



Applying Habermasian “ways of knowing” to medical education

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ABSTRACT

Different ways, by which we come to know something, are usefully applied to the pedagogy of medical education. Jürgen Habermas described three “ways” of knowing. These are empirical-analytic knowing (data collection), historical-hermeneutic knowing (understanding of meanings), and self-reflective critical knowing. These “ways” of knowing have an epistemological basis, which is able to be traced from the classical and medieval epochs of philosophical thought. Given that doctor-patient interactions have a fundamental basis in morality, the three “ways” of Habermas can be applied to the pedagogy of medical education. This fosters a clinical practice characterized by life-long, self-reflective learning. The beneficent action which follows, based on self-reflection, and impelling the clinician to act as an agent of change, benefits both patients and clinicians. Understanding the importance of Habermas’ three “ways” of knowing, impels a re-balancing of undergraduate and post-graduate medical education curricula, which would foster a progression from empirical-analytic data collection, through a historical-hermeneutic understanding of meanings, to self-reflective critical knowing as a life-long objective in clinical practice.

KEY WORDS: Epistemology, Habermas, medical education, reflective learning

INTRODUCTION

In medicine, there is an inescapable intertwining of the technical aspects of being a physician with the moral motivation toward the *telos* of medicine, this *telos* being the Good of the patient. An understanding of epistemology is an important pre-requisite, as is clinicians allowing themselves to attend to the suffering of the patient (as “the other”) and practicing in a way which is fundamentally reflective. What follows is predicated upon the understanding that, since doctor-patient clinical contacts should be seen primarily as interrelations among persons, they are necessarily moral encounters. Hence, morality is fundamental to the practice of good medicine, rather than something to be “applied” intermittently. Different ways by which we come to know are usefully applied to the pedagogy of medical education. Herein, we focus on the exposition of Jürgen Habermas theory of “ways” of knowing, with a special focus on its epistemological basis.

HISTORICAL EPISTEMOLOGICAL UNDERPINNINGS

Epistemology is concerned “about knowing and is about knowing how we know” [1]. Thus, it explores the sources, structure and limits of knowledge. It is understandable that clinicians view the only “real” knowledge, as which is derived from empirical

science. Contemporaneously, “science” is popularly associated with the mantles of objectivity, universality, knowable truth, and an apparent cognitive superiority [2]. In contrast, moral beliefs are associated with subjectivity, privacy, uncertainty, and are seen to lack “authority to claim deference” [3]. Empirical scientific knowledge is, however, only one-way, in which we come to know. Access to data alone cannot address the importance of concepts such as value, goodness, or wisdom.

Classical and medieval philosophers influenced thinking about ways of knowing, and educational pedagogies, in an enduring way. On the one hand, Plato argued that knowledge is a “fixed unchanging commodity” and thus, according to the logically attached pedagogy, teaching becomes a “process of prescribing and imposing the set knowledge,” with “teacher-set, specific objectives, a concentration on content and an emphasis on standardized testing and measurement of performance” [4]. On the other hand, Protagoras argued that knowledge is a “dynamic, ever-changing commodity” and thus, according to the logic attached to this pedagogy, teaching is a “process of facilitating, assisting pupils to explore, enquire and experience.” Where “objectives are flexibly set ... leading to independent learning” [4]. Abu al-Ghazali, amongst others, promoted an Islamic scholarship partly derived from Plato’s exposition as

fixed knowledge from above, and partly from that of Protagoras as experiential knowledge derived empirically. He combined both into a form of knowledge which impelled practical action for Good as the only authentic knowledge which could impel Aristotle's *eudaimonia* (from the Greek, *flourishing*) [5].

Ghazali spoke of knowing, as a moral entity and thus the importance of each individual acquiring it not only for their personal benefit but for the benefit of all [6]. Since the role of knowledge was to impel beneficence, it must be informed and well-directed. St Thomas Aquinas provides an important historical nexus between the seemingly disparate moral philosophical traditions of the ancient Greeks (especially Aristotle), Christianity and Islam. Aquinas' exposition transcended both an absolutist dismissal of human ability to negotiate with the truth and thus to require a set of absolute rules, on the one hand, and the situationist dismissal of all absolutes, on the other hand [7]. The mean between the two ends takes the form of what can be termed "practical action," one informed by both a sense of being guided by over-arching rules and some confidence that these rules can be negotiated and applied appropriately by humans functioning in practical circumstances. Thus, when Aquinas rediscovered Aristotelian thought by way of the scholars of Islam, he was able to incorporate knowledge impelling practical action as *synderesis* in his *Summa Theologica*, describing it as an inborn faculty seeking knowledge and then acting on it [8]. Put another way, wisdom implies virtue, inbuilt courtesy of natural law, and combining both rationality and empiricism, so allowing discernment as to the most apposite (Good, Right, Just) action to take [9].

Mark Holowchak sharpens the sense of the inherent age-old wisdom to be found in the notion of "practical action" when he identifies the educative model of the Stoics as featuring "self-knowing, the need for logic and critical thinking for informed decision-making, (and) learning as preparation for life" [10]. He draws upon Martha Nussbaum [11] to describe the resulting pedagogy as one that embodies the examined life (critical reflection), inter-subjective connectedness, being able to put oneself in the shoes of the other, and, furthermore, respect for scientific understanding and the seeking of practical wisdom [12]. Holowchak's perspective leads directly to consideration of the work of Jurgen Habermas who employs a cognitive scientific notion of "knowledge-constitutive interests" to undergird his proffering of self-reflective knowing as constituting the seat of practical wisdom.

JÜRGEN HABERMAS - "WAYS" OF KNOWING

At least in part as an early reaction to logical positivism, which he derides as "epistemologically the severance of knowledge from interest" [13], and an approach to understanding in which "we disavow reflection" [14], Habermas further developed the thoughts of his predecessors to apportion "knowing" into three "ways" based on connections he identified "between logical-methodological rules and knowledge-constitutive interests" [15]. These three ways are empirical-analytic knowing, historical-hermeneutic knowing, and self-reflective, or "critical"

knowing [16]. These "knowledge-constitutive interests" guide the search for knowledge, are universal, transcendent, and exist a priori [16]. They are fundamental, invariant, and they can be ordered.

Empirical-analytic knowing derives from cognitive, technical control and focuses on data capture in what is known. The truth is about facts - derived from ontological or empirical observation of data. Historical-hermeneutic knowing is derived from cognitive interest in understanding meanings, which is in turn impelled by inter-subjective human communication, rather than by empirical data collection. Put another way, historical-hermeneutic knowing involves understanding what the facts mean. Self-reflective or "critical" knowing derives from cognitive interest in emancipation - The drive to discern truth and to be free in one's own knowing. The essence of this third way of searching out the truth is in reflection on the knowledge gained as the basis for *praxis* (practical action). Habermas incorporates both empirical-analytic knowing and historical-hermeneutic knowing, while at the same time superordinating both of them, in his third way of knowing - Self-reflective, or "critical" knowing. As part of this Habermas argues that there is no knowing truth without coming to know oneself, perhaps for the first time, and so being changed and becoming an agent of change [17].

Self-reflectivity is more than a compromise between the first two-way of knowing. It constitutes a third, "critically-balanced" way of knowing, necessary for the highest order of moral decision-making. Impelled by our drive to be autonomous and emancipated, we need to critically reflect on the facts and their meanings for the self, the one who is now both the agent of knowing and the agent of change. It is this self-knowledge which "anchors a reflective self with others in social and societal interactions" [18], and which brings about *praxis* (from the Greek, *practical action*).

Habermas' third way of knowing is also seen here as appropriate for developing life-long learning habits. This in turn leads to "thinking about one's own thinking" [18], and to self-interrogation, itself leading to active learning, and with particular reference to philosophy or critical reasoning, a means of improving a thinker's internal consistency of beliefs, opinions, and attitudes [19]. Being aware of unexamined or uncritically accepted beliefs and biases is a necessary adjunct to moral decision-making in clinical situations.

All three Habermasian epistemic ways of knowing are active both across and within different educative disciplines [20]. Yuri Koszarycz paraphrases these ways of knowing in the education setting as technical, interpretive, and critical, respectively, and quotes Habermas as saying "most education leads to submission and acceptance, whereas critical evaluation leads to liberation and change" [21].

APPLICATION TO MEDICAL EDUCATION

Aware of these insights, it is possible to look again at medical education [22,23]. A model of empirical-analytic teaching

implies that knowledge is power, such that the teaching clinician is an expert and the student significantly less so. The expert is the custodian of the repository of knowledge to which the student aspires. It fosters a primarily didactic way of lecturing to the student. Examination determines the reproducibility of the knowledge that the student has gained. This model can be completely appropriate when teaching a particular skill (for example, venepuncture) where there is little to no need for understanding nuances of meaning, for students to offer their own interpretations of how to do it and where each unsuccessful attempt is increasingly painful for the patient.

A model of historical-hermeneutic teaching implies that the balance of knowledge is still with the teacher, but that some knowledge already resides within the student (from, for example, pre-reading). Knowledge needs to be explored in the contexts of meaning and understanding. There is some negotiation about understandings, extended and so to be made complete, by dialogue within a partnership of teacher and learner. Although a partnership, the teacher has more experience in understanding in the field at hand. The examination requires interaction between teacher and student to explore the extent of the student's understanding. It is apposite when there is no single correct answer, but a set of possible courses open. This is not uncommonly the case in clinical decision-making.

A model of self-reflective knowing impelling practical action is a development or synthesis from both of these models. In medical education, serious errors need to be corrected in a didactic way. Misunderstandings of meaning or culture can be explored with the teacher progressively divesting power to the student learning progress is made. Thus, praxis is empowered within the student. Under this model, the student is self-motivated to learn. The examination requires that the teacher listen to what the student knows. The continuous process of learning through reflection, in an environment characterized by dialogue amongst experienced clinicians and students, wherein the senior clinician acts as a Socratic midwife [24], encourages the student to deliver the answer. Julia Annas may agree that this model encourages the learner to assess and evaluate what has been taught, and in what context and culture it has been taught [24]. This is most likely to bring the medical student to the point of being an agent of change, pursuing medical education (in its broadest sense) as a life-long occupation, and is fundamental to the paradigm of Habermas.

Reflection means reviewing events, both in their intellectual dimension and in their emotional dimension, in order to evaluate the event, and so learn from it. This process has been variously termed: "retrospective thinking" [25]; "action learning" [26]; "critical reflection" - "a total learning process that highlights a search for meaning, enlightenment ... and emancipation" [27]; an "active, persistent and careful consideration of any belief or supposed form of knowledge" [28]; and "critical thinking" - "reflective thinking that is focused on deciding what to believe or do" [29].

Donald Schon articulates as the aim of his "reflective practicum" first, to help students become more proficient in reflection-

in-action, and second, to invoke dialogue between student and teacher (whom he terms a coach, helping a student to see for themselves) which "takes the form of reciprocal reflection-in-action" [30]. Echoing Habermas, he lists the three models of coaching as "follow me!," "joint experimentation," and "hall of mirrors." Reflective practice for Schon involves "knowing-in-action, reflection-in-action, and reflection on reflection-in-action" [31]. In his practicum, his setting for learning is either a simulation which closely resembles real world practice, or participating in a real-world problem under close supervision [32]. In teaching registrars how to operate, one apposite structure borrowed from reflective teaching [33] is to ask the registrar, after completing the operation, what she did well, did poorly, and might do differently next time. This prompts the student to reflect on what she did and encourages a life-long pattern of critical reflection on operative steps to produce a better, albeit techno-medical, outcome. Schon points out that the student will do better in this practicum when fully able to partake in the dialogue.

Despite their divergent ontological, and indeed epistemological presuppositions, Michel Foucault echoes Habermas when he writes that "a certain structure of spirituality tries to link knowledge, the activity of knowing, and the conditions and the effects of this activity, to a transformation in the subject's being" [34]. This "self-transformation" however is not limited to the mature years of a clinician's practice. The importance of self-reflection should be taught early in medical school [35].

Reflective medical education includes an awareness of values and virtues. It is important to teach by modeling the technique to be used in clinical practice. Thus, medical educators, in all clinical teaching areas, should teach via dialogue and encouragement of reflection, so as to engage the student doctor in the practical action of medicine as an inter-subjective moral activity, set in the world-as-it-is.

CONCLUSION

Recognising that the doctor-patient relationship is fundamentally a moral encounter impels an epistemological exploration of Habermas' three "ways" of knowing. Thus, should follow a re-balancing of undergraduate and post-graduate curricula. With its *telos* being the Good of the patient, this pedagogy should foster a progression from empirical-analytic data collection, through historical-hermeneutic understanding of meanings, to self-reflective critical knowing as a life-long objective in clinical practice.

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