The oracle of science, on this dry, cold winter day, is silent.

-- Daniel Shapiro, “Perspective Shift”1

The words above describe an ambiguous CT scan. “Perspective Shift” in a short narrative essay—a story that may or may not be fictional—that was published in the *Journal of the American Medical Association*.2 In it, all the powers of biomedical imaging technology cannot—or will not—give a doctor and patient the information they desperately need. Instead, they must find other ways to apprehend the situation.

It might be useful if medicine could rely on science to provide exact answers to every question, not just about the existing world, but also, as oracles are supposed to do, about the future. Imagine if bioscience could give doctors an entirely reliable prognosis for every patient, if test results allowed doctors to function simply as passive mouthpieces transmitting omniscient wisdom. Such certainty, and such passivity, are of course impossible—and it’s probably just as well.

In *How Doctors Think*, her study of medical epistemology and clinical reasoning, Kathryn Montgomery reminds us that medicine is not a science but a discipline that is “interpretive because radically uncertain.”3 Physicians read and interpret a range of complex texts, some written, some spoken, some visual, some a mixture of statistics, behavior and body language, that can never be reduced just to paraphrasable content.4 Practicing medicine means finding, or making, coherent sense out of complex and often contradictory components of information. After all, oracles, even when they are not silent, always require interpretation in order to convey meaning and guide action.
In this essay I will analyze a single narrative exercise in order to show two things, one specific and one general. Specifically: this story conveys, in a rather elegant nutshell, the paradoxical nature of clinical medicine as a collaborative practice based on interpretation in the face of uncertainty. I will attempt to demonstrate a more general point too: stories like this one are a good way both to teach trainee medical professionals about medical uncertainty and to help them practice ways of responding to it.

“Perspective Shift,” is a very short story, around 450 words. It is set in a doctor’s office during an encounter between a physician and a cancer patient. The meeting centers on a recent scan of the patient’s chest. The scan is expected to show either that the cancer treatment is working, or that it is not. The image reveals an 8cm tumor, but, despite this, its meaning is ambiguous: since the previous month’s scan, the tumor has changed, but, rather than clearly growing or shrinking, it has become both narrower and longer. The image thus both requires and resists interpretation. It might be a picture of flourishing malignancy or of the benign scar tissue typically left behind by this kind of cancer (nodular sclerosing Hodgkin’s). The story’s narrator implicitly acknowledges that the clinical reality of the image is as much about monsters and nightmares and happy endings as it is about measurable lesions: “No one can tell if the tumor on this film is alive with cancerous intent or if what we see is the ghostly image of a beast now dead.” This, then, is a story about how to do medicine when “no one can tell.” As such, it is about imagining.

“Perspective Shift” can be used to demonstrate, on more than one level, the effective role narrative can play in medical education. Short and accessible, yet, on close reading, dense with meaning, it demonstrates its own subject matter with a narrative sleight-of-hand that calls readers’ attention to their own processes of reading and thinking. By concealing the identity of
the narrator until the very end of the story, Shapiro leads the reader to rely on certain assumptions—about the speaker, about the other character in the story, and about the situation itself. In the final paragraph he overturns these. This surprise (one meaning of the “perspective shift” of the title) compels most readers to go back and reread the story, to see how things look different in light of this new knowledge, this shift in point of view. The last paragraph shows us that what we have read has been ambiguous (perhaps without our even noticing it). The story’s form enacts its content, presenting the challenge of ambiguity both in its plot—what happens when a diagnosis or prognosis is unclear?—and in its structure—what happens if the narrative components of a story are skewed or deceptive? The story is thus at a meta-level about narrative, interpretation, and close reading as ways of responding to medical uncertainty.

Below I suggest ways of using “Perspective Shift” as a teaching tool, the basis for an exercise in reading and writing that might alert medical students to their own assumptions about managing medical uncertainty and ambiguity, and might provoke them to reflect on those assumptions. The in-class exercise in reading and writing (and rereading) I describe might enhance the story’s effectiveness by taking Shapiro’s authorial conjuring a step further.

*Perspective Shift: A writing exercise in reading*

Through writing, learners think about other people’s situations … and contemplate their own reactions in relation to those situations from a subjective, personal, and indefinite vantage point.

-- Johanna Shapiro, Deborah Kasman, Audrey Shafer, “Words and Wards”5
In short, the exercise involves having students read “Perspective Shift” with the final paragraph missing, and then write their own endings. By withholding the story’s surprise ending for a little longer than it usually takes to read the piece, one can turn the story into a practical demonstration of various aspects of medical hermeneutics, of active interpretation in the face of uncertainty. As such, it also becomes an exercise in narrative competence, the health care provider’s ability to “recognize, absorb, interpret, and be moved by the stories of illness.”

To write is first to imagine, and then to realize what has been imagined by articulating it. To this extent, writing, no matter how informal (or marginal), is always a valuable part of reading. As Johanna Shapiro and her co-authors suggest in the quotation above, to write (in their study, to write reflectively about the experiences of becoming and being a physician) is to take on a particular and emphatically unscientific vantage point. What this does not mean is that to write is to be unmoored from reality. The purpose of my exercise is, in part, to have students imagine within the restrictions of a particular context. They must conceive and write a plausible ending for an incomplete story about a doctor and a patient (and an ambiguous chest film), which entails applying two different kinds of knowledge: about what happens next in a clinical encounter and about how narratives end. They will discover that this kind of imagining is necessarily reliant on evidence—in this case on the internal evidence they find in the text, on what they know about medicine, and on what they know about stories. Such imagining is not irrational, though many initially dismiss it as such. The exercise will make participants read more carefully than usual, for they are being asked, as doctors are, to do something with the information they have, even though it is inconclusive.

Step 1: Reading and Writing
Give participants a copy of the story with the last paragraph missing. Allow 15 minutes for them to read the story and then to write their own ending for it.

**Step 2: Sharing**

Ask for volunteers to read their endings aloud. After several have done so, have the group discuss the various final paragraphs broadly, comparing content, language, degree of closure, and so on. Then ask the group to identify (or speculate about) the assumptions and narrative elements that enabled the participants to construct their various endings—the evidence, that is, on which they based their imaginative hypotheses. Such evidence may range from the medical—“it would be indicated to do more testing at this point”—through the clinical—“the physician won’t have time to keep this up much longer; he will need to end the conversation so he can see the next patient”—and the narrative—“the main character has to change, so the patient decides to give up treatment regardless of the scan’s meaning,” and so on. Being asked to articulate their reasons for decisions they probably made unreflectively—to explore the meta-narrative aspects of their creative writing—is a rich way to foster narrative competence, because it begins in the student’s own narrative activity.

**Step 3: Rereading and reflecting**

Disclose the actual ending, which, in the interest of clarity, I must give away now, too: Shapiro keeps it unclear until the end whether the story’s first person narrator is the physician, and the person described by the narrator is the patient, or vice versa. The author provides cues that lead the reader to assume that the physician is narrating the story. The nature of these cues should be an essential part of discussing the story. The final sentences resolve the uncertainty, revealing
that the narrator is in fact the patient. He (she?) says of the other person in the room, “After all, I need him. He is my young doctor and that is my tumor taunting us from the scan.”

Finally, reread the entire piece together (have a student volunteer read it aloud), and have participants comment on what is changed by their new knowledge of the narrator’s identity. They may also at this point object that their own or other group members’ endings are as good as or better than the actual one. Narrative competence in medicine is about both reading (in the broadest sense) and making stories; here, in order to construct an ending, they must first have made sense of the existing story-so-far. Have students talk about how the new endings do or do not produce coherence or closure. Talk about "good" endings, how they aren't necessarily "happy" endings, and what readers, or clinicians, or patients, expect from the end of a "good story."

Three overarching questions to consider during this discussion might be: What assumptions (about medicine, about stories) did you make on your first reading of the story, and on what did you base these assumptions? Participants may point out anomalies. For instance, the single sentence, “I have seen this clinical presentation a thousand times,” is intriguing: Would a patient say this about a physician? In what context? His career as a cancer patient, perhaps? Or perhaps the patient is also a physician. This possibility is a valuable one to discuss. The roles of physician and patient are not mutually exclusive, and it makes narrative sense that the person telling the story understands the problems faced by the physician, because he or she is also one and has had to confront them before, albeit from the other side of the frontier between health and illness.7

A second important question to discuss is how the missing ending (and knowing the ending now) affected the experience of reading. Finally, what does reading (and rewriting, and
rereading) teach you about uncertainty (in medicine, in stories)? In discussion, be careful to separate uncertainty about the identity of the narrator or about the last paragraph of the story (resolved), from the clinical uncertainty at the story’s center (unresolved: we never do find out what the chest film means or what will happen to the patient and the doctor). How are the two kinds of uncertainty related?

Perspective Shift: A close reading

As we proceed in this way, playing close attention to the evidence, asking questions, formulating interpretations, … we reason toward our own ideas.

-- Patricia Kain, “How to do a close reading”

Close reading, which usually means reading followed by rereading followed by articulation of one’s interpretation, either in oral discussion or in writing, is the best way to learn what you think about a text, and why you think it. The goal of close reading is not just to find out how a text works, but to find out how it works its effects on a particular reader. It is a rational process for exploring a partially or initially irrational—instinctual, emotional, subjective—response. Storytelling, like any interaction between two human beings—including the clinical encounter—never works purely at the level of rational intellect. This does not make such interactions entirely open-ended, or fuzzy, or immune to the effects of careful analysis. One of the benefits of using close reading when teaching medical students is that it reveals the way in which a subjective interaction, like reading a story or meeting a patient, can be better understood through the systematic application of reason and the precise use of evidence.
Rita Charon, in her book *Narrative Medicine*, describes a useful “drill” for the close reading of narrative, particularly in medical contexts. It involves examining five aspects of the text (which Charon likens, coincidentally, to the five features examined in the interpretation of a chest film). I will show how a writing exercise like the one I have described can lead students to work with each of the five elements without necessarily identifying them. Deforming a story for pedagogical purposes (by cutting off its ending) can make its readers more aware of aspects of form they may otherwise take for granted while focusing on content.

The text’s *frame*, “locating it in the world” (Charon, 114), uses various contexts to make sense of a story. These might be historical, bibliographical, or sociocultural, working at many levels. In this case, at least two frames are relevant for the student: the narrative was published in a prestigious medical journal, and it is being used in a class on narrative and medicine (or medical uncertainty, or the doctor-patient relationship, or…). These contexts help establish reader assumptions and expectations.

The teacher can choose how much framing to withhold in the exercise. To remove the story’s ending is a radical unframing. To the extent that the ending of a narrative tends to determine the meaning of the whole (and it certainly does in this case), readers are left to their own interpretive devices rather more than usual. This increases—and makes visible—the reader’s participation in framing and reframing the text. One could take this further by concealing the title—a story’s most obvious frame—until later. (Certainly, it may give some participants an important clue about the ending.) The second reading, with the ending, provokes a new reading; in effect, the new frame creates a new text.

One might not disclose the *JAMA* publication information until later. One can imagine having participants first read the text of the story without title, ending, or any contextual cues at
all. After discussion, an actual copy of the issue of the medical journal containing it could be circulated in order to consider the story’s placement in relation to other articles, advertising, editorials, and the various visible apparatuses of medical publication. One might consider the story’s place as a text in “A Piece of My Mind,” the forum in which JAMA includes one narrative essay in each issue. How are these narratives framed in relation to the science that surrounds them? How audible is the oracle to the story’s intended readers?

A text’s form consists of various aspects of the writing that are determined by its place in literary traditions of genre and poetics. Participants are not expected to know the technical side of this; what will be important is to know that this is a story, not a report, or an article, and so on. This will almost surely be obvious from the first sentence—“He looks so sad, so forlorn.” They will likely know that this is the beginning of a story, perhaps because of its situational immediacy, its slightly literary sentence structure and diction (the repetition of “so…”), and the narrator’s attention to subjective observations about another’s emotions.

The narrator is the crucial formal component in this story, not least because the author, by occluding his (her?) identity, has already made the story an experiment in form. The writing exercise exaggerates and highlights this. Three interlocutors emerge in this first paragraph: the First Person narrator/speaker (“I,” even though he—or she—does not actually refer to himself—or herself—until the beginning of the second paragraph); the Third Person who is described by the narrator (“he”); and an implied Second Person addressee (“you”), the reader who, even though not addressed overtly here, is implicitly involved in creating the story’s meaning. The immediacy of the first sentence marks its speaker as a character in the story, rather than a disembodied omniscient narrator. This means that the narrator’s perspective is limited to what the character has access to. Because of this limitation, the reader, the invisible “Second Person,”
is also denied omniscient access. The reader knows only what the narrator tells, and the reader has to decide whether or not the narrator is entirely trustworthy. Endings in the exercise will often reflect participants’ initial decisions about the narrator—not just whether doctor or patient, but whether reliable or not, benevolent or not, someone to identify with or to suspect.

*Time*, what Charon calls the “text’s temporal scaffolding” (120), appears fairly simple in this story: the period of action is extremely short; the length it takes in a clinical encounter for one person to think about what another person is thinking; the space between a question and its answer. This is, then, a story about thinking. But time stretches long on each side of the brief moment captured in the narration itself. The moment has an implied history or, rather, it has three histories (or biographies): those of the clinical relationship, of the doctor, and of the patient. The reader is invited to speculate about all of them. Even more important, though, is that it has an implied—but unknowable—future. The speaker plans the near future: “I cannot show him the way. Nor will I offer false hope to make us feel better in this fleeting moment.” The reader (like patient and physician) has to consider the longer-term possibilities, the branching paths: if it’s just scar tissue, when will they know? If it’s cancer, what treatment options will be available? And, in this exercise, what ending will point best along the time trajectory I think this story should, or must, or, most interestingly, could, take?

The fourth component, *plot*, is closely related to time, and in this story it is important for its absence; in the most literal plot terms, in terms of outward action, *nothing happens*. This is the point, because making things happen is, for many, the purpose of medicine, and uncertainty is action’s nemesis. The story captures the paralysis—or the precious contemplative gap—that follows from ambiguity and ambivalence, the moment when evidence is weighed and alternatives are explored before a course is chosen. In the author’s own ending the patient
decides to accompany his doctor on a collaborative and cooperative response to the tumor. Apart from this, the story remains open-ended. Students’ endings will often point more narrowly to some clear course of action, usually determined by the narrator they imagine as a doctor, because in being given a story where nothing seems to happen and where there is no ending, they will usually be provoked to use the ending to create a plot. This somewhat desperate and entirely normal response to uncertainty should be discussed overtly.

The fifth and final textual aspect Charon recommends exploring in her “close reading drill” is the broadest, and the place where readers’ own responses will become most explicit: desire. Charon refers to the desire both of the narrator and, importantly, of the reader: “What appetite is satisfied by virtue of the reading act? What hunger seems to have been fulfilled in the teller by virtue of his or her … act [of narrating]?” (124). Or, even more simply, we ask (as many students do, if not aloud): “So what?”

“Perspective Shift” plays with the desire for certainty by thwarting it. Shapiro temporarily withholds a necessary detail concerning the narrative, leading us to picture the scene in one way, in our mind’s eye, and then at the end he makes us re-envision it all. Whom do we see wearing the white coat on our first reading, and what does that do to our identification and to what we want to happen next? The frustrated reader is forced to become a self-conscious reader.

Withholding the last paragraph exacerbates the frustration. The reader, trusting that the ending will make all clear, is frustrated, and out of that frustration has to fashion a satisfying conclusion. The narrator’s desire, of course, reflects that of the reader, and here it does not entirely matter whether doctor or patient is the narrator. What both need are clarity, certainty, and a way forward, the security of knowing how this story will go. The narrator wants a way to resist the suspense caused by “cancer’s horrible ambiguity.” Refused this, he (she?) settles for
the value of learning to “live with the ambiguity,” to “live, despite the ambiguity,” and to acknowledge the importance of doctor and patient facing this uncertain future together. The middle paragraph of the story predicts this collaboration: here, speaker and subject (patient and doctor) are joined in the plural first person, even though only one speaks for both: “We are staring at chest films. . . .” The stakes in the image’s meaning are high for both. The final sentence restores this compound protagonist; the tumor taunts “us”—both of them, equally, though in different ways—from the scan. The reader, we hope, learns both this lesson about clinical collaboration as a response to uncertainty, and a meta-response to the need, in medicine as in narrative, for satisfactory closure—which need not always mean a conventional “happy ending.”

As well as leading participants to practice close reading, Charon’s reading drill should alert them to the value of reading closely at several levels. Again, the story is itself a useful exemplar, not only for its discussion of ambiguous scans and science that refuses to provide conclusive answers, but for its modes of telling. It refers to several other kinds of narrative. For instance, the chest films “tell a sobering story.” What kind of story is this? An image only tells a story when a reader interprets it and then tells one possible story for the image. Why does the author present the films as capable of narrative? Perhaps because of the paradox that the one who should provide the voice to tell their story cannot do it. The narrator says: "No one can tell if the tumor on this film is alive…” This particular story is, for now, untellable. The film also stifles telling. The doctor paces helplessly, for he is “unable to find words to describe his frustration with the unknown.” There are other implied tellings: the patient says that the physician “expected better news.” Who gives news in medicine? What kind of story is it? We teach students about giving bad news. What about giving inconclusive news? (This is of course what
medical bad news often amounts to.) The unnarratable image is at the center of the story, quite literally; here the oracle of science is silent. In this silence, the doctor and patient communicate as they must—and the author asks the reader to pay attention.

Another kind of story is alluded to, as a counter narrative, perhaps: the patient says that the physician “is always telling me to go see the latest movie portraying a hero surmounting all odds.” This kind of story, the plot so many cancer patients are urged to imagine themselves in, is not about the real world, but instead offers a fantasy where will and effort conquer villainy (in this case, cancer) and endings are inevitably, and predictably, happy. The patient in Shapiro’s story has a more mature awareness than the physician that such stories seldom apply to real-world clinical situations.

Finally, “Perspective Shift” is about the stories patients tell their doctors. This is the point, I think, of the trick ending. If, as I think Shapiro intends, we assume as we read that the narrator is the physician, we accept this attentiveness as part of the clinical interview. The physician is observing the patient: “He looks so sad…” and so on. When we get to the end and turn back, we realize that it is the patient observing the doctor, compassionately, with concern. This second perspective shift opens the reader, especially the reader who is also a health care professional, to a new view of the clinical interaction, one where the patient can have the power to narrate not just his own pathography, but also the story of medicine itself, and, it follows, the power to take care of the physician. The young physician in the story must learn that uncertain, impossible, ambiguous situations like the one now threatening to silence him (and ultimately his patient) are the ones where true narrative competence is required. It is here that patients, and stories, might have much to teach.
References

2 “Perspective Shift” may or may not be fiction. In the *JAMA* definition in the journal’s instructions for authors, it is classified as an “essay”: “Most essays published in *A Piece of My Mind* are personal vignettes (eg, exploring the dynamics of the patient-physician relationship) taken from wide-ranging experiences in medicine; occasional pieces express views and opinions on the myriad controversial issues that affect the profession” ([http://jama.ama-assn.org/misc/ifora.dtl#APieceofMyMind](http://jama.ama-assn.org/misc/ifora.dtl#APieceofMyMind) Accessed November 1, 2006). This particular essay, in part because of its deliberate indefiniteness, is easier to classify as fiction than non-fiction, simply because it hardly contains enough information to measure its fit with a real-world situation. One could conceivably ask the author whether this “really happened” or not, but this would be largely irrelevant. It *would*, however, be very useful to raise this question while discussing the story with students. If it’s about uncertainty, how much does it matter that we are not certain whether this is a true story or a fiction?.
6 Charon R. *Narrative Medicine: Honoring the Stories of Illness*. OUP, 2006: vii..
7 I thank one of the reviewers, Pamela Schaff, M.D., for pointing out this extremely valuable perspective on the story.