The New York TimesThe New York Times

The Opinion Pages

Errol Morris

Errol Morris on photography.

Existence is elsewhere.
— André Breton, “The Surrealist Manifesto”

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1. The Juice

David Dunning, a Cornell professor of social psychology, was perusing the 1996 World Almanac. In a section called Offbeat News Stories he found a tantalizingly brief account of a series of bank robberies committed in Pittsburgh the previous year. From there, it was an easy matter to track the case to the Pittsburgh Post-Gazette, specifically to an article by Michael A. Fuoco:

ARREST IN BANK ROBBERY,
SUSPECT’S TV PICTURE SPURS TIPS

> At 5 feet 6 inches and about 270 pounds, bank robbery suspect McArthur Wheeler isn’t the type of person who fades into the woodwork. So it was no surprise that he was recognized by informants, who tipped detectives to his whereabouts after his picture was telecast Wednesday night during the Pittsburgh Crime Stoppers Inc. segment of the 11 o’clock news.
>
> At 12:10 a.m. yesterday, less than an hour after the broadcast, he was arrested at 202 S. Fairmont St., Lincoln-Lemington. Wheeler, 45, of Versailles Street, McKeesport, was wanted in [connection with]

> bank robberies on Jan. 6 at the Fidelity Savings Bank in Brighton Heights and at the Mellon Bank in Swissvale. In both robberies, police said, Wheeler was accompanied by Clifton Earl Johnson, 43, who was arrested Jan. 12.[1]

Wheeler had walked into two Pittsburgh banks and attempted to rob them in broad daylight. What made the case peculiar is that he made no visible attempt at disguise. The surveillance tapes were key to his arrest. There he is with a gun, standing in front of a teller demanding money. Yet, when arrested, Wheeler was completely disbelieving. "But I wore the juice," he said. Apparently, he was under the deeply misguided impression that rubbing one's face with lemon juice rendered it invisible to video cameras.

In a follow-up article, Fuoco spoke to several Pittsburgh police detectives who had been involved in Wheeler's arrest. Commander Ronald Freeman assured Fuoco that Wheeler had not gone into "this thing" blindly but had performed a variety of tests prior to the robbery. Sergeant Wally Long provided additional details — "although Wheeler reported the lemon juice was burning his face and his eyes, and he was having trouble (seeing) and had to squint, he had tested the theory, and it seemed to work." He had snapped a Polaroid picture of himself and wasn't anywhere to be found in the image. It was like a version of Where's Waldo with no Waldo. Long tried to come up with an explanation of why there was no image on the Polaroid. He came up with three possibilities:

(a) the film was bad;

(b) Wheeler hadn't adjusted the camera correctly; or

(c) Wheeler had pointed the camera away from his face at the critical moment when he snapped the photo.[2]

As Dunning read through the article, a thought washed over him, an epiphany. If Wheeler was too stupid to be a bank robber, perhaps he was also too stupid to know that he was too stupid to be a bank robber — that is, his stupidity protected him from an awareness of his own stupidity.

Dunning wondered whether it was possible to measure one's self-assessed level

of competence against something a little more objective — say, actual competence. Within weeks, he and his graduate student, Justin Kruger, had organized a program of research. Their paper, "Unskilled and Unaware of It: How Difficulties of Recognizing One's Own Incompetence Lead to Inflated Self-assessments," was published in 1999.[3]

Dunning and Kruger argued in their paper, "When people are incompetent in the strategies they adopt to achieve success and satisfaction, they suffer a dual burden: Not only do they reach erroneous conclusions and make unfortunate choices, but their incompetence robs them of the ability to realize it. Instead, like Mr. Wheeler, they are left with the erroneous impression they are doing just fine."

It became known as the Dunning-Kruger Effect — our incompetence masks our ability to recognize our incompetence. But just how prevalent is this effect? In search of more details, I called David Dunning at his offices at Cornell:

DAVID DUNNING: Well, my specialty is decision-making. How well do people make the decisions they have to make in life? And I became very interested in judgments about the self, simply because, well, people tend to say things, whether it be in everyday life or in the lab, that just couldn't possibly be true. And I became fascinated with that. Not just that people said these positive things about themselves, but they really, really believed them. Which led to my observation: if you're incompetent, you can't know you're incompetent.

ERROL MORRIS: Why not?

DAVID DUNNING: If you knew it, you'd say, "Wait a minute. The decision I just made does not make much sense. I had better go and get some independent advice." But when you're incompetent, the skills you need to produce a right answer are exactly the skills you need to recognize what a right answer is. In logical reasoning, in parenting, in management, problem solving, the skills you use to produce the right answer are exactly the same skills you use to evaluate the answer. And so we went on to see if this could possibly be true in many other areas. And to our astonishment, it was very, very true.

ERROL MORRIS: Many other areas?

DAVID DUNNING: If you look at our 1999 article, we measured skills where we had the right answers. Grammar, logic. And our test-subjects were all college students doing college student-type things. Presumably, they also should know whether or not they're getting the right answers. And yet, we had these students who were doing badly in grammar, who didn't know they were doing badly in grammar. We believed that they should know they were doing badly, and when they didn't, that really surprised us.

ERROL MORRIS: The students that were unaware they were doing badly — in what sense? Were they truly oblivious? Were they self-deceived? Were they in denial? How would you describe it?

DAVID DUNNING: There have been many psychological studies that tell us what we see and what we hear is shaped by our preferences, our wishes, our fears, our desires and so forth. We literally see the world the way we want to see it. But the Dunning-Kruger effect suggests that there is a problem beyond that. Even if you are just the most honest, impartial person that you could be, you would still have a problem — namely, when your knowledge or expertise is imperfect, you really don't know it. Left to your own devices, you just don't know it. We're not very good at knowing what we don't know.

ERROL MORRIS: Knowing what you don't know? Is this supposedly the hallmark of an intelligent person?

DAVID DUNNING: That's absolutely right. It's knowing that there are things you don't know that you don't know. [4] Donald Rumsfeld gave this speech about "unknown unknowns." It goes something like this: "There are things we know we know about terrorism. There are things we know we don't know. And there are things that are unknown unknowns. We don't know that we don't know." He got a lot of grief for that. And I thought, "That's the smartest and most modest thing I've heard in a year."

Rumsfeld's famous "unknown unknowns" quote occurred in a Q&A session at the end of a NATO press conference.[5] A reporter asked him, "Regarding terrorism and weapons of mass destruction, you said something to the effect that the real situation is worse than the facts show…" Rumsfeld replied, "Sure. All of

us in this business read intelligence information. And we read it daily and we think about it, and it becomes in our minds essentially what exists. And that's wrong. It is not what exists." But what is Rumsfeld saying here? That he can be wrong? That "intelligence information" is not complete? That it has to be viewed critically? Who would argue? Rumsfeld's "known unknowns" and "unknown unknowns" seem even less auspicious. Of course, there are known unknowns. I don't know the melting point of beryllium.

And I know that I don't know it. There are a zillion things I don't know. And I know that I don't know them. But what about the unknown unknowns? Are they like a scotoma, a blind spot in our field of vision that we are unaware of? I kept wondering if Rumsfeld's real problem was with the unknown unknowns; or was it instead some variant of self-deception, thinking that you know something that you don't know. A problem of hubris, not epistemology. [6]

And yet there was something in Rumsfeld's unknown unknowns that had captured Dunning's imagination. I wanted to know more, and so I e-mailed him: why are you so obsessed with Rumsfeld's "unknown unknowns?" Here is his answer:

> The notion of unknown unknowns really does resonate with me, and perhaps the idea would resonate with other people if they knew that it originally came from the world of design and engineering rather than Rumsfeld.
>
> If I were given carte blanche to write about any topic I could, it would be about how much our ignorance, in general, shapes our lives in ways we do not know about. Put simply, people tend to do what they know and fail to do that which they have no conception of. In that way, ignorance profoundly channels the course we take in life. And unknown unknowns constitute a grand swath of everybody's field of ignorance.
>
> To me, unknown unknowns enter at two different levels. The first is at the level of risk and problem. Many tasks in life contain uncertainties that are known — so-called "known unknowns." These

are potential problems for any venture, but they at least are problems that people can be vigilant about, prepare for, take insurance on, and often head off at the pass. Unknown unknown risks, on the other hand, are problems that people do not know they are vulnerable to.

Unknown unknowns also exist at the level of solutions. People often come up with answers to problems that are o.k., but are not the best solutions. The reason they don't come up with those solutions is that they are simply not aware of them. Stefan Fatsis, in his book "Word Freak," talks about this when comparing everyday Scrabble players to professional ones. As he says: "In a way, the living-room player is lucky . . . He has no idea how miserably he fails with almost every turn, how many possible words or optimal plays slip by unnoticed. The idea of Scrabble greatness doesn't exist for him." (p. 128)

Unknown unknown solutions haunt the mediocre without their knowledge. The average detective does not realize the clues he or she neglects. The mediocre doctor is not aware of the diagnostic possibilities or treatments never considered. The run-of-the-mill lawyer fails to recognize the winning legal argument that is out there. People fail to reach their potential as professionals, lovers, parents and people simply because they are not aware of the possible. This is one of the reasons I often urge my student advisees to find out who the smart professors are, and to get themselves in front of those professors so they can see what smart looks like.

So, yes, the idea resonates. I would write more, and there's probably a lot more to write about, but I haven't a clue what that all is.

I can readily admit that the "everyday Scrabble player" has no idea how incompetent he is, but I don't think that Scrabble provides an example of the unknown unknowns. An unknown unknown is not something like the word "ctenoid," a difficult word by most accounts, or any other obscure, difficult word. [7] [8] Surely, the everyday Scrabble player knows that there are words he doesn't know. Rumsfeld could have known about the gaps in his intelligence

information. How are his unknown unknowns different from plain-old-vanilla unknowns? The fact that we don't know something, or don't bother to ask questions in an attempt to understand things better, does that constitute anything more than laziness on our part? A symptom of an underlying complacency rather than a confrontation with an unfathomable mystery?

I found myself still puzzled by the unknown unknowns. Finally, I came up with an explanation. Using the expressions "known unknowns" and "unknown unknowns" is just a fancy — even pretentious — way of talking about questions and answers. A "known unknown" is a known question with an unknown answer. I can ask the question: what is the melting point of beryllium? I may not know the answer, but I can look it up. I can do some research. It may even be a question which no one knows the answer to. With an "unknown unknown," I don't even know what questions to ask, let alone how to answer those questions.

But there is the deeper question. And I believe that Dunning and Kruger's work speaks to this. Is an "unknown unknown" beyond anything I can imagine? Or am I confusing the "unknown unknowns" with the "unknowable unknowns?" Are we constituted in such a way that there are things we cannot know? Perhaps because we cannot even frame the questions we need to ask?

DAVID DUNNING: People will often make the case, "We can't be that stupid, or we would have been evolutionarily wiped out as a species a long time ago." I don't agree. I find myself saying, "Well, no. Gee, all you need to do is be far enough along to be able to get three square meals or to solve the calorie problem long enough so that you can reproduce. And then, that's it. You don't need a lot of smarts. You don't have to do tensor calculus. You don't have to do quantum physics to be able to survive to the point where you can reproduce." One could argue that evolution suggests we're not idiots, but I would say, "Well, no. Evolution just makes sure we're not blithering idiots. But, we could be idiots in a lot of different ways and still make it through the day."

ERROL MORRIS: Years ago, I made a short film ("I Dismember Mama") about cryonics, the freezing of people for future resuscitation. [9]

DAVID DUNNING: Oh, wow.

ERROL MORRIS: And I have an interview with the president of the Alcor Life Extension Foundation, a cryonics organization, on the 6 o'clock news in Riverside, California. One of the executives of the company had frozen his mother's head for future resuscitation. (It's called a "neuro," as opposed to a "full-body" freezing.) The prosecutor claimed that they may not have waited for her to die. In answer to a reporter's question, the president of the Alcor Life Extension Foundation said, "You know, we're not stupid . . . " And then corrected himself almost immediately, "We're not that stupid that we would do something like that."

DAVID DUNNING: That's pretty good.

ERROL MORRIS: "Yes. We're stupid, but we're not that stupid."

DAVID DUNNING: And in some sense we apply that to the human race. There's some comfort in that. We may be stupid, but we're not that stupid.

ERROL MORRIS: Something I have wondered about: Is there a socio-biological account of what forces in evolution selected for stupidity and why?

DAVID DUNNING: Well, there's no way we could be evolutionarily prepared for doing physics and doing our taxes at the end of the year. These are rather new in our evolutionary history. But solving social problems, getting along with other people, is something intrinsic to our survival as a species. You'd think we would know where our inabilities lie. But if we believe our data, we're not necessarily very good at knowing what we're lousy at with other people.

ERROL MORRIS: Yes. Maybe it's an effective strategy for dealing with life. Not dealing with it.

David Dunning, in his book "Self-Insight," calls the Dunning-Kruger Effect "the anosognosia of everyday life."[10] When I first heard the word "anosognosia," I had to look it up. Here's one definition:

Anosognosia is a condition in which a person who suffers from a disability seems unaware of or denies the existence of his or her disability. [11]

Dunning's juxtaposition of anosognosia with everyday life is a surprising

and suggestive turn of phrase. After all, anosognosia comes originally from the world of neurology and is the name of a specific neurological disorder.

DAVID DUNNING: An anosognosic patient who is paralyzed simply does not know that he is paralyzed. If you put a pencil in front of them and ask them to pick up the pencil in front of their left hand they won't do it. And you ask them why, and they'll say, "Well, I'm tired," or "I don't need a pencil." They literally aren't alerted to their own paralysis. There is some monitoring system on the right side of the brain that has been damaged, as well as the damage that's related to the paralysis on the left side. There is also something similar called "hemispatial neglect." It has to do with a kind of brain damage where people literally cannot see or they can't pay attention to one side of their environment. If they're men, they literally only shave one half of their face. And they're not aware about the other half. If you put food in front of them, they'll eat half of what's on the plate and then complain that there's too little food. You could think of the Dunning-Kruger Effect as a psychological version of this physiological problem. If you have, for lack of a better term, damage to your expertise or imperfection in your knowledge or skill, you're left literally not knowing that you have that damage. It was an analogy for us.[12]

This brings us in this next section to Joseph Babinski (1857-1932), the neurologist who gave anosognosia its name.

(This is the first of a five-part series.)

FOOTNOTES:

1. Michael A. Fuoco, "Arrest in Bank Robbery, Suspect's Picture Spurs Tips," Pittsburgh Post-Gazette, April 21, 1995.

2. Michael A. Fuoco, "Trial and Error: They had Larceny in their Hearts, but little in their Heads," Pittsburgh Post-Gazette, March 21, 1996. The article also includes several other impossibly stupid crimes, e.g., the criminal-to-be who filled out an employment application at a fast-food restaurant providing his correct name, address and social security number. A couple of minutes later he decided to rob the place.

3. Justin Kruger and David Dunning, "Unskilled and Unaware of It: How Difficulties of Recognizing One's Own Incompetence Lead to Inflated Self-assessments," Journal of Personality and Social Psychology, 1999, vol. 77, no. 6, pp. 1121-1134.

4. David Dunning may be channeling Socrates. "The only true wisdom is to know that you know nothing." That's too bad; Socrates gives me a headache.

5. NATO HQ, Brussels, Press Conference by U.S. Secretary of Defense Donald Rumsfeld, June 6, 2002. The exact quote: "There are known unknowns. That is to say, there are things we now know we don't know. But there are also unknown unknowns. These are the things we do not know we don't know."

6. O.K. I looked it up on Wikipedia. The melting point of beryllium, the fourth element, is 1278 °C.

7. "Ctenoid" comes from one of my favorite books, "Jarrold's Dictionary of Difficult Words." I challenged a member of the Mega Society [a society whose members have ultra-high I.Q.s], who claimed he could spell anything, to spell "ctenoid." He failed. It's that silent "c" that gets them every time. "Ctenoid" means "having an edge with projections like the teeth of a comb." It could refer to rooster combs or the scales of certain fish.

8. For the inner logoleptic in all of us, allow me to recommend the Web site:

http://www.kokogiak.com/logolepsy/

One of the site's recommended words is "epicaricacy." I read somewhere that the German word "schadenfreude" has no equivalent in English. I am now greatly relieved.

9. Errol Morris, "First Person: I Dismember Mama."

10. Dunning, David, "Self-Insight: Roadblocks and Detours on the Path to Knowing Thyself (Essays in Social Psychology)," Psychology Press: 2005, p. 14-15.

11. http://en.wikipedia.org/wiki/Anosognosia.

12. A purist would no doubt complain that anosognosia has been taken out of context, that it has been removed from the world of neurology and placed in an inappropriate and anachronistic social science setting. But something does remain in translation, the idea of an invisible deficit, the infirmity that cannot be known nor perceived. I can even imagine a cognitive and psychological version of anosodiaphoria. The idea of an infirmity that people neglect, that they do not pay any attention to.

Continue to Part 2.

The New York TimesThe New York Times

The Opinion Pages

Errol Morris

The Anosognosic's Dilemma: Something's Wrong but You'll Never Know What It Is (Part 2)

By Errol Morris

June 21, 2010 10:19 pm

Errol Morris on photography.

(This is the second part of a five-part series.)

2. The Illness of Doubt:

Everyone Poisons Himself in His Own Way

June 11, 1914. In a brief communication presented to the Neurological Society of Paris, Joseph Babinski (1857-1932), a prominent French-Polish neurologist, former student of Charcot and contemporary of Freud, described two patients with "left severe hemiplegia" – a complete paralysis of the left side of the body – left side of the face, left side of the trunk, left leg, left foot. Plus, an extraordinary detail. These patients didn't know they were paralyzed. To describe their condition, Babinski coined the term anosognosia – taken from the Greek *agnosia*, lack of knowledge, and *nosos*, disease. [13]

> I want to draw attention to a mental disorder that I had the opportunity to observe in cerebral hemiplegia, which consists in the fact that patients seem unaware of or ignore the existence of their paralysis . . . .
>
> One such patient . . . hit by left hemiplegia has largely maintained her intellectual and affective faculties, for many months. She remembered past events well, was willing to talk, expressed herself

> correctly, her ideas were sensible; she was interested in persons known to her and asked about new people . . . No hallucinations, delirium, confusional state, confabulation. What did contrast with the apparent preservation of intelligence of this patient was that she seemed to ignore the existence of a nearly complete hemiplegia, which she had been afraid of for many years. Never did she complain about it; never did she even allude to it. If she was asked to move her right arm, she immediately executed the command. If she was asked to move the left one, she stayed still, silent, and behaved as if the question had been put to somebody else.

There were many unanswered questions in Babinski's original paper. Did the anosognosic patient have absolutely no knowledge or some limited knowledge of her left-side paralysis? Was there a blocked pathway in the brain? Was the anosognosia an organic (or somatic) disease? Or a derangement of thought? Was she in some sort of trance? Babinski also noted that many of his anosognosic patients developed odd rationalizations. When he asked them to move their left (paralyzed) arms, they would decline to do so, offering a myriad of implausible excuses. (Furthermore, not all of his patients with left-side paralysis were clueless about their condition. Some patients had knowledge of their paralysis but were oddly indifferent to it. For these patients, Babinski coined the term anosodiaphoria, or indifference to paralysis [14].)

Babinski was focused on one central question.

> Do we have to admit . . . that anosognosia is real? I am not able to state this, and it has been impossible for me to interrogate the patients in a sufficient way to be sure about this point . . . [15]

Is it real? What is Babinski asking? Is it organic, a pathology of the brain? Is it psychological? Moreover, is it feigned?[16] We have been abandoned in a hall of mirrors. The disease that calls into question our connection to reality may itself be an illusion.

The contemplation of anosognosia leads to many questions about how the brain puts together a picture of reality and a conception of "the self." It also suggests that our conception of reality is malleable; that it is possible to not-

know something that should be eminently knowable.[17] It may also suggest that it is possible to know and not-know something at the same time. But additionally, it puts the question of how we "know" things at the heart of a neurological diagnosis, and raises questions about how we separate the physical from the mental.

The Babinski Sign, the most famous of his discoveries, is a straightforward attempt to reveal the existence of an underlying pathology (damage to the spinal cord or brain) from a simple objective test.

The key is the flexation of the big toe. Stroke the sole of the foot. Does the big toe flex up or down? Up — not so good; down — pretty much O.K. And you don't have to ask the patient, "How are you feeling?"

Babinski's central concern was the black box of the mind and of the brain. How can we tell what is going on inside of us? Or anybody else, for that matter?

Babinski (as well as Freud) was a student of Charcot, who held the first chair of neurology at the Salpêtrière, a massive Parisian hospital complex and the center of French neurological science by the end of the 19th century. Charcot's main focus was on hysteria, a vaguely defined disease that he believed could be tracked back to an organic defect of the nervous system — a brain tumor or spinal lesion. [18]

Babinski had been Charcot's chef de clinique in 1885-1886 and had participated in a number of "performances" with hysterical women incarcerated at the Salpêtrière. Most of them involved hypnosis in one form or another. There is a famous 1887 painting ("Une leçon clinique à la Salpêtrière") by André Brouillet — a copy of it hung in Freud's offices in Vienna and later directly over his psychoanalytic couch at Maresfield Gardens, London.[19] Blanche Wittman, one of Charcot's patients, is shown fainting in Babinski's arms — several commentators have suggested that she appears to be in the throes of orgasm — while Charcot is lecturing to an enraptured all-male audience.[20]

A similar experiment at the Salpêtrière involving hypnosis and suggestion, and also "starring" Wittman, was described by another one of Charcot's students,

the physician Gilles de la Tourette. [21]

Tourette hypnotized Blanche W. in front of colleagues and other people, including the playwright Jules Claretie, and then ordered her to commit a crime.

Tourette: When you will be awake, you will poison Mr. G. . . .

Blanche W.: “But why do you want me to poison Mr. G.? He has done nothing to me, he’s a nice guy. I want you to poison him . . . I am not a criminal. I have no poison, perhaps I could stab him with a knife or shoot him with a gun . . . ?

Tourette: Here is a glass, I am pouring some beer and adding the poison. Now, you need to have Mr. G. drink it . . . Whatever happens, you will not remember, if questioned, that I told you to poison Mr. G.

Blanche W.: Alright, sir.

Then the patient was awakened by blowing air on her eyes. She said hello to the assembled people, chatting with Claretie, before saying to Mr. G.:

Blanche W.: My God! It’s really hot, aren’t you thirsty? I am dying of the heat. You must be thirsty . . . Here we are. (Offering the glass with the imaginary poison.) Please drink . . .

Mr. G.: Thank you, but I am not thirsty, however, I will agree to take it, but not without a kiss . . .

Blanche W.: You are demanding, but . . .

Then Mr. G. drank from the glass and fell to the floor. His body was carried out of the room. Blanche W. was then questioned. When asked whether she knew there was poison in the glass, she said there was none.[22] [23]

What are the doctors trying to demonstrate?[24] In Tourette’s psycho-drama did Wittman know that she was committing a murder? Or were Tourette’s

instructions locked away in some dark corner of her brain, completely inaccessible? Was she faking it? Playing along, hoping to convince the doctors that she was doing their bidding, when she was doing nothing of the kind? [25]And what about Brouillet's painting? It has been endlessly reproduced, but what does it portray? Were the doctors creating a delusion for Wittman or for themselves? I keep thinking of Freud's patients supine on his rug-draped couch, staring up at a perverse spectacle of modern medicine.

Charcot died of a sudden heart attack in 1893. Subsequently, his various theories of hysteria were attacked by his followers and eventually abandoned. In 1901 Babinski put forth the idea of hysteria without organic causes, hysteria that was caused by "auto-suggestion" and could be cured by "persuasion."[26] For this condition, he coined yet another neologism: pithiatism — from the Greek words for persuasion and curable. And in 1909, Babinski published his coup de grâce, his paper on the "dismemberment" of hysteria.

> All doctors now realize that the domain of traditional hysteria has been stretched beyond measure and that, at least, its supposed ability to duplicate the most diverse illnesses, "to do everything," as it was formerly said, has been singularly exaggerated. This is an established point; but it interests me to investigate the grounds that gave rise to the former conception and the reasons that led to its abandonment. In my opinion, hysteria's overextension has three principle causes: 1) diagnostic errors; mistaking organic afflictions for hysterical ones; 2) ignorance of the importance of deception, and classifying simulated phenomena as hysterical due to a lack of vigilance; 3) conflating nervous states that should properly be distinguished from one another.[27]

Three principles. One, diagnostic errors and three, errors of taxonomy (of nosology). But what about two? What if hysteria is unreal — the product of a willful mind, not bodily dysfunction — a performance, not a disease? I suppose the logical next question is whether it is a disorder at all. Perhaps it simply embodies a different way of interacting with the world?

The implications were unavoidable and quickly captured the imagination of

the burgeoning Surrealists, who had strong connections to the evolving field of neurology. André Breton, a leader of the Surrealist movement, had been an intern in neurology during the Great War (at the hospital of St. Dizier) and a student of Babinski. Babinski, for his part, had inscribed a copy of his book "Hysteria or Pithiatism" to Breton, predicting that he would have a "great medical future." [28]

By 1928, Breton and fellow Surrealist Louis Aragon had written an encomium to Babinski. Entitled "The 50th Anniversary of Hysteria," it celebrated the end of hysteria as a diagnosis and was accompanied by four photographs of Augustine, one of Charcot's most famous patients who has since been called the "pin-up girl" of the Surrealists.[29] Breton and Aragon quoted a 1913 monograph of Babinski's with great approval.

> We surrealists insist on celebrating the 50th anniversary of hysteria, the greatest poetic discovery of the latter 19th century . . . M. Babinski, the most intelligent man who has tackled this question, dared to publish in 1913 the following: "When an emotion is sincere and profound, and it stirs the human soul, there is no room for hysteria." And in that we have the best so far that we have been given to learn. [30]

Clearly Breton was an admirer of Babinski's work, but it appears the influence might have been reciprocal. "Les Détraquées"(which could be translated as "The Cranks" or "The Deranged Women"), a 1921 play, was featured in Breton's novel "Nadja."[31] In the play, set at a private girls' boarding school, the lesbian headmistress and a dance instructor torture and murder a young student. The authors were "Palau" and "Olaf." Palau was a known actor and sometime author. But who was Olaf? His identify was not revealed until 1956 (in the first issue of Breton's magazine, Le Surrealisme, même). Olaf was Babinski.

Babinski attended the premiere of "Les Détraquées" with a fake beard — using yet another alias, "Alfred Binet."[32] The critics hated it, but Breton was smitten, and despite his avowed antipathy to the theater, attended repeat performances.

> I will no longer postpone expressing the unbounded admiration I felt for Les Détraquées, which remains and will long remain the only dramatic work . . . which I choose to recall.

He included in “Nadja” a photograph of the actress who played Solange, the dance instructor; a scene from the play (with an inscription that reads: “The child of a moment ago enters without a word . . .”); and a bizarre synopsis, culminating with:

> . . . .The child’s bloody corpse appears, head downward, and falls onto the floor. The scream, the unforgettable scream.

I asked a friend of mine, Paul Jankowski, a professor of French history at Brandeis, to have a look at the text of the play. I was afraid of the idiomatic French and wanted to make sure I wasn’t missing anything. Ironically, the play repeats many of the themes that characterize the “performances” at the Salpêtrière — the preoccupation with persuasion and crime, and the process of remembering and “remembering nothing” that seems to be a cornerstone of human experience. But here the doctor-hero solves a crime rather than provokes one. And women are preying on each other. There is a curious detail, however. The doctor clearly believes that Solange and the headmistress are acting under some other form of mental compulsion of which, he appears to suggest at the end, they are mostly unaware.

The doctor deduces instantly that the first girl found at the bottom of a well, supposedly a suicide, and the current victim who supposedly fled the premises, were in fact murdered by the directress and the dance instructor. The inspector asks the doctor how they can now be so calm and untroubled after they had murdered someone only hours ago. The doctor explains: “Everyone poisons himself in his own way . . . anything is good to excite the nervous system . . . stronger and stronger sensations are needed . . .” and hence on to sexual perversion and sadistic murder . . . that she (the directress) remembers nothing at this point, her crisis is over, and “at least to the laymen, is as sane and inoffensive as you and me . . .”

After the student is found strangled and covered with blood, he demands not prison for these two ladies but “le cabanon,” the solitary cell where dangerous

lunatics were locked up in the past. The last words are those of the inspector, “But what’s the difference?” Curtain.

In “The Surrealist Manifesto,” Breton writes,

> If in a cluster of grapes there are no two alike, why do you want me to describe this grape by the other, by all the others . . . ? Our brains are dulled by the incurable mania of wanting to make the unknown known, classifiable . . . It is pointless to add that experience itself has found itself increasingly circumscribed. It paces back and forth in a cage from which it is more and more difficult to make it emerge . . . Forbidden is any kind of search for truth that is not in conformance with accepted practices . . .

Both Babinski and the Surrealists shared a common concern — an obsession with consciousness, the nature of the ineffable and “the incurable mania” of trying to classify the unknown. But in 1932, the last year of his life, Babinski wrote an intriguing letter to his friend, the Portuguese physician Egas Moniz. The letter is riddled with doubt — not just about interpreting experience, but also about the value of knowledge itself.

> In the present circumstances, in the middle of so many tragic events, one may also wonder if science deserves to be the object of a cult. The most admirable creations of the human mind, contrary to all expectations, have had as their main effect destruction and massacre; with a bit of pessimism, one may curse advances in knowledge and fear that someday some discovery might have as a consequence the destruction of mankind . . . [33]

The letter ends on a somewhat more positive note but that need not concern us here.

I would like to provide one additional detail. Babinski was called in to attend Marcel Proust, and was present when the prince of the subjective died in his cork-lined bedroom on Nov. 18, 1922. The final scenes have been described in a number of biographies. This account comes from William Carter. It is Babinski

who tells the truth to the family at the bitter end. Inured to sentiment, focused on evidence, he was the only one present who was not in denial.

> A short time later Robert [Proust's brother, also a doctor] sent for Drs. Bize and Babinski. At approximately four o'clock, the three doctors conferred in the bedroom while Celeste listened, fearful that Proust heard everything. Robert suggested an intravenous injection of camphor, but Babinski said: "No, my dear Robert. Don't make him suffer. There is no point." Then Bize left. When Celeste showed Dr. Babinski to the door, she made a desperate plea: "Professor, you are going to save him, aren't you?" Babinski took her hands in his and looked into her eyes: "Madame, I know all you have done for him. You must be brave. It is all over." [34]

In the next part, we will further examine the legacy of Joseph Babinski and the tragic case of an American president with anosognosia.

FOOTNOTES:

[13] "Contribution a l' étude des troubles mentaux dans l'hémiplégie organique cérébrale (anosognosie)" ["Contribution to the study of mental disorders in organic cerebral hemiplegia (anosognosia)"], Revue Neurologique (Paris) 1914 (XXXVII): 845-848, quoted in Chris Code, Claus-W. Wallesch, Yves Joanette, and Andre Roch Lecours (editors), Classic Cases in Neuropsychology II (Brain Damage, Behaviour, and Cognition), 2001: 177.

[14] Babinski coined many other terms, from cerebellar catalepsy and volitional equilibrations, to hypermetry, thermal asymmetry, spondylotic pseudo-tabes, and physiopathic disorders. A cornucopia of neurological neologisms. Borges has his own parable about nomenclature and taxonomy in his story The Analytical Language of John Wilkins, in which he remarks ". . . it is clear that there is no classification of the Universe not being arbitrary and full of conjectures. The reason for this is very simple: we do not know what thing the universe is."

[15] Quoted in Code et al, 178.

[16] Babinski was very much concerned with this possibility. He writes, ". . . it is known that many patients, by coquetry, pride and vanity try to conceal the afflictions they are suffering, but in this case, the concealment would be utterly futile, since the existence of the blockade could not escape anyone's attention." Babinski, J., "Contribution to the Study of Mental Disorders in Cerebral Organic Hemiplegia," in the Proceedings of the Neurological Society of Paris meeting of June 11, 1914.

[17] The question of whether anosognosics don't know they're paralyzed, cannot know it, or know it in some sense but can't admit to it is part of ongoing research on the nature of anosognosia. V. S. Ramachandran in "Phantoms in the Brain" has used his various mirror-boxes, ice-water inner-ear irrigations, etc. to tease out these distinctions. I have discussed some of these issues with Ramachandran in Part 4.

[18] Andrew Scull calls it "a chameleon-like disease that can mimic the symptoms of any other, and one that seems to mold itself to the culture in which it appears." "Hysteria: The Biography," Oxford University Press, 2009, p. 6. An excellent article covers some of these issues: Mark Micale, "Disappearance of Hysteria: A Study in the Clinical Deconstruction of a Diagnosis," ISIS, vol. 84, no. 3. Micale writes, "[Charcot] believed the disorder traced to a physical defect of the nervous system . . . Nonetheless, 19th century theories of hysteria remained wholly speculative," p. 503.

[19] http://www.freud.org.uk/photo-library/detail/40068/

[20] "She swoons over the outstretched arm of his assistant, Joseph Babinski, her pelvis thrust forward, her breasts barely covered by her blouse and pointing suggestively toward the professor, her head twisted to the side and her face contorted in what looks like the throes of orgasm," from Andrew Scull, "Hysteria," p. 119.

[21] Brouillet is illustrating a different scene than the one described by Tourette, but it is unclear whether the painting is of a specific scene or a composite. A more detailed description of what the painting portrays will be the subject of a future essay.

[22] Tourette claimed that these “crimes” could only occur in a laboratory setting. No one could be compelled to commit a crime using hypnosis. Years later, however, he was shot by one of his patients who had been hypnotized.

[23] Julien Bogousslavsky, Gilles de la Tourette’s criminal women: The many faces of fin de siècle hypnotism, quoting Gilles de la Tourette, “L’hypnotisme et les états analogues au point de vue médico-legal,” pp. 131-5.

[24] One commentator writes, “. . . women were portrayed as suggestible automata, marionettes in the hands of masterful men who hypnotized them into reenacting scenarios of slavish obedience . . . ” Ruth Harris, “Melodrama, Hysteria, and Feminine Crimes of Passion in the Fin de Siecle,” History Workshop, No. 5 (1988).

[25] In “The Story of San Michele,” Axel Munthe, a Swedish psychiatrist and contemporary of Charcot and Babinski, provides a devastating critique of these “stage performances.” It is worth quoting at length. “To me who for years had been devoting my spare time to study hypnotism these stage performances of the Salpêtrière before the public of Tout Paris were nothing but an absurd farce, a hopeless muddle of truth and cheating. Some of these subjects were no doubt real somnambulists faithfully carrying out in a waking state the various suggestions made to them during sleep — post-hypnotic suggestions. Many of them were mere frauds, knowing quite well what they were expected to do, delighted to perform their various tricks in public, cheating both doctors and audience with the amazing cunning of the hystériques. They were always ready to ‘piquer une attaque’ of Charcot’s classical grande hystérie, arc-en-ciel and all, or to exhibit his famous three stages of hypnotism: lethargy, catalepsy, somnambulism, all invented by the Master and hardly ever observed outside the Salpêtrière. Some of them smelt with delight a bottle of ammonia when told it was rose water, others would eat a piece of charcoal when presented to them as chocolate. Another would crawl on all fours on the floor, barking furiously, when told she was a dog, flap her arms as if trying to fly when turned into a pigeon, lift her skirts with a shriek of terror when a glove was thrown at her feet with a suggestion of being a snake. Another would walk with a top hat in her arms rocking it to and fro and kissing it tenderly when she was told it was her baby. Hypnotized right and left, dozens of times a day, by doctors and students, many

of these unfortunate girls spent their days in a state of semi-trance, their brains bewildered by all sorts of absurd suggestions, half conscious and certainly not responsible for their doings, sooner or later doomed to end their days in the salle des agités if not in a lunatic asylum."

(This description, which has never appeared in the French editions of "The Story of San Michele," was the subject of some controversy. Soon after it was published, Charcot's son went on the attack, claiming that Munthe had not in fact been the elder Charcot's student (as Munthe had claimed). Under pressure from Charcot's family, Munthe's translator omitted the chapter on the Salpêtrière from the initial French edition, and subsequent French editions remain incomplete. If the reader finds himself compulsively interested in this issue, as I did, there is an excellent biography of Munthe, Bengt Jangfeldt, "The Road to San Michele," p. 295ff.)

[26] M.J. Babinski, "Définition de l'hysterie," Revue Neurologique, 1901.

[27] M.J. Babinski, "Démembrement de l'hysterie traditionelle: pithiatisme," 1909.

[28] Mark Polizzotti, "Revolution of the Mind: The Life of André Breton," Black Widow Press, 2009. Polizzotti writes: "Babinski inspired in Breton an intense admiration. He had been the first to distinguish neurology and psychiatry as separate disciplines . . . Perhaps most memorable in Breton's eyes was the combination of 'sacred fever' and casual aloofness that Babinski displayed while handling his patients."

[29] Augustine finally escaped from Charcot's hospital and then disappeared into obscurity.

[30] La Révolution Surrealiste, No. 11, (1928).

[31] "Le Grand Guignol: le théâtre des peurs de la Belle Epoque," ed. Agnès Pierron. Paris, 1995, pp. 808ff.

[32] A French psychologist (who died in 1911), famous for the development of intelligence testing. Another joke?

[33] Egas Moniz, “Dr. Joseph Babinski,” Lisboa Medica 1932, as quoted in Jacques Philipon and Jacques Poirier, Joseph Babinski: A Biography, Oxford University Press, 2008. Egas Moniz won the Nobel Prize in 1942 for the development of the prefrontal lobotomy and later died from injuries inflicted by a mental patient he had operated on.

[34] William Carter, Marcel Proust: A Life. Yale University Press, 2002, pp. 807-8.

Continue to Part 3.

The New York TimesThe New York Times

The Opinion Pages
Errol Morris

(This is the third part of a five-part series.)

3.

DOCTORS EVERYWHERE

Oct. 2, 1919, 8:50 a.m.[35] A telephone rang in the Ushers' Room at the White House. There were two telephones perched on a roll-top desk in a corner of the room. One went through the White House switchboard; the other was a private line directly to the president. Ike Hoover, the Chief Usher, answered the call on the private line. It was the First Lady, who told Hoover, "Please get Dr. Grayson, the president is very sick."

Hoover's account is graphic and shocking.

> . . . I waited up there until Doctor Grayson came, which was but a few minutes at most. A little after nine, I should say, Doctor Grayson attempted to walk right in, but the door was locked. He knocked quietly and, upon the door being opened, he entered. I continued to wait in the outer hall. In about ten minutes Doctor Grayson came out and with raised arms said, "My God, the President is paralyzed!"
>
> . . . The second doctor and nurse arrived and were shown to the room. The employees about the place began to get wise to the fact that the President was very ill, but they could find out nothing more.

Other doctors were sent for during the day, and the best that could be learned was that the President was resting quietly. Doctor Davis of Philadelphia and Doctor Ruffin, Mrs. Wilson's personal physician, were among those summoned. There were doctors everywhere.

. . . The President lay stretched out on the large Lincoln bed. He looked as if he were dead. There was not a sign of life. His face had a long cut about the temple from which the signs of blood were still evident. His nose also bore a long cut lengthwise. This too looked red and raw. There was no bandage.

. . . Soon after, I made confidential inquiry as to how and when it all happened. I was told — and know it to be right — that he had gone to the bathroom upon arising in the morning and was sitting on the stool when the affliction overcame him; that he tumbled to the floor, striking his head on the sharp plumbing of the bathtub in his fall; that Mrs. Wilson, hearing groans from the bathroom, went in and found him in an unconscious condition. She dragged him to the bed in the room adjoining and came out into the hall to call over the telephone for the doctor, as I have related.

. . . For the next three or four days the White House was like a hospital. There were all kinds of medical apparatus and more doctors and more nurses. Day and night this went on. All the while the only answer one could get from an inquiry as to his condition was that it "showed signs of improvement." No details, no explanations. This situation seemed to go on indefinitely. It was perhaps three weeks or more before any change came over things. I had been in and out of the room many times during this period and I saw very little progress in the President's condition. He just lay helpless. True, he had been taking nourishment, but the work the doctors had been doing on him had just about sapped his remaining vitality. All his natural functions had to be artificially assisted and he appeared just as helpless as one could possibly be and live.[36]

Wilson's personal physician, Admiral Cary T. Grayson, took elaborate notes

and kept a day-to-day log of the president's condition. Grayson's papers are now housed at the Woodrow Wilson Presidential Library in Staunton, Va. [37]

Here are Grayson's notes from the week following the president's stroke:

> On October 11th the President was extremely ill and weak and even to speak was an exertion. He had difficulty in swallowing. He was being given liquid nourishment and it frequently took a great deal of persuasion to get him to take even this simple diet. On the day in question Mrs. Wilson and I were begging him to take this nourishment, and, after taking a couple of mouthfuls given to him by Mrs. Wilson with a spoon, he held up one finger and motioned me to come nearer. He said to me in a whisper:
>
> "A wonderful bird is the pelican,
> His bill will hold more than his bellican,
> He can take in his beak, enough food for a week,
> I wonder how in the hell-he-can."

The notes, written on yellow foolscap, contain an assortment of limericks and anecdotes, drifting into seeming nonsense.

> On one occasion Secretary Tumulty came in to see the President, and as he was leaving, the President said: "Why leave now?" Mr. Tumulty said: "I must go to see the King of Belgium." The President said: "You are wrong; you should say "'The King of the Belgians.'" Mr. Tumulty said: "I accept the interpretation." The President said: "It is not an interpretation but a reservation."[38]

Wilson was obsessed with limericks prior to his stroke, but what about the post-stroke limericks? As Grayson leaned in to hear the soft, indistinct voice of the president, was the president trying to reassure him? Were the limericks examples of light-hearted humor in the face of unblinking adversity? Or manifestations of limitless dementia? [39]

In the 1970s, Edwin Weinstein, a neuropsychiatrist, was asked by Arthur Link, the editor of the Wilson papers, to survey Wilson's medical history.

> The symptoms indicate that Wilson suffered an occlusion of the right middle cerebral artery, which resulted in a complete paralysis of the left-side of the body, and a left homonymous hemianopia — a loss of vision in the left half fields of both eyes. Because he had already lost vision in his left eye from his stroke in 1906, he had clear vision only in the temporal (outer) half field of his right eye. The weakness of the muscles of the left side of his face, tongue, jaw and pharynx accounted for his difficulty in swallowing and the impairment of his speech. His voice was weak and dysarthric . . . [40]

Weinstein also wrote:

> Following his stroke, the outstanding feature of the President's behavior was his denial of his incapacity. Denial of illness, or anosognosia, literally lack of knowledge of disease, is a common sequel of the type of brain injury received by Wilson. In this condition, the patient denies or appears unaware of such deficits as paralysis or blindness . . . To casual observers, anosognosiac patients may appear quite normal and even bright and witty. When not on the subject of their disability, they are quite rational; and tests of their intelligence may show no deficit.[41] [42]

Wilson described himself as "lame" and referred to his cane as his "third leg,"[43] but otherwise he considered himself perfectly fit to be president. There was even talk of a third term. Yet his close associates noticed a change in his personality. He became increasingly suspicious, even paranoid, without having the dimmest awareness of the fact that he was perhaps becoming a different person from what he once was. Stockton Axson, his brother-in-law from his first marriage, wrote that "[Wilson] would be seized with what, to a normal person, would seem to be inexplicable outbursts of emotion."[44] He was furious at anyone who suggested that he had physical and mental problems, and the last months of his presidency became a graveyard of fired associates. Edith Bolling Wilson, his second wife, had already deposed many of the president's closest and most effective associates, including Colonel Edward M. House, who had played a major role at the Paris peace talks. Wilson also forced the resignation of Robert Lansing, his secretary of state, who had dared to call a cabinet meeting to discuss

the president's illness.

It was John Maynard Keynes who asked a central question: "Was Hamlet mad or feigning; was the president sick or cunning?"[45] Babinski and subsequent writers had stressed that anosognosia leaves most "intellectual and affective" faculties intact. But was this true? Or were they focused on the paralysis and the denial of paralysis, and paid scant attention to anything else? Were they anodiaphoric with respect to the anosognosia?

It is interesting to speculate about the total effect that Wilson's illnesses had on the president's behavior. The Oct. 2 stroke was not Wilson's first cerebral episode. In his books and articles, Weinstein chronicles Wilson's long history of stroke, neuritis, numbness, visual impairments and an assortment of vascular pathologies. The catastrophic Oct. 2 stroke was preceded by a stroke on Sept. 25 that left the president temporarily paralyzed on the left side, and by a severe attack of influenza in April 1909 that "suggested that he may have had another stroke."

With such massive impairments, was Wilson still "there?" Grayson tells us that Wilson knew that King Albert was "King of the Belgians," but how comforting is that?

The subsequent role played by the president's doctors, his family and political friends was complex. But it is clear that they were involved in a coverup. Since the president was actually impaired — at least physically — what do you tell the Washington news corps? Or do you deny it to yourself and others? A determined group of gatekeepers intervened: Ike Hoover, Dr. Grayson and Edith Bolling Wilson, Wilson's second wife, who became the de facto president of the United States.

Their actions leave open the further question: when does out-and-out prevarication shade off into self-deception and denial? Did the president's immediate advisers convince themselves that Wilson was in possession of all his faculties despite evidence to the contrary? Did Edith Wilson cynically decide to grab power; was she in denial; or did she become anosognosic, as well, truly believing that there was nothing wrong with her husband?

I had read a number of books about the last years of the Wilson presidency — both first-hand accounts (Hoover, Edith Wilson and Grayson) and secondary sources — but there was a pair of books which stood out from the others: Edith Bolling Wilson's autobiographical account of her marriage to Woodrow Wilson, "My Memoir," and Phyllis Lee Levin's "Edith and Woodrow" — two books that paint incompatible pictures of what was happening in the White House.

In Edith Wilson's account of Oct. 2, she takes great pains to discredit Ike Hoover's account.

> Then came a knock at the door. It was locked; the President and I always locked our doors leading into the hall . . . The knock was Grayson's. We lifted the President into his bed. He had suffered a stroke paralyzing the left side of his body. An arm and one leg were useless, but, thank God, the brain was clear and untouched . . .
>
> So far as was possible I checked my recollections with the data of Dr. Grayson, before his lamented death in 1938. I did this because of a rather remarkable account of the events which appears in the posthumously published "diary" of Mr. I.H. Hoover, the White House head usher. For example, the late Mr. Hoover is represented as seeing a long cut on the President's temple, which late that afternoon, still showed signs of blood; also a cut lengthwise on the nose. Dr. Grayson and I did not see such things. [46]

Mr. Hoover is "represented as seeing . . ." But who is doing the representing? It's Hoover's first person account that includes the observation, "The whole truth, of course, can be told by only one person in all the world, Mrs. Woodrow Wilson . . . [And] I doubt that she will ever tell the world just what happened."[47]

Edith Bolling Wilson has been dead for nearly 50 years, but Phyllis Lee Levin, formerly a columnist and reporter for The New York Times and a feature writer and editor at Harper's Bazaar, Mademoiselle and Vogue, is very much alive and living in Manhattan. In addition to her book on Wilson's second marriage, she has also written an outstanding biography of Abigail Adams, the wife of John Adams, and now, at almost 90, she is working on a biography of

John Quincy Adams.

It is now nearly a decade since the publication of "Edith and Woodrow." I was surprised by her anger, and her conviction that the coverup of Wilson's mental impairment that started in the White House continues to the present day.

PHYLLIS LEE LEVIN: I had no idea what I was getting into. My daughter gave me a copy. She was at camp, and there was a copy of Mrs. Wilson's memoir. And so, I read it. I just found it so unbelievable that they would have toyed with the fate of this country, the welfare of this country, these two irresponsible people, certainly this lady was. Perhaps, we could excuse Mr. Wilson a little bit, that he really had no idea of how sick he was. The doctor came out and said that he was irreversibly damaged. And then that was dismissed. There's such denial. I'm just being very, very honest with you. And there's such denial at Princeton. They're quite silly on this subject. The editor of the Wilson Papers [Arthur Link], when I first called to see him said, "There is nothing in Dr. Grayson's letters. Nothing." I finally got up enough courage to say, "Well, that should be for me to decide." It took me a lot of courage to say that to this nice man. The papers were hidden. I went to see Dr. Grayson's son, who lived in Virginia. And he is the one who gave the papers over. I dare say there were more there. I was quite shocked by the whole affair. When they said Woodrow Wilson wrote something to Tumulty [Wilson's secretary, essentially his chief of staff], there'd be a little tiny asterisk. And then, at the bottom, you would find, in the tiniest possible print, "in the hand of Edith Wilson."

ERROL MORRIS: Did you feel, from the very outset, that there was something inherently dishonorable about what they did? That they should have been completely transparent or forthcoming about the extent of his illness? The idea that perhaps they were preserving his policies, a chance for world peace, that it was critical to —

PHYLLIS LEE LEVIN: But, they weren't doing anything. They weren't executing anything at all.

ERROL MORRIS: So it was just a grab for power, power for its own sake, by Mrs. Wilson?

PHYLLIS LEE LEVIN: She was probably a very limited woman, intellectually. I'm being very kind. She wasn't a very educated woman. And she was a very vain woman. She honestly felt that her husband was the only one in the world entitled to be president, even in the shape he was in.

ERROL MORRIS: But who was in control? Was it Wilson? Was it Edith?

PHYLLIS LEE LEVIN: It was a conglomerate of people. Republicans are always blamed for the failure of the peace pact. When the vote came there had to be compromises. But Wilson's mind was so damaged by his illness that he had to have peace on his terms or not at all. So we didn't have the peace pact because of him. Henry Cabot Lodge [the leader of Wilson's Republican opposition] has been made the villain of all time for this. Whereas, he had offered a compromise. What the Wilsons did was just desperately terrible. It was really the grandest deception in the world. It's really a very shocking story.

And then Phyllis Lee Levin asked me if I had seen the movie.

ERROL MORRIS: I didn't know there was a movie.

PHYLLIS LEE LEVIN: "Wilson." You ought to find it. It appears every now and then on television. Oh, you'd be so interested because it's absolutely out of whole cloth.

"Wilson" is a curious document. Clearly a work of hagiography, it was released in 1944, was a Times Critic's Pick, was nominated for 10 Academy Awards, and won 5 Oscars, including an Oscar for best original screenplay. [48] (In the midst of World War II, why not have a movie that celebrates a man, who through his intransigence, may have helped bring it about?) It contains yet one more sanitized version of Wilson's stroke and anosognosia.

> **Dr. Grayson:** His whole left side is paralyzed, but his mind is perfectly clear and untouched.
>
> **Edith:** Will he recover?
>
> **Dr. Grayson:** He'll improve with time. For the present, he needs rest and quiet. Release from every disturbing problem.

Joseph Tumulty: But how's that possible? Everything that comes to the president is a problem.

Edith: Would it be better if he resigned and let Mr. Marshall succeed him?

Dr. Grayson: No, no, no, Edith! He staked his life on getting the league ratified. If he resigns now this great incentive to recovery will be gone.

George Felton:[49] Besides his resignation would have a very bad effect on the country . . . for that matter the whole world.

Dr. Grayson: Our thought is to have everything of an official nature come to you. You can weigh the importance of each matter and in consultation with the heads of the various departments decide what he must see and what can be left to others. In this way, Edith, you can be of great service to him.

Edith: No, I can't do it. It's too great a responsibility.

George Felton: Even though his life may depend upon it?

Edith: In that case, there's only one answer, I'll try.

CUT TO:

A recovering Woodrow Wilson in a wheelchair on the porch of the White House.

Wilson (to Edith): Well, Mrs. President…

Edith: Woodrow!

Wilson: What's on tap for today?

Edith: Don't you dare to call me that! You know very well I never even made one decision without your knowledge and consent!

Wilson: You know it, I know it, but do our enemies know it?

Edith: I'm not concerned with what our enemies know.

In the preface to her book, Levin suggests a counterfactual history, a history with a League of Nations that included the United States. It is one of history's great what-ifs. What if Edith Wilson had allowed her husband to hand the reins of government to his vice president, Thomas R. Marshall, in 1919? Would there have been no second world war?

> Given Marshall's reasonable temperament, is it not possible that he might have reached a compromise with Henry Cabot Lodge over the degree to which Americans ought to involve themselves in foreign wars, and have thus led the United States to membership in the League of Nations? Such great questions are central to my reconsideration, in the present book, of the role and influence of Wilson's wife during "one of the most extraordinary periods in the whole history of the Presidency." Edith Wilson was by no means the benign figure of her pretensions; the president far less than the hero of his aspirations. On closer examination, their lives are a sinister embodiment of Mark Twain's tongue-in-cheek observation that he "never could tell a lie that anyone would doubt, nor a truth that anybody would believe."[50]

What if the truth of Wilson's condition, his anosognosia, had been more widely known? Was it just that the facts of the illness was suppressed? Or did the public want to believe that the president was healthy, that nothing was wrong. That even if the president was paralyzed, ". . . his mind was clear and untouched." Edward Weinstein also weighed in on these questions. His view was unequivocal. The president had become intransigent, inflexible. There was no willingness to compromise and hence the Treaty [ratifying the U.S. participation in the League of Nations] was doomed.

> It is the author's opinion that the cerebral dysfunction that resulted from Wilson's devastating strokes prevented the ratification of the Treaty.

For Levin, Wilson's inability to perceive his own incapacity had truly

devastating consequences for the nation and world he helped to lead.[51] Perhaps even more troublingly, the reaction to Wilson's anosognosia on the part of his close associates raises the possibility of an even more problematic impairment — a social anosognosia. Can a group of people, perhaps even society at large, devolve into a state of destructive cluelessness?

Wilson expressed it best of all. On hearing the news of the Senate vote — essentially, the end of the League fight — Wilson asked Grayson to read a verse from the Bible, 2 Corinthians 4:8:

> We are troubled on every side, yet not distressed; we are perplexed but not in despair.

Wilson then said, "If I were not a Christian, I think I should go mad, but my faith in God holds me to the belief that He is in some way working out his plan through human perversity and mistakes."[52]

Amen.

Still curious about the nature of self-deception, denial and neglect, I called V.S. Ramachandran, a legendary neuroscientist at the University of California – San Diego and an expert on anosognosia. Our discussion of his experiences in treating patients with anosognosia is the subject of the next installment.

FOOTNOTES:

[35] A little more than five years after Babinski published his first report on anosognosia.

[36] Irwin H. Hoover, "Forty-Two Years in the White House," Boston, 1934. Hoover was sent to the White House on Oct. 24, 1891, to install the first electric lights and doorbells. He was an employee of the Edison Company. He stayed on as an electrician. During the Taft administration (which immediately preceded the Wilson administration) he was promoted to Chief Usher, the executive head of the household responsible for all social affairs and visitors. Hoover's book, according to the Publisher's Note that serves as a preface, was published posthumously. As the note explains, "Mr. Hoover planned to retire in 1935 and

publish his reminiscences. At the time of his death he had carried his story through the Taft administration; the rest of the material, far more copious and detailed, remained in the form of isolated chapters and rough notes. In presenting this material, the publishers have simply arranged it in convenient form, supplied appropriate headings — taken when possible from the text itself — deleted repetitions and irrelevant matter, and changed the original wording only when necessary for the sake of clarity."

[37] Dr. F.X. Dercum, a neurologist from Philadelphia, who also attended the president, ordered his notes destroyed. But a "memorandum" was found among Grayson's papers in which Dr. Dercum provides a diagnosis of "severe organic hemiplegia, probably due to a thrombosis of the middle cerebral artery." He also notes that when the President was visited ten days after his stroke, ". . . a Babinski sign was present as before." (Here, we have the Babinski sign as a harbinger of things to come.)

[38] Wilson was right. The name of the King of Belgium is "the King of the Belgians." Tumulty was not presenting an interpretation but rather expressing an inaccuracy; and Wilson quite reasonably expressed his reservations about it.

[39] I am reminded of the exchange in "Dr. Strangelove," where General "Buck" Turgidson/George C. Scott briefs President Merkin Muffley/Peter Sellers. Muffley demands to see the letter that Turgidson is reading.

> **General "Buck" Turgidson:** We're still trying to figure out the meaning of that last phrase, sir.
>
> **President Merkin Muffley:** There's nothing to figure out, General Turgidson. This man is obviously a psychotic.
>
> **General "Buck" Turgidson:** Well, I'd like to hold off judgment on a thing like that, sir, until all the facts are in.

[40] Edwin Weinstein, "Woodrow Wilson: A Medical and Psychological Biography," Princeton University Press, 1981.

[41] Edwin Weinstein, "Woodrow Wilson's Neurological Illness," The Journal of American History, vol. 57, no. 2, September, 1970, pp. 324-351.

[42] This phenomenon is discussed in further detail in Oliver Sacks, "A Leg to Stand On." "Babinski had given memorable descriptions of the bizarre, almost comic, presentation in some cases: patients in whom the first sign of a stroke was an inability to recognize one side of their body — and the feeling that it was someone else's, or a 'model,' or a joke, so that they might turn to someone sitting next to them on a train, saying of their own hand, 'Pardon me, Monsieur, you have your hand on my knee!' or, to a nurse clearing away the breakfast, 'Oh, and that arm there — take it away with the tray!' . . . Babinski pointed out further that many such patients had been regarded as mad."

[43] Weinstein, p. 356, 359.

[44] Weinstein, p. 369.

[45] But behind that question lurks another question: could it be both?

[46] Edith Bolling Wilson, "My Memoir," p. 288.

[47] I tend to believe Ike Hoover's account. He has no reason to lie. On the other hand, Edith Wilson has every reason to lie or to deceive herself. When she remembers looking at her husband on Oct. 2, 1919, does she see "the long cut on the President's temple?" Or a swath of unbroken, unblemished skin?

[48] Bosley Crowther, the lead movie reviewer for The Times, produced one discordant note in an otherwise laudatory review: "There are obvious omissions in the story, some forgivable and some less so. A little less time spent on spectacle in this two-hour-and-thirty-four-minute film might have allowed for a clearer definition of Wilson's historic battle for the League. As it now stands, the League is but a symbol of international accord, and the opposition to it — with Senator Lodge as the villain — is just an inchoate obstructive force. Wilson's refusal to ask assistance from his Senatorial enemies in framing the peace is covered in his righteous pronouncement that 'too many treaties have been written by practical men.'"

[49] George Felton is listed in the Wilson film notes as a "composite fictional character," although the notes do not specify whether he was a composite of two fictional characters or of two real characters.

[50] Phyllis Lee Levin, “Edith and Woodrow.”

[51] This is a view supported by the dean of Woodrow Wilson historians, John Milton Cooper, Jr. In “Woodrow Wilson: A Biography,” Knopf, 2009, he writes, “This bad, even tragic, outcome of the League fight turned on Wilson’s stroke . . . At times in the first three months of 1920, he did seem to verge on mental instability, if not insanity. Edith Wilson, Dr. Grayson, and Tumulty did the best they could by their lights, but they were frightened limited people who should have not been trying to keep the Wilson presidency afloat. He should have not remained in office. If he had not, the League fight would have turned out differently, and the nation and the world would have been better off.”

[52] Quoted in Cooper, “Woodrow Wilson: A Biography,” p. 560.

Continue to Part 4.

The New York TimesThe New York Times

The Anosognosic's Dilemma: Something's Wrong but You'll Never Know What It Is (Part 4)

By Errol Morris

June 23, 2010 9:30 pm

(This is the fourth part of a five-part series.)

4.

BELIEF IS NOT A MONOLITHIC THING

V.S. Ramachandran has written about anosognosia in a number of journal articles and in his extraordinary book with Sandra Blakeslee, "Phantoms in the Brain." Ramachandran rarely settles for the status quo. If there is something unexplained, he pursues it, trying to provide an answer, if not the answer. He has made a number of spectacular discoveries, most famous among them his innovative use of mirror-boxes to treat phantom limb syndrome. Rather than devise complex experiments, he prefers simple intuitive questions and answers. His work on anosognosia is a perfect example.

Ramachandran was taken in by a question that haunts Babinski's original work on anosognosia — the question of whether the anosognosic knows (on some level) about the paralysis. What is going on in an anosognosic brain? (Babinski's original question: Is it real?) Almost any deficit can be explained as volitional. How do you know that an anosognosic patient is really in denial, or oblivious, or indifferent to his/her paralysis? How do you know that the patient is not feigning illness? This was a critical question during World War I, when neurologists had to deal with a flood of injured soldiers and had to discriminate between the truly damaged and those just malingering.

ERROL MORRIS: As I understand it, from the earliest descriptions of anosognosia, there were two things that people had fixed in their heads: one was, of course, the organic illness, the hemiplegia, the other was the lack of awareness.

V.S. RAMACHANDRAN: Hemiplegia itself is not a part of anosognosia, as you know, but the lack of awareness — the whole spectrum ranging from active denial to just indifference or just playing it down, all of those are called "anosognosia." I've written about that quite extensively in my book "Phantoms in the Brain."

ERROL MORRIS: In that book, you suggest that anosognosia is not an underlying neurological condition; it's about our lack of knowledge of something caused by an underlying neurological condition. About our not-knowing things that we should know — not knowing that we are not making any sense, not knowing that we are paralyzed, not knowing we are missing limbs.

V.S. RAMACHANDRAN: Well, you can have anosognosia for Wernicke's aphasia [a neurological disorder that prevents comprehension or production of speech] or you can have it for amnesia. Patients that are amnesic don't know they are amnesic. So, it has a much wider, broader usage. Although it was originally discovered in the context of hemiplegia by Babinski and is most frequently used in that context, the word has a broader meaning. Wernicke's aphasiacs are completely lacking in language comprehension and seem oblivious to it because [although] they smile, or they nod to whatever you say, they don't understand a word of what you're saying. They have anosognosia for their lack of comprehension of language. It's really spooky to see them. Here's somebody producing gibberish, and they don't know they're producing gibberish.

ERROL MORRIS: But Babinski only used it in the context of hemiplegia.

V.S. RAMACHANDRAN: That is correct.

ERROL MORRIS: So when did that change?

V.S. RAMACHANDRAN: Offhand, I can't tell you when they started

using the term “anosognosia” for other types of denial. I’ll tell you one thing that may be of interest to you. I saw a lady, not long ago, in India, and she had complete paralysis on her left side, a very intelligent woman, but had both anosognosia and somatoparaphrenia — you know what that is, right?

ERROL MORRIS: Not really.

V.S. RAMACHANDRAN: Denial that a body part, in this instance, an arm, belongs to her. It’s part of the same spectrum of disorders. So the wonderful thing about her is that she has a great sense of humor and was really articulate and intelligent. So I asked her, “Can you move your right arm?” and the usual list of questions, and she said “Yes, of course.” I said, “Can you move your left arm?” She said, “Yes.” “Can you touch my nose?” “Yes, I can touch your nose, sir.” “Can you see it?” “Yes, it’s almost there.” The usual thing, O.K.? So far, nothing new. Her left arm is lying limp in her lap; it’s not moving at all; it’s on her lap, on her left side, O.K.? I left the room, waited for a few minutes, then I went back to the room and said, “Can you use your right arm?” She said, “Yes.” Then I grabbed her left arm and raised it towards her nose and I said, “Whose arm is this?” She said, “That’s my mother’s arm.” Again, typical, right? And I said, “Well, if that’s your mother’s arm, where’s your mother?” And she looks around, completely perplexed, and she said, “Well, she’s hiding under the table.” So this sort of confabulatory thing is very common, but it’s just a very striking manifestation of it. No normal person would dream of making up a story like that. But here is the best part. I said, “Please touch your nose with your left hand.” She immediately takes her right hand, goes and reaches for the left hand, raising it, passively raising it, right? Using it as a tool to touch my nose or touch her nose. What does this imply? She claims her left arm is not paralyzed, right? Why does she spontaneously reach for it and grab her left arm with her right hand and take her left hand to her nose? That means she knows it is paralyzed at some level. Is that clear? [53]

ERROL MORRIS: Yes. Presumably, if she didn’t know it was paralyzed, she wouldn’t try to lift it with her right hand.

V.S. RAMACHANDRAN: And it gets even better, she’s just now told me that it’s not her left arm, it is her mother’s arm, so why is she pulling up her

mother's arm and pointing it at my nose? What we call belief is not a monolithic thing; it has many layers.

ERROL MORRIS: Like a deck of cards. But it again raises the question of whether this phenomenon is real? Isn't that Babinski's question? This is true of your work on anosognosia — the idea of trying to devise a set of experiments to determine whether someone is pretending to not-know something. Are they feigning a lack of awareness? Are they truly oblivious? Or is that knowledge buried somewhere in the brain? Do we live in a cloud of belief that is separate from the reality of our circumstances?

V.S. RAMACHANDRAN: Absolutely, and overall, fortunately, it's a positive cloud in most of us. If we knew about the real facts and statistics of mortality, we'd be terrified.

ERROL MORRIS: Indeed.

V.S. RAMACHANDRAN: It may well be our brains are wired up to be slightly more optimistic than they should be.

Ramachandran has used the notion of layered belief — the idea that some part of the brain can believe something and some other part of the brain can believe the opposite (or deny that belief) — to help explain anosognosia. In a 1996 paper [54], he speculated that the left and right hemispheres react differently when they are confronted with unexpected information. The left brain seeks to maintain continuity of belief, using denial, rationalization, confabulation and other tricks to keep one's mental model of the world intact; the right brain, the "anomaly detector" or "devil's advocate," picks up on inconsistencies and challenges the left brain's model in turn. When the right brain's ability to detect anomalies and challenge the left is somehow damaged or lost (e.g., from a stroke), anosognosia results.

In Ramachandran's account, then, we are treated to the spectacle of different parts of the brain — perhaps even different selves — arguing with one another.

We are overshadowed by a nimbus of ideas. There is our physical reality and

then there is our conception of ourselves, our conception of self — one that is as powerful as, perhaps even more powerful than, the physical reality we inhabit. A version of self that can survive even the greatest bodily tragedies. We are creatures of our beliefs. This is at the heart of Ramachandran's ideas about anosognosia — that the preservation of our fantasy selves demands that we often must deny our physical reality. Self-deception is not enough. Something stronger is needed. Confabulation triumphs over organic disease. The hemiplegiac's anosognosia is a stark example, but we all engage in the same basic process. But what are we to make of this? Is the glass half-full or half-empty? For Dunning, anosognosia masks our incompetence; for Ramachandran, it makes existence palatable, perhaps even possible.

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[53] Oliver Sacks provides (also from "A Leg to Stand On") a particularly dramatic example of a patient trying to throw his arm out of bed. ". . . the patient at Mount Carmel who 'discovered' his long-lost brother in his bed. 'He's still attached to me!' he said indignantly. 'The cheek of it! Here's his arm!' holding up, with his right hand, his own left arm."

[54] See V.S. Ramachandran, The evolutionary biology of self-deception, laughter, dreaming and depression: some clues from anosognosia, Medical Hypotheses, November 1996, 47(5):347-62. This idea of the right brain as the "devil's advocate" is further discussed in Ramachandran's Phantoms in the Brain. I hope to return to these fascinating ideas in a forthcoming essay.

Continue to Part 5.