### Johanna Shapiro, PhD Feature Editor

*Editor's Note:* In this column, teachers who are currently using literary and artistic materials as part of their curricula will briefly summarize specific works, delineate their purposes and goals in using these media, describe their audience and teaching strategies, discuss their methods of evaluation, and speculate about the impact of these teaching tools on learners (and teachers).

Submissions should be three to five double-spaced pages with a minimum of references. Send your submissions to me at University of California, Irvine, Department of Family Medicine, 101 City Drive South, Building 200, Room 512, Route 81, Orange, CA 92868-3298. 949-824-3748. Fax: 714-456-7984. jfshapir@uci.edu.

### Movies and Emotional Engagement: Laughing Matters in Lecturing

Yuri Zagvazdin, PhD

# Movies in Medical Teaching: How Can They Be Used?

The potential of movies as vehicles in medical education has been highlighted in numerous publications. 1-4 A predominant teaching format described in these articles consists of a session that includes demonstration of film fragments and discussion of related medical topics by the audience. Analysis of the selected episode constitutes the central, strategic component of this approach. Some speakers, however, use movies for "tactical" purposes. In this case, film clips are inserted in the texture of a presentation to arouse audience interest, elicit emotional involvement, illuminate certain points, or relieve tension. For example, Southam used a clip

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from the movie "City Slickers" to lighten the atmosphere in her class after discussing a sad topic about losses that occur with aging.<sup>5</sup>

I have been focusing on creating emotional engagement of my students by using cinematic images rather than clips. Displaying pictures of actors allows me to introduce 1- to 2-minute transition intervals during lectures that (1) help listeners stay receptive to the material, (2) shift attention to the ideas and points to remember, and (3) build memorable associations between physiological concepts and clinical conditions.

Surprisingly, resources that provide specific examples on how to entice a medical audience by showing cinematic images are not readily available. In this paper, I describe why I began and how I use actors' images in my physiology class. I also discuss the underlying principles of this approach and feedback about its effectiveness from first-year medical students.

## Cinematic Images in My Lectures

Occasionally, over the course of my training, I was exposed to the educational value of movies or actors' images. However, I did not think much about it until I began lecturing myself 6 years ago. In accordance with guidelines for medical educators, 6 I divided my lectures in 10- to 20-minute segments separated by transition intervals for brief relaxation of students. Hesitant to fill these breaks with my own stories or jokes, I asked myself, "Why not engage them with visuals such as a photo of a Hollywood star? After all, a picture is worth a thousand words!" My collection of actor's images at that time included only Sylvester Stallone, mentioned by Dr Reiner, my mentor, in his lecture on damage of the facial nerve. From this humble beginning, it has now grown to photos of more than 30 actors. In this paper, I describe examples of actors' images used in my lectures

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on the respiratory system. Most of them are available for viewing on the Internet, although a few came from books (see Table 1).

### **Advantages of Visual Images**

Using pictures rather than verbal digressions to create breaks during lectures offers several advantages for an instructor:

### Visual images:

- are powerful in grabbing attention and generating emotions
- require a short time to induce an effect
  - are easy to implement
- can give the instructor a desired vocal recess
- allow avoiding the peril of failure associated with relating verbal jokes or stories
- can facilitate reception of a subsequent joke or anecdote

Finally, humorous images promote learning by fostering creative thinking and formation of novel associations and analogies.<sup>7</sup>

### Accentuators and Breakers: Two Ways to Use a Movie Image

I classify pictures of actors used in my lectures into two categories:

A—"accentuators" and B—"breakers." Breakers build a bridge to a completely new topic, while accentuators serve to highlight certain aspects of previously discussed concepts and/or to relate them to the upcoming material. Examples of these two ways to use images are presented in Table 1.

#### Movie Title as a Punch Line

One efficient technique in creating a humorous transition is to display and reiterate the title of a movie. For example, I may introduce the picture of a smiling James Garner and Joanne Woodward from "Breathing Lessons" with a phrase like "And now our breathing lessons are almost over...I invite your questions before we review the upcoming exam." The purpose of presenting this image is to ease students' minds for better absorption of review material. In a similar manner, the movie title can be used to put an accent on previously discussed topics, for example, on the changes of the pulmonary pressures during the respiratory cycle. I expose the radiant faces of Angela Bassett and her friends from "Waiting to Exhale" with a comment such as, "It seems like

we are all waiting to exhale after our excruciating efforts today, aren't we?" The picture, as well as acknowledgement of students' efforts, lightens their mood. After a pause, I complete the transition by addressing the following question, "By the way, what happens with the pleural pressure when we are waiting to exhale?" The achieved effect is an invigorated audience and an opportunity to put a novel spin on a topic that requires additional clarification or particular attention.

## **Movies to Link Basic Concepts** and Clinical Conditions

Film images can link anatomy and physiology with clinical conditions. This approach may help to increase conceptual memorization. According to Brown and Manogue,6 "Examples based on patients or problems are more likely to be recalled than straight theory." For instance. I use the movie "Where the Heart Is" to anchor the anatomy of mediastinum and complications caused by infection of this area. In my lecture on ventilation and airflow, I ask, "What is mediastinum?" It does not matter whether I hear an answer from the audience.

Table 1

Movie and Actor Images in Teaching Basic and Clinical Aspects of Respiration

Title of Movies or Photographs: Actors and Actresses	Classification: Accentuator or Breaker	Purpose for the Use in Presentation	Source of the Image: Internet or Book
"Breathing Lessons" James Garner Joanne Woodward	Breaker	Transition to a conclusion of lecture course on respiration	www.imdb.com
"Waiting to Exhale" Angela Bassett Loretta Devine Whitney Houston Lella Rochon	Accentuator	Transition to previously discussed changes in pulmonary pressures	www.imdb.com
"Where the Heart Is" Ashley Judd Natalie Portman	Accentuator	Transition from thoracic anatomy to pathophysiology of mediastinitis and the concept of airflow resistance	www.amazon.com
"Inspiration" Raquel Welch	Breaker or accentuator	Transition either to a new or to previously discussed topic on lung mechanics	Welch R. Raquel. The Raquel Welch Total Beauty and Fitness Program. New York: Holt, Rinehart and Winston, 1984.

After a pause, I present the lovely faces of Natalie Portman and Ashley Judd complemented with my enthusiastic "You thought right! It's where the heart is" and always hear hearty laughter. Students' grasp of anatomy is further reinforced by the question "So again, where the heart is? Is it anterior, middle, or posterior mediastinum?" Finally, addressing clinical problems related to the development of mediastinitis, I emphasize the danger of upper airways obstruction and shift attention back to the physiological control of airflow resistance. Again, the title of the film serves as a punch line and a priming tool to engage students.

## Pistol Approach and General Principles

I refer to the key consideration that guides me in selection of images for my lectures as the "Pistol" principle. A character from "King Henry the Fourth" by William Shakespeare, Pistol declares:

"And tidings do I bring and lucky joys

And golden times and happy news . . ."

This approach basically corresponds to the style of instruction described as a "Joy Master," someone who embraces uplifting, warmhearted humor.8 If one is passionate in a desire to convince the audience that the time for enjoyment has come, what would be a better way to deliver this message than a glamorous movie star on a screen? I like to display pictures from Raquel Welch's book Raquel. One photo, titled "Inspiration," is particularly effective when paired with her quote "Inspiration need not be only a mental trait, it can also be physical." It creates a comic relief, energizes listeners, and helps to retain the conceptual basis of lung mechanics. As stated by Blasco et al, "Emotions and images are privileged in popular culture, they should be the front door in students' learning process."

### How Do I Know That Pictures Work?

A primary source of feedback is student evaluations, where up to 50% of all comments compliment my teaching style. Some of them directly refer to a specific movie or actor. Other comments emphasize that "The examples given in class were hilarious and memorable" and that "Clinical correlates helped with remembering the details."

#### **Conclusions**

The common ground of all methods that implement movies in medical teaching is their powerful effect on the affective domain of learners. Unlike "cinemeducation," which exploits the insights and emotions generated in response to viewing clips, the described technique does not include the content of episodes as an important component. Nevertheless, images from movies can be used as effective elements of medical presentations to gain and hold audience attention, facilitate creative thinking and memorization, and impart information in an enjoyable way. Although comparable to cartoons, cinematic images possess some distinct features. They portray authentic human faces with emotions and bring real and familiar cultural icons to the audience. While the reactions evoked by images appear to be short-lived, they may have farreaching effects. Students' feedback suggests that captivating pictures of actors help in establishing associations between clinical entities and pathophysiological mechanisms. While not unknown, the described application of cinematography in medical education escaped detailed analysis in the literature. Its potential role in teaching merits further exploration.

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