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Essays

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Rise of the Neuronovel

A specter is haunting the contemporary novel

The last dozen years or so have seen the emergence of a new strain within the Anglo-American novel. What has been variously referred to as the novel of consciousness or the psychological or confessional novel—the novel, at any rate, about the workings of a mind—has transformed itself into the neurological novel, wherein the mind becomes the brain. Since 1997, readers have encountered, in rough chronological order, Ian McEwan's *Enduring Love* (de Clérambault's syndrome, complete with an appended case history by a fictional "presiding psychiatrist" and a useful bibliography), Jonathan Lethem's *Motherless Brooklyn* (Tourette's syndrome), Mark Haddon's *Curious Incident of the Dog in the Night-Time* (autism), Richard Powers's *The Echomaker* (facial agnosia, Capgras syndrome), McEwan again with *Saturday* (Huntington's disease, as diagnosed by the neurosurgeon protagonist), *Atmospheric Disturbances* (Capgras syndrome again) by a medical school graduate, Rivka Galchen, and John Wray's *Lowboy* (paranoid schizophrenia). And these are just a selection of recently published titles in "literary fiction." There are also many recent genre novels, mostly thrillers, of amnesia, bipolar disorder, and multiple personality disorder. As young writers in Balzac walk around Paris pitching historical novels with titles like *The Archer of Charles IX*, in imitation of Walter Scott, today an aspiring novelist might seek his subject matter in a neglected corner or along some new frontier of neurology.

What makes so many writers try their hands and brains at the neuronovel? At the most obvious level, the trend follows a cultural (and, in psychology proper, a disciplinary) shift away from environmental and relational theories of personality back to the study of brains themselves, as the source of who we are. This cultural sea change probably began with the exhaustion of "the linguistic turn" in the humanities, in the 1980s, and with the discredit psychoanalysis suffered, around the same time, from revelations that Freud had discounted some credible claims of sexual abuse among his patients. Those philosophers of mind who had always been opposed to trendy French poststructuralism or old-fashioned Freudianism, and the mutability of personality these implied, put forth strong claims for the persistence of innate ideas and unalterable structures. And in neuroscience such changes as the mind did endure were analyzed in terms of chemistry. By the early '90s, psychoanalysis—whether of a Lacanian and therefore linguistic variety, or a Freudian and drive-oriented kind—was generally considered bankrupt, not to mention far less effective and more expensive than the psychiatric drugs (like Prozac) that began to flow through the general population's bloodstream. The new reductionism of mind to brain, eagerly taken up by the press—especially the *New York Times* in its science pages—had two main properties: it explained proximate causes of mental function in terms of neurochemistry, and ultimate causes in terms of evolution and heredity.

Many scientists and philosophers acknowledge that they understand more about how damaged brains work—or, rather, don't work—than about the neurochemistry of the normal brain. And yet, in its popular journalistic form, the new reductionism can or will soon describe all human behavior, from warfare to soul-making. The British physician, philosopher, and neuro-skeptic Raymond Tallis has summarized the doctrine: "A convergence of evolutionary theory, neuroscience, and other biological disciplines has led countless thinkers to claim that we are best understood as organisms whose entire panoply of behavior is directly or indirectly related to organic survival."

New scientific discoveries may be less important for the change in the novel than the triumphal march of scientific advancement recounted in books like Daniel Dennett's *Consciousness Explained* (1991) and Steven Pinker's *How the Mind Works* (1997). Culture-shaping institutions like the *Times* can't easily respond to Dennett's and Pinker's arguments and analyses, which the average journalist remains unprepared to evaluate, but it has been impossible to ignore their superbly confident rhetoric. Here is the philosopher Dennett:

Fiery gods driving golden chariots across the skies are simpleminded comicbook fare compared to the ravishing strangeness of contemporary cosmology, and the recursive intricacies of the reproductive machinery of DNA make [Bergson's] *élan vital* about as interesting as Superman's dread kryptonite. When we understand consciousness—when there is no more mystery—consciousness will be different, but there will still be beauty, and more room than ever for awe.

The program was to develop a full redescription of consciousness in scientific terms. A corollary program in philosophy of mind was the "eliminativism" of Paul and Patricia Churchland, who dismiss "folk psychological" terms (such as happiness, sadness, excitement, anxiety, et cetera) as constituting a hopelessly and indeed meaninglessly imprecise vocabulary without bearing on the actual activities of the brain.

In 1949, Lionel Trilling could write, "A specter haunts our culture—it is that people will eventually be unable to say, 'They fell in love and married,' let alone understand the language of *Romeo and Juliet*, but will as a matter of course say 'Their libidinal impulses being reciprocal, they activated their individual erotic

drives and integrated them within the same frame of reference.” The joke is now quaint; the possibility of an orthodox everyday Freudianism turned out to be no more ultimately threatening than the other specter Trilling was alluding to. Today people, or a certain class of university-educated ones, are likelier to read books like *The Female Brain* than to consult any psychoanalytic writer on female sexuality, and to send emails like this almost serious one I received from a friend:

In advance of your date in Brooklyn, there are one or two things to know and one or two things to get ready to do! First we should hope that N is post-menstrual and therefore on an estrogen up. Day twelve of the menstrual cycle would be best. Testosterone will be kicking in with a bit of androgen on top of the estrogen, making N somewhat aggressively sexual. Of course she will also be speeding toward ovulation and will be at her verbal and intuitive best. So, use a condom and do a lot of looking in her eyes (girls are prewired at birth for mutual gazing, unlike boys). Give her a lot of face. Her capacity to read emotions and her need to evaluate the facial expressions of those around her will be at a peak (setting in motion circuits established during estrogen flushes in utero and the massive estrogen marination which took place during infantile puberty and hyped-up during adolescence).

So: smile!

In this language, one now needs more words than ever to say “They fell in love,” and we haven’t even got past the first minute of the first date.

This is a problem: what to do after psychoanalysis, and before Dennett’s mystery-banishing total explanation of consciousness has arrived? Of course it’s not as if mid-century novels were case studies written in Freudian jargon. But an era in which analysis, rather than neurology, was taken to offer the most authoritative account of personality was an era more friendly to the informal psychological explorations of novelists. After all, introspection of the self and observation of others were Freud’s main tools — as they remain the novelist’s.

The change we are discussing here was arrestingly summarized in one of the rare recent novels of psychoanalysis, Daniel Menaker’s *The Treatment* (set in the early 1980s but published in 1998). In our new age—or so complains Dr. Morales, the oracular shrink in Menaker’s novel—“Treatment will no longer consist of explorations of significance and spirit and mystery, but quick fixes, twelve steps, behavioral adjustment, and pills.” Morales’s elegy for the old ways, delivered in a comic Cuban accent, begins with a claim to be the last Freudian,

the last of a line that stretches from Moses to Aristotle through Cicero to our good Lord Jesus Christ and Aquinas and Maimonides and Shakespeare and Montaigne and finally to Freud and then to me. A line of fascination with and respect for the dignity, the very concept of the human soul. . . . Freud will die, as Marx will die. And all that will be left of those nineteenth century giants of intellect will be the unpityingly neutral doctrines of Charles Darwin. Darwin is the man who must bear the responsibility for the end of meaning.

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Ian McEwan’s *Enduring Love* (1997) effectively inaugurates the genre of the neuronovel, and remains one of its more nuanced treatments. The narrator, Joe Rose, is a science journalist, a self-styled man of the enlightenment. Elitist but meritocratic, Joe is given to saying things to his girlfriend like “Don’t you think I’m some kind of evolutionary throw forward?” Despite this weakness for self-congratulation, he is a decent guy who has the bad luck to become the object of a love with no cause but the deluded lover’s neurochemistry. The demon lover, one Jed Parry, meets Joe for the first time as part of a group of men trying to save a boy from being blown away in a hot air balloon. The accident, or accidents, happen while Joe is on a picnic with his girlfriend Clarissa, a Keats scholar.

Because he is a science writer by profession, McEwan’s Joe is a narrator of realist fiction capable of reflecting on his realism, or rather Zola-esque naturalism. An addict of facts, Joe provides an alibi for McEwan’s moments of lyricism—“The silence appeared so rich as to have a visual quality, a sparkle or hard gloss, and a thickness too, like fresh paint”—and can also comment, in the next sentence, “This synesthesia must have been due to my disorientation.” Joe correctly diagnoses the madman relatively early in the novel; it’s convincing everyone else he’s right that takes time. His girlfriend won’t believe him and neither will the police until the final scene, when Parry holds a knife to Clarissa’s throat. Suffering from de Clérambault’s, Parry is beyond reason or persuasion—as Joe (a Darwinian) had always alleged.

In 1997, McEwan was still the sort of writer to challenge somewhat the correctness of Joe’s neurological reductionism. Joe’s rejection of any talking cure in favor of a thoroughgoing evolutionary psychology and medicalization had costs that the novelist tried to acknowledge: “From day one,” Clarissa the humanist writes to Joe, “you saw [Parry] as an opponent and you set about defeating him, and you—we—paid a high price Do you remember me suggesting to you early on—the night you walked out on me in fury—that we ask him in and talk to him? You just stared at me in disbelief, but I’m absolutely certain that at that time Parry didn’t know that one day he would want you dead. Together we might have deflected him from the course he took.”

This balanced weighing-up of the case no longer attracts McEwan as a writer. He has now firmly taken sides in a debate he was earlier content to stage with some subtlety. As he confided in a recent *New Yorker* profile, “Poor Greg [McEwan’s son] had to study *Enduring Love* in school. He had a female teacher. And he had to write an essay: Who was the moral center of the book? And I said to Greg, ‘Well, I think Clarissa’s got everything wrong.’ He got a D. The teacher didn’t care what I thought. She thought that Joe was too ‘male’ in his thinking. Well. I mean, I only wrote the damn thing.”

Perhaps so that no one would miss the point again, McEwan largely abandoned his earlier ambiguity when he wrote *Saturday* (2005), in favor of stark biological determinism. That novel evokes recent history—September 11, the street protests against the Iraq war—but only as background music incidental to a central conflict. This is the struggle between mental normals—who are really exceptional normals like the neurosurgeon Perowne, his barrister wife, and their musician

son and poet daughter—and the subnormal Baxter, a violent thug suffering from the incurable, genetic brain-wasting disease Huntington's chorea. Here McEwan changes the narrative voice from the first person of *Enduring Love* to a more authoritative limited omniscient third person. We're always in Perowne's scientific mind, a mind capable of reflecting on itself in up-to-date terms of neuroscience, though we also catch glimpses of his creator guiding us, as in the surgeon's reflections on the superiority of neuroscience to ordinary language. When Perowne drives by an antiwar demonstration, a host of half thoughts arise, on war, death, terrorism, the justness of the cause. A voice tells us that all this occurs in "the pre-verbal language that linguists call mentalese. Hardly a language, more a matrix of shifting patterns, consolidating and compressing meaning in fractions of a second Even with a poet's gift of compression, it could take hundreds of words and many minutes to describe." Of course McEwan has almost done just that, even down to the color of Perowne's thoughts—"a sickly yellow"—but only while conceding the insufficiency of his chosen medium, like a painter ruing the fact that he is not a photographer.

Despite how often we're told that Huntington's disease is the main cause of Baxter's uncontrolled aggression and wild mood swings, it's still tempting to declare him, rather than the neurosurgeon, the most human character in *Saturday*. Blindsided by a car that shouldn't be there, then lied to, and humiliated in front of his friends, he is a wronged man seeking revenge. When he's about to rape Perowne's daughter, he's momentarily bedazzled and soothed by her impromptu poetry recitation and gets knocked into a coma. Ah, the evolutionary advantages of memorizing Mathew Arnold!

By the novel's lights, however, Baxter is simply an incurable. *Saturday* turns into a defense of post-Thatcherite Britain's class system as well as the global imbalance of power by substituting the medical for the social. Some people are simply thugs, for reasons with nothing to do with social organization; in this respect they resemble terrorists. As Perowne reflects, "There are people around the planet, well-connected and organised, who would like to kill him and his family and friends to make a point." Perowne knows there is no talking to such people, and this time the novel contains no Clarissa to propose to him that conversation might have spared bloodshed.

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In McEwan's work, the neurologically abnormal are foils more than actual characters; their main purpose is to be defeated by normals of the better sort.

But there is another set of neurological novels in which the author inhabits a cognitively anomalous or abnormal person and makes this character's inner life the focus of the novel, soliciting our sympathies. McEwan's neuronovels are of the hard variety; these other books are soft neuronovels.

Books like Lethem's *Motherless Brooklyn* (1999), with its Tourette narrator, load almost the entire burden of meaning and distinctiveness onto their protagonists' neurologically estranged perceptions of our world. In doing so, they move what has traditionally been a minor character to the front of the novel. Idiots or the insane can dispense ironic wisdom—think of Shakespeare's pretension-puncturing fools—or serve as objects to show off the protagonist's sympathy and understanding in novels like Balzac's *Médecin de Campagne* or Dickens's *Nicholas Nickleby*. Septimus Smith, the schizophrenic or shell-shocked First World War vet in *Mrs. Dalloway*, offers a contrast to the bright world of postwar, aristocratic London, as well as a useful sympathetic object for Woolf's title character. There are also the more existentially troublesome Pip in *Moby Dick* and, of course, American literature's signature idiot, Benjy in Faulkner's *The Sound and the Fury*. And yet it would be strange, if not impossible, to retell the *The Sound and the Fury* exclusively from Benjy's point of view, which is in effect what many of the neuronovels set out to do.

In *Motherless Brooklyn*, the orphaned narrator afflicted (or blessed) with Tourette's syndrome determines to solve the mystery of his beloved boss's most foul and unnatural murder. This boss was the man who gave him a chance in life, and has been knocked off by his brother. The plot is *Hamlet* by way of Philip Marlowe. The novel shows an agreeable openness about its derivative character, and perhaps the real purpose of such a conceit, poised between high and low, between realism and genre fiction, is to provide cover for the author to engage in the kind of stylistic experimentation habitual to modernist novelists doing interior monologues. Faulkner's Benjy spoke in a strange and addled voice—but then so did Faulkner's other characters, along with those of Joyce, without their needing to be mentally damaged. When Lethem's Tourette narrator describes himself as "a human freak show," "a carnival barker, an auctioneer, a downtown performance artist, a speaker in tongues, a senator drunk on filibuster," this justifies or excuses the freewheeling language of his creator. While posing as a sort of observing doctor, like Oliver Sacks, the author indulges an experimental impulse that would today otherwise be seen as pretentious. The modernist desire to gather and combine the heterogeneous voices of entire regions and nations—"to forge in the smithy of my soul the uncreated conscience of my race"—led to novels open to the whole range of human language, from curses to visionary lyricism. When Lethem puts his words into the mouth of a Tourette character, the very act of medicalization marginalizes the experimental impulse, marking any remnant modernism as a case for abnormal psychology.

The entire effect of Lethem's neurologically prompted "carnival barker" is similar to the one contained in the sentences from McEwan quoted above: "The silence appeared so rich as to have a visual quality, a sparkle or hard gloss, and a thickness too, like fresh paint. This synesthesia must have been due to my disorientation." The reader is presented simultaneously with an effect and a diagnosis of its cause; the writer indulges in some fancy language or rare perceptions, and then hastens to explain why, on medical grounds, this is allowed.

The *Motherless Brooklyn* model—which is also followed by Haddon's *Curious Incident of the Dog in the Night-Time*, Galchen's *Atmospheric Disturbances*, and Wray's *Lowboy*—in fact attempts a synthesis between what had seemed to be two distinct and increasingly divergent modes: on the one hand, American realism, ending with the "research novel"—novels stuffed with facts, names, things, impressing the reader with the author's store of "nonfiction" knowledge—and, on the other hand, the novel of consciousness, of interiority, of linguistic play and estranging description associated with high modernism.

But to ground special perceptions and heightened language in neurological anomaly ends up severely circumscribing the modernist project. The stylistic novelty and profound interiority of *Ulysses* or *To the Lighthouse* were called forth by normal protagonists—an ad salesman, a housewife—and were proposed as new ways of describing everyone and anyone from the inside out. Modernism seemed revolutionary as long as it threatened to become general; the neuronovel refashions modernism as a special case, odd language for describing odd people, different in neurological kind, not just degree, from other human beings. In this way, the "experimental" writing of neuronovelists actually props up rigid social conventions of language use. If modernism is just the language of crazy, then real men must speak like Lee Child.

Galchen's *Atmospheric Disturbances* exhibits the perils of this mixture of objective (medical) realism with an attempt to write a novel of subjectivity. The novel is narrated entirely from the point of view of Leo Liebenstein, a man who, suffering from Capgras syndrome, believes his wife has been replaced by an exact

replica. The delusion sets in when Liebenstein wakes up, Gregor Samsa-like, from uneasy dreams—and a migraine. “I was then a fifty-one-year-old male psychiatrist with no previous hospitalizations,” he tells the reader, as though giving a medical report on himself. What happens next, however, and for the subsequent 200 or so pages, is not a medical report but the flight of a damaged mind. Liebenstein, who still believes he can tell sane from insane—he’s a psychiatrist, after all—decides to go in search of his “real” wife.

In a gentlemanly review, James Wood placed *Atmospheric Disturbances* in the European modernist tradition of the unreliable narrator, like Hamsun’s *Hunger* or Svevo’s *Zeno’s Conscience*, as well as the novel of love, like Proust’s *Un Amour de Swann*. Galchen’s novel, he claims, “is a relentless exploration of how a man could fail to see clearly the woman he loves. We are all afflicted at times with the cataracts of the quotidian, where routine clouds our ability to notice what we once loved about the person we live with—this is the novel’s universal appeal.” “Cataracts of the quotidian” is a lovely phrase, but in order to write it, Wood must blur his own vision. For it is not the case, as Wood suggests, that “Leo has, perhaps, a version of Capgras syndrome, whose victims come to think that an impostor has replaced a family member or friend.” There is no “perhaps” about it. Leo does have Capgras syndrome, and the novel depends on its medical precision to be something other than the ravings of a lunatic, and an unsympathetic lunatic at that. Liebenstein is vain and annoying, his narration both leaden and showy: “She, the woman, the possible dog lover, leaned down to de-shoe.” Here is a man who can’t say that his wife takes off her shoes. There must be something wrong with his brain. He’s also a man who mistakes the verbose for the descriptive: “‘Oh,’ I said, my palms beginning to sweat as random sensuality carbonated up to my cortex.”

After Leo has followed his allegedly missing wife’s trail to Argentina, her native country, he comments on the practice of memorializing the missing of the 1970s Dirty War: “People naturally perseverate on their personal tragedies, even though such perseveration doesn’t really serve anyone, neither the living nor the dead. I mean, there’s research on these things. It’s simply not a practical use of time to think constantly of the dead.” Such a reflection, at once unfeeling and pretentious (why does he have to say “perseveration”?), is of a piece with Liebenstein’s jerkish personality, which his disorder neither explains nor excuses. Meanwhile, Liebenstein’s tics and riffs effectively bury the actual plot of the novel: Rema, Liebenstein’s wife, who is there the whole time as her husband raves and treats her like an alien, must keep her cool in order to save her marriage. She even runs after him to Argentina. That she thinks the marriage is worth saving at extraordinary cost is assumed but never addressed. The novel, it turns out, makes most sense not from a neurological standpoint, but under the lens of an old-fashioned Freudian interpretation. For we learn that Rema’s father may have been “disappeared” during the Dirty War, although it’s possible he just walked out, and we also know that Rema has married a man who would be roughly her father’s age, were he still alive, or around. So Rema seems predestined to love an absent older man, an Oedipal rather than neurological mystery—but not one the novel attempts to illuminate.

Of course you can make Liebenstein’s delusion into an allegory of a universal condition, as Wood does, but only at the expense of novelistic and medical specificity both. In some way, perhaps we all suspect our loved ones of being impostors—but if this is so, how can it be that some people have Capgras syndrome and most do not? The difference in degree is a difference in kind. But a neuronovel like Galchen’s wants to have it both ways—to combine the pathological and the universal. Even as it relies on something like a readerly *meaning impulse*—we want to be able to generalize or approximate or metaphorize the rare neurological condition into some kind of experience compatible with our own—it also baffles and frustrates the same impulse. Any possibility of the necessary interpretive leap is disavowed by the pathological premise of the novel itself. By turning so aggressively inward, to an almost cellular level, this kind of novel bypasses the self, let alone society, or history, to arrive at neurology: privacy without individuality. And the deep logic of the story is likewise not one of irony or fate or comeuppance, but simple contingency; the etiology of a neurological condition is biological, not moral. And mere biological contingency has a way of repelling meaning.

The aesthetic sensation a reader gets from the neuronovel is not the pleasure of finding the general in the particular, but a frustration born of the defeat of the metaphoric impulse. We want to make the metaphor work, to say, “Yes, we are all a bit like a paranoid schizophrenic sometimes” or, “Yes, as Mark Haddon’s autistic narrator needs to separate the foods on his plate and not let them touch, to sort colors into good and bad, so am I in my impulse to classify a new genre.” But this would be to indulge the worst tendency of literary criticism, whether of a jargony and sectarian or burbling and humanistic type: to insist on meaning or relevance when there isn’t any, or when the works themselves actually foreclose it. Instead the reader has to admit to himself that his brain doesn’t work like an autistic person’s, a Capgras sufferer’s, and that when he loves or works or fears or talks, his ordinary neurons fire or misfire for ordinary rather than extraordinary reasons, whatever these may be.

In other words, the neuronovel in its present form presents the experience of a cognitive defeat. We imagine that science might get there, but it hasn’t yet. What’s strange is that science, as it moves in the direction of a total redescription of the mind in terms of the brain, may merely be replicating and systematizing the earlier insights of the psychological novel. A recent nonfiction book is called *Proust Was a Neuroscientist*. But insofar as the title’s claim is true, Proust was a neuroscientist not by cribbing from contemporary case studies, but by observing himself and others outside of any consulting room. Surely the way for a novelist to be a neuroscientist today is still to anticipate rather than follow the discoveries of brain science. It would be no surprise if a novelist could still describe and mimic traits of cognition that neurology can’t yet experimentally confirm.

The question, then, is why novelists have ceded their ground to science. And from the writer’s perspective, if not from the reader’s, an allegorical interpretation of the neuronovel does seem possible. Is the interest in neurological anomaly not symptomatic of an anxiety about the role of novelists in this new medical-materialist world, which happens also to be a world of giant publishing conglomerates and falling reading rates? Are novelists now, in their own eyes and others’, only special cases, without specialized and credentialed knowledge, who may at best dispense accurate if secondhand medical (or historical or sociological) information in the form of an entertaining fictional narrative? And is the impulse to write not an inexplicable compulsion, a category of disorder outside the range of normal? Do writers need special institutions that recognize and treat their mental peculiarities, without granting these any special visionary status? (Such institutions are known as MFA programs.) Perhaps the writer also needs an understanding spouse who will not leave him when he creates her double, or a family that tries to accommodate his strange habits. Most novelists also have grounds for fearing that Ian McEwan, tribune of the healthy brain, will defeat them in the combat over readers and their money. To put all this more simply, the neuronovel tends to become a variety of meta-novel, allegorizing the novelist’s fear of his isolation and meaninglessness, and the alleged capacity of science to explain him better than he can explain himself.

By comparison with most 19th-century novels, and even with most 20th-century modernist novels of the “stream of consciousness” school, the neuronovels have in them very little of society, of different classes, of individuals interacting, of development either alongside or against historical forces and expectations. Iris Murdoch (whose fate it was to become better known, through her husband’s memoirs, as an Alzheimer’s patient than as a novelist) observed that the 20th-century novel had lost both religion and society. A mid-century novelist who wanted to write about society had first to take pains to reconstruct it, to research

something that to George Eliot or Dickens had been more or less spontaneously available. And the 20th-century decline of religion meant a common moral frame of reference couldn't be taken for granted either. So postwar writers as different as Nabokov and Sarraute and Bellow were thrown back on themselves. But at least they retained that subject matter: the personal, the self. It now seems we've gone beyond the loss of society and religion to the loss of the self, an object whose intricacies can only be described by future science. It's not, of course, that morality, society, and selfhood no longer exist, but they are now the property of specialists writing in the idioms of their disciplines. So the new genre of the neuronovel, which looks on the face of it to expand the writ of literature, appears as another sign of the novel's diminishing purview. +

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