Appendix 1: Experimental Results: The Cognitive Science of Literary Reading

As we mention in Chap. 1, in the last twenty-five years, there have been many studies, pursued with scientific rigor, that demonstrate the fact that reading literary fiction effects changes in people that increase particular forms of cognition and fellow-feeling. How these effects are brought about has until recently been analyzed and discussed, usually in literary studies, but rarely by means of scientific protocols. Over the past twenty-five years, however, data has been published, derived from rigorous testing, which shed light on this phenomenon and indeed allowed us to discern a causal relationship between reading fiction and increased empathy and vigorous enactments of Theory of Mind (ToM). Some of these studies have shown how—by means of the analysis of literary *features*—literary fiction goes about effecting these changes. But besides these "interpretative" analyses, many other studies have demonstrated by means of empirical, quantitative and qualitative research techniques that reading literary fiction leads to enhanced ToM, measurable transportation states ("vicarious experiences"), and increased empathy. As we suggested in Part I of the Introduction, these phenomena are desirable for people in the healthcare field. The exciting development of this data has come about through a confluence of studies involving a number of disciplines including cognitive and social psychology, narratology (including stylistics and linguistics), neuro-imaging, and, as we note throughout this book, literary semiotics and medical pedagogy. ("Semiotics" is the systematic study of "signs" and the manner in which meaning is generated. It grew out of linguistics and logic in the early twentieth century. For a historical and cultural account of why this is so, see Schleifer 2018a). In this appendix, we set forth a short summary of this research by focusing on a small number of these studies that are representative of the wider empirical work of the last two decades. Taken as a whole, this work in cognitive and affective science describes how reading literary fiction (variously defined as "writerly," "polyphonic," and "stylistically sophisticated discourse"), creates in the reader the desirable effects of enhanced empathy, more rigorous ToM, and the vicarious experiences that Transportation Theory analyzes.

In 1994, D. S. Miall, an English professor, and Don Kuiken, a psychology professor, both from Alberta, Canada, demonstrated that "foregrounding" is systematically correlated with increased reading times and changes in affect (emotional response), and it is also correlated with readers' judgment of "strikingness" in a series of

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experiments utilizing student-readers. The term "foregrounding" was coined in the 1930s by Jan Mukařovský, a semiotician and member of the Prague School of Linguistics. By "foregrounding" he means "the range of stylistic variations that occur in literature, whether at the phonetic level (e.g., alliteration, rhyme), the grammatical level (e.g., inversion, ellipsis), or the semantic level (e.g., metaphor, irony)" (Miall and Kuiken 1994: 390). In Part II of Chap. 1, we describe and examine thirteen of these "features" in relation to Grace Paley's short story, "A Conversation with My Father." These features, we suggest, are useful in developing the careful engagement with the literary narratives and poems of our text-anthology—and, importantly, in the careful engagement with patients' stories in the clinic. While these features can occur in all language uses, Miall and Kuiken argue (following Mukařovský) that they are systematically present in literary texts: foregrounding, they argue, "enables literature to present meaning with an intricacy and complexity that ordinary language does not normally allow" (1994: 390). One such measure—using a term we discuss in Part II of Chap. 1—is the ability of literature to "defamiliarize" experience and make it new. "Defamiliarization," as we mention in Chap. 1, is a term developed by Russian scholars in the early twentieth century to allow for the systematic study of the ways that discursive art—literary narrative—provokes effects and responses in readers/listeners. Miall and Kuiken measured the effects of foregrounding in four formal studies of readers that measure the "strikingness" of literature (i.e., the attention it arrests by means of defamiliarization), the provocation of feeling (affect), and the ways that foregrounding increases reading time.

Much work has been done on the emotive responses to reading literary fiction (Appendix 5 refers to some of this material). In 2002, Miall and Kuiken published an innovative research paper that showed that readers of literary fiction were moved emotionally by certain passages, and when they reflected on that emotion they discovered that the passages and attendant emotion had stimulated reflections in their real world lives or in other texts. (This result corresponds with the features describing the borderline between everyday life and literary fiction in Part II of Chap. 1.) Furthermore, they found that the reflections stimulated "boundary crossing." Specifically, they demonstrate that "the experience of feelings in one situation leads to the re-experiencing of those feelings in situations that are similar" (2002: 226). This phenomenon, as we note in the vignette in Chap. 4, precisely occurred in Dr. Vannatta's practice when he re-experienced feelings provoked by Toni Morrison's novel *Beloved* in his interchange with a patient. Miall and Kuiken test this with the systematic study of students reading Sean O'Faolain's short story "The Trout." In a review article, in 2011 Raymond Mar et al. reviewed the literature on emotion and narrative fiction in which he and his colleagues examine in fine detail *empirical* studies that demonstrate the evocation and transformation of readers' emotions, how these emotions affect readers' experiences of narrative, and, finally, the consequences of these experiences in readers' subsequent lives well after closing the book.

Much of the work on how literary narrative does its work to enhance empathy focuses on Transportation Theory. These studies demonstrate that literary fiction is more effective in producing its cognitive and affective responses when the reader is

"transported" into the story. This transportation is an integrative melding of attention, imagery, and feelings, such as Miall and Kuiken describe under the category of "foregrounding" and we describe in Part II of Chap. 1 in relation to "features" of literary narrative. In 2010, Melanie Green used a well-validated measure of transportation to demonstrate that being transported into a story was correlated with perceived realism, and perceived realism mediates the effect of transportation on beliefs in another version of "boundary crossing" from the literary fiction to everyday life. She also demonstrated that emotional changes, discussed in the studies mentioned above and many additional studies, are correlated with the degree of transportation.

In the last decade, studies have appeared that looked at reading literary fiction and its effect on Theory of Mind (ToM). In 2013, David Kidd and Emanuele Castano reported in *Science* a randomized control trial of the effects on ToM of reading fiction vs. non-fiction. They found that literary fiction was statistically more effective at increasing performance on advanced ToM tests. They also found a difference in ToM testing when comparing literary fiction with popular fiction. Similarly, Raymond Mar et al. showed that exposure to literary fiction predicts performance on an empathy task, controlling for age, gender, English fluency, personality trait openness, and transportation. Finally, in this short survey, in their 2013 article "How Does Fiction Reading Influence Empathy? An Experimental Investigation on the role of Emotional Transportation," Matthijs Bal and Martijn Veltkamp reported in two experiments that the emotional effects of reading fiction vs. non-fiction increase over time. They made measurements immediately following reading and again after one week. They also found that when the readers were transported into the story, they performed higher on empathy tests than when they had been exposed to newspaper articles.

Appendix 2: Discussion Questions for the Chapters

In this appendix, we offer a number of general questions for class discussion appropriate for all (or most) of the chapters of *Literature and Medicine* and then present specific questions for each chapter. It is our hope that these questions will stimulate instructors and readers to devise their own questions that will stimulate reflection on the usefulness of narrative to medical practice.

General Questions

These questions can be addressed to the literary narratives and, if necessary, to the poems in almost every chapter of *Literature and Medicine.* By and large, they are linked to Chap. 1. In presenting these questions, we will give examples from James Joyce's story, "Araby" in Chap. 5, "Listening to Patients."

1. In the literary narrative and/or poem you have read, what phrase/sentence/paragraph generated the most emotion?
   In "Araby" readers are usually struck when the young-boy narrator says: "I imagined that I bore my chalice safely through a throng of foes. Her name sprang to my lips at moments in strange prayers and praises which I myself did not understand. My eyes were often full of tears (I could not tell why) and at times a flood from my heart seemed to pour itself out into my bosom. I thought little of the future. I did not know whether I would ever speak to her or not or, if I spoke to her, how I could tell her of my confused adoration. But my body was like a harp and her words and gestures were like fingers running upon the wires."
2. In the literary narrative and/or poem you have read, what phrase/sentence/paragraph generated the most reflection?
   In "Araby" readers usually spend time pondering and discussing the fact of the boy's "anguish and anger" at the end of the story.
3. In the literary narrative and/or poem you have read, what phrase/sentence/paragraph is the most striking? (The term "strikingness" is used by Miall and Kuiken in their discussion of the "foregrounding" strategies in literary fiction that demonstrate the effectiveness of literary fiction to promote empathy and "transportation.")

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In "Araby" readers are struck by the seeming obsessiveness of the boy-narrator's feelings for Mangan's sister. (This suggests that "strikingness" is an overall narrative feature and overlaps with the first two questions.)

4. In the literary narrative and/or poem you have read, what phrase/sentence/paragraph generated the most incomprehension? That is, what is the greatest anomaly the text presents? How does the author/text create this anomaly?

   In "Araby" perhaps the greatest anomaly is when the boy-narrator says, "I could interpret these signs," when his uncle comes home, but then fails to narrate his interpretation.

5. In the literary narrative you have read, describe the way the action of ignoring symptoms (or other phenomena) by the healthcare provider (or by some other character in narratives without healthcare professionals) is self-serving. That is, what particular ends are served by the act of ignoring evidence. (Quite often, the act of ignoring information is "unsaid" insofar as the narrative does not explicitly note it is a self-serving act.) This "negative" action by physicians is particularly pronounced in Leo Tolstoy's *The Death of Ivan Ilych*.

   In "Araby," the boy-narrator seems to be having experiences—of "love," infatuation, desire—that he hasn't experienced before, but instead of questioning those experiences, he narrates them as "confused adoration." (In this, Joyce's narrator is like many patients, who present bodily symptom which they can only explain by falling back to "familiar" vocabularies.)

6. In the literary narrative and/or poem you have read, consult the catalogue of narrative elements in the article reproduced in Appendix 5 (p. 266 below) and describe the possible *narrative roles* of the characters portrayed.

   In "Araby," the boy-narrator conceives of himself as the "hero," his uncle as the hero's "helper," and the object of desire (sometimes the "heroine") as Mangan's sister. But at the end of the story, the hero-narrator confesses the "vanity" of his heroic role. Thus, it is also possible to conceive of the boy-narrator as "ironic" rather than heroic.

7. In the literary narrative and/or poem you have read, consult Appendix 5 (p. 267 below) and describe the possible *narrative genres* of the characters portrayed.

   The catalogue of narrative genres in the article reproduced in Appendix 5 suggests that one way of understanding the genre of a narrative is to discover who is left with the sought-for good at the end of a narrative. Thus, when the "hero" gains the sought-for good, we have a melodrama; when the "helper" does we have a tragedy; when the heroine does we have comedy. Finally, when the sought-for good is gained by the opponent, we have an ironic narrative. In "Araby," the clerks at the bazaar—who have English accents in Ireland ruled by British colonial power—who flirt with one another, seem to possess the sought-for good that the boy-narrator seeks.

8. Describe the witness who learns in relation to this narrative as a whole. Note: the witness can be a character in the narrative or the reader or even the teller. What is learned?

   In "Araby" the witness who learns is the young boy who experiences disillusionment at the end of the story. What he learns is complicated: the

"anguish and anger" he feels might seem to adults reading this story itself a childish response to commonplace experience. But the story as a whole (the author's/text's "overall meaning") might also suggest that as a grown person the boy-narrator is haunted by this story. If readers are haunted as well, it is because they are "transported" into the situation Joyce narrates.

9. Describe the "overall meaning" of the narrative or poem in this chapter.
   The analysis of the conclusion of "Araby" discussed in the preceding question suggests the story's "overall meaning."
10. In what ways does the narrative/poem we have read shed light on healthcare?
    In "Araby," the narrative provokes examination of the private "cultural" vocabularies of people and patients. The boy-narrator is having an experience he never had before, and the only vocabulary he has to describe it is not medical—neither he nor the author conceives of his "puppy love" as a function of puberty, hormones, or other medically-related terms—but rather the language of the Catholic Church that permeates his life and experience.

Chapter Questions

The following questions are designed for discussion and reflection for each of the chapters of *Literature and Medicine*.

Chapter 2: "The Narrative Structure of Diagnosis." The major literary narrative in this chapter is Dr. Arthur Conan Doyle's Sherlock Holmes story, "The Resident Patient." Since this chapter examines the *process* of abduction, most of the discussion questions focus on interpretative processes rather than understanding of elements of the narrative. (See also Appendix 4 for teaching aids for this chapter.)

1. How are the police and the detective, Sherlock Holmes, like doctors?
2. Why is the crime situation narrated twice, once in more or less fragmented form by Dr. Trevelyan and once by Sherlock Holmes?
3. Why does Doyle begin by referring to Edgar Allan Poe?
4. Using the narrative as an example, discuss how abduction differs from induction.
5. Doyle has Holmes describes his method as "deduction." Is this correct? Why does he do so?
6. In describing abduction, Charles Sanders Peirce notes that in encountering a "surprising fact," one can see that it is a matter of course in the context of a particular hypothesis. What is the "surprising fact" in "The Resident Patient"?
7. Is the police failure to take into account all the evidentiary facts an instance of self-serving ignorance? What ends are served?

In addition to Doyle's story, Chap. 2 presents William Shakespeare's sonnet, "That Time of Year," with its lines mixed out of order. One can ask students (or oneself) to re-arrange the lines in correct order. Such an exercise should focus on the language (e.g., the rhymes), structure (e.g., the Shakespearean sonnet form), and discursive logic (e.g., the semantic meaning of the poem).

1. Are there any parallels between the focus on phonic "facts," cultural conventions, and the logic of meaning between this exercise and the abductive work of Sherlock Holmes in "The Resident Patient"?

Chapter 3: "Literature and Professionalism in Medicine." The major literary narrative in this chapter is Richard Selzer's "Imelda." The following questions are related to that story and to the poem by Dr. Audrey Shafer at the end of the chapter.

1. How do healthcare providers decide the definition of "truth-telling"? and does this mean a healthcare provider should never withhold information?
2. Why does Dr. Fransiscus perform the operation on a corpse?
3. How does Dr. Audrey Shafer's poem, "Monday Morning," speak to the relationship between personal/family life and professional life? What do you make of the fact that her son is naked when she leaves her home and her patient "arrives/ Naked under hospital issue/Ready to sleep"?

Chapter 4: "Rapport and Empathy in Medicine." The literary piece in this chapter is Dr. Anton Chekhov's "The Doctor's Visit." The questions are related to that story.

1. What does the factory represent to Korolyov?
2. Why does Korolyov "connect" with Lisa on his second encounter with her?
3. What role does the "roundabout" conversation play in Korolyov's interaction with Lisa?
4. What is the insight Korolyov has that leads to engagement on the second visit as opposed to the detachment on the first?

Chapter 5: "Listening to Patients." The major literary narrative in this chapter is James Joyce's short story, "Araby." The following are questions related to that story.

1. How old is the boy in the story?
2. Why does he articulate "strange prayers and praises which I myself did not understand"?
3. Why does his uncle come home late?
4. Discuss the implicit dichotomy between experience and understanding. How might this dichotomy affect the patient–provider interaction?
5. Discuss the end of the story. What happens at the bazaar to provoke his final reaction? What, if anything, does he learn from this experience?

In addition to Joyce's story, Chap. 5 presents a poem by Dr. William Carlos Williams, "The Red Wheelbarrow."

1. What do you make of the opening line of the poem?
2. Is this poem presenting an implicit narrative or simply describing a scene? Does any "action" take place?
3. Why would anyone speak this sentence?

Chapter 6: "The Patient." The literary narrative in this chapter is "The Yellow Wallpaper." The vignette is by Audre Lorde, and the poem is Dr. Rafael Campo's "The Couple." The questions refer to those three narrative/literary pieces.

1. In the vignette by Lorde, she states "As women we are raised to fear." What does Lorde mean by that?
2. In "The Yellow Wallpaper," what is the author hoping we will understand about the patient's husband/doctor?
3. How would you describe the patient's relationship with the husband/doctor in this story?
4. In Dr. Campo's poem "The Couple," what is the "awful light" mentioned in the last line?

Chapter 7: "The Doctor." The literary narrative in this chapter is "The Lynching of Jube Benson" by Paul Laurence Dunbar. The vignette is from Dr. Damon Tweedy's *Black Man in a White Coat*, and the poem is the Slave Spiritual "Sometimes I Feel like a Motherless Child." The questions are related to all three of these pieces.

1. What is meant by "unconscious" or "implicit" bias?
2. How can we bring unconscious bias to consciousness?
3. In Dr. Tweedy's vignette, why does his doctor brush him off early in the story?
4. What was your primary emotion as you read "The Lynching of Jube Benson"?
5. How does that primary emotion work to help you remember the story?
6. In what ways, if any, does the Slave Spiritual in this chapter relate to its theme of the role of the doctor?

Chapter 8: "Everyday Ethics of Medical Practices." The literary narrative in this chapter is Dr. Anton Chekhov's "Enemies." The questions will relate to that story and its discussion.

1. How do virtue ethics differ from normative ethics?
2. How should healthcare providers develop the virtues mentioned in this chapter?
3. To what degree are the enmities of both Kirilov and Abogin examples of arrogance?
4. Contrast the qualities of empathy and arrogance.
5. What is the origin of arrogance in healthcare providers?

Chapter 9: "Culture." The literary narrative in this chapter is "The Annunciation: Lupe" by Demetria Martinez; the poem is "Making Tortillas" by Alicia Gaspar de Alba. The questions relate to these literary narratives.

1. What is the effect of telling the story in the second person in "The Annunciation"?
2. Why does the narrator talk to her unborn child?
3. Why does she talk to her neighbor?

4. Name some of the different assumptions held by the narrator and the larger American society in which she lives.
5. Is the narrator's pregnancy a medical condition?
6. Why should there be a parallel between making tortillas and love making in "Making Tortillas"?
7. What does the poem suggest about the "hum" of culture mentioned in the chapter?

Chapter 10: "Sexual and Domestic Abuse." This chapter focuses on domestic abuse and violence more generally in its vignette, literary narrative (Edgar Allan Poe's "Berenice"), and poem (William Butler Yeats's "Leda and the Swan"). In so doing, it also discusses Roddy Doyle's full-length novelistic representation of domestic abuse, *The Woman Who Walked into Doors*.

1. In Roddy Doyle's *The Woman Who Walked into Doors*, physicians repeatedly overlook and dismiss possible causes of Paula's injuries. How does this affect Dr. Vannatta's engagement with his patient?
2. What is Dr. Vannatta's patient's "chief concern"?
3. What is the "chief concern" of Egaeus, the narrator of "Berenice"?
4. In what way might we see that Poe's story is "twice-told"?
5. Discuss what emotions Poe's text provokes and the ways the narration seems to provoke them.
6. Does Yeats's poem "romanticize" violence? (What might the phrase "romanticize violence" mean?)
7. Is the violence of the poem as "graphic" as that of the Poe story? If not, what aspects of the different languages these literary works use might account for the difference? If it is as graphic, are the similarities produced by similar language uses?
8. Why does Egaeus narrate his story? Why would anyone speak Yeats's poem?

Chapter 11: "Pain." The literary narrative in this chapter is the chapter, "The Operation," from Herman Melville's novel *White Jacket*; the chapter also presents Lous Heshusius's harrowing experience of chronic pain and Emily Dickinson's meditation on the nature of pain.

1. Why does Melville give the physicians and doctors such strange names?
2. How does someone learn to "honor" the patient's story of fear and pain since it cannot be corroborated?
3. What can a healthcare provider do to ensure the patient with chronic pain feels "heard" and "understood"?
4. What is missing—which virtues—in Dr. Cuticle's behavior as he interacts with his patient in "The Operation"?
5. Why is the acknowledgment of her pain by others so important to Lous Heshusius?
6. What does Dickinson mean by "element of blank"?

Chapter 12: "Ageing." The literary narrative in this chapter is the second chapter of Nathaniel Hawthorne's novel, *The House of Seven Gables* entitled "The Little Shop Window." These questions are related to this story as well as to the vignette, "Treating a Very Old Woman." The related poem is Thomas Hardy's "I Look into My Glass."

1. What virtue could the provider habituate in the vignette "Treating a Very Old Woman" to improve his care of future patients?
2. What is the "overall meaning" of Hawthorne's chapter "The Little Shop Window"?
3. What can we learn about human hope and hopelessness from Hawthorne's chapter?
4. What must the healthcare provider be conscious of when caring for the elderly that is not so important with young patients?
5. What is the greatest difficulty of aging in Hardy's poem?

Chapter 13: "Mistakes in Medicine." The literary narrative in this chapter is Gustav Flaubert's representation of an operation in *Madame Bovary*. The vignette describes a horrible mistake in medicine in relation to Dr. David Hilfiker's systematic analyses of medical mistakes in "Facing Our Mistakes," a widely available text. Questions will relate to the narrative vignette and short story as well as Dr. Dannie Abse's related poem, "In the Theatre."

1. How should mistakes in health care be dealt with?
2. What is the connection between mistakes in medicine and the virtue of truth-telling?
3. What was the "main" mistake in Dr. Vannatta's narrative?
4. What was the "main" mistake in the operation Flaubert describes.
5. What is the relationship between Dr. Bovary's practice and Madame Bovary's adulterous love affair?
6. Does Dr. Abse's poem describe a failure of skill or a failure of knowledge? Should a failure based upon lack of technology be considered a "mistake"? Does this poem suggest another "kind" of mistake?
7. What is the emotion provoked by each of these texts, the vignette, fictional narrative, and poem? Are there any connections among the emotions provoked by each of these texts?

Chapter 14: "Death and Dying." The literary narrative in this chapter is *The Death of Ivan Ilych* by Leo Tolstoy. The questions will relate to that story.

1. What is the big lie that tormented Ivan?
2. Why did Ivan's family fail to connect with his suffering?
3. What was Ivan's epiphany just before death?
4. What was the parallel Tolstoy made between Ivan's life as a judge and Ivan's doctors?
5. Describe the quality of the differences in facing death in the two vignettes.
6. Why does the speaker in John Donne's poem address "death" directly?

Postscript: "The Fulfillment of Healthcare." The literary text in the postscript is Derek Mahon's poem "Everything is Going to be All Right."

1. What do we make of the poem's assertion "there will be dying"?
2. What does it mean by "the watchful heart"?

Appendix 3: Daily Writing Assignment

[Here is a sample description of daily writings for a course on "Literature and Medicine." Needless to say, it is a sample, which could be modified to "weekly writing assignments" or "occasional writing assignments."]

There will be a one-page daily writing assignment (single space, up to about 500 words) that should be prepared for each class meeting. We will talk about the daily writing the first day of class. The assignments must focus on literary texts: a story, excerpt, or poem, *not on a vignette.* Each assignment should have a thesis statement underlined in the paper. The daily writing will be collected during each class meeting and returned in the subsequent meeting. Grades on papers are based on several factors. The most important requirement for the daily writings is a clear and *arguable* thesis based upon an aspect of the day's reading set forth in the daily writing topics. Failure to present such a thesis, while engaging with our readings, will earn a minimum grade. A *thesis* by definition is something that can be argued against: "'The Yellow Wallpaper' describes progressive psychosis" is not a strong thesis because it is almost impossible to disagree with it. (The opposite of a thesis-driven essay is a descriptive essay, which this weak thesis enacts.) "Richard Selzer's narrator in 'Imelda' uses three narrative techniques to represent ambivalence" is a strong thesis. The more *specific* the focus/argument is, the more likely that the paper presents a strong thesis and argument.

The following 15 topics could be the focus of the daily writing. As we mentioned, these writings should present a thesis associated with the topics. (The exception to this rule is the "parody" assignment, where a thesis—the student-writer's claim for the "most characteristic" feature of the author being parodied—will necessarily remain implicit in the turned-in assignment). Here are some general rules to be followed.

- Each daily writing assignment must explicitly name the topic examined (e.g., "Professionalism"; "empathy").
- The odd topic of "parody" must be one of the course's assignment (even while students can choose other topics and thereby in short courses leave out some topics).
- In the topics, you will see terms such as "how it works," "importance," "power and meaning." These refer to the ways narrative fiction creates meaning and

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exerts rhetorical power (e.g., changing someone's mind, making you notice something not noticed before, focusing attention and expectation, suggesting a moral judgment, etc.). Arguments can, and often should, be organized in relation to these larger concerns.
- In pursuing these topics, you may look for the assumptions, values, perspectives, overall meaning, beliefs, ideas, and fantasies, both explicit and implicit, that play a role in the narrative. Attention to such (often "unsaid") aspects of texts is the work of critical thinking and critical writing.
- Finally, on days when there is more than one author (e.g., a story and a poem), you can decide to focus on one text or examine the topic in relation to more than one author.

Daily Writing Topics

Here is the list of the 15 topics. Although they are somewhat ordered here, you can choose any one for any daily reading insofar as no topic is repeated.

- **Title**. Argue for a particular way the title of a narrative functions. You can decide the particular function and describe how it *works* in the narrative.
- **Beginnings**. Argue for a particular way the opening of a narrative functions. You can decide the particular function and describe how it *works* in the narrative.
- **Endings**. Argue for a particular way the conclusion of a narrative functions. You can decide the particular function and describe how it *works* in the narrative.
- **Detail**. Choose some small detail in the text—for instance, the syllogism in Leo Tolstoy's *The Death of Ivan Ilych*—and argue how it *works* in the narrative. (When the novelist Vladimir Nabokov taught fiction at Cornell University *to graduate students in literature*, he would give them quizzes about small details, such as the color of one character's shoes in Marcel Proust's enormously long novel, *Remembrance of Things Past*. Students weren't particularly happy with these quizzes affecting their grades, but they got into the habit of paying attention to minute details.)
- **Action**. Choose a particular action that takes place in a text—for instance, Ivan's behavior as a judge in *Ivan Ilych*—and argue for its importance to the narrative as a whole.
- **Idea**. Choose a particular idea that is presented in a text—for instance, the idea of loneliness in *Ivan Ilych*—and argue for its importance to the narrative as a whole. (You can, but do not have to, equate "idea" with "theme.")
- **Language**. Choose a notable use of language in a text—a phrase, metaphor, colloquialism, the tense, or simply a well- or ill-formed paragraph—and argue for the ways it is important within that text. One example is to argue for the particular ways a text such as Thomas Hardy's poem creates a sense of music out of language by means of manipulations of words/sounds.

- **Represented Emotion**. Argue that a particular emotion *felt by a character* that is represented in a narrative, and argue for the particular way the author creates that representation. (Notice this is closely related to the preceding topic: one example is to argue for the particular ways a text creates a sense of anger.)
- **Provoked Emotion**. Argue that a particular emotion is provoked *in the reader* of a narrative, and argue for the particular way the author creates that emotion in the reader.
- **Repetition/Pattern**. Describe the presentations of repetitions of patterns in a text—of action, locutions, details, etc.—and argue how this pattern/repetition contributes to the power and meaning of the narrative.
- **Roles**. Argue that a particular *narrative role* is assumed by a character or an object in a narrative. (Note that the catalogue of narrative elements in Appendix 5 (p. 266) presents, among other things, a small number of narrative roles that some believe inhabit all narrative storytelling. You may disagree with the nature of these roles and argue that a particular narrative exhibits others or you may agree with it, but in any case this should present a model for discussing narrative roles.)
- **Genre**. Argue that a particular *narrative genre* that characterizes a particularly literary text. (Note that Appendix 5 (p. 267) presents, among other things, a small number of narrative genres that some believe organize all narrative storytelling. You may disagree with the nature of these genres and argue that a particular narrative exhibits others or you may agree with it, but in any case this should present a model for discussing narrative roles.)
- **History/Politics**. Argue for the importance to a narrative of the particular moment in history in which it takes place.
- **Voice**. Argue for the distinctness of a particular "voice" in a narrative—the characteristic modes of speech in a character or the narrator—and its importance within the narrative.
- **Parody**. Write a parody of the author (or one of the authors) in the daily assignment.

Appendix 4: Guide for Discussing Diagnosis and Diagnosis Errors

A class session on "The Logic of Diagnosis" is presented with four primary goals in mind.

"Goals of Session"

1) To introduce beginning students to the logic of making a diagnosis.
2) To introduce the logical method of ***Abduction*** (or "inference to the best explanation") as described in Chap. 2.
3) To demonstrate how physicians can "***miss the diagnosis***" by making *systematic* errors in method.
4) To demonstrate the usefulness and fun of the use of literary works, in this case detective stories, in the learning and practice of medicine.

The Method of Making a Diagnosis

The diagnostic method always begins with a detailed history and physical examination. Most experts state that the most important diagnostic information the physician will get is the History of Present Illness (HPI). The HPI is the patient's narrative, a story. This story must be told by the patient, fully and artfully facilitated by the healthcare provider; carefully apprehended by the caretaker (listening carefully to the said and the unsaid); studied acutely for the body language and emotive content. The past medical history, review of systems, etc. is acquired to make sure the "story" is as complete as possible.

A physical examination is then performed to complete the act of reading the "text" of the patient. Once this data base is completed, and possibly some laboratory or imaging done, the physician uses this information to make his or her differential diagnosis and or best guess diagnosis. The diagnosis is always a ***best guess—***an educated guess. It is a hypothesis; in the language of C. S. Pierce, an abduction. (Note these detailed procedures are present in the excerpt from Dr. Damon Tweedy's *Black Man in a White Coat* in Chap. 7.)

Physicians commonly think they are using "induction" when making a diagnosis. Dr. Arthur Conan Doyle, writing in the late nineteenth century, called Sherlock Holmes's method "deduction." Both are incorrect, since the detective of Doyle and the present-day physician both actually use a logical process more closely resembling

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"abduction." Abduction is a logical process, sometimes called "hypothesis generation" or "inference to the best explanation." The following comparison will be used.

Induction	Abduction
Classifies objects or facts	Begins with characteristics or qualities; these run in categories
Observation of facts only	Imagining what might be
Tests a Hypothesis	Forms a Hypothesis

Chart 1

Another way of thinking about abduction is the following:

> A surprising fact C is discovered, such that, if A were true, then C would be a matter of course. (C. S. Peirce)

This is a formal way of stating a common piece of diagnostic wisdom handed down through generations. It is not clear where it originates, but can be stated another way as well:

> **Look for the unusual, or the piece of evidence that doesn't fit. Follow that piece of evidence and you will most commonly make the correct diagnosis**

Chart 2

The following charts use texts from Chap. 2 of *Literature and Medicine* to clarify this systematic procedure.

Woman with Hyponatremia

Induction (performed by the Resident)	Abduction (performed by C. G. Gunn, M.D.)
Classifies objects of facts: 1. patient is hyponatremic 2. denies all possible causes 3. physical exam unremarkable except pos tilt	**Begins with Characteristics** (qualities) that run in categories 1. Quality of resident's report probably not accurate or complete. (He investigated all known causes of hypo Na and found none) 2. Quality and characteristics of patient's story as taken by Dr. Gunn—pt's demeanor, her glancing at the bedside table. The **"unsaid**", the **overall meaning** of the story
Observation of Facts only 1. Patient denies 1, 2, 3, etc. 2. Physical exam shows …	**Imagining what might be true** 1. What if the glance at the bedside table is meaningful? What if the meaningfulness is that her purse is in there? What if she is lying to us?
Tests a Hypothesis 1. She has hyponatremia, all known causes are not present so the case is **abstruse** or this is a **brand new disease**!!!	**Form a Hypothesis** The patient has chlorthalidone in her purse which is in the night stand. The diuretic made her hyponatremic. ***We do not know why she is lying. But the fact that she is lying makes the surprising fact (hyponatremia without a cause) a matter of course***

Chart 3

Here, Dr. Gunn knew more about hyponatremia than the resident. However, he was also better at reading the text of the patient, and he knew to follow the evidence that did not fit. In this case, that she is lying.

"The Resident Patient"

Induction (performed by the police)	Abduction (performed by Sherlock Holmes)
Classifies objects or facts 1. Time of death 2. Door locked from the inside 3. List number of cigars	**Begins with characteristics** (Qualities) run in categories 1. characteristics of the cigars 2. size of the shoe prints 3. Blessington is lying (attended to the body language)
Observation of Facts Only 1. time of death 2. door locked 3. number of cigars	**Imagine what might be true** 1. Size of shoe prints and characteristics of the cigars make it likely that more than one person was in the room
Tests a Hypothesis The hypothesis in many cases is sometimes already biased. In this case, it was biased by the time of death. The hypothesis was that it was suicide. 1. Blessington was a nervous guy who smoked a lot. He died by hanging at 5:00 in the morning (the most common time for suicide). Therefore this is a suicide	**Forms a Hypothesis** 2. Evidence points to multiple people in the room—foot prints, different kinds of cigars—therefore, this was most likely not a suicide but a different category of death—murder. The **surprising fact** was the **multiple kinds of cigars** left in the room. It becomes a matter of course if there were other people in the room

Chart 4

In this case, the detective knew more than the police (i.e., knowledge about cigars). He read the text of the patient better (he noticed the lying of Blessington); and he used the issue of categories to his advantage in "abducting" a cause.

Common Errors in Diagnostic Medicine

1. Error of incomplete Data Base
   This occurs when the healthcare provider does not obtain a complete history, perform a complete physical examination, listen to the unsaid as well as the said, and appropriately apprehend the body language of the patient. This category contains the following sub-species of error:
   a. Taking all patient responses at face value, thus ignoring the effect of denial, repression, and lying
   b. Failing to apprehend the "meaningful whole" of the patient as text. This includes **gender**, **ethnic**, **cultural, linguistic,** and other meaningful ways storytelling is inflected
   c. Failing to have technical skills for the physical examination and its interpretation
   d. Being too tired, hungry, or distracted when evaluating the patient
2. Failure to consider all **categories of illness** that might result from the collection of symptoms, physical findings, and other aspects of the data base
   a. Examples of categories of illness include congenital, behavioral, environmental, infectious, immune and autoimmune, idiopathic (we just don't know enough yet), cancer. And others
3. Errors of Confusing the Unusual with the Abstruse (these are the terms of Edgar Allan Poe's detective, Auguste Dupin)
   a. This occurs when the physician is confronted with a common illness with a very unusual set of presenting signs and symptoms. Since she cannot figure it out, she throws up her hands and says "it's just not solvable"

(*continued*)

(continued)

4. Error of lack of Knowledge
   a. One cannot diagnose a disease one does not know about
5. Error of Semiotics (Interpretation of signs)
   a. An example might be "misreading" the presence of edema in a malnourished patient as due to congestive heart failure
   b. Another might be "misinterpretation" of the low white count in the first patient with AIDS
6. Error of "Worshiping at the Altar of Technology"
   a. This error is made when the laboratory or imaging results do not correlate well with the ***most important diagnostic information***—the **History and Physical Examination.** (For a striking example read David Hilfiker's "Facing Our Mistakes" [1984].)

Chart 5
Class Format:

1. Discuss the readings: (30 minutes)
   a. Please facilitate the discussion so that you bring out the important topics that students will need to know to discuss the difference between Induction and Abduction.
   b. Please facilitate the discussion so that it is clear in the learner's minds *HOW THE DIAGNOSTIC ERROR WAS MADE*.
   c. Our educational goal is for the learner to discover the above during their discussion. This will be best accomplished if the facilitation is done well.
2. Distribute charts 1 and 2 of this appendix as a class handout.
   a. Discuss the method of diagnosis and the difference between induction and abduction (approximately 15 minutes)
3. Distribute charts 3 and 4 of this appendix.
   a. Discuss the differences between induction and abduction as found in the two readings.
   b. Encourage questions, discussion, etc. (10–15 min)
4. Distribute chart 5 and discuss the errors of making a diagnosis.
   a. Encourage the students to think of other possible types of errors. Encourage their discussion of the anxiety associated with making an error in diagnosis.
   b. Offer ideas on how to deal with making a diagnostic error from your own experience, or from sources like Hilfiker's essay and his catalogue of "mistakes." (As mentioned earlier, the whole of this article should be available online.)

Appendix 5: Medical Professionalism: Using Literary Narrative to Explore and Evaluate Medical Professionalism[1]

Medical Professionalism

Medical Professionalism is a central tenet to the practice of medicine and has been described by D. T. Stern in his book, *Measuring Medical Professionalism*, in the following manner:

> Professionalism is demonstrated through a foundation of clinical competence, communication skills, and ethical understanding, upon which is built the aspiration to and wise application of the principles of professionalism: excellence, humanism, accountability, and altruism. (19)

The Accreditation Council of Graduate Medical Education (ACGME) incorporates professionalism as one of the six "core competencies" that are required to be assessed by graduate medical education training programs for all trainees (see *Advancing*).[2] Resident and fellow physicians in all specialties must demonstrate competency in professionalism appropriate to their training level in order to progress to the next training level and ultimately to graduate to become an accredited independently practicing physician.

Beginning in 2013, the ACGME asked each medical specialty to define "Milestones" for each of the six competency areas, including professionalism. Milestones are defined as competency-based developmental outcomes (i.e., knowledge, skills, attitudes, and performance) that can be demonstrated progressively by residents and fellows from the beginning of their education through graduation to the unsupervised practice of their specialties (available at *Milestones*). The Milestones are meant to be observable activities, with specific behaviors described for each level from beginning (novice) through master. A review of the ACGME Professional Milestones available on the ACGME website for each specialty reveals a wide variation in how each specialty defines professionalism by attributing differing attitudes and behaviors to the term (see Accreditation: *Milestones.*). Some

[1] By Casey Hester, MD, Jerry Vannatta, MD, and Ronald Schleifer, Ph.D., reproduced from *New Directions in Literature and Medicine Studies*, ed. Stephanie Hilger (New York: Palgrave, 2017), pp. 99–116.

[2] The other 5 Competencies are: Patient Care, Medical Knowledge, Interpersonal and Communication Skills, Systems Based Practice, and Practice-Based Learning and Improvement.

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specialties use as few as three to four attributes, while others use up to six to ten. A highly representative but not exhaustive list includes such professional behaviors as demonstrating, through discernable and measurable behavior:

awareness of personal/professional boundaries,
compassion,
cultural sensitivity,
empathy,
honesty,
integrity,
professional duty,
respect,
self-awareness,
sensitivity to ambiguity,
trustworthiness.

In the workshop we describe in this essay, we have medical learners assess the behavioral manifestation of the six bold-faced professional behaviors on this list, which are the "milestones" of professionalism for the specialty of pediatrics.

These general behavioral qualities are somewhat vague. In significant part they coincide with Aristotle's conception of "virtue ethics" mentioned later in this essay. The experience of two of the authors (CH and JV) as physician educators is that it is difficult to get faculty to define professionalism in a consistent manner. Because of this, it can also be difficult for these same faculty to arrive at accurate and meaningful assessments of residents' professionalism, since teaching faculty find it difficult, if not impossible, to assess the learner on professional objectives they may not be able to define, let alone measure. The Milestones are discrete, observable behaviors that can be situated and related to one another along a developmental trajectory; thus, they are a step towards eliminating the ambiguity of inconsistent definitions of professional objectives and the resulting ambiguity in assessment. It was similarly our goal in developing the workshop—using literary narrative to define and evaluate medical professionalism—to create a practical and experiential method of exploring ambiguous conceptions of professionalism. Our hope was to create a method that residents and faculty alike can feel comfortable using, and one that can move any community of medical learners toward profound understanding and agreement of what medical professionalism is. Because two of the authors (RS and JV) have sixteen years' experience engaging literary narrative to teach medical themes—professionalism among them—and because literary narrative studies lends itself to exploring issues that are ambiguous, we turned to the use of literary narrative to develop a workshop for residents and faculty that builds competency in defining and evaluating medical professionalism. As a Pediatric Residency Program Director, one author (CH) is charged with helping the residents in her program understand, define, and evaluate medical professionalism. She must also shepherd the faculty in her department through the same process so that the evaluation of the residents' attitudes and behaviors can be reliably and accurately observed, developed, and assessed.

Narrative Medicine

Using literary narratives for the purpose of exploring medical issues has become known as "Narrative Medicine." This is a term coined by medical and literary scholar Rita Charon M.D., PhD. She states that Narrative Medicine provides healthcare professionals with practical wisdom in comprehending what patients endure in illness and what physicians themselves undergo in the care of the sick. She further discusses in her book *Narrative Medicine: Honoring the Stories of Illness* that one of the goals of studying literary narrative for doctors is to become competent at recognizing, absorbing, interpreting, and being moved by the stories—the medical histories—that patients tell doctors (vii). The absorption and interpretation of narrative has been labeled "narrative knowledge." This knowledge differs from bio-scientific knowledge in that it is organized such that the whole is greater than the sum of its parts whereas bio-scientific knowledge is organized such that the whole is equal to the sum of its parts. It is also knowledge that allows value to enter its understandings, whereas the knowledge of science that physicians use to diagnose and prescribe therapies tends to eschew value judgments in favor of quantification (i.e., the whole being *equal* to the sum of its parts). Narrative knowledge engages ambiguity, not so much to consistently "resolve" it as to take ambiguity into account in its understandings. This is important because even though medicine is often taught as if it were unambiguous, the practice of medicine is blanketed in ambiguity. Therefore, it has been said by many writers and thinkers in the field of narrative medicine that physicians should be taught to think in the ways of narrative in addition to the bio-scientific ways that medicine is primarily taught in order to comprehend (rather than dismiss) the ambiguities that arise in its practice.

The strategies of narrative medicine, which Dr. Charon analyzes, entail narrative knowledge, gained through the study of literature. The resulting knowledge—and, indeed, the resulting wisdom—that follows from narrative medicine can be thought of as the Aristotelean concept of *phronesis*. *Phronesis*—often translated into English as "practical knowledge" or "practical wisdom"—is one of the virtues that Aristotle lists in his discussion of virtues. (His chief examples of people who achieve *phronesis* were physicians and navigators.) He believed it was necessary for individuals to habituate these virtues—including *phronesis*—in order to live a good life. Aristotle argued that the virtues necessary to live a good life needed to be habituated since people were not born with these attitudes and behaviors. He also argued that these virtues facilitated the development of good character in particular people and that building good character led to achieving a good life. One can think of the same process as being necessary for the medical professional—that the specific attributes and behaviors of professionalism are the "virtues" that need to be habituated for the physician to live the good professional life. Engaging literary narrative provides an excellent vehicle for exploring, defining, and teaching these virtues, so that they can be brought forward into consciousness where the learner can begin to habituate them and the faculty can more clearly identify them (see Aristotle for his account of *phronesis*; and Chap. 2 of Schleifer and Vannatta for an extended discussion).

Although Aristotle suggests that *phronesis* was the result of long practice, fictional stories provide an efficient and safe way to do the work of achieving

phronesis. The fictional story provides a medical narrative—different from the residents' own experience—that allows them to explore the physician's attitudes and behaviors from a distance, eliminating the barrier of self-consciousness and shyness. Literary narratives also provide a medium which is similar to what Schleifer and Vannatta describe as the "medical drama" of every day practice of medicine (262–74). In medical practice, there are characters—specifically a patient and a physician—and there is a plot such as moving toward a diagnosis or therapy. Fictional (or sometimes autobiographical) medical narratives provide themes, growing out of plot and characters, that can be explored. Moreover, depending on the behavior of the characters in the story (the patient and the physician), as well as how the plot plays out, a genre can be assigned to the story by the readers in the workshop. Asking the medical learners to use concepts usually only found in literary education is troublesome to many medical educators. Although the ideas and concepts of narrative medicine are becoming more common, there remains a minority of academic physicians who feel competent to facilitate discussions involving these issues.

With that potential barrier in mind, Schleifer and Vannatta, in their book *The Chief Concern of Medicine: The Integration of the Medical Humanities and Narrative Medicine into Medical Practices,* introduced schemas of narrative, based upon work in narratology over the past fifty years, that they believe can help non-experts begin to approach medical education using literary narrative. The use of these schemas can aid the non-expert in facilitating the discussion of the literary piece in the workshop. The following are the schemas of narrative as they appear in their book (383–84). These schemas set forth six "elements" of narrative (A); four character "roles" in narrative based upon the analogy between the structure of the sentence and the structure of narrative (B); and four basic genres of narrative based upon the interaction of the events and characters of narrative (C):

A. Narrative Structure
   Narrative Possesses

   1. A sequence of events;
   2. An end; and
   3. Recognizable agents.

   Narrative also possesses

   4. A teller and a listener (i.e., narrative is both articulated and received);
   5. A *witness who learns*—who is "concerned"—about the end; and
   6. Its witness learns *from experience.*

B. Roles in Narrative

Narrative	Sentence	Medical Roles
Hero	subject	***patient*** (hero)
Desired object	object	***health*** (desired object/condition)
[Action	verb	*to purge* (to remove the disease)
		to purify (to achieve well-being)
		to clarify (to figure out whatever works)]
Helper	adverb	***physician*** (helper)
Opponent	adverb	***illness*** (opponent)

For medicine, Schleifer and Vannatta name the four "medical roles" as *patient*, *health*, *physician*, *illness* corresponding to the more general narrative roles of *hero*, *desired object*, *helper*, *opponent*. The three action verbs of medicine are taken from different understandings/translations of the Greek word *catharsis*, the medical term Aristotle uses in his analysis of tragedy.

C. The Genres of narrative
   Heroic Melodrama (epic):
   a heroic narrative, where the hero receives the wished-for goods (in myth and tradition, the bride and the kingdom). The hero conquers the opponent in the process.
   Tragedy:
   a tragic narrative, where the helper receives the wished-for goods (both the storied knowledge of what has taken place on the level of the individual destruction of the hero and the promised reconstruction of the community on the brink of collapse with the destruction of the hero, which is often accomplished by the helper).
   Comedy:
   a comic narrative, where the heroine receives the wished-for goods (in myth and tradition, the hero as husband and the estate of marriage).
   Irony:
   a more or less "modern" narrative, where the opponent receives the wished-for goods (to destroy them on the level of the individual and to transform them on the level of general value).

It is helpful for the purposes of teaching this workshop to point out that the genre is generally defined by what happens to the hero or in the case of comedy to the heroine. Since in the medical drama or story there is always a patient and a physician, it is important for the learners in the workshop to identify these two characters as enacting particular narrative roles (i.e., the general roles of hero [patient] and helper [physician]) so that the genre can be explored in some detail.

An Exemplary Medical Narrative

We will provide an example of applying these schemas to one of the stories—the one we have the most experience with when running the workshop—namely "Imelda" (1982) by Dr. Richard Selzer. In this short story, the setting is a medical school in the U.S. in which the chief of plastic surgery is preparing to take a group to Honduras for a "mission trip." He finds a third-year medical student who speaks fluent Spanish and invites the student along. The student is the narrator of the story. Although the surgeon is brilliant and competent with a scalpel, early in the story he is depicted as curt with patients and less than compassionate. Upon arrival in Honduras, they meet a young girl, Imelda, who presents for evaluation and surgery on a cleft palate and lip. The surgeon once again is impatient with his young,

embarrassed patient, Imelda, and rushes through the evaluation. She is scheduled for surgery the next morning. During the induction of anesthesia, Imelda experiences malignant hyperthermia and dies. Following the failed attempt at resuscitation the surgeon goes to tell Imelda's mother. After the surgeon informs her that Imelda died, the mother replies, "at least she will go to heaven beautiful as God intended." The surgeon does not clarify that the death had occurred before the operation could be done. That night the surgeon enters the morgue, locks the door behind himself and under light from a candle completes the operation on the dead girl. The next day the student notices that Imelda's body is out in front of the clinic being readied to travel back to her village, and the student approaches the mother with money for flowers. The mother thanks the student for making her daughter beautiful. The student peeks under the sheet covering Imelda's body and discovers an Imelda with a repaired cleft lip and palate.

Upon return home the proceedings of the mission trip are being presented at grand rounds by the surgeon. The student is managing the slide projector. The surgeon calls for the next slide and sees the image of Imelda. He mentions her name, but says no more. The picture is of Imelda with the disfiguring cleft lip. The student cannot figure out what the surgeon is doing and does not project the next two slides, which show Imelda repaired. The ending of Selzer's story is quite ambiguous insofar as the author does not let us know exactly what the student-narrator or the surgeon was thinking at the time. The last paragraphs are narrated after much time has passed—the student-narrator is much older and still fascinated, if not obsessed, by the occurrences on the mission—and the student's final meditation on these events are highly metaphorical: "I, too, have not been entirely free of [Imelda]. Now and then, in the years that have passed, I see that donkey-cart cortège, or [the surgeon's] face bent over hers in the morgue. I would like to have told him what I now know, that his unrealistic act was one of goodness, one of those small, persevering acts done, perhaps, to ward off madness. Like lighting a lamp, boiling water for tea, washing a shirt. But, of course, it's too late now" (35–6).

In this story, there is obviously a plot which is the subject of Schema A. It has a narrator, the student, and an audience that learns. What exactly we learn is one of the aims of the workshop and work that the learners in the workshop must do. We must wonder about the surgeon's motives, whether he was compassionate or whether this behavior was in self-interest. To understand the genre of this story we must assign roles to the surgeon, to the cleft palate (his patient's condition[3]), and to the patient herself. If the learners assign the surgeon the role of melodramatic hero, which is commonly the case, then, insofar as the hero does not receive the desired object (which would suggest a "melodramatic" narrative), the surgeon must lose something important, die or experience exile (in a kind of failed melodrama). They can also assign the surgeon the role of tragic hero, in which case the student-narrator

[3] Animate people are not necessarily the only parts of narratives that can perform narrative "roles": the study of narrative suggests that inanimate objects, such as the ring in *Lord of the Rings*, function like "characters" in stories insofar as they perform character-defining roles.

would be his "helper," who "reconstructs" the community on the brink of collapse. If, on the other hand, they assign the hero role to Imelda, her death is exemplary of a tragedy in the traditional sense, with the physician assigned the role of helper and the cleft palate being the opponent. (In Schema B above we have assigned the patient the role of hero in all medical dramas and the doctor the role of helper.) These various assignments of roles allow learners to understand in concrete terms the *ambiguity* of narrative knowledge, and it allows them to confront the ambiguity inherent in narrative—and in professional as well as fictional encounters between patients and physicians—rather than to dismiss it. Such self-conscious encounters can help define and understand real-life attributes of medical professionalism.

The Workshop

Objectives, Structure, Process and Lessons Learned

Our workshop can be taught in one of two ways. One is to provide the learners with a short story (a medical story) well before the workshop and then explore it at the workshop. The other is to use a developed modification of the short story found in Savitt's *Medical Readers' Theater*—in which the story has been transformed into a drama that can be read by participants during the workshop. This last format has worked best for us because of time constraints for the residents and the faculty which often preclude ability to read and prepare beforehand.

Objectives

By the end of the workshop, participants will be able to:

1) Define Professionalism Milestones specific to their specialty
2) Assess Professionalism Milestone levels for the physician from the story, based on observable attitudes and behaviors
3) Assign a specific narrative genre from Schema C to the literary narrative literature according to the roles—themselves defined by action—of characters in a story

Structure

Like the objectives, the structure of the Workshop is best set forth in terms of a working list of elements.

The participants are divided into working groups of three to six individuals.

1. A pre-assessment of learners' knowledge and understanding of Professionalism Milestones is taken by written survey (Likert scales).
2. Professionalism Milestones are distributed for the chosen Specialty. In the Workshop described here, the six Milestones of Professionalism for Pediatrics mentioned earlier—behaviors demonstrating: empathy, professional duty, an awareness of personal/professional boundaries, self-awareness, trustworthiness,

sensitivity to ambiguity, (Accreditation: *Pediatrics*)—were described in relation to five levels of accomplishment for each professional behavior. (See Appendix B for these Milestones and the descriptions of their levels of accomplishment.)
3. A reading of the story occurs before the workshop or the *Medical Readers' Theater* approach is used to read it during the workshop.
4. The attitudes and behaviors of the physician in the story are examined within the context of each Professionalism Milestone. In Pediatrics, as Appendix B sets forth, each of the six Milestones focuses respectively on: empathy, duty, (enforcing) boundaries, self-awareness, trustworthiness, and (acceptance of) ambiguity.
5. Specific examples of the physician's displayed behaviors and attitudes are taken from the story to appraise the physician's level for each of the six Milestones on a scale of 1 (novice) to 5 (Master).
6. Milestone levels for the physician are initially assigned either individually or in small groups, depending on number of workshop participants. A large group discussion is then led by the facilitator, as individuals and small groups attempt to justify and reconcile any discrepant opinions on appraised Milestone levels. During this discussion, professionalism terms are disambiguated by the facilitator in an attempt for the group to reach consensus on a single level (1–5) for each of the Milestones for the behaviors occurring in the literary narrative.
7. A post-assessment of learners' knowledge and understanding of Professionalism Milestones is taken by written survey (Likert scales).

Process

The participants in the workshop are divided into groups. They are given the milestones of professionalism for a particular specialty. (We generally use pediatrics because it is one of the most robust with respect to both the quantity of Professionalism Milestones and clear descriptions of the behaviors that are expected to be exhibited for each level along the novice-mastery continuum.) We first ask the participants to read through each of the Professionalism Milestones and write down the "mastery" level physician they know personally for each Milestone. This allows them to "anchor" the behavior through previous observation.

In our workshop, several members of the group assumed the "role" of characters in the story and read the dramatic version of "Imelda" from the *Medical Readers' Theater*. We asked the participants serving as the audience to make notes during the reading describing and assessing the attitudes and the behaviors of the doctor in the story. This is analogous to direct observation of a resident in a clinic with a patient and using this first-hand knowledge as data for evaluation.

Following the reading of the drama, each group is asked to discuss the story and the doctor's behavior and evaluate the professionalism of the chief of plastic surgery in "Imelda." Once the groups are finished evaluating the doctor, each group is asked to state what level of achievement they assigned the doctor on each of the professional Milestones listed. (See Appendix B for the specific evaluation criteria for professionalism in pediatrics.) The facilitator then leads a discussion of the story, the characters' attitudes and behaviors, and helps the participants explore the story in terms of attitudes, behaviors, genre, and character assignment. This group discussion,

if facilitated appropriately, should demonstrate that unlike scientific discussions where terms are clearly defined and answers are more concrete, the discussion of a story is more ambiguous. As is the case in our joint analysis of the professional Milestones for Pediatrics in relation to "Imelda," there will be many perspectives on the behavior of the patient and the doctor, the plot and the genre. Getting the participants more comfortable with the ambiguity of the process is one of the goals of the workshop.

Following the discussion and the reporting of all groups, the participants are asked to reflect upon and journal how they may use literary narrative or the *Medical Readers' Theater* in their home institution to help their own trainees and faculty more precisely understand and articulate the Milestones of medical professionalism by participating in a careful discussion of actions and their assessment performed by physicians in literary narrative.

Outcomes and Lessons Learned

Average levels assigned for the Surgeon by workshop participants (four workshops, with 54 total participants) were as follows for each of the six Pediatric Professionalism Milestones (1 = Novice, 5 = Master).

- **Empathy**—*consensus level*: 1.5. *Examples*: Did not seem to feel or display empathy; would not touch his patients, was dismissive of Spanish-speaking man with leg wound, ripped rag away from Imelda's face. He did seem to show more emotion towards end of story.
- **Duty**—*consensus level*: 4.5. *Examples*: Always reading; high sense of duty to the profession.
- **Boundaries**—*consensus level*: 1. *Examples*: Repaired her face without consent after she died.
- **Self-Awareness**—*consensus level*: 1 at beginning of story, 3 at end. *Examples*: Could not accept less than perfect role, but then after Imelda changed his practice, he was: "quieter, softer."
- **Trustworthiness**—*consensus level*: 3.5. *Examples*: clinically conscientious but could not be trusted if his self-interest superseded patient interest.
- **Ambiguity**—*consensus level*: 1.5. *Examples*: Did not advise mother or Imelda on risks/benefits of operation, did not consider patient input early in story; "rigid and authoritarian"; could not accept that Imelda had died without repair after mother thanked him for fixing her cleft palate.

For some of the Professionalism Milestones (duty, trustworthiness), the surgeon ranked quite high, whereas for others he ranked quite low (empathy, boundaries). This parallels what happen in real life as well—people are not all good or all bad, and similarly the surgeon is neither all professional nor all unprofessional.

Our experience is that participants are often initially uncomfortable with the discussion of professionalism primarily because of the ambiguity of the terms. They report being able to recognize professionalism when they see it, but putting it into words and thus being able to offer formative feedback and meaningful assessment

can be elusive. We have found the Milestones, set up as observable behaviors along a developmental continuum, assuage some of this uncertainty and allow for more objective assessment, but only after participants are walked through the process in the workshop. It is, therefore, very helpful for participants to go through the process of seeing that in some areas the surgeon is highly professional, but in others he falls short. Being able to cite specific examples from the story allows participants to sort through the components of what professional behavior is and what it is not—in this case, defined by the six Professionalism Milestones for Pediatrics. This helps participants gain clarity in the process of defining professionalism; and it also helps participants in realizing that professionalism is not a dichotomous concept (e.g., one that lends itself to complete disambiguation). We have also found that the participants are initially uncomfortable with the teaching of literary terms and concepts, but by the end of the workshop they are a bit more comfortable. One of the largest barriers we have discovered is that they are worried about finding a competent facilitator to run workshops at their home institutions. The purpose of this paper is to set forth a procedure that can structure the work of facilitating the achievement of well-defined professional Milestones by means of the shared experience of a literary narrative.

Conclusions

In our experience medical learners are nearly always predisposed to assign the role of hero to the physician. When we explain the physician should always play the role of helper in the medical drama, it often comes as a surprise. However, once it is explained that the physician's role in real life should also be helper instead of hero, participants usually begin to understand. We point out several reasons why the physician should be playing helper in a medical drama, including that the role of helper is an easier place from which to adopt and indeed habituate the virtues that have been defined at the "mastery" end of the Professionalism Milestones for each medical specialty. Further, by adopting the role of helper, a physician is potentially much less liable to "burn out" in his or her career. For example, if we as physicians assign ourselves the role of hero, then we must either always win by defeating the illness (which we know cannot always happen) as in the case of Melodrama, or we must lose something of ourselves, die, or become exiled in the case of Tragedy. This assignment of roles for the characters in conjunction with the assignment of genre to the narrative as a whole allows the participants to learn narrative knowledge, which is critical because the practice of medicine is primarily narrative in nature. Our patients tell us stories. We re-story them in a biomedical narrative (the history of present Illness). Daily, we, as physicians, use narrative to tease out a history, negotiate a diagnosis, and communicate good as well as difficult news. The more our physicians in training know about stories, specifically how narratives function and are structured within the context of the intertwined roles of doctor, patient, and disease, the better helpers they will become, and thus better physicians.

Further, by using narrative structure and roles in a schematized fashion we have given physician-educators sophisticated tools with which to demonstrate a profound

nexus between literary narratology and the practice of medicine. The process always allows us to clarify what professional behaviors look like when carried out in everyday practice. By critically examining and assessing the professional—and unprofessional—behaviors that physicians demonstrate as the characters in literary works, workshop attendees can reflect on their own behaviors, with the goal of striving towards the Mastery end for each of the Professionalism Milestones. For those who are already narratively competent, the Workshop we are describing still allows them the tools of schematization of elements of narrative that offer an efficient way to convey what they already know for the benefit of workshop participants. Moreover, those who have not yet reflected on their professional experience in relation to narrative structures can discover—both as participants in and even facilitators of Workshops—another framework in which to understand their work and a more precise sense of professional Milestones. Thus, by integrating the Professional Milestones into Narrative Medicine, we have provided the learners and trainers new ways of thinking about physician attitudes and behaviors, and have taught them something about how stories work as well.

Appendix A: Suggested Texts

The following is a list of stories that work well to explore the professionalism of a medical provider.

Anton Chekhov, "Enemies"
Arthur Conan Doyle, "The Doctors of Hoyland"
David Hilfiker, "Mistakes"
Jerome Groopman, "Unprepared"
Stories included in the *Medical Readers' Theater:*
William Carlos Williams
"A Face of Stone"
"The Girl with a Pimply Face"
"The Use of Force" (annotated by Felice Aull and by Pamela Moore and Jack Coulehan)
"Old Doc Rivers"
Richard Selzer
"Fetishes"
"Imelda"
"Whither Thou Goest"
Susan Onthank Mates
"Ambulance"
"Laundry"
Pearl S. Buck, "The Enemy"
Arthur Conan Doyle, "Round the Red Lamp"
Katherine Anne Porter, "He"
Mary E. Wilkins Freeman, "A Mistaken Charity"
Margaret Lamb, "Management"

Appendix B: Pediatric Professionalism Milestones (Accreditation: *Pediatric Milestones)*

	Level 1	Level 2	Level 3	Level 4	Level 5
Empathy	PROF1: Humanism, compassion, integrity, and respect for others; based on the characteristics of an empathetic practitioner				
	Sees the patients in a "we versus they" framework and is detached and not sensitive to the human needs of the patient and family	Demonstrates compassion for patients in selected situations (e.g., tragic circumstances, such as unexpected death), but has a pattern of conduct that demonstrates a lack of sensitivity to many of the needs of others	Demonstrates consistent understanding of patient and family expressed needs and a desire to meet those needs on a regular basis; is responsive in demonstrating kindness and compassion	Is altruistic and goes beyond responding to expressed needs of patients and families; anticipates the human needs of patients and families and works to meet those needs as part of his skills in daily practice	Is a proactive advocate on behalf of individual patients, families, and groups of children in need

	Level 1	Level 2	Level 3	Level 4	Level 5
Duty	PROF2: Professionalization: A sense of duty and accountability to patients, society, and the profession				
	Appears to be interested in learning pediatrics but not fully engaged and involved as a professional, which results in an observational or passive role	Although the learner appreciates her role in providing care and being a professional, at times has difficulty in seeing self as a professional, which may result in not taking appropriate primary responsibility	Demonstrates understanding and appreciation of the professional role and the gravity of being the "doctor" by becoming fully engaged in patient care activities; has a sense of duty; has rare lapses into behaviors that do not reflect a professional self-view	Has internalized and accepts full responsibility of the professional role and develops fluency with patient care and professional relationships in caring for a broad range of patients and team members	Extends professional role beyond the care of patients and sees self as a professional who is contributing to something larger (e.g., a community, a specialty, or the medical profession)

	Level 1	Level 2	Level 3	Level 4	Level 5
Boundaries	PROF3. Professional Conduct: High standards of ethical behavior which includes maintaining appropriate professional boundaries				
	Has repeated lapses in professional conduct wherein responsibility to patients, peers, and/or the program are not met. These lapses may be due to an apparent lack of insight about the professional role and expected behaviors or other conditions or causes (e.g., depression, substance use, poor health)	Under conditions of stress or fatigue, has documented lapses in professional conduct that lead others to remind, enforce, and resolve conflicts; may have some insight into behavior, but an inability to modify behavior when placed in stressful situations	In nearly all circumstances, conducts interactions with a professional mindset, sense of duty, and accountability; has insight into his or her own behavior, as well as likely triggers for professionalism lapses, and is able to use this information to remain professional	Demonstrates an in-depth understanding of professionalism that allows her to help other team members and colleagues with issues of professionalism; is able to identify potential triggers, and uses this information to prevent lapses in conduct as part of her duty to help others	Others look to this person as a model of professional conduct; has smooth interactions with patients, families, and peers; maintains high ethical standards across settings and circumstances; has excellent emotional intelligence about human behavior and insight into self, and uses this information to promote and engage in professional behavior as well as to prevent lapses in others and self

	Level 1	Level 2	Level 3	Level 4	Level 5
Self-Awareness	PROF4. Self-awareness of one's own knowledge, skill, and emotional limitations that leads to appropriate help-seeking behaviors				
	Has a lack of insight into limitations that results in the need for help going unrecognized, sometimes resulting in unintended consequences	Shows concern that limitations may be seen as weaknesses that will negatively impact evaluations results in help-seeking behaviors, typically only in response to external prompts rather than internal drive	Recognizes limitations, but has the perception that autonomy is a key element of one's identity as a physician, and the need to emulate this behavior to belong to the profession may interfere with internal drive to engage in appropriate help-seeking behavior	Recognizes limitations and has matured to the stage where a personal value system of help-seeking for the sake of the patient supersedes any perceived value of physician autonomy, resulting in appropriate requests for help when needed	Beyond recognizing limitations, has the personal drive to learn and improve results in the habit of engaging in help-seeking behaviors and explicitly role modeling and encouraging these behaviors in residents

	Level 1	Level 2	Level 3	Level 4	Level 5
Trust-worthiness	PROF5. Trustworthiness that makes colleagues feel secure when one is responsible for the care of patients				
	Has significant knowledge gaps or is unaware of knowledge gaps and demonstrates lapses in data-gathering or in follow-through of assigned tasks; may misrepresent data (for a number of reasons) or omit important data, leaving others uncertain as to the nature of the learner's truthfulness or awareness of the importance of attention to detail and accuracy; overt lack of truth-telling is assessed in a professionalism competency	Has a solid foundation in knowledge and skill, but is not always aware of or seeks help when confronted with limitations; demonstrates lapses in follow-up or follow-through with tasks, despite awareness of the importance of these tasks; follow-through can be partial, but limited due to inconsistency or yielding to barriers; when such barriers are experienced, no escalation occurs (such as notifying others or pursuing alternative solutions)	Has a solid foundation in knowledge and skill with realistic insight into limits with responsive help seeking; data-gathering is complete with consideration of anticipated patient care needs, and careful consideration of high-risk conditions first and foremost; requires little prompting for follow-up	Has a broad scope of knowledge and skill and assumes full responsibility for all aspects of patient care, anticipating problems and demonstrating vigilance in all aspects of management; pursues answers to questions, and communications include open, transparent expression of uncertainty and limits of knowledge	Same as Level 4, but any uncertainty brings about rigorous search for answers and conscientious and ongoing review of information to address the evolution of change; may seek the help of a master in addition to primary source literature

	Level 1	Level 2	Level 3	Level 4	Level 5
Ambiguity	PROF6. The capacity to accept that ambiguity is part of clinical medicine and to recognize the need for and to utilize appropriate resources in dealing with uncertainty				
	Feels overwhelmed and inadequate when faced with uncertainty or ambiguity; communications with patients/families and development of therapeutic plan are rigid and authoritarian, with assumption that the patient can manage information and participate in decision-making; patient/family numeracy presumed; seeks only self or self-available resources to manage response to this uncertainty, resulting in a response characterized by their (individual) pre-existing state of risk aversion or risk taking; does not regard patient need for hope; feels compelled to make sure that patients understand full potential for negative outcome (defensive/ protective of physician)	Recognizes uncertainty and feels tension/ pressure from not knowing or knowing with limited control of outcomes; explains situation to the patient in framework most familiar to the physician, rather than framing it with terms, graphics, or analogies familiar to the patient; seeks rules and statistics and feels compelled to transfer all information to the patient immediately, regardless of patient readiness, patient goals, and patient ability to manage information	Anticipates and focuses on uncertainty, looking for resolution by seeking additional information; aims to inform the patient of the more optimal outcome(s), framed by physician goals; does not manage overall balance of patient/family uncertainty with quality of life, need for hope, and ability to adhere to therapeutic plan; focuses on own risk management position for a given problem and does not suggest that more or less risk taking (different from physician's position) could be chosen; still seeks patient/parent recitation of uncertainty/ morbidity as proof that patient/family understands the uncertainty; has an unresolved balance of expectations with physician expectations taking precedence	Anticipates that uncertainty at the time of diagnostic deliberation will be likely; uses such uncertainty or larger ambiguity as a prompt/ motivation to seek information or understanding of unknown (to self or world); balances delivery of diagnosis with hope, information, and exploration of individual patient goals; works through concepts of risk versus hope using conceptual framework that includes cost (e.g., suffering, lifestyle changes, financial) versus benefit, framed by patient health care goals; expresses openness to patient position and patient uncertainty about his or her position and response	Is aware of and keeps own risk aversion or risk-taking position in check; seeks to understand patient/ family goals for health and their capacity to achieve those goals, given the uncertain treatment options; engages in discussion with high sensitivity towards numeracy, emphasizing patient/ family control of choices with initial plan development and ongoing information sharing through changes as knowledge and patient health status evolve; remains flexible and committed to engagement with the patient/ family throughout the patient's illness, serving as a resource to gather information so that degree of uncertainty is minimized; openly and comfortably discusses strategies and outcomes anticipated with the patient/family, emphasizing that all plans are subject to the imperfect knowledge and state of uncertainty; balances constant revisiting of knowledge, uncertainty, and developed plans acceptance of what is unknown; transparent communication of limits of treatment plan outcomes

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Appendix 6: Teaching Literature to Medical Students: Ernest Hemingway, Nick Adams, and the "Unsaid" in Narrative

For the past sixteen years, we have been team-teaching a course entitle "Literature and Medicine" for pre-med and medical students as well as conducting workshops for physicians and healthcare workers. The purpose of these teachings is to get healthcare workers more closely in touch with the human resources of narrative understanding, empathy, and shared vicarious experiences that to a large degree formal training in medicine and healthcare mitigate against. Doctors are trained to develop a broad data-base of human ailments and conditions, to systematically understand the biochemistry of life processes and illness processes with such intensity that, in many cases, what we have called "humanistic understanding" is lost. Humanistic understanding, we argue (see Vannatta et al. 2005), can grasp the experience of a person in distress, and the vital information for health that is contained in that narrated experience. The aim of our teaching engagements, then, is to train people committed to careers in healthcare to recover an array of human resources—empathy and the ability to grasp and respond to stories that patients almost always bring to their encounter with medicine. These abilities will help medical students more fully understand and engage with the patients they encounter. Among these resources is the ability to grasp what we call "narrative knowledge."

We begin this discussion with a small presentation by Dr. Rita Charon on the function of narrative knowledge in healthcare. Dr. Charon, who has a Ph.D. in literary studies as well as an MD in internal medicine, developed a program in Narrative Medicine at Columbia University College of Physicians and Surgeons and wrote a book some years ago entitled *Narrative Medicine*. The goal of both is to encourage the inclusion of training in engagements with narrative in medical education. Here, then, is her explanation of her programs.

> This interest we [medical educators pursuing "narrative medicine"] have in narrative knowledge and narrative methods is not an abstract, scholarly interest alone. It's a very practical interest. There is a very concrete, direct relationship between narrative knowledge and clinical action. Indeed, we are interested in helping our students and doctors understand things for their own purposes. We're even interested in helping them reflect on their experience and feel better for it. I'm happy when my students or the doctors who study with us feel better by virtue of their narrative training, but that's not enough. My goal in giving them narrative training is to enable them to act more effectively with their patients. So, the increase in the narrative skills of recognizing there's a story to be heard, eliciting it, being curious about what's unsaid, putting it together in some way, trying provisional hypotheses

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> to see "Did I get this right?", and being moved oneself by what's heard, all of these things culminate in the doctor then being able to act on the patient's behalf with more vigor, with more purpose, with more investment than they otherwise would.
>
> I talk sometimes about how we have to honor the narratives we hear, and this is a very active thing. People tell us very private, frightening things about themselves, and we, because we have skill and also because we have power, are privileged to hear these things. Sometimes they are things we don't want to know about, like child abuse, nonetheless, we hear about these things. We have duties toward these things we hear, and for doctors, I think there are twin duties. One duty is to honor what's been said, which is to say, not to trivialize it, not to dismiss it, not to forget it; and then we have the duty to act. By virtue of knowing what I now know, what must I do? I think this is where narrative training increases the professionalism of doctors. (Vannatta et al. 2005: Chap. 4, screen 8 [video])

Note her careful listing of the *skills* in engagement with patient narratives that she enumerates for a medical education that will allow physicians "to act," as she says, "more effectively with their patients": skills in

- recognizing there's a story to be heard,
- eliciting it,
- being curious about what's unsaid,
- putting it together in some way,
- trying provisional hypotheses to see "Did I get this right?", and
- being moved oneself by what's heard, with
- all of these things culminating in the doctor then being able to act on the patient's behalf.

These skills are important because the stories patients bring to the clinic, like the stories that Ernest Hemingway developed early in his career, depend upon our ability to grasp, as Dr. Charon says, what is "unsaid." This is because, as Dr. Charon says elsewhere, "narratives that emerge from suffering differ from those born elsewhere…. Not restricted to the linear, the orderly, the emplotted, or the clean, these narratives that come from the ill contain unruly fragments, silences, bodily processes rendered in code. The language is deputized to point to things not ordinarily admitted into prose or poetry or texts of other kinds—shameful, painful, prelingual limitations, absences, breath-taking fears" (2005: vi).

Before we turn to Hemingway in earnest—and his "theory of omission" that he developed in Paris about the time he wrote "Indian Camp," the first of his published Nick Adams stories—let us share with you another physician explaining the necessity of strong training in narrative understanding in the work of healthcare. Dr. John Stone, like Hemingway's father, is a physician, and like Hemingway himself, he is a writer. Here is his comparison between reading poetry and listening to patients:

> No one comes easily to any poem because poems are full of slippery words, but that's exactly what our patients are full of. Patients are full of slippery words. They don't know what the diagnosis is, they don't know what's important out of all this morass of information, but they tell it to us, and it comes flowing out across the desk or at the bedside; and just as we look at a poem, we inspect it, as we live with it a little longer, as we memorize it, we learn what the essential elements are and what to pay attention to in the next poem we hear. (Vannatta et al. 2005: Chap. 3, screen 70 [video])

Dr. Stone was the co-editor of an anthology of literature for medical students, *On Doctoring*, that up until recently was given to all American first-year medical students by the Robert Wood Johnson Foundation as they began their medical education. It includes Hemingway's stories "Indian Camp" and "Hills Like White Elephants."

Reading Hemingway with Medical Students

It is "Indian Camp," published in *In Our Time* in 1924 and 1925, that we focus upon here. The story describes a make-shift cesarean childbirth, performed without anesthesia and proper equipment by Dr. Adams, with the help of his brother George,[1] while his young son watches, and the pregnant woman's husband lies wounded in a bunk in the room of the operation. In the middle of the operation, the son, Nick, asks his father

> "Oh, Daddy, can't you give her something to make her stop screaming" asked Nick.
> "No. I haven't any anaesthetic," his father said. "But her screams are not important. I don't hear them because they are not important." (1972: 19)

Directly after this the patient's husband "rolls over in bed." Dr. Adams successfully delivers the baby, and afterwards he and George discover the patient's husband dead in the bunk with his neck slashed. Dr. Adams and Nick take the boat away from the Indian camp while George remains behind to help clean up.

What is most striking about teaching this story to pre-med students is how much they simply do not notice. They are so fascinated by the medicine of it—the make-shift caesarian section in the middle of the night at a poverty-stricken Indian camp—that they pay little attention to the details of the story: why Dr. Adams performs the operation "with a jack-knife and sewing it up with nine-foot, tapered gut leaders" (1972: 19), why there is no anesthetic (1972: 18), why the woman's husband is in the same room, why Nick is there at all, functioning, as his father says, as "an intern" (1972: 19). Pre-med and medical students are particularly oblivious to Nick's presence, since almost all of them have "shadowed" physicians as they work so that the presence of a young watcher hardly seems strange at all. Perhaps for similar reasons, they do not notice in any important way how young Nick is in this story. Moreover, like Dr. Adams himself, they are impressed, in a matter of course way, by the achievement of the hero-physician under these circumstances.

> [Dr. Adams] bent over the Indian woman. She was quiet now and her eyes were closed. She looked very pale. She did not know what had become of the baby or anything.
> "I'll be back in the morning," the doctor said, standing up.
> "The nurse should be here from St. Ignace by noon and she'll bring everything we need."

[1] In "Indian Camp" we are not sure whether George is Nick's father's brother or brother-in-law, though in a passage from Hemingway's original draft, deleted ("omitted") from the published story and posthumously reproduced as the first of the *Nick Adams Stories*, "Three Shots," we learn they are brothers (1972: 14).

> He was feeling exalted and talkative as football players are in the dressing room after a game.
>
> "That's one for the medical journal, George," he said. "Doing a Caesarian with a jackknife and sewing it up with nine-foot, tapered gut leaders."
>
> Uncle George was standing against the wall, looking at his arm.
>
> "Oh, you're a great man, all right," he said. (1972: 19–20)

Just after this conversation, however, in the next moment, Dr. Adams and his brother George check on the woman's husband and find that he has committed suicide in the bunk bed in the "operating" room.

What are students to make of this? What does Nick make of this? Many critics, like Meyly Hagemann, note that "Nick emerges from the shanty no longer a boy, but fully awake, facing his father in a rowboat—man to man" (1979: 108–09), and while this is perhaps arguable, it takes the narrative too literally—as some physicians take their patients too literally—in its final sentence: "In the early morning on the lake sitting in the stern of the boat with his father rowing, he felt quite sure that he would never die" (1972: 21). That is, the repeated readings of Nick's so-called initiation by critics of "Indian Camp" fail to interrogate the insistence of the modifier "quite sure" and the oddness of the term "stern" from a young boy who needs every technical term explained to him. In this, as throughout "Indian Camp" and Hemingway more generally, we are presented with the art of "omission" that Hemingway described in *A Moveable Feast* where he describes his "theory that you could omit anything if you knew that you omitted and the omitted part would strengthen the story and make people feel something more than they understood" (1964: 8; see also Smith 1983 and Wyatt 2014). But Hemingway's omission is very much like the omissions physicians face with patients every day. Here's how Dr. Stone puts it. (He refers to Dr. William Carlos Williams' story, "The Use of Force.")

> Well, I think the artist is always struggling with ways to apprehend, to grasp nature, to grasp human relationships, and that's really the biggest element of our problem in terms of dealing with a difficult patient, a silent patient, a hostile patient. We have to find the redeeming qualities that are in every human being, and we have to realize that their storytelling at the moment is a byproduct of being sick. So often, we have the possibility of neglecting a patient, and that's the real diagnosis, that they have not come to grips with the disease they have, with the symptoms they have. They don't want you to know. It's like "The Use of Force" [William Carlos Williams' story]. A little girl didn't want to tell her story, either in terms of words or in terms of a physical diagnosis. And that's what these patients are doing, they are withholding themselves. They want to see how smart the physician is. (Vannatta et al. 2015: Chap. 3, screen 68 [video])

In this passage, Dr. Stone sounds much like Hemingway when he describes the artist grasping nature and character, and in fact there is a significant body of work discussing Hemingway's aim at "grasping nature" as much as character in his fiction (e.g., Hagemann 1979). Nick as a young boy—seven? eight? ten?, it's hard to tell, though the initial conversation with his father about birthing makes him sound quite young—Nick as a young boy has not, in Dr. Stone's words, "come to grips" with the disease he has, with the symptoms he has.

So in teaching medical students how to notice things, we have found that encountering Hemingway is particularly useful. This is notable in relation to the title of the book we wrote together, *The Chief Concern of Medicine: The Integration of the Medical Humanities and Narrative Knowledge into Medical Practices*. The first thing American physicians record on the patient's "chart" is what is called her "chief complaint"—the condition that motivated her to seek out a physician's care—which, in our country, is recorded in the patient's own words: "I have had a continuous headache for ten days," for instance. And the aim of our book is to encourage healthcare workers to add an additional item to the medical protocols, namely to ask the patient's "chief concern." Such a concern is various, such as "I am afraid I have brain cancer"; "I fear I'll lose my job"; "I fear my partner won't understand"; etc. Adding the chief concern to the interview creates a moment early in the patient-physician encounter where the doctor is not fully in charge: it creates a moment where patient and physician together can discover—most importantly, can *negotiate*—what counts as "health" for this patient and her situation. Throughout the book, we offer what we call "schemas" of narrative to busy healthcare workers so they might develop habits of attention in their interactions with patients. In the book, we develop a number of schemas, including one we call the "interview encounter schema" (2013: 377–78) that offers a checklist for physicians to help develop habits of attention to the patient's story, to which we give the odd acronym **WET C²**. Here it is:

Interview Encounter Schema
WET C²

W	***Who*** is this person?—repeat their name
E	Recognize and acknowledge the ***Emotion*** the patient exhibits
T	***Tell*** me a story—about the chief complaint
C¹	Articulate the ***Chief Complaint***
C²	Encourage the Patient to articulate the ***Chief Concern***

WET C^2 is an acronym that can remind younger doctors, but also experienced physicians, how to begin an interview that will consistently solicit the patient's agenda—his overall goals for consulting a physician, or, to put this differently, what "health" might mean under these specific circumstances. This works because the doctor, using the checklist, reminds herself that the patient's name is important and that his primary emotion needs to be addressed so as to make the story telling easier. Physicians almost always use a statement like "What brought you in today?", which solicits the chief complaint from the patient. However, the explicit request for the patient's chief concern allows the patient to define—or to work with her doctor in defining—both the *meaning* of her ailment and the wished-for end, its resolution into what may count as "health" in these circumstances. This is how stories work: a story *requires* a teller and a listener, and the explicit request for a story almost always makes it difficult for a physician to interrupt his patient.

We can ask of Ernest Hemingway's story the same questions we can bring to the patient interview, namely:

Who is this person?: a young boy, Nick, probably around eight years old.
What is his Emotion: fear and bewilderment at confronting suffering and death, probably for the first time.
Tell me a story—about the chief complaint: This is the story we read.
What IS his Chief Complaint: "I feel bad because I saw a man kill himself tonight and a baby cut out of a screaming lady's stomach."
What is his Chief Concern: "I don't want to die." [Note: in his own words.]

Like so many of Hemingway's narratives—and like so many patient narratives—this story offers little information beyond the experience of the young protagonist. That is, the story offers events without reflective commentary that makes explicit—that abstractly describes—what is going on in a vocabulary outside the events themselves. The job of understanding the story entails understanding the unspoken context for its events, what Hemingway omitted. Thus, we have to infer the child's age from the way he talks and the way his father talks to him. In a similar fashion none of the background of the story is explicitly stated (the boy does not have to think about it), and it is the job of the listener to figure out and piece together a narrative context from the small details. Why does the doctor bring his son and brother to this caesarian operation? Why doesn't he have any anaesthetic, suture, a scalpel? Why does the woman's husband kill himself? Why does the story end the way it does? We can understand the story by supplying what is unsaid: that the doctor, Nick's father, was called to the Indian camp from a fishing-camping trip with his son and brother and for that reason does not have any medical supplies. The woman's husband probably kills himself because he sees a stranger with a knife cutting his screaming wife and is helpless to stop it. After the operation and its aftermath, Nick's uncle George has to stay back at the Indian camp to clean up the "awful mess" of the events (1972: 20), and Nick and his father take their boat back to their camp, talking in the boat. The chief concern of the story is simply its remembered significance: events seemingly etched in the boy's mind as he struggles with his first encounters with suffering and death.

This is a schematic reading of the story, hardly detailed or focused in important ways on the language and significance of Hemingway's story. Rather, it is simply an attempt to gather together its elements in outline, to figure out what is going on and why it was important to be said. The Interview Encounter Schema (WET C^2) offers a framework to engage this story on this basic level so that its elements can be grasped as a meaningful whole that includes both the events and the motivation—the concern—that inhabits all its parts. That is, in class we can ask of Ernest Hemingway's story the same *kind* of questions that healthcare workers can bring to their patients. We can even ask, to use the language of the medical interview, what is Nick's chief complaint? And we can ask what is his chief concern and what is the "concern" of the story as a whole. As with so many of Hemingway's narratives—and as with so many patient narratives—the job of understanding the story entails understanding the unspoken context for its events; it is the job of the listener to figure out and piece together a narrative context from the small details.

Earlier, we quoted Hemingway's description of how he discovered—he suggested in *A Moveable Feast* that it was a "secret" he learned from Cezanne (1964: 3; see Hagemann 1979 for a thorough discussion of Hemingway's engagement with

Cezanne)—"that you could omit anything if you knew that you omitted and the omitted part would strengthen the story and make people feel something more than they understood" (1964: 75). The goal of teaching "narrative knowledge" to people who have committed themselves to the care, healing, and comfort of healthcare is precisely what Hemingway describes here, the possibility of making healthcare workers, in their encounters with people in distress, feel something more than they understand. That "more," as Paul Smith discusses it in his fine essay on Hemingway's "Theory and Practice of Omission," is "the commonplace that the structures of literature, like the sentences of the language, imply more than they state and make us feel more than we know" (1983: 271). The increase in knowledge and feeling that Hemingway provokes in his readers offers wonderful training for professionals who engage with ailing people. As we note in our conclusion to *The Chief Concern of Medicine*, "Medicine and doctoring are built around this human relationship between patient and physician; they are grounded in storytelling, good listening, and the sense—which can always be improved and shared—of how stories work; and because they touch on the great crises of our shared lives, they are always, in their smallest gestures as well as largest decisions, a profoundly ethical enterprise" (2013: 356). These things—human relationships, storytelling, attention to the great crises of our shared lives—are found throughout Hemingway's work, and finding them there can make our medical students do better by the patients they serve.

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