An Essay on the Division between Craft-Based and Knowledge-Based Professions as an Inhibitor of Interprofessional Healthcare Education and Practice, Part 2

John E. Vitale
Commentary

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John E. Vitale MHS, PA(ASCP)CM Rosalind Franklin University of Medicine and Science

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Gross Anatomy, Knowledge, and Craft

If the 'gross room' is the workshop in the anatomic pathology department, then the 'gross bench' is the workbench. Like the specialty workbenches of other craftsmen, the 'gross bench's' form meets function. Made of surgical stainless steel and equipped with a series of water jets at one end and a gradually sloping work surface leading towards a sink at the other end, the bench is designed for the dissection of bloody surgical resections, where in-between specimens the pathologists’ assistant can easily clean the bench by turning on the water jets, washing the blood and other body fluids which have accumulated away. The ‘gross bench’ is also equipped with magnifying glasses, built-in gravity feed formalin dispensers for fixing specimens following dissection, rulers, dictating machines, cameras, etc… everything ergonomically designed and within arm’s length of everything the craftsman may need.

Richard Sennett in his work The Craftsman explores ideas related to the workshop and the work of the craftsman who inhabits it. Sennett recounts the traditional master, journeyman and apprentice relationship were used for centuries in the trades and crafts. Applying this concept to the surgical pathology laboratory, the pathologists’ assistant would be the master craftsman with journeymen being pathology residents, and pathologists’ assistant students and medical students and others would serve in the role as apprentices. This logical structure has been perverted, however, with the imposition of a knowledge-based conceptualization of the anatomic pathology department. This artificial world-view places the physician pathologist in the role of master and the pathologists’ assistant is left to fill the journeyman or apprentice role, without the hopes or possibility of becoming the master of their craft without going back to school and earning the ‘knowledge-based’ medical degree.

Denied the autonomy associated with master craftsmen, the pathologists’ assistant is left to regularly defer to the judgment of the pathologists—who despite having master status often has less training and experience than the pathologists’ assistant in grossing. In many pathology residency programs today it is not uncommon for residents to spend as little time as an hour-or-two every other or every third day ‘grossing’. In some programs the grossing requirements are as little as grossing one specimen per day, contrasted to pathologists’ assistant training that typically involves ten to twelve months of full-time grossing experience.

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Residency Programs, Knowledge, and Craft

Residency programs, like the anatomic pathology profession as a whole, have largely abandoned the craft of ‘grossing’ in favor of ‘professional,’ knowledge-based activities, primarily in the form of making microscopic diagnoses. Indeed, the ‘coding and billing’ and reimbursement system in anatomic pathology classifies rendering a microscopic diagnosis as a ‘professional activity’ which is reimbursed at a much higher level than the craft-based ‘grossing’ which is reimbursed as a ‘technical activity.’ Residency program directors ‘sell’ their programs to medical students in part by emphasizing that they will spend most of their time in the knowledge-based world, and won’t have to get their hands too dirty in the process.

The physical space occupied, the tools used, the clothing worn, the rates of reimbursement all help reinforce the knowledge-based/craft-based dichotomy. Viewing this dichotomy from a social psychological perspective of in-group/out-group bias may help provide some perspective on an as to yet unexamined potential inhibitor of interprofessionalism.

Viewing the anatomic pathology laboratory from this perspective, pathologists may be conceptualized as members of the medical in-group, the medical ruling class which has the power to exert control over paramedical laboratory professionals who constitute the medical out-group, the pathologists’ assistants. This in-group/out-group distinction starts early in the professionalization of healthcare professionals and is an artifact of what I am terming a ‘tyranny of psychometrics,’ which also further reinforces long-standing cultural biases about blue-collar versus white-collar jobs.

The way we think about intelligence in the United States has been shaped over the last century by the psychometric tradition, mental measurement, known to most of us through an intelligence test taken in school or in the military. This tradition has contributed—something through misinterpretation—to a number of interconnected popular beliefs about intelligence: that it is a single and unitary quality (so if you're smart, you're smart across the board); that it’s fixed, consistent (and this plays into further beliefs about the degree to which intelligence is inherited); that it can be accurately measured with an instrument like an intelligence test and represented numerically, typically through an IQ score; and that people’s success in life, or more broadly, their place in the social order, is a reflection of their intelligence.” (Rose, 2005, p. xxi)

Admissions Testing, Knowledge, and Craft

People’s place in the social order in American healthcare, though not overtly determined by IQ test, is instead, by proxy determined by other measures, by undergraduate science and overall grade-point averages and the all-important medical college admissions test or MCAT. The MCAT, like an IQ test, brands a medical school applicant as either ‘intelligent’ or ‘not-intelligent,’ as a viable applicant or a ‘reject.’ This one high stakes test, like IQ tests, has questionable psychometric properties and little predictive value at selecting who will make a ‘good physician.’ The IQ test, the MCAT, and other admissions tests like the SAT and ACT, has demonstrable socio-economic and racial biases which help determine who will succeed and who will not and further fortify the in-groups privileged status. This may in part help explain why children of physicians are more likely to become physicians than children of non-physicians.

Medical schools, having asserted the knowledge-based nature of their profession, rely heavily on knowledge-based metrics to determine admissions. Thus begins the tyranny of psychometrics. Bias exists in American healthcare where non-physicians are perceived as less intelligent, less knowledge-based individuals who as the argument goes would have become physicians if they could have gotten into medical school.

One certified nurse midwife, recounted to the author that having received both an undergraduate degree and a graduate degree from Yale was grilled before her hospital’s credentialing committee with questions like, ‘You’re smart, you graduated from Yale, why didn’t you go to medical school?’ The assumption of course being that the smart choice for the smart is to become a physician, not a nurse or ‘allied’ healthcare professional.

Given such biases, it is logical to expect that stratification amongst physicians themselves would occur, and that a hierarchy of knowledge-based specialization would exist. Indeed this is what American healthcare in large part looks like. Large numbers of medical school graduates select more knowledge-based medical
specialties over general practice and family medicine. A growing shortage of primary care physicians is a by-product of such a system that values knowledge above all else and places medical specialist at the top of the medical hierarchy and rewards them with the highest salaries and most prestige.

Pathologists may be predisposed, given these conditions, to view pathologists’ assistants as being less intelligent by virtue of them not being pathologists. At the same time, given the educational requirements and training of pathologists’ assistants in the knowledge-based world of the physician, physicians may simultaneously view them as a potential threat to their autonomy and control over the pathology laboratory. Pathologists and pathologists’ assistants alike are aware of this sensitive relationship and the language adopted by the two professions as we have seen earlier reflects this sensitivity. For these reasons, the argument and utilization of the distinction between knowledge-based and craft-based professions may serve as an inhibitor to successful interprofessional relationships between pathologists and pathologists’ assistants.

This example may also be true of other healthcare professionals’ relationships where there is a potential overlap with regard to scope of work, and the knowledge-based argument is employed to further reinforce the traditional medical hierarchy. Examples include anesthesiologists and nurse anesthetists, nurse midwives and obstetricians, ophthalmologists and optometrists, podiatrists and orthopedic surgeons, clinical psychologists and psychiatrists, etc.

While the healthcare professions have been reinforcing the knowledge-based/craft-based dichotomy, other fields have been trying to provide a way to conceptualize and merge knowledge-based and craft-based professions. There is perhaps no better example of this than an examination into the very nature of craft itself.

The Theory of Craft

Howard Risatti, in his work A Theory of Craft, sets out as the title states to develop a theory or knowledge-based conceptualization of craft. In doing so, Risatti applied fine-arts principles to craft through an intellectualization process to, in a sense, elevate craft to the level of fine-art and increase the perception and prestige of craft. Risatti affirms that craft objects are not only functional, but can express human values and have the ability to ‘transcend temporal, special and social boundaries,’ descriptions classically reserved for art alone.

Risatti starts by describing the lowly status of craft throughout the ages when compared to art and shows that various historical movements have occurred in the crafts in an effort to elevate their craft to fine-arts status.

In a recent issue of Ceramics Monthly, craft critic Matthew Kangas also discussed the problem of the intellectual standing of the craft field. Kangas quotes fine art critic Donald Kuspit, who praises Garth Clark's curatorial efforts to ‘overturn the deeply rooted negative attitude that ceramics is inherently trivial.’ Kangas also quotes craft critic John Perreault, who faults the craft field for ignoring its own history. Even more damning, it seems to me, is the experience of fine art critic Peter Schjeldahl who, in reviewing a 1987 exhibition of Adrian Saxe's ceramics, somehow felt he was 'encrouching on a field where suspicion of intellect is a given, anti-intellectualism being a shadow of certain positive values embodied in most modern craft movements.' Echoing these observations, Kangas ends his 'Comment' with a plea ‘for the American ceramics movement to attain the same intellectual maturity demanded by painters and sculptors.’ And finally, there is the plea from craft critic Glenn Brown, who, in speaking of contemporary installations, argued that ‘the failure to develop a body of theory that is faithful to the craft tradition yet effectively asserts the contemporary relevance of craft practice has left craft consciousness vulnerable to pejorative stereotyping. Worse yet, the craft world has permitted itself to be bastardized, represented as alienated from some of the very characteristics—multiplicity, dispersion, interaction, and temporality—that have defined its tradition. (Risatti, 2007, p. 3)

These arguments about the intellectualization of craft are parallel in many ways to similar ‘intellectualization’ arguments made by the 19th century trade of medicine. This craft-medicine connection, I believe, is fundamental to developing a new conceptualization of medicine that promotes interprofessionalism and may come from the very definition of craft which Risatti provides. The functionality of craft objects, as Risatti discusses, has been used as a conceptual wedge and litmus test to divide craft from art. The example he provides is that...
of a tea cup, which is clearly designed to function as a vessel for holding tea and other liquids – form meeting function. However, what happens to that same tea cup when, instead of holding tea, it is turned upside-down and used as a paperweight? Here the intended functionality is abandoned for another function, but this does not make it art, rather it confirms the tea-cup's craft-like nature of fulfilling function. Fundamental to craft objects for Risatti is that they have a ‘physiologic function.’ A scarf is craft because it keeps you warm and a tea-cup is craft because it helps carry liquids to your body. In both cases physiologic functions are fulfilled.

**Medicine's Purpose, Knowledge, and Craft**

What is the purpose of Medicine? Is it not, at its most fundamental level, about promoting, maintaining and restoring physiologic function? At its heart medicine is the most fundamental of crafts, and physicians are the very definition of craftsmen.

The craft-based/knowledge-based dichotomy, as we have seen in law, medicine and now art, serves to create in-group/out-group hierarchies. This 'us' versus 'them' conceptualization is a destructive force and in medicine, and healthcare in general, may be viewed as an inhibitor to successful interprofessional relationships.

Craft needn't be an inhibitor to interprofessionalism, but may instead serve as a promoter of interprofessionalism. Rather than 'intellectualize' trade and craft occupations artificially into knowledge-based professions, I’m arguing we need a ‘craftilization’ of medicine back to its roots and intended function of promoting, maintaining and restoring physiologic function.

Through this process of ‘craftilization,’ physicians may conceptualize themselves as part of a larger guild of healthcare professionals, all with different skill sets but having a common aim. This new conceptualization would allow for true interprofessional interactions, where at any given moment, any member of the healthcare team could lead an interprofessional group, not based in a knowledge-based hierarchical fashion, but rather based on the craft-like skills needed at any given moment for any particular patient’s needs. Here, the pathologists’ assistant can be the master of the ‘gross room’ and be viewed as a true craftsman, a peer craftsman of the pathologists.

**Conclusion**

As has been argued above, the knowledge-based/craft-based dichotomy that exists in medicine is an inhibitor of interprofessionalism. This division is a false-dichotomy brought about by a process of intellectualization in an effort to create an in-group with power, prestige and authority over the out-group. Re-conceptualizing medicine as a craft through a process of ‘craftilization’ serves as a unifying force that helps to eliminate in-group/out-group biases and facilitate true interprofessional healthcare teams.

**References**


**Corresponding Author**

John E. Vitale, MHS, PA(ASCP)CM
Assistant Professor and Acting Chair
Pathologists’ Assistant Department
Rosalind Franklin University of Medicine and Science
3333 Green Bay Road
North Chicago, IL 60064

john.vitale@rosalindfranklin.edu