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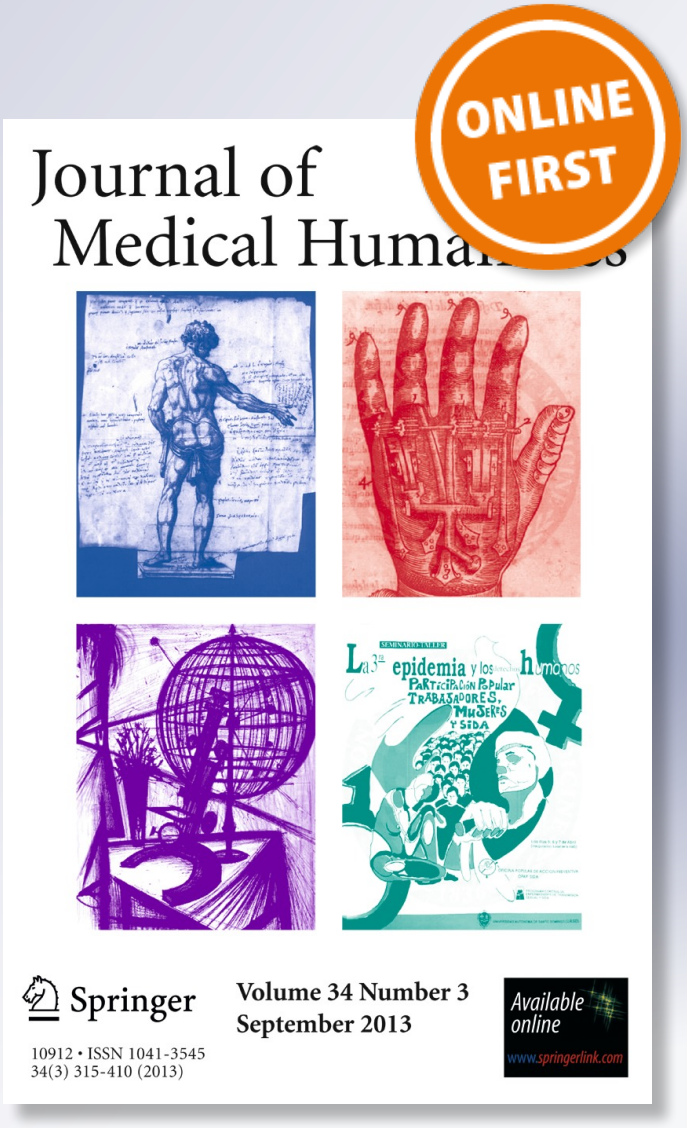

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From the Galleries to the Clinic: Applying Art Museum Lessons to Patient Care

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Abstract Increasingly, medical educators integrate art-viewing into curricular interventions that teach clinical observation—often with local art museum educators. How can cross-disciplinary collaborators explicitly connect the skills learned in the art museum with those used at the bedside? One approach is for educators to align their pedagogical approach using similar teaching methods in the separate contexts of the galleries and the clinic. We describe two linked pedagogical exercises—Visual Thinking Strategies (VTS) in the museum galleries and observation at the bedside—from "Training the Eye: Improving the Art of Physical Diagnosis," an elective museum-based course at Harvard Medical School. It is our opinion that while strategic interactions with the visual arts can improve skills, it is essential for students to apply them in a clinical context with faculty support—requiring educators across disciplines to learn from one another.

Keywords Medical education · Art museums · Bedside teaching · Museum teaching · Visual Thinking Strategies · Observation · Clinical observation · Skills · Physical exam · Physical diagnosis · Communication · Patient-doctor relationship · Cross-disciplinary collaborations

The visual arts present a uniquely beneficial platform for the cultivation of observation skills (Dolev, Friedlaender, and Braverman 2001; Bardes, Gillers, and Herman 2001; Shapiro, Rucker, and Beck 2006; AC Housen 2002; Schaff, Isken, and Tager 2011; Perry, Maffulli,

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and Willson 2011; Naghshineh et al. 2008; Klugman, Peel, and Beckmann-Mendez 2011). *Training the Eye: Improving the Art of Physical Diagnosis,* a preclinical first-year elective course at Harvard Medical School, offers one model for the development of looking skills for the purpose of practicing and understanding competencies of the physical examination (Naghshineh et al. 2008). Through a series of exercises pairing art museum experiences with classroom didactics, the course makes strategic links between arts skills and clinical practice. We describe here two specific course activities: "Visual Thinking Strategies in the Galleries"—in which observation is introduced and practiced on art—and "Observation on Rounds," in which this methodology is adapted to clinical teaching (Table 1).

Visual Thinking Strategies in the galleries

Visual Thinking Strategies (Abigail Housen and Yenawine 2001; Yenawine 2003) is a method, K-5 curriculum, and teacher professional development program co-authored by psychologist Housen and art educator Yenawine. Widely used among art museum educators—including arts instructors in the *Training the Eye* course—its primary purpose is to help students learn to look at art and to make evidence-based meaning for themselves. While the *Training the Eye* curriculum is shaped by a range of visual pedagogy (Nash 1994; Acton 1997; Taylor 1981; Elkins 2000), we employ the VTS method consistently in ten weekly art museum sessions. Facilitated by trained art museum educators, these sessions provide an opportunity for students to practice observation on works of art in groups.

Table 1 outlines the basics of VTS pedagogy, which creates a structure for teachers to facilitate open-ended conversations about art with a group of students. These guidelines produce an intervention where students practice looking and meaning-making, build aesthetic skills, learn to give evidence for interpretations, and engage in respectful dialogue. During VTS discussions, the art museum educators paraphrase students' comments with carefully chosen language to clarify visual arts concepts and to identify meaning-making thought patterns.

Table 1 From VTS Facilitation Method 101, http://www.vtshome.org/what-is-vts/method-curriculum–2

Introduction to VTS facilitation basics: In VTS discussions, teachers support student growth by facilitating discussions of carefully selected works of visual art, using 2–3 works of art per lesson. Each VTS discussion should last between 12 and 20 minutes.
Teachers are asked to use three open-ended questions: • What's going on in this picture? • What do you see that makes you say that? • What more can we find?
Facilitation Techniques: • Paraphrase comments neutrally • Point at the area being discussed • Linking and framing student comments
Students are asked to: • Look carefully at works of art • Talk about what they observe • Back up their ideas with evidence • Listen to and consider the views of others • Discuss many possible interpretations

As many describe (Boudreau, Cassell, and Fuks 2008; Schaff, Isken, and Tager 2011; Braverman 2011), the ability to distinguish observations from inference is a key feature of clinical expertise. Facilitators can develop this habit in students with the VTS question "What do you see that make you say that?" which repeatedly asks students to notice specific observations that triggered interpretive or hypothetical comments. Because a cohort of viewers quickly makes apparent differences in what individuals see, the experience provides the opportunity to reflect upon the biases that by nature arise. Just as listening to a patient talk while beginning visual inspection in a physical exam is multisensory, so too is the experience of looking at art with one's own search for meaning while listening to others describe what they see. VTS facilitators can make explicit this connection between art-viewing and clinical observation in their paraphrasing by 1) acknowledging students' verbal indications of their processes of constructing or revising meaning, 2) helping to articulate the identification of new problems ("problem-finding"), and 3) keeping language conditional to allow for prolonged speculation of multiple possible solutions at once. In this way, facilitators can engage art-viewing as a positive, safe experience of navigating uncertainty in which divergent thinking yields valuable new insights. As students look at art with peers and describe what they see, often they indicate changes in their level of certainty of what they are seeing and thinking.

In looking deeply at visual art, students practice both independent and group meaning-making. For example, in viewing Sargent's *El Jaleo* (Fig. 1), one student may notice gender divisions between the figures in the background, while another may struggle to describe an elusive feeling of sound. Another may suggest that the configuration of the dancer's body seems impossible. When prompted for evidence, the student may notice the details that contribute to this sensibility: the wrenching twist of the dancer's left arm, and the way in which the head is positioned so far forward while the body appears to fall backwards on a steep angle. Collectively, the group's observations contribute towards an understanding that is greater than any one individual's. Works of art becomes practicum experience for various reasoning strategies–the flexibility for which is known to be more effective than teaching singular approaches to problem-solving (Ark, Brooks, and Eva 2007). Medical education is not the only field that stands to benefit; visual skill development with art images prior to clinical learning situations has been shown to improve observation in nursing education (Pellico and Friedlaender 2009) as

Fig. 1 Image credits: John S. Sargent, *El Jaleo*, 1882. Oil on canvas, 232 x 348 cm. Isabella Stewart Gardner Museum, Boston [P7s1]

well as communication skill and attitudes across disciplines among teams of healthcare professionals (Klugman, Peel, and Beckmann-Mendez 2011).

Observation on rounds

These MD-facilitated one-hour sessions provide an opportunity to practice observation on patients. The group encounters two to three pre-selected patients and reflects upon the challenges and benefits of looking in the clinic. Student groups are small—no greater than five. Sequenced to occur mid-course, the goal is to apply skills learned in the museum, as well as principles for effective observation also learned in advance. These principles include looking closely ("What do you notice about this patient?"), carefully ("What do you see that makes you say that?"), and repeatedly ("What more do you see?").

The objectives for student learning are to transfer skills from a museum to a clinical context, to practice and to reflect upon the process of clinical observation, and to set habits for effective observation of patients–including respectful dialogue among peers and patients, understanding patient perspectives on observation, health, and quality care, and reflective practice.

The clinical faculty's role includes: preparing the group and the patient (asking permission and ensuring a sense of control), asking open-ended questions to facilitate close observation, paraphrasing student responses with precise language ("texture, contour"), keeping the conversation descriptive (pushing for clarity and evidence), communication with the patient (thanking, prompting sharing), leading reflections, and making explicit connections to art museum sessions. Two of these actions—asking open-ended questions, and paraphrasing student responses—replicate those of VTS facilitators in the museum. Clinical teachers can learn them effectively in collaboration with museum educators through observing facilitation techniques, through practice, and in conversations about pedagogy and planning.

Likewise, museum educators need to be able to make connections to clinical experience in their pedagogy and can acquire this training most effectively by joining the group on rounds. Instead of planning curriculum with a "divide and conquer" approach, we advocate strongly for "teachers as students;" in other words, for *both* medical and museum facilitators to learn from one another's pedagogy for unbiased looking. When visual art educators join students on rounds, and when clinical teachers join students in gallery sessions, the effect is to join students in navigating newness as well as to strengthen connections between the galleries and the clinic. For example, an art educator on rounds can relate to the novice experience of clinical rounds while assisting as a skilled describer of visual cues if the conversation lulls. Art educators, exempt from the same pressures of expertise experienced by medical students, can model tools from their expertise in looking, such as the language of visual thinking (Arnheim 2004). Accurate clinical inspection requires precise language.

Process example: Mrs. K

Although it may seem like an unusual approach for medical education, learning to look in museum settings is not a mysterious process; pedagogical examples of Visual Thinking Strategies and other art observation exercises are previously described (Reilly, Ring, and Duke 2005; AC Housen 2002; Klugman, Peel, and Beckmann-Mendez 2011; Dolev, Friedlaender and Braverman 2001; Schaff, Isken, and Tager 2011). We highlight here the less illuminated "art" of translating museum practice back into the clinic in providing the example, below, describing "Observation on Rounds" with a patient, "Ms. K."

Prior to "Observation on Rounds," we recommend the clinical teacher prepare both students and patient in the following ways. Ask students to reflect on art museum learning about the process of observation and field student questions and concerns. Ask permission of the patient ahead of time, describing the goals of the exercise. Introduce the participants and the patient. Share tips with learners on maximizing the environment for successful observation. Seemingly mundane technicalities—such as closing the door to cut down on ambient noise or turning on the overhead light—are as important as inviting silent looking and assuring the patient's comfort.

Discussion example:

Clinical Faculty (CF): I'm going to ask everyone to come in close. Please take a minute to look very carefully at Ms. K. So what are some things you are noticing?
Student: What drew me first, the legs look swollen? I imagine a little bit of edema… Also this skin looks taut and dry. Scales along the legs.
CF: You mentioned the edema. What do you see that makes you say edema?
Student: With edema you're looking for skin that's a little more taut… You'd otherwise be able to see more bone or vasculature underneath. It looks swollen on both sides.
CF: So part of it is loss of landmarks. And then you mentioned taut vs. swollen. What is it you noticed that makes you say taut?
Student: Just the appearance of skin. So if you look at skin over here, it's a little more wrinkled?
CF: You mention texture, and are wondering about wrinkled vs. smooth… What else do people see?
Student 2: I'm looking at Mrs. K's arms. I see a couple of splotchy patches that might look like hematomas? On both arms.
CF: So… you are noticing some discolorations. What do you see that makes you speculate hematoma?
Student 2: First off, the color. Kind of a dark purple color in the center.
CF (to Mrs. K.): Hematoma is a fancy word for bruise.
Mrs. K: Good!
Student 2: Kind of like a bruise I have on my arm, it fades out toward the edges…
CF: What else could look like that?
Student 2: I guess could also be some other disease process, like a skin infection.
CF: What else could you do on examination to support this being blood?
Student 2: One thing we could do would be to press lightly on them to see if you can push the blood back into capillaries—to see if it's blanching or not.
CF: Do you want to try that?
Mrs. K: Go ahead.
(Student 2 tries)
CF: What do you think?
Student 2: Doesn't look like it's turning a lighter color.
CF: For comparison let's try this other discoloration… So it's extravascular blood… Let's keep looking. What else do people notice?

Following "Observation on Rounds," we recommend asking the patient, *Is there anything you would like to share or lessons to teach physicians in training?* Patients often provide descriptions of their experience being "seen." Thank patient.

> We further recommend reflecting as a group, outside of the patient's room, *How did you feel, and what did you learn from that experience? What were some things that came up for you in looking at a patient?*

Focused looking requires attention, concentration and practice. While strategic interactions with the visual arts can improve observation skills, it is not enough to leave them in the museum galleries.

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References

Acton, Mary. 1997. *Learning to Look at Paintings*. New York: Routledge Press.

Ark, Tavinder K, Lee R Brooks, and Kevin W Eva. 2007. "The Benefits of Flexibility: the Pedagogical Value of Instructions to Adopt Multifaceted Diagnostic Reasoning Strategies." *Medical Education.* doi:10.1111/j.1365-2929.2007.02688.x.

Arnheim, Rudolf. 2004. *Visual Thinking*. Univ of California Press.

Bardes, C L, D Gillers, and A E Herman. 2001. "Learning to Look: Developing Clinical Observational Skills at an Art Museum." *Medical Education* 35 (12) (December): 1157–1161.

Boudreau, J Donald, Eric J Cassell, and Abraham Fuks. 2008. "Preparing Medical Students to Become Skilled at Clinical Observation." *Medical Teacher*. doi:10.1080/01421590802331446.

Braverman, Irwin M. 2011. "To see or not to see: How Visual Training can Improve Observational Skills." *Clinics in Dermatology.* doi:10.1016/j.clindermatol.2010.08.001.

Dolev, J C, L K Friedlaender, and I M Braverman. 2001. "Use of Fine Art to Enhance Visual Diagnostic skills." *JAMA : the Journal of the American Medical Association* 286 (9): 1020–1021.

Elkins, James. 2000. *How to Use Your Eyes*. New York: Routledge Press.

Housen, AC. 2002. "Aesthetic Thought, Critical Thinking and Transfer." *Arts and Learning Research Journal*. 18 (1): 99–132.

Housen, Abigail, and Philip Yenawine. 2001. "Basic VTS at a Glance." *Introduction to Visual Thinking Strategies*. http://www.vtshome.org/system/resources/0000/0018/basic_vts_at_a_glance.pdf Accessed 28 October, 2012.

Klugman, Craig M, Jennifer Peel, and Diana Beckmann-Mendez. 2011. "Art Rounds: Teaching Interprofessional Students Visual Thinking Strategies at One School." *Academic Medicine*. doi:10.1097/ACM.0b013e31822c1427.

Naghshineh, Sheila, Janet P Hafler, Alexa R Miller, Maria A Blanco, Stuart R Lipsitz, Rachel P Dubroff, Shahram Khoshbin, and Joel T Katz. 2008. "Formal Art Observation Training Improves Medical Students" Visual Diagnostic Skills." *Journal of General Internal Medicine*. doi:10.1007/s11606-008-0667-0.

Nash, Joanna. 1994. *Learning to Draw, Drawing to Learn*. Montreal: Robert Davies Publishing.

Pellico, LH, and L Friedlaender. 2009. "Looking is Not Seeing: Using Art to Improve Observational Skills." *Journal of Nursing Education 48(11): 648–653*.

Perry, M, N Maffulli, and S Willson. 2011. "The Effectiveness of Arts-based Interventions in Medical Education: A Literature Review." *Medical Education*. doi: 10.1111/j.1365-2923.2010.03848.x.

Reilly, JM, J Ring, and L Duke. 2005. "Visual Thinking Strategies: A New Role for Art in Medical Education." *Family Medicine*. 37 (4): 250–2.

Schaff, Pamela B, Suzanne Isken, and Robert M Tager. 2011. "From Contemporary Art to Core Clinical Skills: Observation, Interpretation, and Meaning-making in a Complex Environment." *Academic Medicine*. doi:10.1097/ACM.0b013e31822c161d.

Shapiro, Johanna, Lloyd Rucker, and Jill Beck. 2006. "Training the Clinical Eye and Mind: Using the Arts to Develop Medical Students' Observational and Pattern Recognition Skills." *Medical Education*. doi:10.1111/j.1365-2929.2006.02389.x.

Taylor, Joshua Charles. 1981. *Learning to Look. A Handbook for the Visual Arts.* Chicago: University of Chicago Press.

Yenawine, P. 2003. "Jump Starting Visual Literacy: Thoughts on Image Selection." *Art Education.* 56 (1): 6–12.