MORPHING BODIES AND MECHANICAL EYES

A REASSESSMENT OF THE PHOTOGRAPHIC ICONOGRAPHY OF THE SALPÊTRIÈRE

By Emily Pelstring

Photography's unique ability to render visible what is ordinarily invisible lends it to scientific observation and artistic expression alike. Jean-Martin Charcot and his colleagues exploit this capacity of the photograph in their documentation of hysteria—work that is located at a blurry intersection between art and science. The photographs taken at the Salpêtrière women's asylum in Paris, France, for their original publication in *La Nouvelle Iconographie de la Salpêtrière* (1881), came to my attention through Georges Didi-Huberman's book, the *Invention of Hysteria* (2003). They depict, through a clinical eye, patients that are mid-gesture, in the throes of hysterical fits.

The hysteria documents exemplify an instance where the power of the performed gesture is focalized by doctors in the production of identities, and where the power of the photographic apparatus is deployed in the production of gestures. I intend to show how the body and its gestures might have been understood in the field of neuropsychiatry at the time these photographs were exposed, and then I will look at the means by which machines produce gestures with some degree of autonomy. Given a new understanding of the independent functions of imaging technologies, it will be possible to argue that there are some manners in which the technologies of representation actually participate in the production of bodies.

A line of logic will underlie this analysis: if bodily gestures are expressive, and if they express the intentions of a subject, then one's subjecthood is at least partially determined by

one's capacity to express meaning through gesture. If subjecthood is to some extent dependent upon the ability to communicate in the form of bodily movement, and if the photographic apparatus reproduces this movement in a process that is inherently manipulative, and so, productive, then the apparatus itself has agency in processes of subjectivation[1].

Three video stills from *Embedded* by Emily Pelstring 2007. I re-staged poses from the photographs of Hysterical patients as *tableau vivants,* and then projected and re-photographed the footage several times on 16-millimeter film and mini-DV, alternately.

I. The Morphing Body and Medical Discourse

The body is a disorderly mass that is constantly changing, and the role of science is to order this chaotic heap. As early as the 14th century, illustrated prints served to document autopsies and diagram anatomy. These prints, though they include decorative elements, serve a practical purpose: to freeze a decaying body in time so that it can be studied in depth and subsequently organized. There are numerous instances of this blending of scientific documentation with artistic craftsmanship throughout medical history. The 16th century publications of anatomist Andreas Vesalius are well-known examples. Fast-forward to the period in which Didi-Huberman situates the "invention" of hysteria, and the disciplines of image-making and medicine are still linked in their efforts to immobilize the bodily mass through the production of images in order to get a better look at it—to make visible the invisible by making permanent the fleeting image of the organism in motion.

By the late 1800s, two important changes have taken place that will affect the production of imagery in the medical field. The invention of photography marks a shift in the association of an image-object with reality, leading to a belief, within scientific *milieus*, in the empiricism of the photograph[2]. At the same time the field of neuropsychiatry, with Jean-Martin Charcot as its prominent figure, begins to focus on the surface of the body as the site of expression of mental illness[3]. Disorders manifested by involuntary bodily movements are pathologized. Erratic gestures are pinpointed as symptomatic of psychological conditions[4]. Note that, in the case of hysteria, the patients' testimonials aren't enough for credibility in the scientific community—what constitutes an adequate description of the hysterical fit comes in the form of a set of images of the body. "In the words of Albert Londe, director of the photographic department of the

Salpêtrière in the 1880s, 'the photographic plate is the scientist's true retina'" (Didi-Huberman 32).

In Charcot's photographs, a very specific sequence of bodily positions is represented as indicative of a mental condition. What accounts for the belief that the body would manifest non-physical illness in the form of a dance? Janine Marchessault notes that the discovery of the Law of Conservation, which states that energy can neither be created nor destroyed, informed a new understanding of the body and life: "The distinction between nature, technology, and the human body are obliterated by the concept of an energy force that permeates all aspects of life. Consequently the body becomes a fluid, malleable mass" (Marchessault 24). The boundary between the body and the world was eliminated by the concept of work defined by locomotion, which is common to both animal and machine—a phenomenon that inspired the studies of physiologist Etienne-Jules Marey. "'From the invisible atom to the celestial body lost in space', Marey proclaims, 'everything is subject to motion... It is the most apparent characteristic of life…." (Marey quoted in Marchessault 24). Perhaps the popularization of the conception of movement as *the* essential characteristic of life accounts for the fact that innovators in the field of science were most curious about the movements of the body.

As a physiologist, Marey created technologies that imaged human gestures such as the gait in an effort to expose the mechanics of locomotion, since this held some key to understanding the very force of life (Marchessault 22). The chronophotograph, an important pre-cinematic innovation, consisted of multiple sequential images composited onto a single glass plate. In the analysis of human locomotion, chronophotography renders the body's movement visible by dissecting it into a sequence of "privileged instants"[5].

The publication of Charcot's photographs of hysterical patients coincided with Etienne-Jules Marey's first experiments in sequential photography, as well as those of his contemporary, Eadweard James Muybridge. The photographs that comprise the documentation of hysteria are testament to a proto-cinematic sensibility, as they are serial and depict moments severed from their original context. The illustrated "Synoptic Table" that Charcot published in his original *Iconographie de la Salpêtrière* organized the hystero-epileptic fit into a sequence of still positions with an explicit progression. But it leaves us wondering what happens between positions. How does the subject move from one pose to the next? Does she wait for a cue from the doctor? Does she wait for them to re-set the lights? Or does she coincidentally have her attacks in perfect harmony with the photographic apparatus, assuming a beautiful pose whenever the photographer happens to be ready? Like the frames of a film strip, the photographs that support the positions on the chart remove an instant from time, leaving us to imagine the before and aftermath. Movement exists only in the interstices between positions of rest—interstices that are missing, or left to the imagination, in the serial documentation of hysteria.

The obsession within the scientific community with the effective documentation of involuntary gestures culminated in 1905 when two neurologists, William Spratling and Walter Greenough Chase produced a series of films entitled the *Neurological Cinematographic Atlas*. The films documented epileptic seizures at the Craig Colony for Epileptics in upstate New York, where over one hundred epileptics wearing easily removable cloaks were sent to work on farmland. Whenever a patient started having a seizure, their clothing could be removed and they could be carried to a place within range of the camera. It was necessary to carefully distinguish between normal and pathological movements, or voluntary and involuntary movements, in order to make a diagnosis. With the use of cinematic surveillance at the Craig Colony, the difference

between normal and pathological movement could be scrutinized frame-by-frame, magnified by the projector, and viewed repeatedly as a film loop (Cartwright 48). The movement is not simply frozen, it is frozen and re-constituted in an illusion, and this reconstituted movement can be controlled by pausing and reviewing the footage.

Lisa Cartwright makes several observations in *Screening the Body* (1995) that help us to understand attitudes toward bodily movement at the turn of the century. Namely, she notes that the symptoms of epilepsy are understood as gestural perversions, and that perversions are perceived as such because they subvert the order of meaningful, expressive, or functional acts (54). Involuntary bodily movements, as in Tourette's syndrome or epilepsy, are considered dangerous because they strip movement of its communicative functionality (Cartwright 53). Returning to the line of logic we began with, the communicative aspect of the gesture is what enables a subject to exist as such. If this communicative function is compromised by bouts of involuntary movement, the status of the subject is likewise compromised.

Cartwright compares pre-cinematic studies of movement and the hysteria documents to the *Neurological Cinematographic Atlas* in terms of the manner of gender representation that is consistent throughout all examples. Muybridge places women in narrative contexts, often domestic. Chase and Spratling's epileptic women are always clothed in costumes consistent with that established in Charcot's iconography of hysteria. Their seizures are reminiscent of the graceful movements suggested by the hysteria documents, while male patients are nude and recorded having more frenetic seizures (Cartwright 67). In this way, the technologies of representation have offered technicians space for manipulation in their theatrical representation of the figure.

What Charcot's use of photography and Chase's and Spratling's use of cinema have in common is that in both cases, the technology requires them to misrepresent for the sake of clearer illustration, for reasons such as the reality that "your patient is not always so obliging as to have his seizure out of doors in an available place and also at a time when the sun is at its best" (Chase in Cartwright 58). Efforts to "draw out a display of involuntary movement" for the purposes of the films weren't uncommon (Cartwright 60). Techniques for the artificial induction of convulsions were admitted to and cited in reports by the doctors, such as "muscular excitation with the subject in hypnosis" (Dercum in Cartwright 60). Mimed pathological expression was also used for illustrative purposes. At the Salpêtrière, contractures and catalepsy, conditions whereby hysterics would freeze into interesting positions, conveniently lasted between 30 and 50 seconds, which may have been a perfect duration for the exposure of a photograph (Didi-Huberman 199-203). The poses that were chosen as indicative of the hysterical condition look controlled and contrived, and the subjects seem like trained dancers.

One might argue that these examples represent outmoded conventions of imaging, but they do beg us to question the political implications of contemporary medical imaging. Based on the examples cited thus far, it is apparent that medical imaging technologies have been used to visualize what is naturally invisible. As a prime contemporary example of this, Marchessault cites the ultrasound as a means of viewing the fetus: "The separation of the fertilized egg from the interior of a woman's body imbues the egg with subjectivity while rendering the female body transparent. That is, a new subject is born at the expense of the maternal body which becomes… merely a carrier" (Marchessault 35). The mother is given, through the image of the fetus, a new identity as housing for an unborn baby, and the unborn baby, since it can be seen, is granted subjecthood. These fetal images, and the new identities that result from their reception by the

public, have been strategically mobilized by right-to-life groups in the political argument around abortion.

Technological advancements in the mechanical reproduction of images have made it possible to sever the living body from its image, and have provided opportunities for the manipulation of the image in its social reception. Is medical surveillance, then, a spectacular violence? Taking the complex nature and objectives of medical imaging into consideration, it might be necessary to broaden the concept of misrepresentation beyond the level of theatrics through an investigation of the activities of the photographic apparatus.

Perhaps it is possible to think of ways that misrepresentation is inherent to the very materiality of the photographic process. The invention of photography is part of a realist effort to standardize the visual field—an effort that is continued in the contemporary entertainment industry, where preference is given to higher resolution formats based on a valorization of their higher fidelity to reality. A belief in the very *possibility* of a faithfully reproduced image is illusory and potentially dangerous, and is perpetuated through decision-making during the development of new imaging technologies. Any discourse that prioritizes fidelity to reality must also value the reproduced image as a possible document of the world, and must take for granted that processes of documentation can be fixed and certain. However, if the processes behind reproduction are considered dynamic, it becomes clear that neither is any mechanically reproduced image a record of the real, nor is the photograph marked by indexicality and stillness.

II. Illusions of Movement and Stillness:

The Independent Activities of Imaging Technologies

It is evident that the cinematic apparatus reconstitutes movement in the form of an illusion. So far we have presumed "still" photography's immobility. There is a sense, however, in which this very motionlessness should be regarded as an illusion. This is not to say that the stillness of a photograph is an illusion simply because the subject that it represents was moving and the photograph represents it as still. Rather, I mean to point out that the photograph itself moves. The movement of a photograph occurs on several levels beyond the movement of that which is depicted: there is the movement of the materials themselves as they become representation, and there is movement at the level of perception as we look at the representation. Why is it important to prove that a photographic object is a dynamic entity? Because in an examination of the means by which a still image moves, we find numerous opportunities for the transformation of that image that would have otherwise been disregarded.

The photograph moves in our understanding of it as we imagine its context, as in the imagined reconstituted movement between positions of the hysterical fit. The image also moves while we perceive it. This is simply because our eyes move as we look at even a single image. Roland Barthes eloquently describes this experience of looking at a photograph, "What Marey and Muybridge have done as *operators* I myself want to do as *spectator*: I decompose, I enlarge, and, so to speak, I *retard*, in order to have time to *know* at last" (Barthes 99). Eyes move across the surface of a two-dimensional image as they register it and simultaneously imagine its context. The activity of looking is necessarily spatial, temporal, and in motion. The immobility achieved through medical imagery that freezes the body into a position is replaced with a new

mobility at the level of the perception of that image. This new mobility in the study of the image opens up a myriad of unpredictable pathways. Whoever is doing the looking is free to create the movement as it suits their purposes. The frozen gesture becomes a different gesture, one that is created during the perception of the photograph.

We have considered the ways that a photograph is manipulated at the moment of its theatrical composition, and once again in the perception of the work by an audience, but we have yet to consider where the physical movement of materials takes place. This varies greatly depending which technology is used, so for now we will inspect one of the techniques that might have been used in the 1880s for the production of the hysteria series. It is a mysterious chemical process that begins when a plate coated in silver halide crystals suspended in gelatin is submerged into a bath of pyrogallic acid. Some of the crystals have been exposed to light, refracted by a lens onto the plate. When they come into contact with the warmed chemical bath, these crystals reduce to dark metallic silver and liberate halogen in the process. The silver that has remained in shadow dissolves in a hyposulfite, and its dissolution clears parts of the plate. The now variegated plate has not become a version of the bodies whose reflections are written upon it. All materials involved—human, chemical, and mechanical, have engaged in an activity that is essentially creative. In other words, the photograph does not document the world as it is, but creates the world as it isn't.

When seen as a dynamic entity, the photograph itself bears more similarity to a living body than an inanimate object. At some moment in the process, the camera is a sensing eye with its own particular perspective. It sees while the photographer stands by and guesses how refracted light and chemicals will interact. This quality of photography, its autonomy, can be cited for contradictory purposes. The fact that the process of representation is interpretive calls

the resulting object's status as a document into question. Yet, if we ignore the fallibility of machines and the flexibility of the imaging process, as scientific discourse has, we could cite photography's autonomy as something that distinguishes it from the fallible human being.

Marey supported this view of the photographic tool as disembodied vision: "The inadequecies of sense perception, according to Marey, could be overcome by a technical vision, a 'new sense'..." (Marchessault 21). Not only is the machine an impartial judge according to Marey, but it also sees in ways that the human eye cannot: underwater, close-up, in slow-motion, inside the body, frozen in time, etcetera. Scientific documentation that has used the machine for these virtues can credit Marey's ambition. "Marey's specular regime gives ontological precedence to a visibility made possible only through technology, a visibility defined by invisibility…And with this, the machine takes on the divine power of revelation…" (Marchessault 31). The privileging of the mechanical eye over human sensoria in medical observation should be investigated more deeply.

The camera's clairvoyance and capacity for objectivity, which the scientific discourse identifies as an advantage of mechanical over human vision, is due to its independence from the photographer. If a subject can be partially defined by its capacity for sensory perception, and a sense has become automated, or divorced from human operation, in the body of the machine, then the very notion of technical vision gives the camera a degree of subjectivity. Perhaps we should consider the extent to which technical vision might be biased, and question what it is that determines this vision's specificity.

For one, the human hand intervenes in the very creation of the technology, and this has an effect on what is pictured. The clairvoyance of the apparatus is predetermined, and predetermined by whom? Inventors, whoever they may be, and whoever their investors are,

have decided not just *that* the apparatus should see but also *how* and consequently *what* it should see. The phenomenon of endoscopy and its reliance on the technique of the ultrasound is a good example of an instance where the *how* essentially dictates the *what*.

This phenomenon whereby the technique dictates the content of the imagery occurs in ways that are less than obvious. In the contemporary motion-picture film industry, film stock is chemically color-balanced for a specific Caucasian skin tone, causing the colors of other objects to be distorted. This is necessarily true since the range of colors reproducible in film stock is different than that perceivable by human eyes, which, in turn, all perceive different ranges of colors. The ideal reference frame for color balancing does not only show a color chart, depicting a limited range of solid-colored squares, but also a pale female face next to this chart. Color timers then balance colors so that this woman's skin looks "right." This woman is referred to in film industry slang as the "China Girl" in reference to her porcelain skin[6]. "China Girl" models have changed throughout the history of color film, but they are always, without exception, both Caucasian and female. This contemporary professional standard demonstrates one way that a group of technicians, as agents of a patriarchal and racist logic, have decided what constitutes the ideal image and have filtered the color palettes that get distributed to the world according to this logic.

I maintain that there is a degree of control that can be attributed to the apparatus and not the technician. The control I am referring to, though, does not manifest itself in the mythological technical clairvoyance that the scientific community invests in image machines. That kind of clairvoyance is predetermined by human invention, designed into the machines as they were created. What seems more indicative of the image machine's independence are the moments

where the apparatus does things that humans do not predict—this is where photography's independent gesture is visible.

There is always a degree of unforeseeable change when an object is interpreted as an image. Anyone who has engaged in a photographic practice knows that surprises result from the fact that the camera sees differently than any human eye. In photography's artistic use, the capacity of photographic film to enter into dialogue with the technician has been understood and celebrated. Unlike the scientific discourse, or the discourse around photograph-as-document, artists have little motivation to deny the game of guesswork, discovery, and manipulation involved in mechanical imaging practices. In my own work, the autonomy of photography, film, and video is referred to, critiqued, and utilized in critique of itself.

III. Conclusion: *Embedded*

My project, *Embedded*, within the series *Morphing Bodies and Mechanical Eyes*, unites the gesturality of the representational process at every level: that of performance, recording, and reception. The levels are inseparable, though autonomous, and between each level there are an infinite number of directions that the representation can take in its formation. This means that resulting processes by which subjects are created can likewise take any shape. Recognition that there are infinite potential formations makes it appropriate to criticize any truth claims regarding images, and to problematize the way these truth claims have produced subjects.

Through *Embedded*, I sought to expose the role of the camera in the construction of multiple potential identities. My project utilizes the navigable, nonlinear, popular interface of the menu-driven DVD as a platform, and consists of a series of video performances, still images, sound compositions, and animations made under the guise of a research team that purports to be

following up on Charcot's invention of hysteria using modern imaging technology. Several "experiments" are carried out in exercises performed by a "test subject", a role that I perform myself in addition to the role of "researcher" in an absurd one-person show. In one video, *Practice Makes Hysteric*, I assume the positions from Charcot's "Synoptic Table of the Great Hysterical Attack", only displaying the awkward transitions between poses, while I narrate an explanation of this psychological test in the voice of a researcher giving a presentation. Another example of one of the works in the *Embedded* project is the still portrait of my Research Team, in which I composite five images of myself disguised as different men, holding clipboards and various types of antique cameras, looking inquisitive, authoritative, or puzzled.

Theatrical self-portraiture creates a situation where the subjective eye behind the camera is attributed to the same person that performs as the object of the gaze. Photography, video, film, and other picturing devices are especially useful as a means of either highlighting or blurring the separation of looker/looked-at that technology enables—showing the machine for what it is: a separate eye in a complex relationship with a technician. To see the process of mechanical representation as dependent upon either apparatus or technician, without considering how they are both implicated, would allow us to dismiss some of the coding that happens in the process. Even in the relatively basic form of the glass plate photograph, there are multiple systems at play, which are inextricably linked to the technology whose very existence is predicated upon specific desires to see specific things.

The *Embedded* project aims to expose the absurdity of faith in images by treating supposed truth documents with humor. Following a trajectory of feminist artworks, beginning with Cindy Sherman's photographic series, *Film Stills*, and continuing with Orlan's multimedia surgical theater, and then Miranda July's video performance, *The Amateurist*, I mean to suggest

that the performative techniques used by the commercial/medical establishment enforce a normalized and idealized conception of femininity, and moreover incline patients towards obedience.

With new insights provided by a look at the activities of the photographic apparatus and the cultural implications of its use, we can appreciate the iconography of the Salpêtrière in terms of the effects of gender politics on its very materiality. The female subject's agency in commercial/medical contexts should be rethought with an awareness of the various locations where subjectivity is created, altered, or displaced during the production of images. To what extent is the discourse around hysteria still alive? And to what extent is the belief in the photograph-as-document still implicated in the perpetuation of this discourse?

It is necessary for an assessment of these images to question the fixedness of the process of documentation, especially in climates where there is an attitude of religiosity towards the technology of imaging, and a defense of the boundaries around established disciplines. Rigid disciplines and pre-made identities hold their shapes if they go unquestioned. My resistance to the shapes provided occurs in a search for differences as well as overlap between all mediums available. Through the use of text, dance, animation, video performance, photography, sound design, and DVD authoring, I mean to question how each technique carries its own meaning and material specificity. In combination, these techniques offer a view that can be holistic, but never whole.

Endnotes

1. In Michel Foucault's work, subjectivation is the process by which the human subject is continuously created. Works such as *Madness and Civilization* (1961), and *The Birth of the Clinic* (1963) offer noteworthy analyses of medical discourse and doctor-patient power relations.

2. As Jennifer Green-Lewis notes, by the 1840s, "photographs had begun to stand for, and as, those persons and objects they were intended to represent; they were both things in themselves (to be accumulated) and records of them (to be registered)" (1996:38). According to William Mills Ivins Jr., "As people became habituated to absorbing their visual information from photographic pictures printed in printers' ink, it was not long before this kind of visual record had a most marked effect on what the community saw with its own eyes. It began to see photographically, it stopped talking about photographic distortion, and finally adopted the photographic image as the norm of truthfulness in representation" (1953:94).

3. In a speech read before the Royal Society on May 22 1886, British Dr. Hugh Welch Diamond proclaims that "the Photographer secures with unerring accuracy the external phenomena of each passion, as the really certain indication of internal derangement, and exhibits to the eye the well known sympathy which exists between the diseased brain and the organs and features of the body" (reprinted in Gilman 1976:20).

4. For elaboration on this point, see Giorgio Agemben's "Notes on Gesture" in *Means*

Without Ends: Notes on Politics (1993), which focuses on this cultural phenomenon with more analysis of the roles of meaning and communication in regards to the performed bodily gesture.

5. Henri Bergson uses the term “privileged instant” in relation to a “cinematographic model” of thought in his text *Creative Evolution* (1911).

6. I learned about the “China Girl” standard in my personal experience working as an assistant color-timer at a motion picture film lab.

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