©2001 The Institute of Mind and Behavior, Inc. The Journal of Mind and Behavior Winter 2001, Volume 22, Number 1 Pages 69–90 ISSN 0271-0137

Right Brain Damage, Body Image, and Language: A Psychoanalytic Perspective

Catherine Morin
Institut National de la Santé et de la Recherche Médicale
Stéphane Thibierge
Université de Poitiers
Michel Perrigot
Hôpital La Salpêtrière

The right hemisphere syndrome refers to various disturbances in patients' relationships with space and body due to right hemisphere lesions. While the psychological aspects of this syndrome have been discussed at length in the literature, the relevance of the Lacanian psychoanalytic notion of specular image (the image that is acquired from the mirror phase and permits the subject to identify with a whole body image while being unaware of his or her real body) has not yet been considered. The present study is an attempt to evaluate, in a case report, whether the right hemisphere syndrome has subjective coherence regarding the pathology of the specular image. The patient described here exhibited anosodiaphoria, hemineglect, and personification of his hand. From the words and self-portrait of the patient, gathered during semi-directive interviews, we concluded that the patient's specular image was split into an "hemi-injured" image and an object-like hemibody deprived of its symbolic value. In this case, anosodiaphoria and hemineglect seem to contribute in different ways to the repression of this intrusive appearance of the real body.

In addition to causing left hemiplegia, right hemispheric lesions cause a variety of disturbances in patients' relationship to their body (Hécaen and de

Drs. Pascale Pradat–Diehl, Florence Marchal, and Eric Durand read the manuscript and offered helpful criticism. Marie Chantal Lauriot–Prévost and Chantal Taillefer performed careful neuropsychological examinations. Catherine Cullen and Mary Shaffer reread the English. Our thanks also go to Isabelle Thuilliez who prepared the figures. Stéphane Thibierge, Ph.D., and Catherine Morin, M.D. (to whom requests for reprints should be sent) are currently working at LEAPLE (CNRS, UMR8606, Paris V), 7 rue Guy Moquet, BP8, 94380 Villejuif, France.

Ajurriaguerra, 1952), to their spatial environment (Heilman and Watson, 1977), and toward other people (Ellis, 1994). These symptoms are referred to collectively as "right hemisphere syndrome." In the initial months following stroke, symptoms mainly consist of hemineglect, hemiasomatognosia, and anosognosia of hemiplegia. Left hemineglect consists of not taking care of one's left hemibody and/or not reacting to information coming from the left hemispace. Hemiasomatognosia consists of not recognizing the left limbs as one's own. Anosognosia for hemiplegia consists of not taking into account the left paralysis. Patients may thus claim that their left limbs are either normal or suffering only minor deficiency. While anosognosia is generally transient, it may persist under the guise of anosodiaphoria, that is, discordance between the unconcerned attitude of the patient and the severity of the handicap. These deficiencies, which affect the representation of space and body, are sometimes accompanied by aberrant productions, which also have to do with body and space, such as personification of the paralyzed limb, delusion of limb disownership in favor of another person (Critchley, 1953), and reduplicative delusions for places (Patterson and Mack, 1985).

As emphasized by Bisiach, Vallar, Perani, Papagno, and Berti (1986), there is currently no neurological unitary conception of right hemisphere syndrome. A variety of cognitive studies are devoted to describing the various functions, the disturbance of which is supposed to produce each isolated element of the right hemisphere syndrome. This implicit reductionist bias ignores the contributions of those who have claimed that, whether we are healthy or brain injured, we perceive the reality of both the world and our body based on our body image. The concept of body image has been put forward by many neurologists (Critchley, 1953; Lhermitte, 1939/1998; Schilder, 1935/1968; van Bogaert, 1934), and is based upon a wide array of studies, such as Wallon's (1931/1981) observations on the origins and the construction of the child's own body. In his doctoral thesis, Phenomenology of Perception, Merleau-Ponty (1945/1975) claimed that perception was linked to body representation. But above all, it was Jacques Lacan (1949/1966a) who brought out the clinical and theoretical importance of the mirror phase for the identification of the subject and his perception of reality.²

¹The term *body schema* was previously proposed by Bonnier (1905) and Head and Holmes (1911). Although, according to these authors, *body schema* mainly refers to a combination of proprioceptive and somesthetic body information, both terms, *body schema* and *body image*, may be found in Schilder's and Lhermitte's works. The reason why we do not refer here to body schema is explained below.

²Following the example of Allan Sheridan in his translation of Lacan's *Ecrits* (1966/1977), we will employ the masculine pronouns each time the human subject is designated: this corresponds to the French tradition of using the masculine pronouns to indicate either a male person or a person characterized independently of his/ her gender.

Any disturbance altering the cerebral representations of the body cannot but have an effect upon the individual's long-established relationship with reality. This paper investigates specific subjective disturbances induced by right hemisphere syndrome in a patient showing anosodiaphoria and hemineglect. We intend to focus on certain basic data regarding the construction and disturbances of body image, and to carry the logical and clinical inferences from these data as far as the case study permits, without referring to currently accepted cognitive conceptions (Berti, Ladavas, and Della Corte, 1996; Levine, 1990). Since the Lacanian concepts (Lacan, 1949/1966a, 1958/1966c) of the subject's image are not ordinarily used as scientific tools in neuropsychology, we will describe Lacan's ideas at length.

Psychoanalytic Contribution to the Question of Body Image and Identity

Imaginary and Symbolic Identification

In the first months of life, a baby does not perceive his body as a permanent unit. This perception is acquired later through a process, which was called development of the child's notion of his own body by Wallon (1931/1981) and the mirror phase by Lacan (1949/1966a). Wallon described the behavior of young children when contemplating the image that a mirror sends back to them, and noted that this behavior is specifically human. While a young chimpanzee refuses to look in the mirror once it discovers that the image is illusory, the child continues to look at this image, with characteristic jubilant and triumphant gestures and facial expressions. Before this event, which takes place between the ages of six and 18 months (when motility is not fully developed), the child does not perceive himself as having a whole body, but rather what Lacan called a fragmented body. Lacan placed great importance on Wallon's observation that when the child discovers his specular image (Lacan, 1949/1966a), he becomes interested in this image. This whole process determines and organizes the identification of the child with his image, in the sense that he then acquires an identity. This image polarizes narcissistic attachment.³ It will also play a decisive role in giving form to the subject's relationship to experience and to reality. In particular, illusory wholeness and mastery are given to the child together with the image of a complete, symmetric and upright body, an image which does not take into account the actual prematurity of the child's nervous system.

As emphasized by Wallon (1931/1981), when the child looks at his mirror image, he also turns toward the accompanying adult, seeking acknowledg-

³Basing himself on this fundamental identification, Lacan (1958/1966c) revised the Freudian theory of narcissism; he situated the function of imaginary identification exactly where Freud (1923/1980) defined the "ideal ego" (*Ideal-Ich*).

ment and assurance that this image is his own. Winnicott (1971/1975b) also insisted upon the crucial role of the *regard* of the mother in structuring the self. The mother or any adult who fills a mother's role recognizes the child's body, names it and associates it with familiar words — thus connecting the mirror image to language and symbol.⁴ The specular image is thus dependent on multiple coordinates; although of paramount importance, the body representation in the cerebral cortex, which has a role in somatognosia, is only one of these coordinates.

Identification and Object Loss

The child's body is identified with a unique and whole image only insofar as it is separated from that of the mother. The subject loses something — an object — in this separation. The object is what Lacan called the objet a (Lacan, 1962; Thibierge, 1999b). The objet a is supported by a detachable body element (breast, faeces, voice, regard) whose absence and not its presence allows the individual to exist as a desiring human subject. 6 What is lost thus represents both the link with and the separation from the Other.⁷ The objet a is a paradoxical object, since its only value is its capacity to represent the lack; the object is therefore indifferent in and of itself. This is clearly exemplified by the characteristics of the transitional object (Winnicott, 1953/1975a). According to Winnicott, when handling and sucking shapeless rags, worn-out stuffed animals, etc., the child both maintains a link with his absent mother and symbolizes her absence. These objects have no value in themselves, and in the eyes of anyone other than the child, they are not only worthless but also possibly disgusting precisely because of their extreme closeness to the body. The case of the transitional object is interesting because it accentuates the primordial importance of the oral object; it also shows quite clearly that both the hand and the mouth participate in the

⁴Lacan (1958/1966c) considers this symbolic identification as corresponding to the function of "ego ideal" (*Ichideal*) in Freud's theory (Freud, 1923/1980).

⁵In his translation of Lacan's *Ecrits* (1966/1977), Allan Sheridan did not translate the term *objet a*. In his translator's note, he maintains that "Lacan insists that 'objet petit a' should remain untranslated, thus acquiring, as it were, the status of an algebraic sign." Therefore we will leave the term *objet a* in French and in italics.

⁶Sheridan translates the French term regard as gaze.

⁷In the Lacanian view of otherness, there are two kinds of otherness: the other, that is, the fellow creature, whose form is fixed by identification to mirror image; and the Other, that is, the language determinations which constitute the subject; while being alien to him or her. Even before a person's birth, the Other in language registers the subject at a certain place and assigns symbolic marks to the subject. Being radically alien to the child (because of the incest prohibition), and the first to symbolically represent the child in her words and her relation to it, the mother is the first incarnation of the Other.

determination of this oral object, since the thumb is the first transitional object. Usually, the transitional object is eventually abandoned. More generally, the *objet a* is neutralized and absent from the body image.

The Form of Body Image and the Human World

The form of the human body, the stability of which is linked to the loss of the objet a, is the first pattern in the organization of an individual's world. The body image allows the apprehension of fellow creatures; in addition, according to the body image pattern, objects are unique and consistent. Moreover, reality, the world thus built, will be the target of a desire for knowledge, insofar as the subject expects to meet again both the primordial forms of his narcissistic investment and the lost object. Winnicott's (1971/1975c) concept of object is akin to these Lacanian notions insofar as he insists that a relationship exists between the individual becoming a unit and the passage of the object from a "subjective" state (confused with the subject) to the status of a separate, perceptible thing. In other words, it is because of the loss of the objet a that we perceive the world as familiar, knowable and related to a desire. On the other hand, the appearance of this object in the subject's world suppresses the sensation of familiarity, thus arousing feelings of disgust, uncanniness (Freud, 1919/1990), or anguish (Lacan, 1962). Any pathology of body image may thus disturb cognitive function, such as the representation of the human body, space, or objects, or the identification of others.

The Form of Body Image and the Real Body

That the primordial form of objectivity is conditioned by the constitution of body image implies that lack of knowledge is our principal mode of relation to reality — since we perceive the world only to the extent that we ignore the object, which animates our perceptions. Lack of knowledge also characterizes our relation to our bodies, since the substance of our ego depends on our imaginary identification with a complete specular image, that is, our unawareness (Lacan, 1948/1966b) of the real functioning of our bodies. The French term méconnaissance (Lacan, 1948/1966b, 1949/1966a) better indicates the active if unconscious nature of this lack of knowledge (see Lacan, 1966/1977). Méconnaissance is clinically illustrated by the classical phantom limb phenomenon in amputees, where despite the absence of a limb and of the cerebral modifications of body representation in the somatosensory cortex (see Berlucchi and Aglioti, 1997), the body is perceived as whole by its owner.

The human body is thus not only a physiological organism. It is also *imaginary* (perceived as a unique *body image* by its owner through the Other's

regard), and symbolic (involved in exchanges between talking beings).⁸ The term specular image corresponds to the subjective combination of these imaginary and symbolic representations. This must not cause us to overlook the fact that the human body is also real.⁹ The human body is real in the obvious sense that its functioning depends on the integrity of organic mechanisms; the knowledge (somatognosia) we have of our own body depends on the functioning of a variety of neural brain circuits. But it is also real in a more paradoxical sense, since the constitution of the specular image itself depends on the neutralization of the real body connections with the lost object (for example, using the mouth in talking with others implies the neutralization of its sucking activity).

This concept of specular image bypasses the difficulties of trying to distinguish between body schema and body image. Whereas these two terms have been used rather indifferently in neurology, both Dolto (1984) and Gallagher and Cole (1995) have suggested that body schema is an "anonymous" property of human organisms, whereas body image is the personal creation of each human subject. Indeed, it is easy to distinguish between two kinds of etiology of alterations in the body's representation: anonymous brain lesions are the cause of neurologic diseases, while personal, imaginary or symbolic mechanisms are involved in neurotic or psychotic pathologies. 10 However, when considering the symptomatology of neurological body image alterations, it is not so easy to dissociate what is "anonymous" from what is "subjective." Brain lesions may produce symptoms that, on the one hand, involve the subjectivity of the patient (for example, hatred of the paralyzed limbs, which Gertsmann [1942] called somatophrenia), and, on the other hand, are not personal, since they are regularly associated with determined localization of lesions. More basically, brain lesions may disturb elements of both the body representation in the brain and the brain inscriptions of its subjective assumption; in other words, when, as in the case of right hemisphere syndrome, the symptomatology consists of an erroneous appreciation of reality, this cannot but affect the patient's subjectivity. In addition, our sole access to this symptomatology is through language, for example, questioning or talking with patients. This implies that, supposing there is some kind of "anony-

⁸Imaginary does not mean "unreal" but the aspect of image and fiction attached necessarily to the form with which we are primordially identified.

⁹By *real* we mean: that which cannot be assimilated to the ordinary coordinates of reality, that is, to the primordial form assigned to it by specular image. *Reality* is what we recognize, whereas the *real* manifests itself as non-integrable, strange or giving rise to anguish (see Thibierge, 1999b).

¹⁰Hysterical paralysis of the limbs, which may represent the subject's helplessness or inhibition, clearly exemplifies these imaginary and symbolic dimensions of the body (Freud, 1893/1984).

mous" body representation in the brain, neurological examination of right hemisphere syndrome only has access to a "subjectivation" of this representation, that is, body image. In the case report below, we will therefore refer to the terms body image and specular image in our analysis of the words and drawings of the patient. Without taking the semantic distinction too far, we will use the term *body image* when the dialogue with the patient refers to the imaginary dimension of the body and *specular image* when dialogue refers to links between the real, imaginary, and symbolic body.

A Case of Right Hemispheric Syndrome: Mr. E.

Medical History

Mr. E. is a 69-year-old retired watchman. His past history includes cardiac arrhythmia (which finally resulted in the present stroke), and lumbar and sciatic pain, which had forced him to resume his first job as taxi driver. Mr. E. was admitted to the rehabilitation unit one month after a stroke due to embolic ischemia in the superficial and deep territories of the right middle cerebral artery. At that time, he presented left sensorimotor hemiplegia; he could neither walk nor use his left arm. He displayed marked left hemineglect in barring and copying tests (see Figure 1). Mr. E. seemed aware of his hemiplegia since he explained to physiotherapists that he could not do anything because of left side paralysis. He explained to the residents that "it's all asleep" so that he must use his right hand to move his left arm.

Talking with Mr. E.

First interview (five weeks after stroke). A few days after his admission to the rehabilitation unit, one of the authors (CM) introduced herself to Mr. E. as his attending physician and suggested that he talk about what was happening to him. This dialogue was semi-structured: predetermined questions were asked of Mr. E., but the moment for each question was deliberately chosen not to suggest opinion on the part of the interviewer regarding the severity of neurological symptoms. ¹¹ In addition, Mr. E. was encouraged to develop his

¹¹The following questions were systematically asked: What symptoms most disturbed the patient? What did he feel or think when looking at his limbs or thinking of them? What did his left limbs look like? Had he ever had strange ideas (that his left limbs belonged to someone else, that something or somebody had been placed near him)? Could he compare his left limbs to somebody or something? How did he imagine his future life after leaving hospital? Was he in low spirits or good spirits? Did he have dreams? Did he feel they had any relation with his present state? Did he have any worries concerning sexual problems? Asking the patient to draw a self-portrait (see Morin and Bensalah, 1998) and a human figure completed the interview. Interviews of this type were repeated every two weeks during hospitalization.

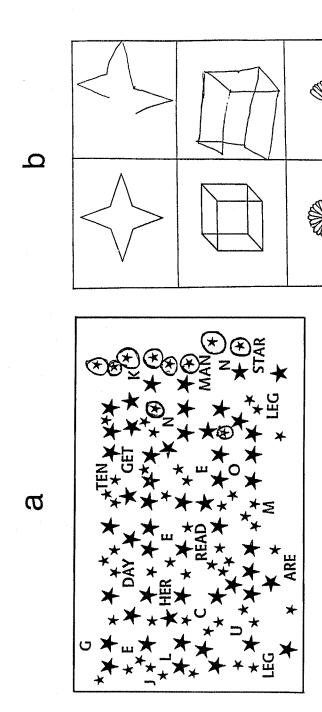


Figure 1: (a) Barring Stars Test (note that Mr. E. barred only the stars at the extreme right) and (b) Copy Test five weeks after stroke. Original sizes 210 mm x 297 mm.

own thoughts even if they were seemingly unrelated to the present pathological situation. All answers and comments were noted during the interview.

As soon as he was invited to converse, Mr. E. immediately started talking, even while his interlocutor pushed his wheelchair toward the examination room. Mr. E. was attentive throughout the examination, and maintained interest in the dialogue and in graphic tasks. He spoke in a monotonous voice. The pauses in his speech were not related to the structure of his talk. but occurred with stereotyped regularity. During the entire interview he fidgeted in his wheelchair. He insisted on two aspects of his situation, both of which reminded him of his godfather: like Mr. E. now, his godfather, an amputee, had been in a wheelchair ("Never had I thought I'd end up like this myself") and suffered severe pain ("I am thinking of my godfather; he had both legs cut off and suffered from aching toes"). According to Mr. E., his own pains were "as if the muscles were being torn off, like the suffering of a tree when its bark is being torn off." Since his godfather had pain in his absent toes — and Mr. E.'s joints were also painful — Mr. E. wondered whether he should not be amputated: "I say to myself that if they cut off my limbs, I would perhaps not suffer any more." When making this suggestion, Mr. E. did not seem either to be joking nor was he aware that his logic was specious. When asked about the cause of his pains, he replied: "The attack that split me down the middle." He located his pains either in his left joints, or along his back ("It comes from the head and the pain goes downward until it meets the chronic lumbar and sciatic pain and blends in with them"). Later conversations would show that for Mr. E., back pain, which identified him as a worn-out laborer, was a mark of identity.

Mr. E. did not spontaneously speak of his hemiplegia. He first mentioned paralysis when he recounted the onset of his stroke: having fallen from his armchair he was trying to walk on all fours. A neighbor said to him: "Don't try to move, your left side is paralyzed," which he did not believe until, according to Mr. E., the emergency doctor helped him up and made him notice that his left leg no longer supported his body. This account clearly illustrates Mr. E.'s initial anosognosia for hemiplegia.

When questioned about his left limbs, Mr. E. stated: "They are heavy, they disturb me, they are dead weight." He found his left hand "flabby and sweaty," and he said: "it has gone to sleep." He also spoke of his hand in a surprising way: "I wish I could understand it; I have to bear it; it bothers me since it does not do anything." When asked if he ever felt as if his hand did not belong to him, he answered: "Not really, but I wonder why it does not act like the other one." He then addressed his left hand: "Go and say good morning to your sister, take a walk together," admitting that since his stroke he often spoke to his hand with rather unkind words, as he would to a restive child, saying for example: "Will you do something, you lazy bones,

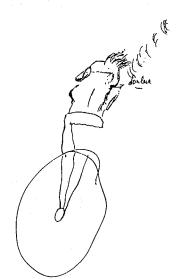
you idle thing!" This personification of his hand was also apparent when Mr. E. explained that an armrest had been designed for his paralyzed arm, and that he was constantly afraid that his hand was not well positioned on it: "I'm always afraid that my fingers could be decapitated." Several weeks later, he would explain that, when faced with "the shock of having half of one's body not respond any more," he had thought of controlling his hand by addressing it in the same way as his physiotherapist did when telling him what to do during the physiotherapy sessions. "Of course it was stupid," he said, "my hand has no brain; there is only one brain." But he nevertheless went on in the same way: "Now I speak less to my hand, I wait for it to come to me."

When questioned about his future, Mr. E. said it was "a big question mark," since he had previously heard about "that illness" and knew that "it's tricky." He immediately said: "There will be some improvement, one has seen worse! One must keep hoping." When asked about his spirits, he stated: "I am in good spirits, I have no other major concern." Mr. E. thus exhibits anosodiaphoria, since his mood ("I am in good spirits") does not fit with what he knows about his illness ("the future is a big question mark, it's tricky").

Mr. E. was asked whether he had worries about his sexual life. He then answered: "It's as if it had been erased from me."

Mr. E. has dreams in which he "does a lot of things" such as "pulling on a rope, catching hares." These remind him of the dreams he used to have before his illness, which brought him back to his childhood in the mountains: he ran, jumped, and fell without hurting himself. In their most optimistic form, Mr. E.'s dreams represent a state now beyond his reach; they deny his present paralysis (he catches hares and pulls on a rope) or his past backache (he falls without hurting himself). As proposed by Freud (1925/1985), this denial may indicate that Mr. E. knows without knowing that he is seriously paralyzed.

Self-portrait and human figure drawing. Mr. E. was asked to make a drawing of himself. He first chose to represent "his current situation" (Figure 2). Although he was presented with a double spread sheet, he used only the right sheet (see insert in Figure 2). In the drawing, a profile head leans directly against the wheelchair and no body is represented. The whole figure is inclined to the right. Behind the head, according to Mr. E.'s comments, "thoughts are evaporating." The mouth is missing, but the representation of the regard (the gaze) is accentuated through the frames of the glasses, with a dot for the eye. When asked whether he had finished his drawing, Mr. E. wrote "douleur" [pain] while underlining the back of the head, and did not seem to notice the absence of the mouth. When asked about this omission, Mr. E. complained about no longer tasting food, something he had not mentioned during medical examinations.



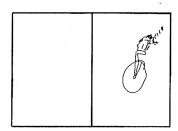


Figure 2: Self-portrait five weeks after stroke: Mr. E. in his current situation. The word douleur (pain) is secondarily added by Mr. E., when he is asked to complete his drawing. The insert shows the situation of the drawing in the double sheet. Original size 297 mm x 420 mm.

The patient was then asked to represent himself without taking account of his current situation. He used the right sheet to represent himself fishing in a stream. Figure 3a shows the first stage of this drawing. The mouth is lacking again, while the glasses again accentuate the regard. The body is reduced to two vague strokes. The limbs are not represented. There is a blank between the "body" of the fisherman and the fishing rod. The body is poorly drawn and situated to the extreme right of the figure (see inserts in Figure 3a and 3b), that is, in the preferential hemispace of Mr. E. This contrasts with Mr. E.'s performance when asked whether anything is lacking, or if he wished to add anything (Figure 3b). Here, he directs his pen toward the extreme left of the right sheet and draws a pretty trout. He also adds a "bird of prey," in profile, oriented like the human figure. This bird has no head and hence no beak, thus paralleling the absence of a mouth in Mr. E.'s portrait. This headless bird appears in subsequent self-portraits, always hanging above Mr. E.'s self-portrait. Mr. E. talked about the damage caused by birds of prey on his farm when he was a child. While the suddenness of the bird's attack could be related to the suddenness of the onset of the stroke, Mr. E.'s associations follow a different direction; according to him, the link between hemiplegia and birds of prey is in the claws, the spurs, in a play on words that cannot be translated: a bird of prey has spurs (ergots) and claws (serres). Mr. E. attends ergothérapie sessions. This therapy consists of using one's hands in activities of daily living, for example, gripping (serrer) things. Therefore, Mr. E. wonders out loud whether the root ergo in the word ergothérapie is related to the verb serrer. This may indicate concern about the human nature of his paralyzed hand (has he fingers, claws or spurs)?

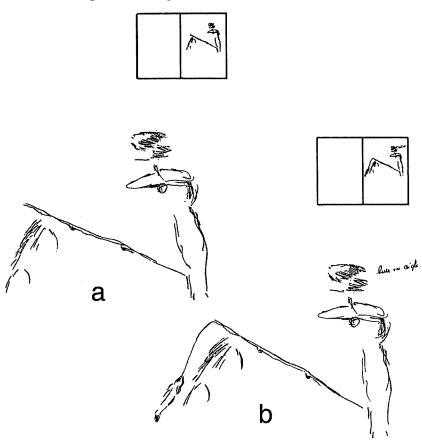


Figure 3: Self-portrait five weeks after stroke. Mr. E. fishing: (a) first version; (b) drawing completed following CM's suggestion. The words *buse ou aigle* (buzzard or eagle) are in Mr. E's handwriting. The insert shows the location of the drawing in the double sheet. Original sizes 297 x 420 mm.

Whereas Mr. E. quickly agreed to draw himself (he seemed to find drawing his self-portrait a normal activity), he was reticent when asked to draw an anonymous human figure. He preferred to represent Daladier (Figure 4a and 4b), the French Président du Conseil who signed the Munich agreement. Mr. E. explained that this politician said: "Peace is saved" although he knew that a war would soon break out. That general mobilization is among Mr. E.'s

worst memories: he vividly remembers the young men with whom he was thrashing wheat when the alarm rang; many of them, of course, were later killed in the war.

The left half of Daladier's portrait is lacking. After the absence of half the body was pointed out to Mr. E., he sketched out the lacking limbs (Figure 4b), but he did so without conviction and the resulting representation was still incomplete. But that drawing contrasts with the first two: here we have a structured body with a head, a trunk, clothes, one hand in the pocket, one leg. The mouth is visible whereas a hat hides the eyes.

Last interview (11 weeks after stroke). Six weeks later, the last interview took place. Mr. E. was now able to walk; he was no longer logorrheic. When asked his view of his current problems, Mr. E. was evasive. He made increasing administrative and material demands (Were his health insurance papers in order? His glasses were cracked, how could he get new ones?). While the

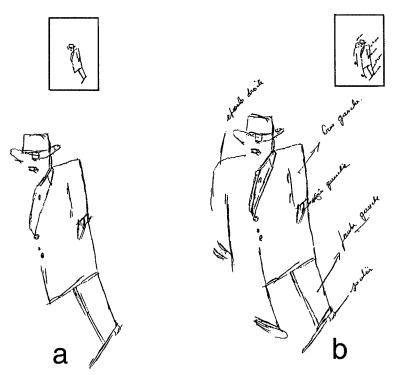


Figure 4: Drawing of a human figure five weeks after stroke; Mr. E. chose to represent Daladier. The insert shows the location of the drawing in the sheet: (a) first version; (b) drawing completed following the interviewer's request to check which parts of the body are represented. Note that no name is attached to the hand in the left part of the drawing. Original sizes 210 mm x 297 mm.

interviewer was sitting on his right, Mr. E. turned his gaze away each time he was asked a question: he thus looked leftwards — toward the side he was supposed to neurologically neglect! His self-portrait was well structured (Figure 5), even though one arm was hidden under the cover of a profile representation, and the insertion of the head on the body was not clear.





Figure 5: Self-portrait eleven weeks after stroke. The insert shows the location of the drawing in the sheet. Original size 210 x 297 mm.

Discussion

The words and drawings of Mr. E. may be considered as representations of various attempts to symbolize his situation, his history, and once again to go over the stroke's occurrence: a sudden attack (as fast as that of a bird of prey) has split Mr. E.'s body and life down the middle, separating him from his favorite activities and making his left hand look like a claw with spurs. He is not unaware (like Daladier) that his future is a problem. This type of interpretation has been proposed by Weinstein for a variety of brain lesions (see Prigatano and Weinstein, 1996). However, our discussion here is focused on the subjective meaning of those elements of Mr. E.'s neurological symptomatology, which are specific to the right hemisphere syndrome, that is, hemi-

neglect and anosodiaphoria. Rather than considering anosodiaphoria as unawareness, we insist that Mr. E. is not unaware that he is hemiplegic. The point is, rather, that he never spontaneously mentions paralysis as such, although he uses a striking expression: "The attack which split me down the middle," which indicates that his key problem is a disturbance of body image. We also do not consider hemineglect as merely a defective symptom, but believe that its subtle variations during the examination (while Mr. E. did not exhibit signs of fluctuations in his attention level) are meaningful: when Mr. E. was invited to complete his portrait of himself fishing, he was able to go far left to nicely draw a fine catch. By contrast, he only sketchily and reluctantly completed his "half-portrait" of Daladier. These discrepancies could be interpreted in two ways that are not mutually exclusive: (a) if one considers that for Mr. E. trout fishing represents a favorite masculine activity, that the trout is a desirable object, hemineglect might be considered as a lack of subjective interest in the left space (see Bisiach and Luzzatti, 1978); (b) the left hemineglect reaches primarily the body and then decreases as it passes from the body space to the extracorporeal space. This hypothesis implies that, at least in the present case, the left hemineglect might find its source in body hemineglect. Both anosodiaphoria and hemineglect might thus be related to alterations in specular image.

Alterations in Specular Image

The human figures drawn by Mr. E. reveal two different aspects of his body image: a broken body in the self-portrait, and a portrait that is "split down the middle" when Mr. E. draws Daladier. The alterations in specular image related to these two body images need to be addressed.

As represented in the self-portrait, the body is either roughly sketched out or completely lost in the wheelchair, a symbol of degeneration. One month later, Mr. E. would comment on another self-portrait, saying that he was "coming apart," that he had not drawn himself but "a monkey or a hedge-hog." That body is also separated, dissociated from what might characterize it sexually: trout fishing being a specifically masculine activity, it is not too tendentious to attach a phallic signification to the fishing rod. It is thus relevant to associate the blank space that separates this instrument from the body, with the words of Mr. E.: "It is as if it had been erased from me." The breaking up of the specular image is not without consequences on the organization of Mr. E.'s world. While his body is no longer invested by libido, other

¹²The French word used by Mr. E. was tout déglindé, that is, a neologic distortion of tout déglingué.

objects (trout fishing, nature) continue to arouse the patient's interest and to enliven his dreams and his drawings. This corresponds to our experience of the usual discourse of right brain injured patients who describe vividly their lost pleasures. But lost they are: these pleasures seem to belong to another world, to which, in the minds of these individuals, some "triggering mechanism" could reintroduce them. In the present case, in the portrait of Mr. E. fishing, the rod is actually elsewhere, a blank separating it from the handicapped body; Mr. E. hopes that "it will unjam" so that he may go fishing in the stream again. This expectation of a "triggering," an "unjamming," cannot but call to mind a reversal of the break produced by specular identification: after the fact, this specular identification may actually seem to consist of passing from one world to another. In this sense, Mr. E. seems to have some insight.

As represented in Daladier's portrait (Figure 4a), the body lacks one of its halves. Obviously, this lack could be due to visual hemineglect. However, when Mr. E. completes his drawing to the left, he once again represents the limbs in a sketchy style. Indeed, these limbs represent the paralyzed body parts; in addition, the hand is an organ with essential symbolic and imaginary significance (Morin, 1995). One may therefore put forward the hypothesis that Daladier's portrait corresponds to the "split down by the middle" body image of Mr. E. and that this involves some kind of "active ignorance" of the left limbs. The ignored hemibody belongs to someone who was not entirely truthful, which suggests that this ignorance is only apparent. Mr. E. thus oscillates between two attitudes toward his specular image: as a whole body, he is "coming apart," hardly human (looks like an animal); as a hemiplegic, he is split down by the middle. These two aspects of self-portrait (broken body, half-ignored body) correspond to the behavior of right brain injured patients who can speak of their body with gloomy derision while seemingly unaware of their real deficiencies.

Anosodiaphoria and Hemineglect: Méconnaissance, Repression, or Denial?

The omission of the left half of the body, and the absence of any spontaneous mention of paralysis in the first interview suggest that a psychic mechanism is at play, but the nature of this mechanism is not self-evident. From a psychoanalytical point of view, *méconnaissance*, denial, and repression are classical causes for such forgetting, omission, or apparent unawareness of well-known or obvious facts.

The revealing expression "the attack that split me down the middle" shows that there is no lack of knowledge (i.e., neither *méconnaissance* nor unawareness). On the other hand, repression might underlie the whole phenomena presented here, from the dreams in which Mr. E. projects the acts he is

unable to accomplish to the drawings that tell the story (or the myth) of his fall, passing through the words which indicate his present concern and division. This repression is organized in a system which is specific to Mr. E. and allows him to keep up a "subjective refuge," leaving him some room to maneuver in the interpretation of what happened to him. The hidden eyes in Daladier's portrait (the portrait of a man who, according to Mr. E, wanted to conceal the truth) are an exemplary illustration of this system: Mr. E. does not ascribe outright to the Other what would be absolute knowledge, what would throw harsh light on the truth; instead, he attributes to the Other the intention of hiding the truth, which implies putting that truth at an interpretable distance. If one acknowledges that repression underlies the discourse and behavior of this patient, the question then arises: What is repressed? We would like to advance the hypothesis that the repression is not complete, and that Mr. E.'s attitude toward his paralyzed hand may put us on the track to discovering just what is repressed (Freud, 1915/1968). Mr. E. speaks to his hand and reprimands it. When he addresses his hand, he does not question his behavior; he seems to be living in a fragmented body, a body consisting of pieces that are capable of having an autonomous and even a personal life. His hand is alien to him, and it cannot but evoke the resurgence of a primordial link with the Other in the guise of a childish and undisciplined behavior. Moreover, it is somewhat disgusting (it is warm and sweaty). Thus this hand exhibits some properties of the objet a (Delahousse, 1972; Thibierge, 1999a), as presented above.

The intrusive appearance of the *objet a* coexists with several symptoms in the oral realm. The absence of the mouth in Mr. E.'s drawings suggests that something is wrong with the *lost* oral object that normally delimitates the oral orifice.¹³ In addition, Mr. E. cannot normally taste food, a symptom that he mentions when asked about his not drawing his mouth. His voice and the rhythm of his speech are altered.¹⁴ As suggested in other case reports (Morin, 1998; Morin et al., 1998), the symptomatology of this patient might then be read as specifically associating the appearance of the *objet a* and an attack on

 $^{^{13}}$ By contrast, Mr. E.'s insistence on the frames and stems of his glasses clearly indicates that the *regard* (another version of the Lacanian *objet a*) still has a great value for him.

¹⁴Dysprosody is known to result from right brain lesions (Hannequin, Goulet, and Joanette, 1987). Mr. E.'s taste disorders might have been due to the drugs he was prescribed (Finelli and Mair, 1996) or to his parietal lesions (Buser and Imbert, 1982). However, attributing Mr. E.'s taste disturbances to an organic deficiency is not self-evident since, once discharged from hospital, Mr. E. will remember that there were "too many oriental spices" in hospital food. More generally, we would like to point out the subjective coherence of these facts, all of which concern the oral drive in one way or another.

body image. This association has a common structure with psychosis insofar as it is typified by Cotard's syndrome (Czermak, 1986).¹⁵

The intrusive and alien characteristics of the object go against the hypothesis put forward by Delahousse (1972) that denial (in the psychoanalytical sense) is involved in anosognosia: denial is an attitude responding to the absence and not the presence of the object (Freud, 1927/1969) — it consists of refusing the permanent lack of the object, and replacing it by an available, familiar *ersatz*, which is neither *uncanny* nor alien to the subject.

This interpretation of Mr. E.'s drawings and discourse thus support the hypothesis that repression underlies anosodiaphoria and hemineglect. The repression might affect the paralyzed hemibody insofar as it has become object-like (Mr. E.'s left hand appears either as a too real thing — "flabby, sweaty" — or as a undisciplined person — "you lazy bones, you idle thing!"), separated from an "hemi-injured" body envelope (it is worth noting that Mr. E. compares his pains to those of a tree whose bark is being torn off). In this case, rather than simple neurological behavioral disturbances, anosodiaphoria and hemineglect may be considered an attempt to repress the real object constituted by the paralyzed left hemibody, to repeat the original operation of neutralization of the objet a. One may also suggest that this repression has resulted in the amputation of the body image to save the ideal ego (as if a structured half image was more bearable than a ruined body). This repression hypothesis is supported by the changes observed in Mr. E.'s attitude six weeks later: while he has partially recovered neurologically, he is now reluctant to speak of the subjective aspects of his illness, and turns his gaze away from his interlocutor . . . toward the side he previously neglected. This functional recovery is associated with a regression of logorrhea and improved structuring of the self-portrait. This favorable outcome suggests that the repression is rather successful.

Our observations therefore support the hypothesis that there is a "psychological" element in anosognosia (anosodiaphoria may be considered a minor form of anosognosia). The psychological dimension of anosognosia was con-

¹⁵This syndrome associates anxiety, ideas of being damned or possessed, a tendency to suicide, self-mutilations, analgesia, hypochondriac ideas that the organs, the whole body, the world or God are destroyed or no longer exist, and that the patient will never be able to die. Czermak (1986) proposed to interpret these symptoms psychoanalytically, in particular the negation of organs (body orifices): according to him, these negations affirm completeness — the "lack of lack" of object — and are logically associated with the failure of specular image. Such patients, who often claim that they have no mouth any more, have no specular image ("I am scattering in space like the objects"), and no longer perceive the world ("I have no brain any more, I don't think anymore, my brain is congested"). This common symptomatic structure in psychosis and right brain damage could open a way to an understanding of the occurrence of psychotic-like manifestations following right brain damage (Ellis, 1994).

sidered by Babinski in 1914 in his inaugural address for *Revue Neurologique*. Weinstein (see Prigatano and Weinstein, 1996) now maintains that anosognosia consists not only of unawareness but also of denial of hemiplegia, and that this "unawareness/denial" helps protect the patient from catastrophic reaction. The words, dreams, and drawings of Mr. E. allow us to approach more precisely the mechanisms involved: the attack on body image and the simultaneous appearance of the *objet a* would be subject to an attempt at repression. This repression, aimed at maintaining a structured body image, would be achieved when the symptoms are restricted to anosodiaphoria and/or hemineglect, but unsuccessful when pseudodelirious manifestations appear, such as the personification of paralyzed limbs.

Common sense stipulates that the more aware they are of their deficiencies, the more fully will patients recover. However, our observation suggests that, in the case of right brain damaged patients, therapists should not directly insist on correcting patients' "unawareness," since the repression which underlies unawareness distances the patient from the traumatic breaking up of the specular image.

References

- Babinski, J. (1914). Contribution à l'étude des troubles mentaux dans l'hémiplégie organique cérébrale (anosognosie) [A contribution to the study of mental disturbances in organic cerebral hemiplegia (anosognosia)]. Revue Neurologique (Paris), 1, 845–848.
- Berlucchi, G., and Aglioti, S. (1997). The body in the brain: Neural bases of corporeal awareness. Trends in Neurosciences, 20, 560-564.
- Berti, A., Ladavas, E., and Della Corte, M. (1996). Anosognosia for hemiplegia, neglect dyslexia and drawing neglect. Clinical findings and theoretical considerations. *Journal of the International Neuropsychological Society*, 2, 426–446.
- Bisiach, E., and Luzzatti, C. (1978). Unilateral neglect of representational space. Cortex, 14, 129-133.
- Bisiach, E., Vallar, G., Perani, D., Papagno, C., and Berti A. (1986). Unawareness of disease following lesions of the right hemisphere: Anosognosia for hemiplegia and anosognosia for hemianopia. Neuropsychologia, 24, 471–482.
- Bonnier, P. (1905). L'aschématie [Aschematy]. Revue Neurologique (Paris), 13, 605-609.
- Buser, P., and Imbert M. (1982). Psychophysiologie sensorielle. Paris: Hermann.
- Critchley, M. (1953). The parietal lobes. London: Arnold.
- Czermak, M. (1986). Signification psychanalytique du syndrome de Cotard [The psychoanalytical meaning of Cotard's syndrome]. In J. Clims (Ed.), *Passions de l'objet* (pp. 205–236). Paris: Association Freudienne.
- Delahousse, J. (1972). Considérations sur l'attitude anosognosique de l'hémiplégique gauche [Reflections on the anosognosic attitude of the left hemiplegic patient]. In P. Warot (Ed.), Comptes rendus du 70e Congrès de Psychiatrie et de Neurologie de Langue Française (pp. 1082–1088). Paris: Masson.
- Dolto, F. (1984). L'image inconsciente du corps [The unconscious body image]. Paris: Masson.
- Ellis, H.D. (1994). The role of the right hemisphere in the Capgras delusion. *Psychopathology*, 27, 177–185.
- Finelli, P.F., and Mair, R. (1996). Disturbances of taste and smell. In W.G. Bradley, R.B. Baroff, G.M. Fenichel, and D. Marsden (Eds.), *Neurology in clinical practice* (second edition, pp. 243–250). Boston: Butterworth and Heineman.

- Freud, S. (1968). Le refoulement [Repression]. In J. Laplanche et J.B. Pontalis (Eds.), Métapsychologie (pp. 45–63). Paris: Gallimard. (Originally published 1915)
- Freud, S. (1969). Le fétichisme [Fetishism]. In J. Laplanche (Ed.), La vie sexuelle (pp. 133–138).
 Paris: PUF. (Originally published 1927)
- Freud, S. (1980). Le Moi et le ça [The I and the it]. In A. Hesnard (Ed.), Essais de psychanalyse (pp. 177–234). Paris: Payot. (Originally published 1923)
- Freud, S. (1984). Quelques considérations pour une étude comparative des paralysies motrices organiques et hystériques [Some considerations for a comparative study of organic and hysteric motor paralysis]. In J. Laplanche (Ed.), Résultats, idées, problèmes, I (pp. 5–59). Paris: PUF. (Originally published 1893)
- Freud, S. (1985). La négation [Denial]. In J. Laplanche (Ed.), Résultats, idées, problèmes, II (pp. 135–140). Paris: PUF. (Originally published 1925)
- Freud, S. (1990). L'inquiétante étrangeté [The uncanny]. In J.B. Pontalis (Ed.), L'inquiétante étrangeté et autres essais (pp. 208–263). Paris: Gallimard. (Originally published 1919)
- Gallagher, S., and Cole, J. (1995). Body image and body schema in a deafferented subject. Journal of Mind and Behavior, 16, 369–390.
- Gertsmann, J. (1942). Problems in imperception of disease and of impaired body with organic lesions. Archives of Neurology and Psychiatry, 48, 890–913.
- Hannequin, D., Goulet, P., and Joanette, Y. (1987). La contribution de l'hémisphère droit à la communication verbale [Right hemisphere's contribution to verbal communication]. In J.M. Léger (Ed.), Comptes rendus du 85e Congrès de Psychiatrie et de Neurologie de Langue Française (pp. 344–364). Paris: Masson.
- Head, H., and Holmes, G. (1911). Sensory disturbances from cerebral lesions. *Brain*, 34, 102–254.
- Hécaen, H., and de Ajurriaguerra, J. (1952). Méconnaissances et hallucinations corporelles. Intégration et désintégration de la somatognosie [Alterations in body knowledge and body hallucinations. Integration and disintegration of somatognosia]. Paris: Masson.
- Heilman, K.M., and Watson, R.T. (1977). The neglect syndrome: A unilateral defect of the orienting response. In S. Harnad, R.W. Doty, L. Goldstein, J. Jaynes, and G. Krauthamer (Eds.), Lateralization in the nervous system (pp. 285–302). New York: Academic Press.
- Lacan, J. (1962). L'angoisse [Anguish]. Unpublished seminar. Hôpital Sainte-Anne, Paris.
- Lacan, J. (1966a). Le stade du miroir comme formateur de la fonction du Je telle qu'elle nous est révélée dans l'expérience psychanalytique [The mirror stage as formative of the function of the I as revealed in the psychoanalytical experience]. In J. Lacan (Ed.), *Ecrits* (pp. 93–100). Paris: Seuil. (Originally published 1949)
- Lacan, J. (1966b). L'agressivité en psychanalyse [Agressivity in psychoanalysis]. In J. Lacan (Ed.), Ecrits (pp. 101–124). Paris: Seuil. (Originally published 1948)
- Lacan, J. (1966c). Remarques sur le rapport de Daniel Lagache: "Psychanalyse et structure de la personnalité" [Comments on Daniel Lagache's report: "Psychoanalysis and Structure of Personality"]. In J. Lacan (Ed.), Ecrits (pp. 647–684). Paris: Seuil. (Original colloquium presented 1958)
- Lacan, J. (1977). Ecrits. A selection. Bristol: Routledge. (Originally published 1966)
- Levine, D.N. (1990). Unawareness of visual and sensorimotor defects: A hypothesis. Brain and Cognition, 13, 233–281.
- Lhermitte, J. (1998). L'image de notre corps [The image of our body]. Paris: L'harmattan. (Originally published 1939)
- Merleau-Ponty P. (1975). *Phénoménologie de la perception* [Phenomenology of perception]. Paris: Gallimard. (Originally published 1945)
- Morin, C. (1995). La main en rééducation neurologique: réelle, symbolique, imaginaire? [The hand in neurological rehabilitation: real, symbolic, imaginary?]. Bulletin de l'Association Freudienne Internationale, 62, 15–19.
- Morin, C. (1998). Corps, image, objet en neurologie [Body, image, object in neurology]. Bulletin de l'Association Freudienne Internationale, 77, 7–11.
- Morin, C., and Bensalah, Y. (1998). The self-portrait in adulthood and aging. International Journal of Aging and Human Development, 46, 45-70.

- Morin C., Durand E., Marchal F., Timsit S., Manai, R., Pradat–Diehl P., and Rancurel G. (1998). Anosognosie et image du corps [Anosognosia and body image] (Abstract). Revue Neurologique (Paris), Suppl 1, 1899.
- Patterson, M.B., and Mack, J.L. (1985). Neuropsychological analysis of a case of reduplicative paramnesia. *Journal of Experimental Neuropsychology*, 7, 111–121.
- Prigatano, G.P., and Weinstein, E.A. (1996). Edwin A. Weinstein's contribution to neuropsychological rehabilitation. *Neuropsychological Rehabilitation*, 6, 305–326.
- Schilder, P. (1968). L'image du corps. Etude des forces constructives de la psyché [The image and appearance of the human body: studies in the constructive energies of the psyche]. Paris: Gallimard. (Originally published 1935)
- Thibierge, S. (1999a). Pathologies de l'image du corps. Etude des troubles de la reconnaissance et de la nomination en psychopathologie [Pathologies of body image. A study of the disturbances of recognition and naming in psychopathology]. Paris: PUF.
- Thibierge, S. (1999b). L'image et le double. La fonction spéculaire en pathologie [The image and the double. The specular function in pathology]. Paris: Eres.
- van Bogaert, L. (1934). Sur la pathologie de l'image de soi [On the pathology of self-image]. Annales Médico-Psychologiques, 4, 519-555.
- Wallon, H. (1981). Comment se développe chez l'enfant la notion du corps propre [How the notion of his own body develops in the child]. In P. Mounoud and A. Vinter (Eds.), La reconnaissance de son image chez l'enfant et chez l'animal (pp. 21–45). Paris: Delachaux & Niestlé. (Originally published 1931)
- Winnicott, D. (1975a). Objets transitionnels et phénomènes transitionnels [Transitional objects and transitional phenomena]. In J.B. Pontalis (Ed.), Jeu et réalité. L'espace potentiel (pp. 7–39). Paris: Gallimard. (Originally published 1953)
- Winnicott, D. (1975b). Le rôle de miroir de la mère et de la famille dans le développement de l'enfant [The mirror role of mother and family in the development of the child]. In J.B. Pontalis (Ed.), Jeu et réalité. L'espace potentiel (pp. 153–162). Paris: Gallimard. (Originally published 1971)
- Winnicott, D. (1975c). L'interrelation envisagée en termes d'identifications croisées et indépendamment des motions pulsionnelles [Interrelation considered in terms of crossed identifications and independently of drive motions]. In J.B. Pontalis (Ed.), Jeu et réalité. L'espace potentiel (pp. 163–189). Paris: Gallimard. (Originally published 1971)