

Text Iviatiers, volume o, Number o, 2010

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The Tell-Tale Hand: Gothic Narratives and the Brain

# ABSTRACT

The opening story in *Winesburg, Ohio* (1919) by Sherwood Anderson is called simply "Hands." It is about a teacher's remarkable hands that sometimes seem to move independently of his will. This essay explores some of the relevant contexts and potential links, beginning with other representations of teachers' hands, such as Caravaggio's St. Matthew and the Angel, early efforts to establish a sign-language for the deaf, and including the Montessori method of teaching children to read and write by tracing the shape of letters with their hands on rough emery paper. The essay then explores filmic hands that betray or work independently of conscious intentions, from *Dr Strangelove, Mad Love*, to *The Beast With Five Fingers*. Discussion of the medical literature about the "double" of our hands in the brain, including "phantom hands," leads on to a series of images that register Rodin's lifelong fascination with sculpting separate hands.

The opening story in *Winesburg*, *Ohio* (1919) by Sherwood Anderson (1876–1941) is called simply "Hands." It tells with great sympathy the story of Wing Biddlebaum, a man "meant by nature to be a teacher of youth" and who these days would be named and shamed as a paedophile. His story, we are told early on is "a story of hands. Their restless activity, like unto the beating of the wings of an imprisoned bird, had given him his name":

In Winesburg the hands had attracted attention merely because of their activity. With them Wing Biddlebaum had picked as high as a hundred and forty quarts of strawberries in a day. They became his distinguishing feature, the source of his fame. (Anderson 29)

#### Yet we also learn that

the hands alarmed their owner. He wanted to keep them hidden away and looked with amazement at the quiet inexpressive hands of other men who worked beside him in the fields, or passed, driving sleepy teams on country roads. (28–29)

### Nonetheless, Wing Biddlebaum

talked much with his hands. The slender expressive fingers, forever active, forever striving to conceal themselves in his pockets or behind his back, came forth and became the piston rods of his machinery of expression. (28)

Eventually Wing gets close to a young reporter on the *Winesburg Eagle*. In the presence of George Willard, Wing Biddlebaum

lost something of his timidity, and his shadowy personality, submerged in a sea of doubts, came forth to look at the world. With the young reporter at his side, he ventured in the light of day into Main Street or strode up and down on the rickety front porch of his own house, talking excitedly. (29)

Their conversations usually involve some further activity with the hands:

When he talked to George Willard, Wing Biddlebaum closed his fists and beat with them upon a table or on the walls of his house. The action made him more comfortable. If the desire to talk came to him

when the two were walking in the fields, he sought out a stump or the top board of a fence and with his hands pounding busily talked with renewed ease. (29)

The turning point of the story comes one day when Wing is urging George to live a different kind of life, and getting him to dream of a world in which it is possible that young men gather about the feet of an old man beneath a tree and listen to his talk. He becomes so inspired that for once he forgets his hands, which "stole forth and lay upon George Willard's shoulders":

Pausing in his speech, Wing Biddlebaum looked long and earnestly at George Willard. His eyes glowed. Again he raised the hands to caress the boy and then a look of horror swept over his face. . . . With a convulsive movement of his body, Wing Biddlebaum sprang to his feet and thrust his hands deep into his trousers pockets. Tears came to his eyes. "I must be getting along home. I can talk no more with you," he said nervously. (30)

The narrator goes on to fill in the necessary background to explain this moment. He tells us how, in a small town in Pennsylvania where Wing used to teach, he would talk to his pupils in the evenings on the schoolhouse steps:

Here and there went his hands, caressing the shoulders of the boys, playing about the tousled heads. As he talked his voice became soft and musical. There was a caress in that also. In a way the voice and the hands, the stroking of the shoulders and the touching of the hair were a part of the schoolmaster's effort to carry a dream into the young minds. By the caress that was in his fingers he expressed himself. . . . Under the caress of his hands doubt and disbelief went out of the minds of the boys and they began also to dream. (31–32)

And then the tragedy. One boy makes accusations, others follow suit, and soon the teacher is assaulted by some men of the town and driven out. He leaves Pennsylvania and goes to live with an aunt in Winesburg, Ohio:

Although he did not understand what had happened he felt that the hands must be to blame. Again and again the fathers of the boys had

talked of the hands. "Keep your hands to yourself," the saloon keeper had roared, dancing, with fury in the schoolhouse yard. (33)

The meeting with George Willard takes place some twenty years later. George is frightened by the look of terror in Wing's eyes, and decides not to ask him about his hands. As the story ends, Anderson beautifully evokes a picture of the lonely man, pacing his porch and waiting for George to come for a visit. Eventually, when he does not come, Wing sits down to eat.

A recent line-by-line analysis of the story by Stuart Evers (2014) offers little help to understanding its wider context. The sadness of the story obviously derives from the way Wing himself and his friend George are bewildered by the action of the hands: the word *paedophile* is not used, and indeed the label would have destroyed the delicate balance of the tale. The first occurrence of the word *paedophilia* in the OED is a 1906 usage by the sexologist Havelock-Ellis, but it seems only to have emerged from specialist or medical usage when reviews and discussions followed the 1955 publication of *Lolita*.

Language changes: another story in the Winesburg volume also concerns George Willard, and is called "Queer," but the word has its normal earlier meaning of "odd" and does not signal homosexuality. Anderson might just possibly have been aware of the word *paedophile*, given the dating in the OED, but if we now use the word to discuss the story, we import a host of angry, intense meanings from our own time and do not allow the world of 1919 Winesburg to come back to its own life. It is that bewilderment and those strangely uncontrollable hands that are the point of the story, not any modern label that may or may not be pertinent.

There are, however, other contexts with a longer history that may help us better understand this story. Consider first this painting by Caravaggio.¹ St. Matthew is here being taught to write his gospel by a young angel. The situation is the reverse of Anderson's story, and that is clearly part of the fun Caravaggio is having with his topic: the two, teacher and pupil, are physically intertwined. It is a shame this painting, rejected as scandalously inappropriate by the church authorities who had commissioned it, was destroyed by fire in Berlin in the Second World War (though black and white photos, like this one, survive). The central motif, on which the whole design is focused, is the young angel's hand helping the aged disciple's to write, as if for the first time, and even perhaps to read. (The focus is reinforced by the contrast with Matthew's bare feet: as Gordon Campbell notes in his *Dictionary of the Renaissance*, Caravaggio's St. Matthew is the earliest disciple to be shown with dirty feet.) Renaissance guides to writing often follow Quintilian in

http://classconnection.s3.amazonaws.com/506/flashcards/1432506/png/picture 11335765388837.png

recommending exactly the procedure represented in the painting: "The pupil, by feeling the movement of the master's hand, comes to appreciate more readily the details, the subtle points, and the essential shape that this letter, which he is trying to learn, should have." In this case, as in many others from the period, the master's hand needs to touch his pupil in order to guide him. Anderson's description of the idyllic paradise of teacher and students before the accusation of paedophilia borrows from the same well of ideas.

It must have been clear in the original painting how the relation of old man to young and attractive angel suggests but reverses the normal relation of pupil to master. From what we know of Caravaggio's pleasure in depicting young men (often his models) it is not difficult to imagine a kind of subtle witticism in the painting directed at those in the know, and this may have been a further reason for the displeasure of the authorities. So the painting may not quite be representing that innocent idyll of learning at all. The painting was replaced in the chapel of San Luigi dei Francesi in Rome by one in which the angel has withdrawn to a superior aerial dimension: Matthew looks up to him and listens as he receives the inspiration for his Gospel. In the rejected version, the angel touches the evangelist's body, not only the hand, and engages in direct, physical intervention. The angel intertwines with the old man, apparently whispering into his ear and looking over his shoulder to see if he has finally got it.

This way of imagining master and pupil goes even further back. In his *Philosophical Investigations* Wittgenstein opens with a long meditation on Augustine's description in the *Confessions* of how he came into language:

When my elders named some object, and so moved towards something, I saw this and I grasped that the thing was called by the sound they uttered when they meant to point it out. Their intention was shown by their bodily movements, as it were the natural language of all people. (5)

Starting from there Wittgenstein developed the notion of "ostensive teaching" as one of the primary vehicles for the language games by which we learn the relation of words and the world (7). We learn to read by sensing the intention of the teacher's hand and having that intention made into the sound of a word. Most of us have forgotten how often in our early lives we would tire our parents' patience by endlessly pointing to things and asking "whassat?" We have probably also forgotten that when we first learned to read, we traced the words, even the letters, on the page or slate with our fingers, usually the first or index finger (what the Montessori method teaches).

<sup>&</sup>lt;sup>2</sup> Giovan Francesco Cresci, *Il Perfetto Scrittore*, Rome: 1571, 122 (qtd. in Goldberg 91).

But that connection to the page as a corporal experience may not have been entirely forgotten by our bodies. That is the long tradition that Caravaggio represents, with that characteristically witty twist, in his painting.

Nonetheless it is not quite this idyllic world of learning to read and write that Anderson is representing in his story of teacher and pupils. One aspect of



Fig. 1. Children at the Montessori School, courtesy of photographer Frida Azari.

the story that is especially striking is the innocence that Wing Biddlebaum retains about himself even after the savage beating, indeed even after twenty years have passed living with his aunt in Winesburg. But the narrator clearly expects the reader to understand what it was that provoked the men of the Pennsylvania town to attack him. The charm of the story resides in the balance between helpless innocence and the cruel, even murderous, attitude of the townspeople. The hand tells a truth of which the head remains ignorant.

In 1644 the inventor of sign language, John Bulwer, wrote in some dedicatory verses at the front of his linked books *Chirologia* and *Chironomia* about what he called "chirograms" (from the Greek for

hand and writing) or hand gestures: "The Tongue and Heart th'intention oft divide, / The *Hand* and Meaning ever are ally'de," which is to say that the tongue may deceive, it may distort, or be distorted by, what is in the heart, but hand gestures tell the truth (qtd. in Sherman 49). Bulwer's concern was not

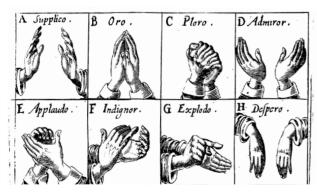


Fig 2. John Bulwer. *Chirologia*. 1644.

so much to denigrate oral communication as to open up another possibility of talking independently with the hands.

Nevertheless the hand that betrays its owner has become a well-known theme in our culture, and in this context Anderson's story takes on further implications. The theme has a comic variant in Peter Sellers's character's repeated efforts to restrain his mechanical arm from giving the Nazi salute in *Dr Strangelove*. The motif goes back at least to a creepy movie of the thirties directed by Karl Freund and entitled *Mad Love* (1935) with Colin Clive and Peter Lorre.<sup>3</sup> The movie has been remade three times, but it is itself a remake of the German *Orlacs Hände*, a 1924 silent film directed by Robert Wiene: a pianist damages his hands in a train crash but has a transplant operation in which a mad doctor gives him a new pair. The pianist can play again. Unfortunately, the hands were taken from the body of a recently hanged criminal, and the previously gentle and sensitive pianist finds the hands starting to take over his life and commit murder.

There is probably no direct link with the Sherwood Anderson story, though we cannot be sure. The novel that is the original of the film was by Maurice Renard, *Les Mains d'Orlac*; it was published in 1920 and translated into English only in 1929. The surgeon portrayed in the novel was based on a real French surgeon of some renown during the early 1900s. His name was Dr. Alexis Carrel (1873–1944) and his experiments with biological transplants and grafting procedures earned him the Nobel Prize in 1912. It is possible that Anderson may have known about him, and yet there is no obvious link with his story "Hands," beyond the sense that the idea of strange and uncontrollable hands was somehow in the air.

There is, however, a clear enough link between that chain of films and another group. This time the theme becomes clearly Gothic because the hands take on a separate, not simply independent, life. The wandering hand in this chain of stories and films is supposed to represent the unconscious desires of the man who loses it. The group begins with one of the better known stories of the English writer William Fryer Harvey (1885–1937), "The Beast with Five Fingers," published in 1928 in a collection with the same punning title. The film of 1946 starred (once again) Peter Lorre. The theatrical release poster, clearly signaling the horror genre, claims that "your flesh will creep at the hand that crawls."

<sup>&</sup>lt;sup>3</sup> See the film poster at http://wrongsideoftheart.com/wp-content/gallery/posters-m/ mad love poster 04.jpg

 $<sup>^{4}</sup>$  See the poster at http://kinountersternen.at/wp-content/uploads/beastwithfive-fingersposter1.jpg

Those in the know will perhaps have recognized in the film's musical score Brahms's transcription for the left hand of a Bach violin piece: it is much played throughout the film, and it is often said that the hand of well-known pianist Ervin Nyíregyházi is shown playing it. So here too the plot concerns a pianist and his hands. Francis Ingram, who is immensely rich, lives in a manor house near a small, isolated Italian village. He has suffered a stroke so that his right side is immobile and he uses a wheelchair to get around. He falls in love with his nurse, Julie Holden, and makes a new will leaving her all his money, not knowing she is secretly in love with his friend, Bruce Conrad. A musicologist who is thus disinherited, Hilary Cummins (the Peter Lorre character), tries to expose the affair with Conrad but Ingram, outraged at the slander on his beloved's good name, tries to choke Cummins to death. Only Julie's arrival (after meeting Conrad in the garden) saves him.

Ingram soon falls down the stairs, breaking his neck. (The audience does not see if Ingram was pushed or he fell.) Further machinations about the new will soon follow, and more murders. One night, everyone hears Ingram playing the piano in the main hall, but when they go to check no one is there. The Commissario of police discovers that someone has broken into the Ingram mausoleum and cut off Ingram's left hand. But it seems impossible for anyone to have gotten in or out.

The audience of the film now begins to see a disembodied hand moving around the manor house. The hand attacks Cummins, but he is able to assuage the hand's quest for vengeance by giving the hand Ingram's signet ring. He locks the hand in a closet, but when Conrad and the nurse go to see what has happened, the hand has disappeared. Eventually the previous will is discovered. Again, Ingram's distinctive piano playing is heard. Cummins discovers the hand again, nails it to a board, and puts it in the safe. But it disappears. When Holden discovers the hand, Cummins (becoming more and more mentally unhinged) tries to burn it in the fire. But the hand crawls out and chokes him to death. Commissario Castanio discovers a hidden record player and concludes that Cummins was playing it to scare people. He theorizes, with the realistic get-out clause common in Hollywood Gothic, that Cummins cut off the hand, and committed the murders.

The 1981 film by Oliver Stone entitled simply *The Hand* bears some similarities and has even been called, mistakenly I think, a remake. This film also features a murderous disembodied hand, though a comic book artist's,

<sup>&</sup>lt;sup>5</sup> According to Kevin Bazzano, who has written a recent biography of the pianist, there is no evidence that the hand in the film belonged to him, and he has posted that correction on the website: http://www.fugue.us/Nyiregyhazi\_discography-2\_english.html. The trailer is now on YouTube: https://www.youtube.com/watch?v=-Iv4EOuiY2s

not a pianist's. Here too a road accident causes the hand to be severed, and it soon takes on its own life, at one point even fighting its erstwhile owner. Eventually the artist, driven mad and in an asylum, is completely in thrall to the hand. The hand murders his psychiatrist, and the film ends with the artist laughing, throwing off his restraints and escaping. This film is also based on a novel, *The Lizard's Tail* by Marc Brandell, and stars Michael Caine and Andrea Marcovicci. In each case the hand is both frightening in itself and also represents the repressed urges of its original owner. The theme of the revealing hand has here become thoroughly Gothic and has shaken off the subtlety or delicate indirectness of Anderson's short story form.<sup>6</sup>

How are we to account for the power of these widely differing images of tell-tale hands? Recent advances in neuroscience may help. People who have a hand amputated often continue to feel it, and are disconcerted by the uncanny separation between what they know to be the case and what their bodies somehow tell them. In fact we possess in our brain a "double" of our hands such that people who have a hand amputated still feel its presence. The hand may have gone, but not the part of the brain that controls it. Long after he lost his right arm in battle, Admiral Nelson had the sensation that his non-existent fingers were digging into his non-existent palm. This led him to believe in the soul and the afterlife. If an arm can survive an amputation, he reasoned, then an entire person can survive annihilation of the physical body.<sup>7</sup>

This reference to Nelson has become common in the scientific literature: the neurologist Oliver Sacks repeats it, for example, in his book *Hallucinations*. Technically, the phantom arm is a hallucination because it involves the perception of something that has no material existence in the outside world. But in an important way, phantom limbs seem not to be a disorder but rather a natural neurological response to a severance and incompleteness that the body cannot accept as final or even real. Sacks points out that "the feeling of a limb as a sensory and motor part of one-self seems to be innate, built-in, hardwired"—what Ahab, in *Moby Dick*, referring to his phantom leg, calls "tingling life" (Sacks 277–80).8 This is

<sup>&</sup>lt;sup>6</sup> Another "classic" film in this horror group is *The Crawling Hand* (1963), in which an astronaut's severed hand falls to earth and turns out to be possessed by a murderous alien. It may be watched as a Community Video here: https://archive.org/details/TheCrawlingHand. A list of many such films and TV shows including an early David Tenant *Doctor Who* is entitled "The Most Exciting Severed Hands of All Time" and may be found at an io9 blog: http://io9.com/5727965/severed-hands-photos.

<sup>&</sup>lt;sup>7</sup> Descartes was also influenced by the phantom limb phenomenon in his identification of the pineal gland as the seat of the soul: *Philosophical Letters*, p. 69, discussed in Sawday (156).

Herman Melville, Moby Dick, ch. 108: at https://www.gutenberg.org/

given credence by "the case of a girl born without forearms who nevertheless was able to 'move' her phantom hands. As a schoolgirl she would do simple arithmetic by counting with her nonexistent fingers" (277–80).

Over time, a phantom limb may shrink into a painfully paralyzed position. The phantom arm may disappear, while the hand remains, sprouting deformedly from the shoulder, gnarled and digging into its phantom palm with its phantom nails. In these cases the brain has abandoned the limb, because of the absence of visual confirmation of its existence. V. S. Ramachandran, beginning in 1993, gradually invented a simple remedy for this problem—an oblong wooden box with its left and right sides divided by a mirror. The patient puts his good arm into the box, and through the optical illusion of the mirror, he sees the missing arm looking normal and attached to the hand. Upon taking in this sight, the brain plugs the hand back in and the phantom sensation becomes whole and normal again, and so relieves the painful spasms.<sup>9</sup>

The neurological literature can begin to seem as creepy as the Gothic stories themselves. Nevertheless recent advances in the field offer important ways to understand what is happening to our brains when we react to these images. Phantom hands are felt most strongly of all the limbs because such a large area of the brain is devoted to hand movement. In Lausanne, Switzerland, there is a place called the "Musée de la Main." It is run by a Foundation honouring the work and memory of the surgeon Dr. Claude Verdan (1909–2006). A splendid illustrated book *La Main: Cet Univers*, commemorates his work.

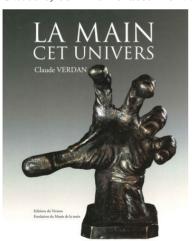


Fig. 3. Cover of the publication *La Main: Cet Univers* by Claude Verdan (Edition du Verseau et Fondation Claude Verdan, 1994). Sculpture: *Main de Rodin*, Wladimir Kouristsine, 1910. Collection Musée de la main UNIL-CHUV. Photo © CEM-CAV-CHUV. Courtesy of the Musée de la Main.

files/2701/2701-h/2701-h.htm, accessed 9 May, 2015. Sacks points out (273–74) that Melville was writing some twenty years before the first identification of the phenomenon in the medical literature by Silas Weir Mitchell (1872).

<sup>&</sup>lt;sup>9</sup> Qtd. in Sacks 283–84.

The hand is, says Verdan, a cerebral organ. "Our cerebral cortex is composed of well-defined areas that correspond to the peripheral elements of our body" (Verdan 17). By far the largest of these areas is occupied with the operation of the hand. Here is the way he sketches this part of the brain in his book, showing the separate areas for each finger and part of the hand.

Motor cortex, functional importance of the hand A gauche, schéma du cortex moteur d'après Penfield. A droite, schéma du cortex sensitif d'après Petit-Dutaillis et Pertuiset. On mesure dans les deux cas l'importance fonctionnelle de la main. LANGUE BHARYNX

Fig. 4. Claude Verdan. "Sketches of the Brain." From the publication *La Main: Cet Univers* by Claude Verdan (Edition du Verseau et Fondation Claude Verdan, 1994).

In either perspective the hand takes up the largest area of the brain. In addition there is a special pathway in the nervous system, a direct corticospinal tract, that allows individual fingers to be controlled.

Verdan was not only a brilliant surgeon but an amateur sculptor who studied the work of other artists and made a collection of their works. He recognized the greatness of an artist by the way he represents hands. One

example is Picasso's *Guernica*, in which Verdan noted "les mains horribles du point de vue anatomique, avec des doigts boudinés, étendus et écartés, traduisant l'intense révolte d'une population terrorisée par le bonbardement" ("the horribly twisted hands, with their bulging fingers stretching out and spread apart, representing the intense revolt of a population terrorized by the bombardment," 21). Picasso's painting of 1937 has indeed long been understood as a place where the art of horror and the facts of history overlap or reflect each other.

Above all Verdan admired Rodin, and collected several of his hands, or images of them. The cover of his book shows Rodin's own hand as sculpted by a disciple, Vladimir Kouritsin. Verdan admired the way that Rodin's talent allowed him to let every part of the body speak for the whole. His work was well known in the USA at least since Stieglitz promoted him in New York, and by the time Sherwood Anderson wrote his story, Rodin had been sculpting separate images of hands for several years. Here is one of them:



Fig. 5. Auguste Rodin (1840–1917), *The Clenched Hand* or *The Mighty Hand*, small version, c. 1885; sand cast by Alexis Rudier between 1935 and 1950. H. 5.5; W. 4.04; D. 1.93 inches. Courtesy of the Cantor Arts Center @ Stanford University.

As you contemplate this image of Rodin's *Clenched Hand* you may, like me, be tempted to copy it with your own hand, whether right or left, or both. <sup>10</sup> Why? You may say this is because it is such a beautifully made sculpture that it evokes a visceral reaction of the kind that great works of art often do. This is how Rilke put it (he worked for several years as Rodin's secretary and wrote two remarkable essays on him in 1902 and 1907):

Rodin's work includes hands, small, autonomous hands that, without being a part of any body, are alive. Hands that reach out, angry and menacing, hands whose five spikey fingers seem to howl like the five muzzles of the hound of Hell. Hands that walk, hands that sleep, and hands that wake up, criminal hands, hands with loaded histories, and others that are tired, that want nothing more, that are curled up in a corner like sick animals that know no one can save them. (Rilke 44)

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When you start to reflect on your own reaction, you may wonder which kind of hand this one is, whether it is clenched in pain, in fear or in menace, or all three. Rodin's patron Victoria Sackville-West asked the sculptor in a letter dated 17 Jan. 1914 if it is clenched in horror, anger, or suffering. Such reactions are part of the general currency of the way we discuss and experience works of art.

Since Verdan's groundbreaking work, anatomists have continued to marvel at Rodin. An exhibition at Stanford University in the summer of 2014 entitled "Inside Rodin's Hands: Art, Technology, and Surgery" allowed museum visitors to experience Rodin's hands, many of which are held in the university's collection. Students of Dr. James Chang in the medical school, who helped organize the exhibition, now study them in their anatomy classes. Some of the hands are presented as if they were suffering

<sup>&</sup>lt;sup>10</sup> This variant is in the Stanford University Cantor Arts Center collection. There are perhaps some 30 variants, authenticated by the Rodin Committee. A similar piece was in the possession of Samuel Josefowitz and Ellen Melas Kyriazi, of Lausanne, before being sold by its Canadian owner at Sotheby's on 5 Nov. 2008. It will be included in the Catalogue critique de l'œuvre Sculpté d'Auguste Rodin (Critical Catalogue of the Sculptural Work of Auguste Rodin), currently in production, under the number 2012-3898B. This work was exhibited by itself on a pedestal: it toured Europe beginning in 1896. A further selection of Rodin hands can be viewed at this website: http://www.slideshare.net/sevnorth/rodin-hands, accessed 4 Aug. 2015.

<sup>&</sup>lt;sup>11</sup> Cited by Natasha Ruiz-Gómez in a review of Hélène Marraud, *Rodin. La main révèle l'homme* (Paris: Collection Tout L'oeuvre, éditions du musée Rodin, 2005), in *Nineteenth-Century Art Worldwide* 5.2 (2006). http://www.19thc-artworldwide.org/autumn06/50-review/150-rodin-la-main-revele-lhomme. Unfortunately Rodin does not seem to have replied directly to that question.

from established medical conditions and were compared with photographs of patients' hands with the same conditions: the exhibition illustrated how surgeons can nowadays correct such problems. The clenched hand, or a variant of it, is said to have Charcot-Marie-Tooth disease, an inherited neurological malady. So one reason for our reaction to Rodin's hands may simply be that they are marvellously exact representations to the point that trainee surgeons can learn from them.

The Stanford exhibition was fascinating, but neglected perhaps the most important part of what Verdan had shown, the role of the brain. The fast-growing field of motor cognition, especially the discovery of mirror neurons, may get us closer to understanding the impact of these images. Mirror neurons are nerve cells in our brains that vibrate however minutely when stimulated by what others do. What we call by the rather vague term "empathy" can now be located in specific areas of the brain. Damage to these areas, for example "the right somatosensory cortices, namely in the insula, S11 and S1 regions of the right cerebral hemisphere" means that "it is not possible for the brain to simulate other body states" (Damasio 115–18, 312). But normally, seeing someone else in pain or joy can produce the same brain and body reaction as if we ourselves were experiencing the emotion. We learn to smile when mother smiles: we even smile inwardly the phrase has real meaning. We are impelled to move our own bodies, however slightly, by the movements of others, and—this is what is most remarkable—not only by seeing movements in others but even by looking at pictures or reading about them. Mirror neurons make our brains, our embodied minds, act as if we ourselves were experiencing whatever that other person is experiencing—or appears to be. 12 The impulse to copy the teacher, or to do with our own hands what Rodin's hand is doing, has come to be called *simulation*. <sup>13</sup> We comprehend the intentions behind another's action with the same primary neural structures that are needed to execute the action ourselves.

Rodin experimented in his later career with separate body parts, especially hands, that he would try joining to different bodies to see the effect. This was the period when Dr. Alexis Carrel was practicing, the surgeon whose experiments with transplants and grafting procedures earned him the Nobel Prize in 1912. As we have seen, Maurice Renard's novel, Les Mains d'Orlac was based on his work, and was eventually made into a classic horror film in which separable hands are the key ingredient in the plot. No doubt Rodin's impulse to sculpt those hands and to put the body

<sup>12</sup> Gibbs offers a synthesis of these discoveries.

<sup>&</sup>lt;sup>13</sup> A good summary of recent research is Guillemette Bolens (11–16). See also Cartmill et al.

back together in different ways was influenced by this pervasive climate of medical Gothic. Here is a pianist's hand (see link in note 14), one of several such images among Rodin's *oewvre*.<sup>14</sup>

However tempting it may be to see some overlap between those images and the chain of expressionist films we explored earlier, there is apparently no direct connection. Rilke may have made Rodin aware of some of the German and Austrian artists that later came to be called expressionist, but there is no clear line to be drawn between the artists and the so-called Expressionist movies launched by Robert Wiene's *The Cabinet of Doctor Caligari* in 1919, even if the same director did soon make *Orlacs Hände*. If there is any link, we should probably trace it back to the work of that innovative surgeon and his transplants of body parts.<sup>15</sup>

Perhaps the best known of Rodin's late-period hands is *La Cathédrale*, c. 1908, of which there are also several versions and many different castings. Here is one at the Rodin Museum in Paris.



Fig. 6. La Cathédrale 1908. S. 478. Auguste Rodin Pierre. Bronze. 64 x 29.5 x 31.8 cm. Photographer Christian Baraja. Courtesy of the Musée Rodin, Paris.

14 http://boutique.musee-rodin.fr/96–1794-jqzoom/hand-of-a-pianist-rodin.jpg

<sup>&</sup>lt;sup>15</sup> A painting in the Louvre, Nicolas de Largillière (1656–1746), *Etudes de mains*, suggests a longer history. Several sketches by Albrecht Dürer survive beyond his famous *Praying Hands* in the Albertina Museum, Vienna. A direct influence on Rodin is probable through Swiss philosopher Johann Caspar Lavater (1741–1801): in his *Essays on Physiognomy*, III, p. 426, is a sketch of several hands accompanied by wild and elaborate interpretations; see Natasha Ruiz-Gómez, "Essence and Evanescence" 103–06. For a wider perspective see Forsyth 294–321.

It is a combination of two different right hands, facing each other and almost intertwined. In an upward movement, the two hands hold an empty space and make up a special shape together. Rodin was convinced the source of the ogival arch (the key to the Gothic in another sense) could be found in such clasped or joined hands. This piece was first entitled *L'arche d'alliance* (*The Ark of the Covenant*), before being named *La Cathédrale* after the publication of Rodin's book of sketches *Les Cathédrales de France*, in 1914. Like the sculpture of the *Clenched Hand*, *La Cathédrale* would, I think, be hard for even the least sensuous person to resist feeling in his or her own hands. Perhaps you will also have the disorienting experience of trying to copy it with your own hands and then realizing these are two right hands.

A good deal of the recent research into mirror neurons concerns perception of hands. In a conference (March 24, 2012) entitled "Being Human," sponsored by the University of California and reported in *Greater Good*, the UC Berkeley journal that publicizes science online, <sup>16</sup> V. S. Ramachandran's presentation, returning once again to the familiar topic, explained

that people with a phantom limb have a strong propensity to experience others' pain as their own. . . . When most of us see someone get hurt, mirror neurons in our brains fire in such a way to suggest that we ourselves are experiencing their pain. But our skin knows better: it doesn't send any signal of being hurt (because it's not), and it serves to "veto" the signal sent by the mirror neurons. . . . But when people are missing a limb, there's no skin to veto the brain's signal and indicate that the pain's not real. So when people with a phantom limb observe someone else getting hurt (like by getting pricked in the finger), they feel and react as if they themselves have been hurt—they say "ouch" and pull back their hand.

That seems a helpful way to describe what works of art do to us. <sup>17</sup> Unless you are missing the relevant limb, you may not say "ouch" (although empathy may even go that far in some people) but you will, nevertheless, have the experience.

Thus the Gothic images of hands we have been studying simply translate and intensify what normally happens in our bodies. On one level, we now know, our hands are acting independently of what our consciousness wishes, and it is that sense of separateness that Anderson captured so

<sup>16</sup> http://greatergood.berkeley.edu/article/item/notes on being human

<sup>&</sup>lt;sup>17</sup> See further Vessel.

delicately in the hands of Wing Biddlebaum, hands which so much alarm their owner, and which in the image that gives him his name in the story are "like unto the beating of the wings of an imprisoned bird" (29).

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