

Science, Values, & the Novel: an Exercise in Empathy

Alan C. Hartford, MD, PhD, FACR
Associate Professor of Medicine (Radiation Oncology)
Geisel School of Medicine at Dartmouth

2nd Annual Symposium, Arts & Humanities in Medicine
29 January 2021



The Doctor, 1887
Sir Luke Fildes, Tate Gallery, London

- “One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient.”

From: Francis W. Peabody, “The Care of the Patient.”
JAMA 1927; 88: 877-882.



Francis Weld Peabody, MD
1881-1927

Empathy

- Empathy:

- “the ability to understand and share the feelings of another.”

- Cognitive
 - Affective
 - Somatic

(from: *Oxford Languages*)

- Theory of mind:

- “The capacity to identify and understand others’ subjective states is one of the most stunning products of human evolution.”

(from: Kidd and Castano, *Science* 2013)

- Definitions are not full agreed upon, but this distinction is:

- “Affective” and “Cognitive” empathy are independent from one another.

Can one teach empathy?

Reading novels?

- Literature as a “way of thinking”
 - “Literature’s problem is that its irreducibility ... makes it look unscientific, and by extension, soft.”
 - For example: “‘To be or not to be’ cannot be reduced to ‘I’m having thoughts of self-harm.’”
 - “At one and the same time medicine is caught up with the demand for rigor in its pursuit of and assessment of evidence, and with a recognition that there are other ways of doing things ... which are important.”

(from: Skelton, Thomas, and Macleod, “Teaching literature and medicine to medical students: why literature and medicine?” *Lancet* 2000; 356: 2001-03)

“Reading Literary Fiction Improves Theory of Mind”

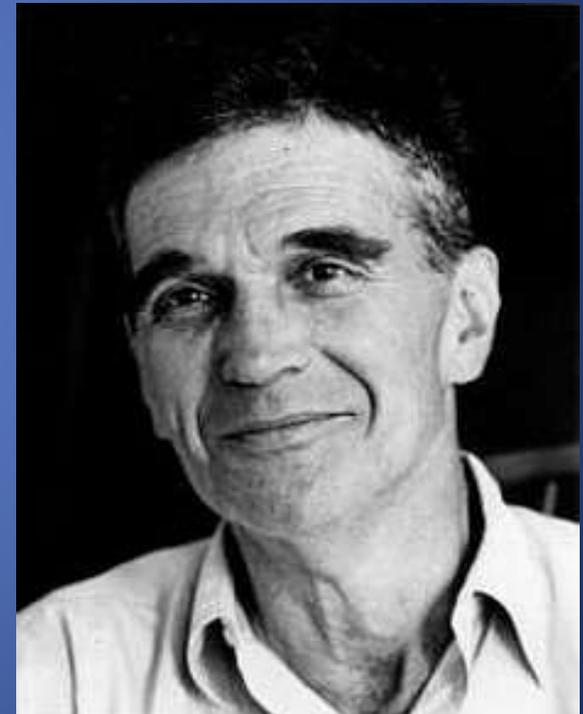
- Randomized experiments demonstrated:
 - Reading literary fiction led to better testing for affective and cognitive ToM
- As compared to reading:
 - Nonfiction
 - Popular fiction
 - Nothing at all

Are you empathic?

- Some tests from Kidd & Costano:
 - Advanced affective ToM test
 - “Reading the Mind in the Eyes”
 - Try it! –
<https://socialintelligence.labinthewild.org>
 - Cognitive ToM test
 - “False belief test”
 - Predict probability that character will act on basis of character’s false belief versus reader’s true belief

Recent Experience at Geisel: “Science, Values, & the Novel”

- Inspired by:
 - Teaching of Robert Coles, MD
 - Thinking about the doctor-patient relationship
 - Need for intergenerational communication
 - Alfred Hitchcock



Robert Coles, MD
1929 -

Science & Values as a MacGuffin

What is a MacGuffin?

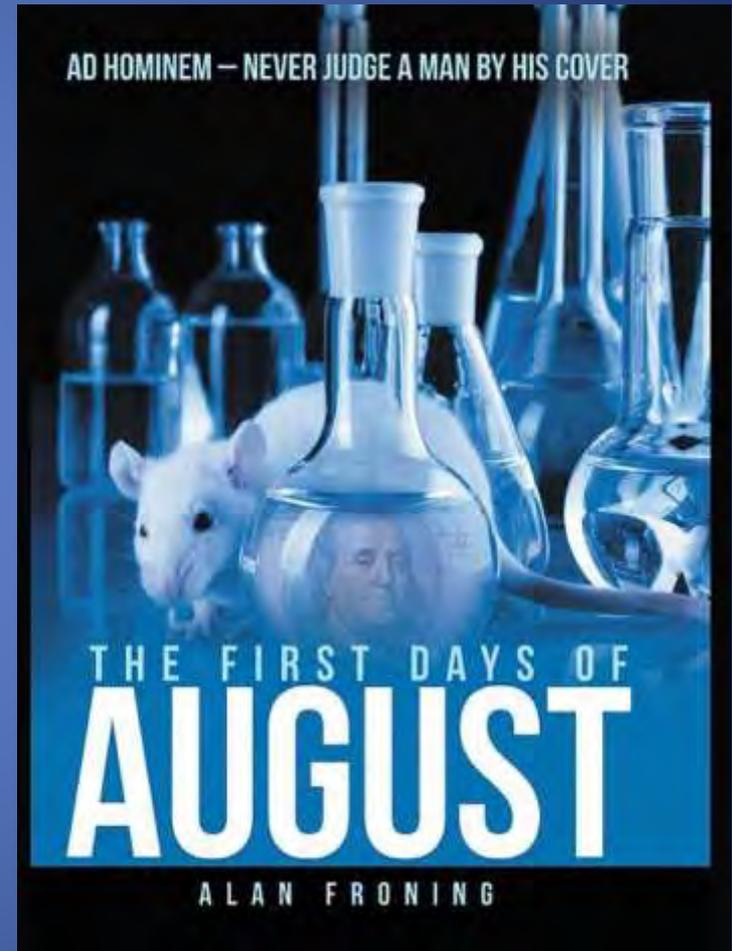
- “It might be a Scottish name, taken from a story about two men on a train. One man says, 'What's that package up there in the baggage rack?' And the other answers, 'Oh, that's a MacGuffin'. The first one asks, 'What's a MacGuffin?' 'Well,' the other man says, 'it's an apparatus for trapping lions in the Scottish Highlands.' The first man says, 'But there are no lions in the Scottish Highlands,' and the other one answers, 'Well then, that's no MacGuffin!' So you see that a MacGuffin is actually nothing at all.”
 - Alfred Hitchcock, Lecture at Columbia University, NYC, 1939
- Hitchcock claimed his films were in fact not what they appeared to be on the surface.



Alfred Hitchcock
1899-1980

Write (and teach?) what you know...

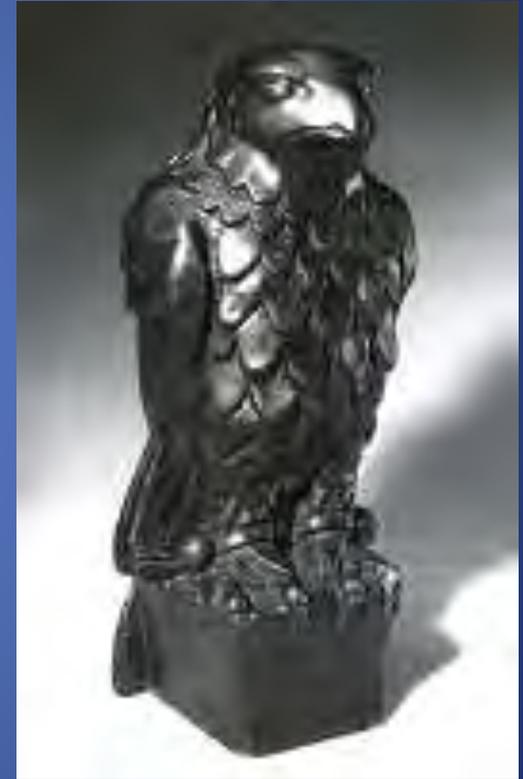
- Alan's two-headed MacGuffin
 - PhD Dissertation (1997): “Academic-Industry Relationships in the Biomedical Sciences: Academic Norms and Conflicts of Interest”
 - (First?) Novel:
The First Days of August
- Science & human values are inseparable



The First Days of August, 2015
Alan Froning (aka Hartford)

“Science, Values, & the Novel”

- Geisel Enrichment Elective (2015-)
- MacGuffin:
 - values underpinning science & society
- Every semester, starting fall 2015
 - (Sabbatical this spring 2021)
- Enrollments
 - From 1 to 11 Geisel 1st and 2nd yr students



The Maltese Falcon, 1941
Written/directed by John Huston

Books

YEAR	FALL	SPRING
	Books/Authors	Books/Authors
2015-16	<ul style="list-style-type: none"> -<i>One Flew Over the Cuckoo's Nest</i>, Ken Kesey -<i>The Moviegoer</i>, Walker Percy -<i>Arrowsmith</i>, Sinclair Lewis 	<ul style="list-style-type: none"> -<i>Brave New World</i>, Aldous Huxley -<i>The Heart of the Matter</i>, Graham Greene -Shorts of criticism & commentary
2016-17	<ul style="list-style-type: none"> -<i>Mrs. Dalloway</i>, Virginia Woolf -<i>Farewell to Arms</i>, Ernest Hemingway -<i>A Wrinkle in Time</i>, Madeleine L'Engle 	<ul style="list-style-type: none"> -<i>To Kill a Mockingbird</i>, Harper Lee -<i>Power and the Glory</i>, Graham Greene -<i>Spy Who Came In From the Cold</i>, John LeCarre
2017-18	<ul style="list-style-type: none"> -<i>Flowers for Algernon</i>, Daniel Keyes -<i>Arrowsmith</i>, Sinclair Lewis -Short stories, Anton Chekhov 	Writing workshop with texts: <i>Reading Like a Writer</i> by Francine Prose, works of Anton Chekhov, and others
2018-19	<ul style="list-style-type: none"> -<i>The Moviegoer</i>, Walker Percy -<i>All the Light We Cannot See</i>, Anthony Doerr -Short stories, Anton Chekhov 	<ul style="list-style-type: none"> -<i>Brave New World</i>, Aldous Huxley -<i>The Tempest</i>, William Shakespeare -<i>The Boys in the Boat</i>, Daniel James Brown -Shorts: Kurt Vonnegut, John Stuart Mill, Anton Chekhov
2019-20	<ul style="list-style-type: none"> -<i>The Great Gatsby</i>, F. Scott Fitzgerald -<i>Beloved</i>, Toni Morrison -Shorts: Ernest Hemingway & others 	<ul style="list-style-type: none"> -<i>Wind, Sand, and Stars</i>, Antoine de Saint-Exupery -<i>The Little Prince</i>, Antoine de Saint-Exupery -<i>To the Lighthouse</i>, Virginia Woolf -Shorts of fiction & commentary
Fall 2020	<ul style="list-style-type: none"> -<i>Arrowsmith</i>, Sinclair Lewis -Shorts of fiction & commentary 	<< BREAK >>

Reception

- Comments from this past fall class (2020):
 - “Great book. Great discussions. Lots of fun and stress relieving!”
 - “I liked thinking and talking about how Sinclair Lewis saw and criticized the medical field. It was fun to try to get into the mind of Lewis who seemed so cynical about so many things, yet also so correct.”
 - “I really had a good time.”

Can one teach empathy?

Yes.

One of the essential qualities of the clinician is interest in humanity, for

the secret of the care of the patient is in caring for the patient.

-- Francis Peabody, MD