Press Release

The Midnight Disease
by Alice Weaver Flaherty

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"Absorbing . . . To a student of literature, Flaherty's struggle between scientific rationalism and literary exuberance is familiar romantic territory. What's moving about this book is how deeply unresolved, in an age of mood pills and weblogs, that old schism remains." — Publishers Weekly

"Simplistic notions like the one that says creativity is a function of the right side of the brain go out the window, to be replaced by complex, yet entirely plausible, correlations between brain states and creative acts. This won't tell you how to find a publisher, but it will explain how you came to need one." — Booklist

About the Book

Why is it that some writers struggle for months to come up with the perfect sentence or phrase, while others, hunched over a notepad or keyboard deep into the night, seem unable to stop writing? In The Midnight Disease: The Drive to Write, Writer's Block, and the Creative Brain (Houghton Mifflin, January), neurologist Alice W. Flaherty explores the hows and whys of writing, revealing the science behind hypergraphia — the overwhelming urge to write — and its dreaded opposite, writer's block. The result is an innovative contribution to our understanding of creative drive, one that throws new light on the work of some of our greatest writers.

A neurologist whose work puts her at the forefront of brain science, Flaherty herself suffered from hypergraphia after the loss of her prematurely born twins. Her unique perspective as both doctor and patient helps her make important connections between pain and the drive to communicate and between mood disorders and the creative muse.

Deftly guiding readers through the inner workings of the human brain, Flaherty sheds new
light on popular notions of the origins of creativity, giving us a new understanding of the role of the temporal lobes and the limbic system. She challenges the standard idea that one side of the brain controls creative function, and explains the biology behind a visit from the muse.

Flaherty writes compellingly of her bout with manic hypergraphia, when "the sight of a computer keyboard or a blank page gave me the same rush that drug addicts get from seeing their freebasing paraphernalia." Dissecting the role of emotion in writing and the ways in which brain-body and mood disorders can lead to prodigious — or meager — creative output, Flaherty uses examples from her own life and the lives of writers from Kafka to Anne Lamott, from Sylvia Plath to Stephen King:

• **Fyodor Dostoevsky**, the author of nineteen novels and novellas and voluminous notebooks, diaries, and letters, suffered from spells of altered consciousness, intense mood swings, and seizures. Neurologists today believe he suffered from temporal lobe epilepsy, the best-understood cause of hypergraphia.
• **Stephen King**, who, after being hit by a truck, suffered his first-ever episode of writer's block. Flaherty suggests that writers whose writing has been "shaped by collisions with large vehicles are as rare as hens' teeth" but goes on to write memorably about her own collision with a truck, and the illuminations it offered her about art, communication, and suffering.
• **Sylvia Plath**'s poetry was dramatically affected by her menstrual cycles — a sign of bipolar disorder, which often causes severe PMS in female patients.

Ultimately, we come to understand why we are wired — and why some of us are truly compelled — to write. Fascinating, moving, and original, *The Midnight Disease* will forever change the way we look at writing and the drive behind it.

**About the Author**

Alice W. Flaherty, a neurologist at Massachusetts General Hospital, also teaches at Harvard Medical School. She lives with her twin daughters and husband in Cambridge, Massachusetts.

**A Conversation with Alice Flaherty About *The Midnight Disease***

**Q)** Writer's block is something we hear about a lot, but I wasn't familiar with hypergraphia until reading your book. What is it, and why did you choose to write about it?

**A)** Well, hypergraphia is essentially the opposite of writer's block. It's driven, compulsive writing — keeping huge journals, writing letters to the editor at the drop of a hat, that sort of thing. Some people will write on toilet paper if nothing else is available. One of the things that makes hypergraphia interesting is that known brain conditions can trigger it, and they all seem to heavily involve the temporal lobes, parts of the brain that are right behind the ears. The other interesting point is that hypergraphia seems to reflect a component of literary creativity, namely creative drive. And there is fairly solid evidence that drive, and emotional involvement in your work, is even more important than talent in creating something new.
Q) What are the most compelling examples of hypergraphia and of writer's block you've come across?

A) One person who fascinates me is van Gogh, who was hypergraphic and who painted with a fury that amazed others and even himself. He was one of the most prolific artists ever, and at the same time he wrote two to three long letters a day to his brother Theo. Schumann is another example — he wrote feverishly while he was composing feverishly. The incredible drive of those two artists to communicate something, regardless of the medium, is evidence that the temporal lobe is involved not only in the drive to write but in the drive behind other art forms as well.

As for examples of writer's block, the strange thing is how paradoxically eloquent many writers are in describing their block. Because a block is often very genre-specific, as anyone knows who has felt blocked on a big paper and has procrastinated by writing long e-mails. Coleridge is a perfect example of that — he used to churn out metaphysical treatises when what he really wanted to do was write poetry. The recent movie Adaptation demonstrates a trick many writers use in that situation, which is to escape your block by writing about it. Both Coleridge and Wordsworth did that.

Q) You're a practicing neurologist, but also an avid reader, and you describe in detail the ways in which writers such as Stephen King, Sylvia Plath, and Dostoevsky suffered from writing problems. How did your knowledge of the brain affect the way you interpreted their experiences?

A) Dostoevsky had temporal lobe epilepsy. Some, but not all, people with temporal lobe epilepsy have a group of five personality traits called the Geschwind syndrome, which includes hypergraphia, strong religious or philosophical interests, and wide mood swings. Just before a seizure, Dostoevsky would experience an ecstatic or religious aura in which the world was flooded with meaning. Just after the seizure, he would be depressed and unable to write. And in the longer stretches between seizures, he wrote hypergraphically, grappling with, among other things, how to reconcile the fact that the periods when he experienced the highest truth were the result of seizure.

As for Plath, she had manic depression, or bipolar disorder, which is incredibly common among creative writers. Some studies show that up to 70 percent of poets are manic depressive. Manic depression shares a number of personality characteristics with temporal lobe epilepsy, and temporal lobe activity is altered during manic episodes. So even though one condition is "neurological" and the other is "psychological," you have to keep in mind that both are coming from the same brain. Not only is manic depression a genetic condition; it is also highly influenced by biological factors like the seasons; most creative writers have a slump in output during the winter.

In women, there's evidence that creative ability varies with the menstrual cycle. Plath illustrates this very vividly. After Ted Hughes released her diaries, a scholar went through them and figured out the dates of Plath's periods throughout her writing career. And both the turbulent premenstrual and the relatively calm postmenstrual phase had immediate effects on her writing. The Ariel poems, all of which are dated, show a recurrent rise and fall in their themes of barrenness, fertility, misery, bleeding, and relief, all overseen by the image of an inspiring but indifferent moon goddess. "If I could bleed, or sleep!" Plath wrote
in *Poppies in July*. Eventually she did both: her suicide, like the writing of her bleakest poems, occurred during a premenstrual period.

Q) Can you briefly describe what neurologists have found about the physical relationship between emotion and creativity?

A) In psychological terms, it seems that drive is more important than talent. Dean Simonton at Stanford has argued that the composers who produced the greatest works, like Mozart and Beethoven, are simply the ones who wrote the most — they were composing all the time, as they walked down the street or sat at a dinner party. But the type of motivation is important. Teresa Amabile at Harvard has done a number of studies to show that intrinsic motivation, such as enjoyment, is more likely to produce creative work. And, paradoxically, such extrinsic motivation as money hurts creativity. This may be because money is distracting or because the person stops working the instant money comes in.

In neurological terms, we know that emotion and drives are controlled primarily by the limbic system. This sits under the cerebral cortex, which is more concerned with cognition. Again, I'm oversimplifying. We can have emotions that are cognitively very complex — for example, loving Marlene Dietrich and not Greta Garbo. So the neurology of emotion and cognition are tightly intertwined. The cortical area that is the most closely connected to the limbic system is probably the temporal lobe. And the likely reason that the temporal lobe can trigger hypergraphia is that the limbic system, which has a big role in our affiliative instincts — our desire to be in contact with family and friends — produces a drive to communicate that in turn drives the speech area of the temporal lobe.

Q) In your book, you describe some unusual personal experiences that triggered your interest in why people write. Can you tell us about them?

A) Well, it started after I gave birth prematurely to twin boys who died. For ten days I was filled with sorrow. Then suddenly, as if someone had thrown a switch, I was wildly agitated, full of ideas, all of them pressing to be written down. Because I was holed up in my office all the time, my friends worried that I was depressed, but I felt quite the opposite. As a neurologist, I had heard of the phenomenon of hypergraphia and was pretty sure that was what I had. That phase lasted about four months; then suddenly I lost all interest in writing. I felt peaceful — unless I tried to write or speak. Then I felt as though my lungs were full of water, suffocating. So I just stayed quiet. That lasted about six weeks.

The next year, by a strange symmetry, I gave birth prematurely to twin girls, but they were and are healthy, my wonderful daughters Katerina and Elizabeth. Again I had the same four months of hypergraphia followed by — it wasn't writer's block; it felt like not being a writer at all. This time my writing was even more clearly not a grief reaction. It was a strange feeling to be suddenly driven into what felt like a creative state by what were probably biochemical changes. But if we can get a handle on the brain changes that underlie creativity, we can start to help people who have problems with creativity.

Q) Can there ever be an effective "treatment" for writer's block or hypergraphia?

A) Yes, definitely. There are already educational and psychotherapeutic treatments for writer's block, some fairly effective. But remember, not many people want to be treated for hypergraphia. Their writing is usually very important to them. That raises an important
point: What right do I have to give a medical name to a character trait that people value in themselves? The reason I do so is that I think talking about creative drive in neurological terms does not have to degrade the experience or value of creativity. The medical terminology can coexist with the equally important, more subjective language that we are more comfortable with. And this approach can also bring in the increasingly powerful ability of neuroscience to treat brain conditions.

As for treating writer's block, there is much more consensus among people who have it that it needs treatment. And there is a long history of writers self-medicating, usually not very successfully, with everything from alcohol to coffee to amphetamines. There are many ways to get blocked. For instance, some writers have a feeling of emptiness, as if they have no ideas. They might benefit from an antidepressant that is on the stimulating side. Other writers are crippled by perfectionism — they feel as if they have ideas but can't get them out. In some ways this problem can be treated like stage fright or anxiety disorder. A very unfortunate number of writers have used alcohol to calm this sort of anxiety. It may work in the short term, but in the long term it clearly damages creativity. Recently, although this is very experimental, there has been some evidence that transcranial magnetic stimulation through use of a wand over the temporal lobe can produce in some people the sensation of being visited by the muse. That opens up a new world of medical treatment that is not pill-based for problems of creativity. Although it sounds science fiction-y, this kind of technology is already being used for treatment of Parkinson's disease and depression.

There are more down-to-earth treatments of block that don't involve this sort of technology. First of all, it's important to be very observant and systematic about things that cause and help your block. If you're the sort of person who feels blocked around the holidays in November and December, it might be partly the stress of dealing with your dysfunctional family, and in some cases therapy to work that out can help. But you also might want to try a full-spectrum light box, which will help block your body's natural tendency to get sluggish and hibernate in the late fall. I have never been especially athletic, but I've grudgingly come to admit that exercise greatly increases my mental sharpness and creativity. And there are scientific studies showing that exercise is as good as Prozac in mild depression.

Q) Your book talks a lot about how disease states like epilepsy and manic depression can give rise to creativity. Do you think there is a particular link between creativity and disease?

A) That question has a very complicated answer. First, you definitely don't have to be sick to be creative. Many very creative people are also very healthy. And engaging in creative work may actually make you healthier — it certainly can make you feel better. But illness and suffering can be the drive behind creative work too, and the unusual perspective of people with mild mental illness sometimes aids their creativity. I think the relation between mental illness and creativity is useful; mental illnesses are often extreme brain states that allow you to see more clearly how the mechanism is working, even in "normal" people who don't have a diagnosis of mental illness. But it would be a dangerous mistake to go from there to pathologizing creativity. It makes more sense to go in the opposite direction and notice that in certain cases mental illness can also bring strengths, and that all of us share traits with the mentally ill.