Virtue, Knowledge, and the Craft, Art, and Science of Healing:

Can Virtue Epistemology Create Better Physicians?

Julia M. Loo

1. Introduction

James A. Marcum wrote his article "The epistemically virtuous clinician"[1] in 2009 in response to what he calls a "quality of care" crisis in modern Western medicine. According to him, this crisis is as follows: despite dramatic advances in fighting illness, increasing numbers of patients are unhappy with their doctors. Marcum attributes the development of the quality of care crisis to physicians' emphasis on evaluating symptoms and managing disease over connecting with and caring for patients on a personal level. He suggests using virtue epistemological concepts for counteracting medical providers' tendencies to "objectify" and "dehumanize" patients. He analyzes a model case by identifying the intellectual virtues shown in it. Based on his observations, he recommends the inclusion of extensive and early virtue training into medical school curricula.

I second Marcum's assessment that the quality of care crisis is related to our society's shortage of epistemically virtuous attitudes and actions. Virtue training has the potential to positively affect doctors, patients, and society at large. However, I find the range of Marcum's suggestions for improvement too narrow. It is the purpose of this paper to propose a widening of his scope. I attempt to include additional, broader societal and psychological factors into this analysis in order to create a more ambitious version of Marcum's approach to virtue pedagogy.

The following section will briefly introduce virtue epistemology and some of its thinkers. I specifically highlight the work of Linda Zagzebski, which seems particularly influential on how Marcum conceptualizes virtue epistemology. I then identify two different sets of problems, which may arise when we teach virtues and which Marcum's article fails to explicitly address. The first can be summarized as problems related to Aristotelian virtues' complexity and their resulting resistance to being transmitted in classroom settings. The second set of problems is represented by several systematic (social, cultural, and psychological) influences that independently affect patient-doctor relationships and patient satisfaction and that must be factored into any attempt to

[1] James A. Marcum, "The epistemically virtuous clinician," *Theoretical Medicine and Bioethics* 30 (2009): 249-265.

improve medical training. I am convinced that proactively responding to these two sets of problems will increase Marcum's likelihood of success. Finding viable solutions for all of these problems within the confines of this paper is unrealistic. My overall objective at this point is outlining what we need to consider when coming up with a workable plan.

Despite the above challenges, I consider teaching virtue worth the effort. I subsequently examine two fundamental objections to the idea that virtue training is feasible and useful. The first objection accuses Aristotelian virtue theory of internal inconsistencies. The second objection questions the applicability of virtue epistemology to higher functions of thought. If either of these objections holds, it would pose a serious, maybe even fatal threat to the success of Marcum's and my common project of bettering modern medicine through virtue training. They therefore require our careful attention.

I conclude with a hopeful and bold vision into a possible future of fruitful cooperation between philosophers, physician educators, physicians, medical administrators, and patients.

2. The History of Virtue Epistemology

Virtue epistemology is inspired by virtue ethics, which can be traced back to Aristotle's ideas of virtue. Though the field is diverse, virtue epistemologists generally search for epistemic norms by studying hypothetical "virtuous agents," who are said to act in intellectually optimal ways in any context. Virtue epistemology looks at the inner qualities of those epistemic agents (as opposed to epistemic rules, methods, or other external elements). Virtue epistemology also studies intellectual vices, internal factors that hinder successful acquisition, usage, and teaching of knowledge. Virtue epistemology was first mentioned in 1980 by Ernest Sosa.[2] His paper "The Raft and the Pyramid: Coherence versus Foundations in the Theory of Knowledge" is an attempt to reconcile two approaches to cognitive theory by replacing structural analyses of thought with the idea of epistemic agents and their virtues. Sosa does not use a purely Aristotelian approach, a move that was later criticized by Zagzebski,[3] but focuses on faculty virtues, understood as well-functioning perceptual and cognitive faculties. He measures epistemic success by gauging the reliability of the resulting beliefs. Sosa's approach is known as *reliabilism*.

[2] Ernest Sosa, "The Raft and the Pyramid: Coherence versus Foundations in the Theory of Knowledge," *Midwest Studies in Philosophy* 5 (1980): 3-26.
[3] Linda Trinkaus Zagzebski, *Virtues of the Mind: An inquiry into the nature of virtue and the ethical foundations of knowledge* (Cambridge: Cambridge University Press, 1996): 8-10

A more recent school of virtue epistemological thought, *responsibilism*, moves closer to the original Aristotelian virtues. Code,[4] Montmarquet,[5] and other responsibilists expand our definition "intellectual virtue." Responsibilists introduce the idea of epistemic communities, individuals who work together toward epistemic success. Successful interaction requires more of us than Sosa's faculty virtues. Beyond reliable faculty virtues, we need certain epistemically useful character traits, such as impartiality, intellectual courage, or intellectual honesty. Responsibilist evaluation of success is more complex than what we find in reliabilist accounts. In addition to belief reliability, its evaluative measures include systematic and social connections, knowledge that combines epistemological and ethical qualities, and attitudes that foster skilled truth-finding behaviors.

Responsibilist and Neo-Aristotelian accounts emphasize connections between virtue ethics and virtue epistemology, which makes them specifically suited for dealing with the web of epistemic and ethical challenges that physicians face. Epistemic success affects our morals (because insufficient understanding can result in ethically problematic choices). Moral success affects understanding. Establishing trust helps our functioning in epistemic communities of cooperating knowledge seekers.

3. Marcum, Zagzebski, and Neo-Aristotelian views

Though he also uses his own version of Sosa's original faculty virtues in his analysis, Marcum's theoretical perspective owes much to Linda Zagzebski's approach.[6] Zagzebski attempts to unify reliabilist and responsibilist features into a more comprehensive view. She considers intellectual virtues as subset of moral virtues and encourages virtue epistemologists to take advantage of virtue ethics' history of thought. Her critique of previous (reliabilist and responsibilist) virtue epistemological views focuses on how many of them measure epistemic success. Drawing an analogy between virtue ethics and virtue epistemology, Zagzebski considers Sosa's and Code's measuring epistemic success through gauging the relative frequency of resulting justified true beliefs "consequentialist" (since outcome-oriented, not agent-attitude centered) rather than truly virtue theoretical. She advocates returning to the Aristotelian roots of virtue epistemology and offers "motivation for knowledge and reliable high-quality cognitive contact" as her measure of

[4] Lorraine Code, *Epistemic Responsibility* (Hanover, NH: University Press of New England for Brown University Press, 1987)
[5] James A. Montmarquet, *Epistemic Virtue and Doxastic Responsibility* (Lanham, MD: Rowman & Littlefield, 1993)
[6] Zagzebski, *Virtues of the Mind,* 3-29.

epistemic success. One feature of her account, which Marcum adopts, is a strong emphasis on the higher order virtue of phronesis (practical wisdom). Phronesis is said to mediate conflicts between other virtues. However, Aristotle's intellectual virtues' focus was not investigation, as it is in Zagzebski, but contemplation. This is one of the reasons why her work is usually seen as coming from a Neo-Aristotelian rather than a purely Aristotelian perspective.

4. A Case Study

Marcum starts his article by describing the quality-of-care crisis he has identified: Technical progress and, with that, increasing ability to cure and treat disease have been accompanied by increasing patient dissatisfaction. Some patients report being treated as collection of symptoms or fascinating medical puzzles rather than as people. Marcum concludes that today's physician training neglects care, while over-emphasizing diagnostic, prognostic, and treatment skills. He thinks that the notion of an epistemically virtuous clinician may offer a solution.

Marcum defines virtue epistemology as a philosophical sub-discipline that examines intellectual virtues, in order to understand how epistemic goods are formed and applied. In his view, an epistemically virtuous clinician will embody these three types of intellectual virtues:

- truth-conducive reliabilist faculty virtues (e.g. accurate and precise perception, memory, intuition, inferential reasoning, insight, introspection, and cognitive/conceptual faculties);
- responsibilist character virtues, expressing traits that are acquired over an agent's life time and that motivate successful truth-seeking (e.g. honesty, courage, open-mindedness, humility, fairness, curiosity, tenacity, and integrity);
- higher order virtues (e.g. love of knowledge, theoretical/practical wisdom), which weigh conflicting virtues against one another, resolve motivational confusion, consider situational challenges, and create flexibility of conceptual frameworks and perspectives.

After a literature review, Marcum uses the essay "Communion," written by gastroenterologist Richard Weinberg,[7] to reconstruct a model case and present his ideal of the epistemically virtuous physician. This clinical anecdote describes how Weinberg encounters a young woman, whose chronic abdominal pain several other doctors had failed to successfully treat. The essay describes several of the patient's visits, which are of a social rather than clinical nature. The patient develops trust and discloses an experience of sexual abuse and subsequent eating disorder issues. After she refuses to see a rape

[7] Richard B. Weinberg, "Communion," *Annals of Internal Medicine* 123 (1995): 804–805.

counselor or psychiatrist, he treats her with a self-developed, ad hoc kind of talk therapy. He consults the relevant literature and seeks out a colleague in the psychiatry department for reassurance. After several months of weekly meetings with the patient, she recovers.

Marcum ascribes this outcome to Weinberg's expression of intellectual virtues. Marcum defines what he sees as the relevant virtues and shows how they were applied in this case. He finds reliabilist virtues (perceptual and conceptual faculties) expressed as diagnostic skill. He proposes that those reliabilist virtues triggered responsibilist virtual character traits: intellectual curiosity, intellectual courage, intellectual honesty, and intellectual humility. Marcum further describes how Weinberg's love of wisdom and his theoretical and practical wisdom (the previously mentioned "higher order" virtues) translate the above reliabilist and responsibilist virtues into effective intellectual and moral actions, which support the patient's healing.

In Marcum's analysis, epistemological and ethical virtues overlap and are intimately connected.[8] He is concerned that existing ethics courses in medical training are "often too little and too late in the curriculum."[9] Marcum concludes that current standards of physician training over-focus on bio-medical models and applications of medical technology. He is convinced that this skewed focus lies at the root of the quality-of-care problem and that medical schools' reorientation towards promoting epistemic virtue has the potential to alleviate the problem.

5. Discussion

This paper is an attempt to pick up where Marcum leaves off by looking at the feasibility of his ideas. I agree with Marcum's assessment that the world is in dire need of intellectual and ethical virtue, and I am willing to join his quest to teach such virtues. However, I see two major sets of obstacles that we need to overcome in order to successfully apply such teachings to medical training: the first involves the difficulties of virtue transmission, and the second involves influences of systematic, cultural challenges on doctor-patient relationships.

5.1. The Aristotelian Concept of Virtue and its Resistance to Being Taught

[8] "Important to that effort are not only the intellectual virtues but also the ethical ones, for the two types of virtues are connected in such a way that the proper functioning of one is not possible sometimes without the proper functioning of the other." (Marcum, 263)

[9] "Although medical humanities courses represent an attempt to instill and nurture humane care within prospective physicians, it is often too little and too late in the curriculum." (ibid., 264)

To come up with suggestions for altering medical school training programs, we need to decide what we want to teach and how we want to teach it. Due to the complexity of the concept of virtue, this is harder than Marcum makes it sound. A three-fold set of problems presents us with three major objectives: we must skillfully accommodate Aristotle's concept of virtue as balance between extremes; we must honor the importance of situational context for what counts as a virtue and what counts as a vice; and we must take the difficulties of teaching practical wisdom and other higher order virtues into account.

The first of these three objectives cautions against conceptualizing virtues as excellences, which can be continuously improved through training and practice without risking unhealthy extremes. Some faculty virtues may seem to work that way. Perceptive powers cannot ever be too precise. Cognition can only benefit from excess accuracy. According to this view, improving virtue increases epistemic success. However, Aristotle's original ideas and, to a point, Zagzebski's interpretation of Aristotle imply that one person's intellectual virtue can in some cases be another person's intellectual vice. Aristotle's virtue teaching is more than a one-size-fits-all strategy that can be applied with little discrimination or thought. Virtues are sensitive tools for evening out individual differences (e.g. by helping a timid person find more courage or a reckless person more caution through a process of guided habituation). Aristotle's model of the virtuous person requires moderation between virtues on both ends of a spectrum, a balance between extremes achieved through teachings specifically targeting individual needs by reinforcing what is underdeveloped and deemphasizing what is too strong.[10] If we consider fostering moderation to balance different dispositions the goal of virtue teachings, then we must question the utility of class room settings. Instead we find that we are to tailor our teachings to each student.

The second objective emphasizes the context-dependent nature of virtues and vices. Marcum considers doctors' emotional distance problematic. However, such distance may be epistemically

[10] "[…] it will be made plain also by the following consideration of the specific nature of virtue. In everything that is continuous and divisible it is possible to take more, less, or an equal amount, and that either in terms of the thing itself or relatively to us; and the equal is an intermediate between excess and defect. By the intermediate in the object I mean that which is equidistant from each of the extremes, which is one and the same for all men; by the intermediate relatively to us that which is neither too much nor too little—and this is not one, nor the same for all. […] Thus a master of any art avoids excess and defect, but seeks the intermediate and chooses this—the intermediate not in the object but relatively to us. […] virtue must have the quality of aiming at the intermediate. […] Now virtue is concerned with passions and actions, in which excess is a form of failure, and so is defect, while the intermediate is praised and is a form of success; and being praised and being successful are both characteristics of virtue [Aristotle, *Nicomachean Ethics*, trans. Richard McKeon (New York: Random House, 1941), II.6.1106a-1106b]."

helpful in some situations. Frequent confrontation with human suffering in combination with great responsibility and a huge workload may turn a cautiously distanced rather than sincerely caring attitude into a protective mechanism against feeling overwhelmed and helpless, which could, within some social and economic contexts, be truth-conducive. Some surgeons do not treat immediate family out of concern that excessive emotional investment and the resulting nervousness could impair an otherwise experienced practitioner's ethical or epistemic judgment and surgical technique.[11]

Marcum's case covers only one of many different circumstances in medical practice. Emergency medicine might require different intellectual and ethical virtues than primary care medicine or public health. Different patients prefer different physician attitudes. Some patients might experience intense intellectual curiosity of their doctor as inappropriate violation of privacy. What some consider respect for their autonomy might be viewed as cold neglect by others. An involved caring doctor could be seen as an asset by one patient or as intrusive and patronizing by another. Cultural differences add further complexity.

One response to concerns about different personalities and situational demands is that regulatory higher-order virtues may create the balances necessary to navigate such difficulties. Phronesis, practical wisdom, seems perfect for this task. Phronesis plays a key role in translating virtuous states into appropriate beliefs and subsequent actions. According to Aristotle, virtue results in goals, while phronesis helps us realize those goals. Phronesis transcends rule-based reasoning, mediates between conflicting virtues, and helps create action plans that can be adjusted to account for new facts. It may also provide psychological protection against some forms of emotional and intellectual confusion.[12]

The third objective focuses on the problem that Marcum's higher order virtues resist quick and easy transmission from teacher to student, particularly in classroom settings with high student-teacher ratios. Phronesis was an integral part of physicians' ethical and intellectual training in ancient Greece. Not everybody was considered apt to understand phronesis, though. The most talented, motivated, and committed students entered into lengthy one-on-one relationships with experienced teachers. Time itself was considered a factor. Young people were considered too immature to fully embrace and use phronesis.[13] Knowledge, the accumulation of facts, was thought

[11] Maurice Bernstein, MD, last modified February 24, 2010, "Should Doctors Examine, Diagnose and Treat Their Family Members?" http://bioethicsdiscussion.blogspot.com/2010/02/should-doctors-examine-diagnose-and.html
[12] Zagzebski, *Virtues of the Mind*, 211-231.
[13] "[…] while young men become geometricians and mathematicians and wise in matters like these, it is thought that a young man of practical wisdom *[phronesis]* cannot be found. The cause is that such wisdom is concerned not only

of as relatively unproblematic, as long as the student wanted to learn. Wisdom, on the other hand, was to be slowly grown with the help of complex feedback loops between teacher guidance and life experience.[14] Aristotelian virtues develop gradually through reciprocal interchanges between virtuous character, virtuous actions, and a guiding vision of the good life (eudaimonia). Trying to accelerate this process might be pointless or even counterproductive.

We find some empirical evidence for the challenges of teaching virtue and wisdom in the experience of osteopathic medical schools.[15] Osteopathic medical schools seem to be the perfect response to Marcum's worries about conventional medical schools' "too little and too late" teaching of ethics and other liberal arts. Osteopathic medical students are awarded DO (Doctor of Osteopathy) degrees which are legally equivalent to MD degrees, as far as surgical, prescription, insurance, and practice privileges go. However, beyond such standard medical skills, osteopaths use principles of supporting patients' self-healing capacities by applying concepts of an inherent unity between bodily structure and function. In addition to conventional treatments, osteopathy uses hands-on manipulative techniques and a holistic understanding of health and disease. Throughout their training, practitioners are constantly reminded to look beyond isolated symptoms at the whole person. Osteopathic medical schools scrutinize the motivations, emotional maturity, and character of applicants and reject candidates with stellar scientific credentials but limited empathic tendencies.[16] The careful screening for appropriate applicants, the focus on frequent hands-on therapies over "high-tech" medicine, whenever possible, and the early and fully integrated holistic teaching perspective all seem to recall Marcum's prescription for a better approach to medical education. Though they might not use

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with universals but with particulars, which become familiar from experience, but a young man has no experience, for it is length of time that gives experience […] [Aristotle, *Nicomachean Ethics* VI.7.1142a13-16]."

[14] "Now some think that we are made good by nature, others by habituation, others by teaching (διδαχῇ). Nature's part evidently does not depend on us, but as a result of some divine causes is present in those who are truly fortunate; while argument and teaching, we may suspect, are now powerful with all men, but the soul of the student must first have been cultivated by means of habit for noble joy and noble hatred, like earth which is to nourish the seed. For he who lives as passion directs will not hear argument that dissuades him, nor understand it if it does; and how can we persuade on in such a state to change his ways? And in general passion seems to yield not to argument but to force. The character, then must somehow be there already with a kinship to virtue (δεῖ δὴ τὸ ἦθος προυπάρχειν πως οἰκεῖον τῆς ἀρετῆς), loving what is noble and hating what is base [Aristotle, *Nicomachean Ethics* X.9.1179b20-31]."

[15] Stephen Wing-Ming Loo, DO, "What is a D.O.?" accessed April, 20, 2012, http://www.permanente.net/homepage/kaiser/pages/c1962-42763.html.

[16] American Association of Colleges of Osteopathic Medicine, "Osteopathic Medical Student Profiles," accessed April 20, 2012, http://www.aacom.org/InfoFor/applicants/profiles/Pages/default.aspx

this specific terminology, we could view osteopathic medical schools as a more than a century long experiment in virtue training.

However, despite their extensive efforts and explicit goals of creating physicians, who use modern medicine in humane and holistic ways, osteopaths in clinical practice are criticized by many patients and by Marcum as harshly as their more conventionally trained MD colleagues. I suspect that there is more at play than just public confusion about these two tracks of medical training. It appears that physician training is only one piece of the puzzle presented to us by the quality-of-care crisis, which brings us to the second set of problems, which we must consider when designing virtue training programs.

5.2. Second Problem: Systematic Obstacles

Marcum fails to mention a number of (relatively) physician-training independent influences that affect patient dissatisfaction. This section introduces some of them, namely the business nature of contemporary health care, the challenge of unrealistic patient expectations, and the increase in anti-scientific and anti-intellectual attitudes.[17] If we do not factor such larger societal tendencies into our teaching virtues and trying to resolve patients' unhappiness, we waste time and resources. It is vital to be aware of those external factors to see which of them can be counteracted through adjusting our virtue training to account for them, which of them can be challenged or changed directly, and which must be accepted as exasperating but unavoidable components of the uphill battle of virtue-teaching. A certain level of patient dissatisfaction could be an inescapable fact of life, to be accepted rather than eradicated.

The first of these systematic obstacles, capitalist health care business structures, is a potent reminder that systematic societal and cultural configurations can support or hinder virtue development. Some communities may actually benefit from discouraging virtue. Capitalist societies such as ours are not primarily driven by ideals of virtue (though there might be some lip service in that regard) but rely on creative usage of vices such as greed for money or fame to motivate people. We can find similar structures in academic contexts, in which peer-review guided self-correcting structures use (in some cases) individual hunger for fame, acknowledgment, and ego-gratification—all of which would have been considered obstacles to *eudaimonia*/the "good life" by Aristotle—and a profit-oriented

[17] Susan Jacoby, "The Dumbing of America," *The Washington Post*, last modified February 17, 2008, http://www.washingtonpost.com/wp-dyn/content/article/2008/02/15/AR2008021502901.html

publishing industry to, in the long run, foster and nourish emergence of precious truths and advances in the sciences and the humanities. This tendency to pragmatically turn vices into tools for creating progress clashes with ancient Greek ideas of virtue being important in its own right. Such ingrained patterns of thought and behavior are likely to create individual and systematic resistance against our call for change, a resistance that will have to be addressed.

Medicine in the U.S. in its current form is a business. According to the Association of American Medical Colleges, the median debt of a newly minted physician at graduation was $150,000 at public institutions, $180,000 at private, and $160,000 combined.[18] However, physicians are often viewed differently than other professionals, when they are trying to recover that cost and make a living. Healthcare is claimed as a right by many, who are not willing or able to pay for it in insurance premiums, out of pocket expenses, or taxes. Individual transportation could be viewed as a right, too, but nobody seems to expect that auto mechanics compassionately donate their services to anybody who needs them and struggles to pay for them.

Physicians in private practices have to cut corners in order to compete with corporate providers and to deal with rising administrative cost, decreasing Medicare reimbursement, and skyrocketing liability insurance premiums resulting from a litigious society's constant threat of (frequently frivolous but nevertheless "worth a try") malpractice claims. The "intellectual courage" to treat patients outside of one's realm of expertise that Marcum's model physician displays can create serious legal liability issues. Had the patient not improved but become suicidal, her family could have sued Weinberg, threatening to hurt him financially, psychologically, and professionally. He could even have lost of his license to practice medicine. Malpractice litigation plays an often overlooked role in the cost of U.S. medicine and subsequent industrialization of medical service delivery in an attempt at meeting expenses.

Splitting up responsibilities into physicians' technological focus and medical support personnel's more time intensive caring may disappoint patients but makes financial sense. Corporate structures and the industrialized production of their goods and services, including the dreaded assembly-line forms of modern medicine seem unsavory to many of us, but they provide us with services that were unaffordable to most inhabitants of pre-industrialized societies. In medicine, as in other service or manufacturing businesses, industrialization broadens access but comes at a price.

[18] Tara Kuther, PhD (for *About.com*), "How Much Does Medical School Cost?" accessed April 20, 2012, http://gradschool.about.com/od/medicalschool/f/MedSchoolCost.htm.

Most medical students in both MD and DO programs start out with caring ideals, which are then often crushed in the reality of clinical training in profit-based health care systems. The stresses of practicing medicine in ways that minimize cost and maximize profit take their toll not only on patients but also on clinical physician educators and medical students. The majority of students in several studies reported experiencing verbal abuse[19] during the clinical phase of their training. Though some might consider this a rite of passage and a means for learning to apply skills under pressure, some of it may also be due to the above described stresses of an industrialized health care delivery system's pushing clinical teachers to their emotional and social breaking points.

These emotional, financial, and professional pressures clash painfully with the second systematic obstacle: many patients demand time-intensive, individually nurturing and caring treatment at bargain prices. Some see their physicians with laundry lists of self-contradictory expectations. Doctors are supposed to not be rushed but take plenty of time to personally get to know each patient, yet health care costs and insurance premiums are supposed to be minimized. Doctors are asked to refrain from mechanistic, overly technological approaches, but many patients expect the whole barrage of state-of-the-art diagnostic and treatment options they have read about, even if some of those might not be prudent courses of action in their particular case. If doctors refuse or advise alternate courses of action, they open themselves up to accusations of participating in a conspiracy of multi-national pharmaceutical companies, which use suffering to maximize profits, or of being manipulated puppets of greedy HMOs.

Not all of the sources that patients use are trustworthy. Television programs and print media increasingly blur the line between editorial content and advertising. Myriad pieces of advice trigger multiple, competing paradigms. The resulting confusion, combined with a backlash against past generations' naïve faith in technological progress, presents fertile ground for distrust in science, gullible longing for "alternative" approaches, and the third of the above listed, systematic obstacles: anti-scientific tendencies. This trend is found not only in the general population but also in some modern philosophers' anti-intellectualism. Cited out of context, both humanistic and scientific claims can be abused to lend undeserved credibility to pseudo-scientific business schemes. Rumors abound, and long debunked myths continue to circulate. Few patients have the media literacy to tell sound from unsound information and to thoroughly evaluate authors' credentials or studies' methodologies.

[19] William E. Stempsey, "The quarantine of philosophy in medical education: Why teaching the humanities may not produce humane physicians," *Medicine, Health Care and Philosophy* 2 (1999): 4

Charismatic "snake-oil" distributors offer reinterpretations of a world that fails to give us the soothing reassurance that most of us crave. Science and evidence-based medicine refuse to offer quick fixes and easy solutions. Each scientific realization brings new questions and uncertainties. Each medical treatment comes with payoffs and side effects.

Phronesis, the above mentioned practical wisdom that helps us adapt to situational challenges, may have the potential to guide doctors and patients through this labyrinth of expectations and to re-evaluate their respective priorities. However, phronesis is likely to work best in a patient-doctor relationship that is based on mutual trust. This trust has systematically been eroded. If the erosion is due to dehumanizing practices, misinformation of patients through irresponsible, sensationalizing mass media portrayals of medicine, the slanderous and irresponsible statements of some pseudo-scientists, other factors, or a combination of all of the above is hard to tell and deserves to be analyzed in more detail in future papers.

6. Objections

Teaching phronesis is hard. Critics of this virtue teaching project may even consider it a lost cause and waste of scarce resources, citing weaknesses of both Aristotle's original view and of virtue epistemology's many different perspectives as their two main objections. This challenge is more serious than any of the previously mentioned difficulties, all of which can possibly be overcome with creative tenacity. It attacks the foundation of what we are trying to do. Unless Marcum and I manage to launch a successful defense, these objections could render a fatal blow to our vision.

6.1. First Objection

Contemporary virtue theories rest on Aristotle's ideas. If we find one of his assumptions to be unsound, then both virtue ethics and virtue epistemology have a problem. In light of some responsibilists' claims that moral evaluation is necessary for gauging epistemic success, we could consider Aristotle's cavalier attitude towards slavery in ancient Greece a counter-example for claims that virtuous agents act in intellectually (and ethically) optimal ways in any context. In response, Marcum and I might point out that virtue epistemology generally strives for justified belief rather than knowledge.[20] A moral realist might add that there is always the potential for culturally based epistemic distortion of Truth. A moral

[20] Marcum, *The Epistemically Virtuous Clinician*, 254, 257

relativist might suggest that different cultures form their own ideas of truth and that our disapproval of slavery merely shows our cultural imperialism and misguided psychological urges for moral certainty. Regardless of the (at this point indeterminable) truth value of either of these two meta-ethical views, both support the idea that nobody, not even an ideal virtuous agent is protected from having to make the best choice under less than ideal circumstances. We can hope that virtue improves our odds of choosing and thinking as well as we possibly can and that it helps us outperform our (hypothetical control group of) non-virtuous selves. As in any human endeavor, absolute, infallible certainty remains elusive, even for somebody who acts in an intellectually and ethically optimal manner.

6.2. Second Objection

Are virtues' normative nature and the role of habituation in their acquisition compatible with the unpredictable idiosyncrasies of truly creative and innovative thinking? Responsibilism comes to the aid here. If moral and intellectual virtue helps increase our level of personal and institutional support, we have more time and resources to move beyond prescriptive thought patterns into creative epistemic leaps and bounds. Responsibilist virtues do not restrict free intellectual exploration but simply create optimal conditions for it.

7. Conclusions

Fostering virtue and teaching phronesis are worthwhile goals, even if they fail to be the hoped-for cure-all. Regardless of its limitations, virtue epistemology has something to offer to our understanding of the quality of care crisis. To make a real difference, we need more than just virtuous physicians, though. In order to make a real difference, we need virtuous patients, virtuous journalists, virtuous hospital administrators, virtuous politicians, virtuous corporate officers, and virtuous philosophers. However, we must start somewhere. Responsibilist virtue theory's emphasis of social interaction is a promising model for teaching virtue to medical students. In order to counteract the problem of group instruction, our model will have to rely on mentorship structures that are to be implemented on a broad scale, so that they can provide targeted one-on-one guidance throughout students' journeys from their undergraduate experience to the clinical education level and beyond.

Medical training and practice are affected by dyadic and group interactions, all of which benefit from moving away from distrustful confrontation towards virtuous cooperation. Social nets—between a patient and a team of doctors, teachers and students, researchers, methodologically

sound studies' participants, editors, peers, and professionals applying the results, hospital or university staff and institutional review boards—abound. All of them are epistemic communities on the search for truth. Virtuous goals and excellence of character help all of them, individually and collectively. Teaching virtue is a gradual process that relies on skilled mentorship and motivated learners. It is my assessment that philosophy has a role in supporting this process. We must, as a discipline, use existing approaches in bioethics, epistemology of clinical reasoning, and teaching of liberal arts to develop a sub-discipline of medical philosophy or philosophy of medicine that seeks to intelligently and compassionately integrate scientific and humanist views instead of getting lost in past differences, distrust, and mutual contempt. Philosophy and medicine have a lot to offer to one another. We have to start talking.

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