

Reviews and reflections

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Epigenetics in the Age of Twitter: Pop Culture and Modern Science

By Gerald Weissmann
Bellevue Literary Press, New York, 2012

Reviewed by Thoru Pederson, PhD

But the greatest thing by far is to be a master of analogy. It is the one thing that cannot be learnt from others; and it is also a sign of genius, since a good metaphor implies an intuitive perception of the similarity in dissimilars.

—Aristotle, *Poetics* 1459a 5-8

One of the most beguiling features of the essay—from the Latin *exigere*, “I have examined”—is its remarkable genesis in the writer’s mind, involving cerebral foreplay together with a sudden rush (in the shower or while walking the dog) typified by a consolidation of themes fueled by a momentary stream of consciousness. Many essayists also throw in a strong dose of undisguised irritation at sloppy thinking.

They fold these ingredients into a mixing bowl lined with a desire to write



cleverly. In his latest collection of essays, Gerald Weissmann, an accomplished physician-scientist and brilliant writer, brings all these features into high gear once again.

Each essay forges a link between a topic in modern medicine or biology and an interesting nonmedical subject from classical or contemporary culture. His range of topics is wide, and his deftness at sensing an apt analogy in each case, anent Aristotle (*vide supra*), is striking. Consider a few titles from the table of contents that illustrate the author’s métier:

- “An Arrowsmith for the NASDAQ Era: Extraordinary Measures”
- “Coca-Cola and H.G. Wells: Dietary Supplements as Subprime Drugs”
- “Ask Your Doctor: Justice Holmes and the Marketplace of Ideas”
- “Wild Horses and The Doctor’s Dilemma”

(Note that most of Weissmann’s essays are like GI cancer screening in that they involve a colon!) Such titles illustrate the author’s panache and intellectual reach, as in “Inflammation Is Complicated: From Metchnikoff to Meryl Streep,” in which he deploys the plot of the Hollywood movie *It’s Complicated* to segue into a master class discussion of inflammation from the time of its discoverer to the present.

In “Medea and the Microtubule,” the author uses the myth of Medea, as brought to us by Euripides, to introduce the drug colchicine, which, in turn, led to the discovery of the protein that comprises one of the major architectural elements of eukaryotic cells, the microtubule. Weissmann reminds us that this molecule is named for Colchis, a region in western Georgia on the Black

Sea, and the home of Medea, the king’s daughter, who helped her lover Jason obtain the golden fleece. Historians of medicine believe that the golden fleece might have been *Colchicum autumnale*, the yellow crocus that grows in that region, the roots of which contain colchicine.

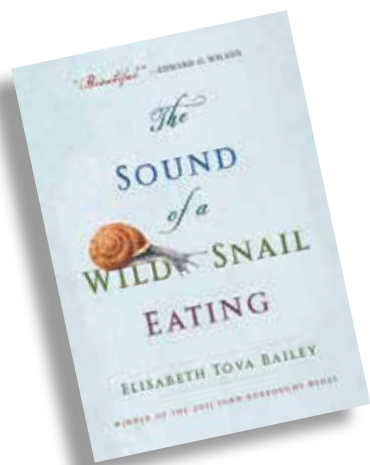
The author’s rich erudition delights and educates the reader. Biomedical scientists will have little trouble with the genomics, biochemistry, and signal transduction Weissmann throws at them, although a nonspecialized reader is unlikely to get the meaning of “methylated characteristics,” i.e. a one-carbon addition to DNA that can establish its function in progeny cells. Practicing physicians will grasp and enjoy the well-written material on biology and medicine. However, scientific readers will also be enriched by the parallel allusions to art, literature, and history. It’s true that many of us will find ourselves Googling figures from Greek or Roman mythology and other words not in common usage. I had to do so more than once. But is that not a good thing? And in many other essays Weissmann cleverly draws upon well-known current events as the referential enablement of his point. Weissmann stands on, and writes from, a world stage, not one confined to his immediate biomedical environs, and this is a defining feature of his appeal. Thus, in many cases the reader realizes, usually about one-third to one-half way through the essay, that Weissmann is using it as a bully pulpit in the best (Teddy Roosevelt) sense of the term, but it is so well done that the reader remains thoroughly engaged.

Gerald Weissmann’s powerful facility for analogy and brilliant expository style have elevated him to the pantheon of

science essayists in this post-Stephen Jay Gould and post-Lewis Thomas era. This new book surely catalyzes his strong covalent bond to the top tier. It cannot fail to educate and indeed inspire readers.

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The Sound of a Wild Snail Eating

Elisabeth Tova Bailey
Algonquin Books of Chapel Hill, Chapel Hill, North Carolina, 2010

Reviewed by David A. Bennahum,
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1984)

How astonishing that in a quiet room a perceptive patient could hear a wild snail eating dried flower petals. Not a surprise once I read that Aristotle had observed that snails have teeth and that Bailey's woodland snail has 2,640 and some of its kin may have

up to 10,000 teeth! Elisabeth Tova Bailey, who has suffered from Chronic Fatigue Syndrome, has written a most beautiful and life affirming book about her accidental companion whom she introduces to the reader on the first page.

In early spring, a friend went for a walk in the woods and, glancing down at the path, saw a snail. Picking it up, she held it gingerly in the palm of her hand and carried it back toward the studio where I was convalescing. She noticed some field violets on the edge of the lawn. Finding a trowel, she dug a few up, then planted them in a terra-cotta pot and placed the snail beneath their leaves.

The author describes with remarkable economy the long and disappointing course of her illness, her hopes for experimental therapy, and the cruel reality when later, "My doctors said the illness was behind me, and I wanted to believe them. I was ecstatic to have most of my life back. But out of the blue came a series of insidious relapses, and once again, I was bedridden." p5 She then continues with a series of vivid descriptions of her experience of Chronic Fatigue Syndrome, something worth reading by any physician who has ever doubted the sanity of patients with this complaint. The author writes that her "snail observations are from a single year of my nearly two decades of illness . . . While I was snail watching, there was so much I did not know about my small companion, and there was just as much I did not know about my illness. I was curious about my snail's species, and solving that puzzle would take several attempts and the help of a few experts. Even more challenging was the mystery of the pathogen that had forever changed the course of my life, and I would track down the likely culprit. There was also the unknown future—my own, and that of all living things." p163-64

But this rewarding book is not just about illness; rather it is about life as the

author is gradually drawn to observing her new wild companion. "When I woke during the night, I would listen intently. Sometimes the silence was complete, but at other times I could hear the comforting sound of the snail's miniscule munching." p17 Having arranged for a terrarium to house her snail companion and added first flower petals and then mushrooms to its diet (snails are hermaphrodites), the author despite her disability embarks on a thorough study of snails, ordering through inter-library loan the twelve-volume compendium *The Mollusca*, which covers the entire phylum of creatures without backbones that include the gastropods—snails and slugs—and the cephalopods—including the octopus.

She goes on to read everything that she can find on mollusks from Aristotle to Charles Darwin, including novelists and poets who have written about snails. Her bibliography is astonishing. It should not be forgotten that Darwin had studied mollusks, a study that had contributed to his great insight on evolution. It is also paradoxical that Darwin suffered from some form of chronic fatigue that began after his return from his seminal voyage on *The Beagle*. It has been suggested that he had fibromyalgia or had acquired Chagas Disease in Chile from observing a bug as it bit him, and that most of his research and writing was despite recurring bouts of illness. Quoting Darwin in the *Descent of Man* in 1871:

Mr. Lonsdale . . . informs me that he placed a pair of land-snails . . . one of which was weakly, into a small and ill-provided garden. After a short time the strong and healthy individual disappeared, and was traced by its track of slime over a wall into an adjoining well-stocked garden. Mr. Lonsdale concluded that it had deserted its sickly mate; but, after an absence of twenty-four hours, it returned, and apparently communicated the result of its successful exploration, for both then

Reviews and reflections

started along the same track and disappeared over the wall.^{pp98-99}

This is a very special book that reminded me of the early writing of Rachel Carson. Richly packed with human experience, scientific information, clinical observation and poetic insight this book will bring joy, understanding, and considerable scholarship to any reader.

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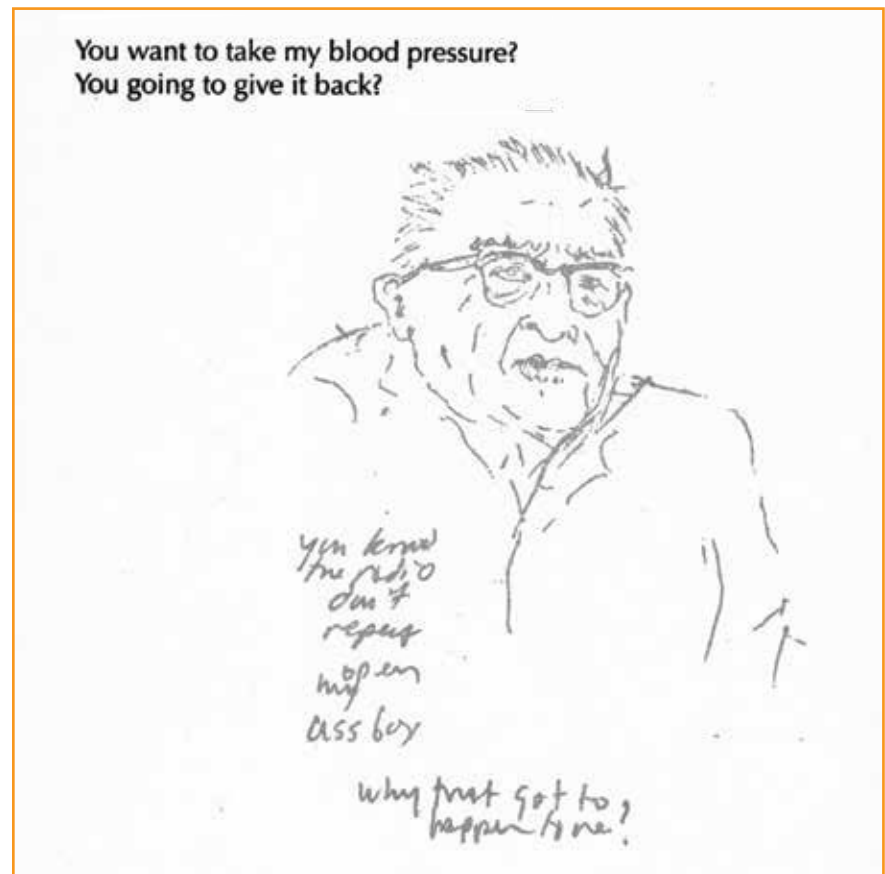
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Gentle Men

Alan Blum
Firebrand Press, Iowa City, Iowa, 2011

Reviewed by Jack Coulehan, MD
(AQA, University of Pittsburgh, 1969)

Alan Blum's work, as shown most recently in his book, *Gentle Men*, is a perfect example of the old adage, "A picture is worth a thousand words." This small collection of sketches tells us a great deal about thirty-one of Dr. Blum's male patients, but it also reveals much about the artist himself. Dr. Blum is a family physician who discovered, while still in residency, a talent for capturing his patients' personalities in casual sketches that he made on rounds and, later, in his office. His sketches were first presented to the medical community in 1981, when *JAMA* published a selection of them in a photoessay.¹ Subsequently, *Literature and Medicine* presented a series of his sketches² with a critical analysis by Mary Winkler, who wrote that Blum's casual portraits portray "individual personalities who act in a human drama of courage, despair, humor, pettiness, suffering, and death."^{3p217}



Winkler went on to comment that the artist, while "unpretentious in his approach," "derives intense pleasure from the practice," and his work demonstrates "a genuine and compassionate interest in the people he sees."^{3p218}

While the pictures provide glimpses into his patients' personal worlds, Blum supplements each sketch in *Gentle Men* with comments in the patient's own voice, words that capture the immediacy of the moment, whether the message is comical, rueful, or wise. For example, on page 6, we see a long-faced, narrow-shouldered African-American man look pensively into the distance, as he says, evidently speaking of his daughter, "When she was eight years old, / she asked to have a drink with me, / and I stopped drinking." On page 21, the image is that of a middle-aged man with a sour expression on his face, commenting on his experience with another doctor. "I don't want to hurt his feelings," the patient says, "but, really, that doctor didn't do anything for me . . . / Nowadays you feel more like furniture / coming to be repaired."

Medical procedures also receive due

consideration. Take, for example, the patient on page 9 who confronts the reader with a pained, quizzical expression as he observes about his doctor, "He did that finger test. / Stick a finger up your butt / and smear it on a piece of paper. Said I passed." On the next page, an elderly man with thick-rimmed glasses seems genuinely amazed at his experience of a colonoscopy: "That doctor put a Kodak in me. / He put it in and kept shovin' and shovin'. / Showed up on TV."

Gentle Men serves as a companion piece to *Ladies in Waiting*, Dr. Blum's collection of sketches of female patients, which appeared in 2009,⁴ and offers graphic insight into the distaff side of his patient population. One grandmotherly woman with a delicate bow at her neck comments, "I had one doctor, / used to have to chase him, / grab onto his white coat. / Flittin' up and down the hall. / You want to ask him somethin' / you have to run him down."^{4p4} Another patient almost sags out of the page, looking as if she carries the cares of the world on her shoulders, but quips, "I sure feel better since the doctor / took

me off all them milligrams.”^{4p8} And a large, jowly woman on page 6 peers from above her glasses and confidentially informs the reader, “I figured it out: / I’m 329 pounds, / and at my weight / I should be 8 feet 7 inches tall. / So I’m not fat, I’m short.”

Gentle Men and *Ladies in Waiting* remind the reader of the visual richness of medical practice and, at least in Alan Blum’s case, the deep connection between sketching and empathic understanding. Blum consciously prolongs medical encounters by sketching his patients, arguing that by doing so he becomes a better listener, sees his patients more clearly, and “narrows the gap between physician and patient.”^{3p219} While such careful observation undoubtedly benefits patients, the practice of reflective sketching also benefits the physician-artist, as Dr. Blum confirms in his very brief (single sentence!) introduction to *Ladies in Waiting*, “I awaken each day with the wonderful faces of patients in my mind and the simple but funny, poignant and wise stories I’ve been privileged to hear.” Those of us who feel that way—and I believe there are many—should greatly enjoy Alan Blum’s *Gentle Men* and *Ladies in Waiting*.

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A Private Place

The young couple stands alone
at the elevator marked “Down to Parking.”
They regard each other joylessly.
Their bearing probes something measureless.
Others queue up behind them,
fall into their spell, and uneasily
stand back . . . transfixed.

She, in early pregnancy, appears near tears,
yet offers him a fleeting smile
as if to lighten a weight they share.
And he returns it like a blessing.

In this medical complex, this floor attracts pregnant women.
The others waiting are also patients, and faces somehow soon betray
a suspicion that this baby . . .
is dead.

Doors open to an empty elevator, and the couple enters.
No one follows.

Douglas Forsyth, MD

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