.

Cavell analyzes the court scene in Frank Capra's film *Mr. Deeds Goes to Town* (1936), in which the protagonist's sanity is put into question,[57] in order to demonstrate that the importance of cinema lies in "returning the mind to the living body,"[58] in recording thinking, which is not limited to

‘intellectual processes’ but is enacted in ‘universal fidgetiness’, the little involuntary gestures and movements of the human body. Cavell calls such recordings ‘somatograms’, claiming that they belong to “what Walter Benjamin calls cinema’s optics of the unconscious.”[59] Here lies the value of cinema as a bulwark against skepticism: by automatically (unconsciously) recording the body’s automatic gestures, cinema reassures us that there is still something left of the human, something that is not fully conscious and thus not fully rationalized/constructed. In the scene Cavell analyzes Mr. Deeds delivers a speech, in which he argues that involuntary gestures and actions are a form of thinking too, though they do not conform to the common idea of thinking as a purely intellectual act:

> And I take it that Deeds’ insight is that a reverse field of proof is available by way of the motion picture camera, so that while thinking is no longer secured by the mind’s declaration of its presence to itself, it is now to be secured by the presence of the live human body to the camera, in particular by the presence of the body’s apparently least intelligent property, its fidgetiness, its metaphysical restlessness. In Descartes the proof of thinking was that it cannot doubt itself; after Emerson the proof of thinking is that it cannot be concealed. [...] Am I saying that the camera is necessary to this knowledge? [...] Must I commit myself to saying that my existence is proved (only) each time the camera rolls my way? I ask a little license here. My idea is that the invention of the motion picture camera reveals something that has already happened to us. [...] We can think of what the camera reveals as a new strain either in our obliviousness to our existence or in a new mode of certainty of it. [60]

If there is a threat to speak of here, it is not the threat of skepticism but the opposite threat of *overexposing* the cogito: "If the price of Descartes' proof of his existence was a perpetual recession of the body…the price of an Emersonian proof of my existence is a perpetual visibility of the self, a theatricality in my presence to others, hence to myself. The camera is an emblem of perpetual visibility. Descartes' self-consciousness thus takes the form of *embarrassment*."[61]

2. Automatism

The 'ghosting' of 19th century photographs — the appearance of incomplete, blurred images — along with photography's basic technical property, the latent image, account for the fact that the discourse of scientific objectivity to which the new medium seemed to belong was from the very beginning enmeshed with another, contradictory discourse of the uncanny, the magical, and the latent. The notion of photography as nature's "spontaneous reproduction," which translated the medium's inherent*automatism* into *objectivity*, was from the start undermined by the opposite reading of the very same characteristic of the medium — its *automatism* — as an instance of *natural magic*. Indeed, in slightly more than a decade after the invention of photography, it became associated with the idea of the double and the uncanny.

Early photography was more often than not discussed as a 'discovery' — "a discovery of nature's capacity to register its own image" — rather than as an 'invention'. Photographs were said to be "'obtained' or 'taken', like

natural specimens found in the wild."[62] Photography's claims to scientific status were based on its promise to capture the instant.[63] However, no one expected that instantaneous photography, which managed to capture fleeting expressions and transient effects of light, would reveal something immobile, dead, and strangely distorted at the very heart of life. Albert Londe wrote:

> Depuis le milieu du siècle, la photographie promettait l'instantané. Tout semblait y conduire. Mais personne ne s'attendait a ce qu'un gain de rapidité, au lien de traduire plus fidèlement le mouvement, engender un estrange suspens visual. Chutes et sants, corps maladroits, contortions incongrues, positions cocasses: devant ces clichés d'autant plus immobiles qu'ils auraient dus etre plus animés, la révélation de l'involuntaire, la pure apparition de l'accidental causent an choc imprévu.[64]

Through its ability to freeze time photography exposed the inhuman, the mechanical, and the inanimate inherent in the human, exacerbating the fear of death or absolute immobility. Photography not only afforded views that had been forbidden to the naked eye but transformed the body into a mannequin or a puppet seemingly devoid of an inner spirit. *The photographed body appeared soulless; the free movements once attributed to the body were now exposed as an illusion concealing a series of maladroit, contorted postures*: "L'émotion provoquée par l'instantané ne tient pas seulement à l'isolement d'un phenomena que l'ail n'avait jamais perçu. Il dépend fondamentalement de la représentation d'un corps, sous un mode aberrant qui le transforme en objet: une sorte d'inverse absolu de l'idéal du

portrait."[65] Instantaneous photography exposed the essentially aleatory, nonessential nature of every individual act and gesture by de-contextualizing them and suspending them outside time, robbing them of the potential to register as part of a chain of signification: Lessing's 'pregnant moment' was replaced by the 'aborted' or 'empty' moment, what Deleuze calls the 'any-moment-whatever'.[66]

Earlier I suggested that the introduction of an 'external' mirror (the camera) had the effect of undermining the belief in an 'internal' mirror (the body as an image of the mind). I have to slightly modify my claim. By arresting movement, instantaneous photography revealed something dead, mechanical, automatic or unconscious at the very core of life (life=movement) thereby undermining the notion of a singular, absolutely self-present self that expresses or manifests itself fully and purposefully through its movements. Paradoxically, the discovery that the mind and the body are not absolutely co-expressible depended on reaffirming exactly the assumption that was being challenged in the first place: it was precisely because on some level the body continued to be thought of as an 'image' (or mirror) of the mind that it was now possible to conclude — based on the photographic evidence of the body's automatism (the mechanical, the dead, or the automatic exposed through the arresting of supposedly purposeful, fully conscious movements) — that the mind is not absolutely self-present either but rather inherently dual or even multiple. On the other hand, instantaneous photography's ability to arrest movement further undermined the previously assumed mirror relationship between mind and body: by arresting movement, instantaneous photography exposed

every movement as made up of multiple meaningless, random, empty moments devoid of any significance outside of a sequence of uninterrupted movement. These autonomous instants failed to signify and were sometimes even 'guilty' of mis-signification. Whereas an uninterrupted movement could convey a body's exhaustion, for instance, the arresting of the body's uninterrupted movement produced a series of de-contextualized instants whose 'meaning' (the state of exhaustion they were supposed to express) could be easily misread as conveying, in fact, the opposite impression of energy: an individual instant could create the impression of an energetic body whose exhaustion became evident only when the whole movement unfolded uninterrupted.

Motion studies by Eadweard J. Muybridge, Étienne-Jules Marey, and Albert Londe demonstrated that a movement can be broken down into multiple, increasingly smaller constitutive elements; when viewed in its entirety, the movement appeared to be the repetition of this series of elements/fragments. That a movement could thus be broken down and analyzed suggested not only that it is internally constituted by repetition but, more importantly, that the movement itself is inherently repeatable/analyzable (e.g. comparable to other similar or dissimilar movements, and thus demanding a taxonomy of movements). By underscoring the habitual nature of simple daily movements (such as walking, running, bending) the camera also pointed to their inherently obsessive or neurotic nature (insofar as obsession/neurosis is defined in terms of repetition). At the same time, instantaneous photography

provided shocking views of movement suspended in distorted, unnatural postures, demonstrating that what one had previously considered 'normal' movements might conceal deep-seated pathologies. Insofar as instantaneous photography suggested the possibility of all movements being inherently neurotic — analyzable into a series of repetitions — the line separating normal from abnormal movements became increasingly blurred. If all movements were constituted by repetition, it was no longer possible to maintain that the unconscious, repetitive, automated movements of the mentally ill/the insane were symptoms of some underlying mental disturbance.

3. The aesthetics of science

Instead of providing evidence in support of physiognomic theories, photography exposed the *aesthetic*nature of supposedly 'pure' scientific questions thus drawing attention to madness and sanity as performative tropes.[67] For instance, Duchenne de Boulogne defended his scientific method[68] on the ground of its applicability not only to anatomy and physiology but also to art, in particular painting and sculpture.[69] He famously criticized *Laocoön*, whose forehead he deemed anatomically incorrect, provoking critics to accuse him of reducing art to anatomical realism. Duchenne justified his use of photography in scientific experiments on account of its *technological superiority to art*: "Skillful artists have tried in vain to represent the faces of my subjects; for the contractions provoked by the electrical current are of too short a duration for an exact reproduction of the expressive lines that develop on the face to be drawn or

painted. Only photography, as truthful as a mirror, could attain such desirable perfection."[70] However, he acknowledged that the success of his scientific experiments depended, to a large extent, on achieving a certain *artistic effect*: "Art does not rely only on technical skills. For my research, it was necessary to know *how to put each expressive line into relief by a skillful play of light*."[71] Indeed, he argued in favor of the technical imperfections of the apparatus he was working with — which caused parts of some of his photographs to be better focused than others — by pointing out that such imperfections produced *an appropriate* (desirable) *aesthetic effect* so that "the distribution of light is quite in harmony with the emotions that the expressive lines represent"[72]: for example, the somber passions (aggression, pain, suffering) were represented, appropriately, in chiaroscuro.

The Mechanism of Human Facial Expression contains a list of illustrations followed by two sections, a scientific and an aesthetic one. In the scientific section Duchenne speaks of his dedication to the truthful representation of his subjects' expressive lines; however, in the aesthetic section he underscores the importance of an overall aesthetically pleasing picture of his subjects. In the notes on individual plates he describes each plate as a 'scene' and narrates it as though it were a mini narrative; as he tries to explain the particular emotion represented there he often makes use of terms like "depict" and "portray," which one would expect to find in an art review rather than in the account of a scientific experiment. It was precisely Duchenne's strong interest in *the aesthetic appeal of his scientific*

experiments that prompted him to take into consideration his readers' complaints that his original subjects were too ugly, eventually repeating his experiments with more aesthetically pleasing subjects.

This merging of aesthetic with scientific concerns informed, as well, another pioneering work of the period, Charles Darwin's 1872 *The Expression of the Emotions in Man and Animals*[73] devoted to the study of 'abnormal' faces (those of infants, the insane, and the 'racially other'). Darwin included both photographs and engravings in his book but the majority of the engravings were used to illustrate the sections dealing with expression in animals and "insane people." Although cost must have certainly been a factor in his choice (engravings were cheaper than photographs), the engravings were used to add*dramatic emphasis*, which set them apart from the photographs of normal expressions.[74] Darwin reproduced some of Duchenne's photographs, but he also solicited the London commercial photographer Oscar Rejlander. Given Darwin's desire to produce an objective study of expression, his decision to collaborate with Rejlander was odd at best since Rejlander was mostly known for advocating photography as an art form rather than a research instrument. Indeed, Rejlander posed for some of the illustrations himself, artificially inducing, like Duchenne had done before him, particular facial expressions.[75] His photographs were ultimately closer to *simulation* than to *evidence*. Although Duchenne and Darwin contributed to the establishment of photography's use in scientific research, their work demonstrated that photography did not simply reaffirm the positivist, essentialist view of insanity as permanent, visually inscribed and

recordable but, instead, revealed the performative nature of insanity. Ironically, precisely at the moment when the camera made its first appearance, apparently offering an objective record of pathology, scientists and philosophers began to question the idea of pathology as visually inscribed, wondering instead whether pathology might not be visually inaccessible i.e., *psychological* and whether it was not, in fact, inherent in *normal* physical and psychological processes.

CONCLUSION

The limitations of photography's uses in psychiatry were rooted in photography's claims to universality. H. Oppenheim, a leading 19th century neurologist, justified the analysis of static representations of expression by referring to Lessing's *Laocoön*. Oppenheim argued that *static* images of expression (sculpture, photography) can serve as means of examining the *total* range of expressions. It was precisely this notion of the *universal/static* nature of expression that film would challenge, emphasizing instead the *individual/transitory/relative* nature of madness. Charles Darwin was among the first to question the assumed objectivity of psychiatric photography: "Though photographs are incomparably better for exhibiting expression than any drawing, yet I believe it is quite necessary to study the previous appearance of the countenance, its changes, however small, and the living eyes, in order to form any safe judgment."[76] Once serial photography made it possible to represent the fleeting, transitory nature of insanity, instead of capturing a single, static moment and abstracting it into a general pattern, once the physical

characteristics of insanity became as fluid as the mental aberrations they were supposed to reflect, the boundaries separating the sane from the insane grew increasingly blurred. Film played an important role in the transition from static, universalizing psychiatric paradigms, which constructed madness in terms of fixed, stylized states, to increasingly dynamic styles of psychiatry.

Cinema modernized psychiatry. Arguments to that effect inform the very first work of film theory, Münsterberg's *The Photoplay* (1916), as well as recent research on the intersection of psychiatry and new media technologies (e.g. F. Kittler's *Gramophone, Film, Typewriter*, 1999). From the point of view of Münsterberg's 'psychotechnology', each psychic apparatus is also a technological one, and vice versa: film techniques are not simply objectifications of particular mental functions (e.g. the flashback as an objectification of memory); rather, mental functions constitute the interface of media technologies. Recently, proponents of ecological cognitivist film theory have posited a correspondence between basic cognitive processes and particular film styles (e.g. editing styles), suggesting that radical revisions of the narrative schemas we have been using for reasons of convenience or accessibility (e.g. Hollywood classical cinema) eventually leave a mark on the cognitive skills matching these schemas i.e., *changes in film styles have the potential of affecting — indeed transforming — our mental functions*.[77] This line of research suggests that as technologies for representing madness continue to evolve, making it possible to visualize with increasing authenticity the experience of

mentally ill people, our mental functions are likely to 'adjust' accordingly, thereby becoming increasingly 'malfunctioned' in new, 'creative' ways. Some have already argued that new digital technologies, in combination with standard film editing styles, disturb and deregulate our mental functions, provoking the postmodern 'speed death of the eye' (thus reviving the discourse of modernity's pre-cinematic, shock-to-the-eye mode of visuality).[78] Recent technological innovations have made mental malfunctions available to anyone: e.g. a new type of 3-D virtual reality simulator, *Mindstorm*, allows viewers to experience an average day in the life of a schizophrenic. *Mindstorm*'s simulations, set in everyday locations and situations, move from simulation to hallucination so quickly that critics have already prophesied its use as a 'fun ride' in amusement parks.[79] Researchers at Harvard and McGill University are now working on an amnesia drug that blocks or deletes bad memories by disrupting the biochemical pathways that allow a memory to be recalled (this was the premise of the 2004 film *Eternal Sunshine of the Spotless Mind*, an interesting fact that once again brings into focus the looping effect that joins together cinema and scientific research).[80] Inasmuch as it seeks to 'improve upon' various kinds of mental disorders resulting precisely from the repression of memories, science now offers us *a rational way of becoming mad*.

Notes

[1] J.C.Lavater, *Physiognomy, or the Corresponding Analogy between the Conformation of the Features and the Ruling Passions of the Soul* (London: T. Tegg, 1775), 3. Welcome Library Rare Books Collection.

[2] *Ibid*, 11.

[3] Philippe Pinel, *A Treatise on Insanity*. trans. D. D. Davis, M.D. (New York: Hafner Publishing Company, 1962) (1801), 121. Welcome Library Collection.

[4] Sir Alexander Morison. M.D., *The Physiognomy of Mental Diseases* (London: Longman, 1840), 1. Welcome Library Rare Books Collection.

[5] Robert Macnish, *The Philosophy of Sleep*, 3rd ed. (Glasgow: W. R. M'Phun, 1830). Welcome Library Rare Books Collection.

[6] Benjamin Rush, M.D., *Medical Inquiries and Observations upon the Diseases of the Mind* (New York: Hafner Publishing Company, 1962) (1812), 310. Welcome Library Collection.

[7] Jean Etienne Dominique Esquirol, *Mental Maladies: A Treatise on Insanity* (New York and London: Hafner Publishing Company, 1965) (1845), 28. Welcome Library Collection.

[8] G. B. Duchenne de Boulogne, *The Mechanism of Human Facial Expression*. ed. and trans. R. Andrew Cuthbertson (New York: Cambridge UP, 1990) (1862), 29-30. Welcome Library Collection.

[9] Tom Gunning, "In Your Face: Physiognomy, Photography and the Gnostic Mission of Early Film." *The Mind of Modernism: Medicine, Psychology and the Cultural Arts in Europe and America, 1880-1940*, ed. Mark S. Micale (Stanford: Stanford UP, 2004, 141-172), 149.

[10] *Ibid*, 148. Conversely, R. Andrew Cuthbertson, Duchenne's editor and translator, claims that Duchenne's work remained pre-cinematic since "it did not encompass the sequential nature of facial expression. [...] While Duchenne broke the facial mask into its individual constituent facial muscle actions, Muybridge fragmented movements of the whole body into a temporal serial sequence." R. Andrew Cuthbertson, "The Highly Original Dr. Duchenne," *The Mechanism of Human Facial Expression* (225-242), 231.

[11] Physiognomic theories remained somewhat influential as late as 1900. See, for instance, Frank Ellis, *Physiognomy: The Science of Physiognomy Explained in the Form of Question and Answer* (Blackpool: The Ellis Family, 1901).

[12] By the end of the century, insanity stopped being equated with a loss of the ability to reason (a breakdown in the association of ideas): "Reason is the just comprehension of cause and effect, or common sense. Now only a part of the accepted varieties of insanity imply disturbance of this, the crowning power of the mind. Mania is only an unusual hurrying of the psycho-physical action of the higher mammals involving as essential no disturbance other than one of a temporal sort. Melancholia is, on the other hand, a too long continuance of painful thoughts. It is in paranoia that we see a loss in reason in the technical sense of the word" (510). George V. Dearborn, "The Criteria of Mental Abnormality," *Psychological Review* 5 (1898): 505-510.

[13] Max Nordau, *Degeneration* (London: Heinemann, 1920) (1892), 52. Welcome Library Collection.

[14] *Ibid*, 21.

[15] It is instructive to juxtapose Nordau's account of degenerates' 'defective attention' with early French film theory. For Nordau, when a perception arouses a representation, which in turn provokes a series of other associated representations, the healthy mind suppresses those representations contradictory or not rationally connected with the first perception; by contrast, early film theorists (e.g. Jean Epstein) praised cinema's potential to bypass the automated, rational association of ideas, encouraging instead the free, playful association of contradictory or irrational ideas.

[16] Interestingly, photographers — assumed to produce objective visual records of degeneracy — were not immune to degeneracy. In a paper read to the Photographic Society in 1893, P. H. Emerson observed that photography, "when not scientific or topographical, is a pastime dangerous in many respects, as apt to foster morbid vanity in the degenerate." P.H. Emerson, "Naturalistic Photography and Art," a paper read to the Photographic Society, March 1893, included as ch.4 in*Naturalistic Photography for Students of the Art*, 3rd ed., 1899, New York: Arno Press, 1973).

[17] Janet cited in Nordau, 111.

[18] Josef Breuer and Sigmund Freud, "The Case of Fraulein Anna O.," *1900: A Fin de siècle Reader* (London: Penguin, 2000, 141-144), 142.

[19] *Ibid*.

[20] Theodore Ribot, *The Psychology of Attention* (Chicago: The Open Court Publishing Company, 1890), 10.

[21] E. Azam, Amnesie périodique ou dédoublement de la personnalité (Bourdeux: Librarie Feret & Fils, 1877), 16.

[22] *Ibid*, 14.

[23] Henri Bergson, *Matter and Memory* (Cambridge, MA: Zone Books, 1990).

[24] The notion of doubling is essential to Bergson's philosophy, in which the present is always split into actual (perception) and virtual (memory). Déjà vu is the ultimate proof of the inherently double nature of the subject.

[25] Henri Bergson, *Mind-Energy* (New York: Palgrave Macmillan, 2007) (1919).

[26] Nevertheless, he distinguished morbid or abnormal mental states into those characterized by a general impoverishment of mental life (amnesia, aphasia, paralysis) from those that actually enrich mental life (hallucination, delirium, obsession).

[27] Bergson, *Mind-Energy*, 125.

[28] *Ibid*, 42-43.

[29] Cited in Jonathan Auerbach, "Caught in the Act: Self-consciousness and Self-rehearsal in Early Cinema." *Le Cinématographe, nouvelle technologie du XXe siècle/The Cinema, A New Technology for the 20th century*, ed. Andre Gaudreault, Catherine Russell, and Pierre Veronneau (Cinéma: Editions Payot Lausanne, 2004), 94.

[30] Fin de siècle formalized self-reflexiveness: crucial to the shift in this period within Freud's work from *Studies of Hysteria* to *Project for a Scientific Psychology* (1895) and *The Interpretation of Dreams* (1899) was the relationship between ego-formation and narcissism. See Jan B. Gordon, "'Decadent Spaces': Notes for a Phenomenology of the Fin de Siècle." *Decadence and the 1890s*, ed. Ian Fletcher (London: Edward Arnold, 1979), 31-58.

[31] Auerbach 91. Tom Gunning also draws attention to an internal split within the early (proto-schizophrenic) spectator, whether it is between illusion and reality (Gunning) or between consciousness and self-consciousness (Auerbach). See "Phantasmagoria and the Manufacturing of Illusions and Wonder: Towards a Cultural Optics of the Cinematic Apparatus,"*Le Cinématographe, nouvelle technologie du XXe siècle*, 43.

[32] Diamond's photographs are reproduced in Joel-Peter Witkin, *Harm's Way: Lust and Madness, Murder and Mayhem: A Book of Photographs* (Santa Fe, NM: Twin Palms Publishers, 1994).

[33] Adrianne Burrows and Iwan Schumacher, *Portraits of the Insane: The Case of Dr. Diamond* (London and New York: Quartet Books, 1990) (1979), 35-49. New York Public Library Special Collections (Photography Room). On the debates surrounding photography's relation to art and science, see Mary Warner Marien, *Photography and Its Critics: A Cultural History, 1839-1900* (Cambridge: Cambridge UP, 1997), chapter 5.

[34] Welcome Library, London.

[35] Porter cited in Burrows and Schumacher, 43.

[36] On the implications of the production of multiple reproductions of reproductions, see Marien, chapter 1.

[37] Albert Londe, Officier d'Académie, Directeur du service photographique à l'hôpital de la Salpêtrière, *La Photographie dans les arts, les sciences et l'industrie* (Paris: Gauthier de la Bibliotheque Photographique, 1888), 23-24. Microfische. Bibliothèque National de France.

[38] Albert Londe, *La Photographie Instantanée: Théorie et Pratique* (Paris: Gauthier-Villars, Impremiur-Librairie, 1886), 142. Microfische. Bibliothèque National de France.

[39] Albert Londe, *La Photographie Moderne* (Paris: Cripto, 1986), 1.

[40] E. Frippet, *La Pratique de la Photographie Instantanée par les appareils a main (avec méthode sur les agrandissements et les projections et notes sur le cinématographe*, ed. J. Fritsch. Preface de Albert Londe (Paris: Librairie Scientifique et Industrielle, 1899), 72. Microfilm. Bibliothèque National de France.

[41] Albert Londe, Officier d'Académie, Directeur du service photographique à l'hôpital de la Salpêtrière. *La Photographie dans les arts, les sciences et l'industrie* (Paris: Gauthier de la Bibliothèque Photographique, 1888), 12. Microfische. Bibliothèque National de France. One way the photographer can manipulate his subject in order to produce a more realistic photograph, Londe advises his students, is to always situate the subject in his corresponding environment i.e., embodying his *social role*: "Un bûcheron dans le bois, un pêcheur sur le bord de la rivière ne seront pas déplacés. Évitez le monsieur en chapeau haute-forme et en redingote qui vient souvent faire tache dans une épreuve d'ailleurs fort réussie." Ibid, 14.

[42] Ibid.

[43] Ulrich Bauer cited in Tom Gunning, "Bodies in Motion: The Pas de Deux of the Ideal and the Material at the Fin de Siècle." *Arrêt sur image, fragmentation du temps. Aux sources de la culture visuelle moderne. Stop Motion, Fragmentation of Time. Exploring the Roots of Modern Visual Culture*, ed. Francois Albera, Marta Braun, and Andre Gaudreault (Cinéma: Editions Payot Lausanne, 2002), 26. Recent work on madness and cinema continues to draw attention to the inherent predisposition to madness of the cinematic apparatus (cinema's displacement of space and time is fundamental to a range of mental illnesses): "Le déire et les stratégies du montage larguent aisément les amarres de l'espace et les coordonnées chronologiques du récit. La folie de [Kubrick's] *Shining* est complice des puisances du cinéma. Les effets, procedes, truquages, raccourcis, jongleries du décor et passé-passe du temps ne sont pas étrangers aux processualités muettes de la psychose, ni aux programmes technologiques d'une schizophrénie 'mondialisée'. See Jean-Claude Polack, "Une delire nostalgique." *La raison en feu, ou la fascination du cinéma pour la folie*. Ouvrage coordonné par Carole Desbarats (Saint-Sulpice-sur-Loire: L'ACOR, 1999), 23-27.

[44] One of the ways in which the new sciences of mind attempted to establish their authority was by emphasizing the link between their epistemology and the popular history of mental illness. For instance, Charcot sought to affirm his somatic view of illness by foregrounding the visual continuity between photographs of the insane included in the *Nouvelle Iconographie de la Salpêtrière* and the first French illustrated atlases of mental illness, for instance Esquirol's: "For Charcot, older images from high and popular art had validity as proof if their visual structures could be echoed in modern, high-tech media such as photography" (Gilman, *Picturing Health and Illness*, 22-23).

[45] Gunning reminds us that Charcot was not a neutral observer merely recording the hysterical attacks of his patients: "Charcot occasionally provoked an attack of hysterical epilepsy in his female patients by means of a sudden flash of brilliant electrical light within a darkened room, the very flash which made the photograph of their reactions possible" ("Bodies in Motion" 26).

[46] Gunning follows the influence of this freezing of the body-in-motion in absurd and ungainly postures in the work of Dega, Rodin and Duchamp, linking their representations of the body out of control, the sick and decadent body, to Charcot's hysterical bodies. The obsession of Charcot and his contemporaries with using various technical means to record deviations from normality shows that "[p]hotographic technology served as a means of rational defense against the lack of physical and mental control of hysteria" ("Bodies in Motion" 26).

[47] Rae Beth Gordon, “From Charcot to Charlot: Unconscious Imitation and Spectatorship in French Cabaret and Early Cinema” in *The Mind of Modernism*, 93-124. 94.

[48] Porter, 2.12.

[49] Ian Hacking, *Rewriting the Soul: Multiple Personality and the Science of Memory.* (Princeton, NJ: Princeton University Press, 1995), 31.

[50] Stanley Cavell, *The World Viewed* (Cambridge, MA: Harvard UP, 1979), 128.

[51] Leo Charney, *Empty Moments: Cinema, Modernity and Drift* (Durham, NC: Duke UP, 1998).

[52] Mary Ann Doane, *The Emergence of Cinematic Time: Modernity, Contingency, the Archive* (Cambridge, MA: Harvard UP, 2002).

[53] See Stephen Kern, *The Culture of Time and Space* (Cambridge, MA: Harvard UP, 2003).

[54] Benjamin argues that the modern subject is increasingly incapable of registering and integrating new experiences. Bombarded with visual and audio stimuli, his consciousness shrinks back from new shocks, leading to an ‘impoverishment of experience’; the loss of immediate experience forces the subject to replace it with memories in a vain attempt to compensate for the loss. However, considered from a different point of view, this so-called ‘impoverishment of experience’ appears almost as a blessing in disguise: Benjamin goes on to celebrate cinema’s potential to unlock ‘the optical unconscious’ — which includes all direct experiences that have remained un-integrated, accessible only to involuntary memory — thereby tapping into a formidable source of surprising, fresh experiences that are simply ‘waiting’ for the camera to reveal them. In *A Small History of Photography* (1931) Benjamin makes explicit the causal relationship between the invention of photography and the ‘discovery’ of the unconscious by arguing that photography’s automatism reveals reality’s inherent ‘automatism’ i.e. its ‘optical unconscious’.

[55] In *On Photography* (New York: Delta Books, 1977) Susan Sontag also links the birth of photography to skepticism. She describes the 19th century as “the new age of unbelief [which] strengthened the allegiance to images” (153). On film and skepticism, see D. N. Rodowick, *The Virtual Life of Film* (Cambridge, MA: Harvard UP, 2007).

[56] Stanley Cavell, “Psychoanalysis and Cinema: the Melodrama of the Unknown Woman,” *The Cavell Reader*, ed. Stephen Mulhall (Hoboken, NJ: Wiley-Blackwell, 1996), 244.

[57] Stanley Cavell, "*Mr. Deeds Goes to Town*," *Cities of Words: Pedagogical Letters on a Register of the Moral Life*(Cambridge, MA: Belknap Press, 2004), 190-208.

[58] *Ibid*, 200.

[59] *Ibid*, 199.

[60] *Ibid*, 204-205.

[61] *Ibid*, 205.

[62] Ian Jeffrey, *Photography: A Concise History* (New York and Toronto: Oxford UP, 1981), 10. On the idea of photography as nature's spontaneous reproduction, see Mary Warner Marien, 1-21. The notion of photography as a component of nature and as an idea predating the technical development of photography foreshadows Bazin's ontology of the film image (film affects us as a thing of nature) and his notion of 'total cinema.'

[63] Charles Musser examines the debate around photography and truth (and by implication the distinction between 'objectivity' and 'truth') by formulating the question thus: do the precision and supposed neutrality of photography prove that photography captures the truth, or is it that precisely because of its precise and factual nature photography misses the truth? See Charles Musser, "Changing Conceptions of Truth in Photography, Chronophotography and Cinematography, 1887-1900." *Arrêt sur image,* 69-90.

[64] Albert Londe, *Photographie Moderne* (Paris: G. Masson, 1888), 166. Londe discusses the radical shift in the conceptualization of hysteria as a representative mental illness, from Charcot's notion of hysteria, which stressed its physical manifestations, to Freud's redefinition of hysteria emphasizing its linguistic expression.

[65] *Ibid*, 169.

[66] Critics like W. de W. Abney argued that instantaneous photographs were untrue and artistically incorrect and urged photographers "to represent only those phases of action which approach that of rest." Beaumont Newhall, *The History of Photography: from 1839 to the Present Day* (New York: MOMA, 1964), 86.

[67] On the role of aesthetic considerations in medical training and diagnosis, and on the artistic intertextuality of images of health and illness, see chapter 2 in Gilman, *Picturing Health and Illness*.

[68] Duchenne explains his method as follows: “Au moyen d’électrodes, il contracte séparément un ou plusieurs muscles de la face, composant a volonté les expressions les plus diverses. Mail la contraction est passagère: l’irritabilité [du muscle], après quelques seconds d’action continue, semble s’affaiblir sous l’influence d’un courant a intermittences tres rapprochies. De la vient la nécessité de photographier rapidement les expressions produites par l’expérimentation électro-physiologique” (83).

[69] Indeed, he insisted on the validity of his scientific experiments by drawing a parallel between his experiment and a work of art (a painting). For example, he claimed that his experiments with facial muscles served to unmask a similar illusion in art, the illusion that when certain colors or shades are placed next to each other they appear differently than when we see them isolated.

[70] Duchenne, 36.

[71] *Ibid*, 39, my italics.

[72] *Ibid*, 40.

[73] Charles Darwin, *The Expression of the Emotions in Man and Animals*. 3rd ed. (London and New York: Harper Collins Publishers, 1998) (1872). Welcome Library Collection.

[74] Phillip Prodger, “Photography and the Expression of the Emotions” in Darwin, *The Expression of the Emotions*, 399-410. 400.

[75] On Rejlander’s high art photography, see Marien, 86-91.

[76] Darwin cited in Gilman, *Seeing the Insane*, 182-183. Freud, of course, would insist on the exclusion of photography and any visual representations of insanity from psychoanalysis, emphasizing the importance of ‘the third ear’ over ‘the eye’. See P. Morel et C. Quetel, “Reflexions sur les représentations iconographiques de l’áliené au XIXe siècle” in *Art et folie*, ed. Y. David-Peyre (Université de Nantes: 1984), 155-173. “Si de la physiognomie à la phrenology, on a pu aboutir en 1861 avec Broca a une théorie neurologique des localizations cérébrales le passage de la physiognomie au portrait ‘didactique’ d’áliené et aux supports idéologiques qu’il suppose, échappe a son propos car il ne correspond pas finalement a l’objet de la psychiatrie. Non pas seulement parce que l’élimination de tout aspect dynamique rend l’image inadequate mais surtout, parce que, des le fin du XIXe siècle, les apports de la psychologie des profondeurs et en particulier de la psychoanalyse, allaient montrer que la discipline psychiatrique est affaire d’écoute plutôt que de regard. Et depuis un quart de siècle, l’illustration a disparu des ouvrages de psychiatrie…en attendant le relais des nouvelles techniques audiovisuelles” (169).

[77] Joseph Anderson, *The Reality of Illusion: An Ecological Approach to Cognitive Film Theory* (Carbondale, IL: Southern Illinois UP, 1996).

[78] Tim Blackmore, "The Speed Death of the Eye: The Ideology of Hollywood Film Special Effects," *Bulletin of Science, Technology & Society*, Vol. 27, No. 5 (2007): 367-372.

[79] Rebecca Lee, "Virtual Reality Experience Mimics Schizophrenia to Teach Health Professionals about Their Patients."http://www.abcnews.go.com/WN/story?id=3348856

[80] Bill Christensen, "New Drug Deletes Bad Memories."http://www.livescience.com/health/070702_bad_memories.html

Temenuga Trifonova is Assistant Professor of Film Studies at York University in Toronto. She is the author of *The Image in French Philosophy* (Amsterdam and New York: Rodopi, 2007) and *European Film Theory* (New York: Routledge, 2008). Her articles have appeared (or are forthcoming) in journals such as *Cineaste*, *CineAction*, *Film and Philosophy*, *SubStance*, *European Journal of American Culture*,*Quarterly Journal of Film and Video*, *Kinema*, *Scope*, *Postmodern Culture*, *International Studies in Philosophy*, *The Wallace Stevens Journal*, *Interdisciplinary Literary Studies* and in several edited collections.