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Kotzee, Hendrik; Paton, Alexis; Conroy, Mervyn

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Towards an empirically informed account of phronesis in medicine

Authors: Ben Kotzee, Alexis Paton and Mervyn Conroy

Abstract

In the field of medical virtue ethics, the concept of '*phronesis*' (or practical wisdom) plays a crucial role. Indeed in medical ethics, the good ethical judgement of the medical practitioner is of such importance that Pellegrino and Thomasma (1994) have called *phronesis* 'medicine's indispensable virtue'. In recent years there has been a flurry of interest in *phronesis* in medicine and a number of important theoretical questions have been identified regarding *phronesis*: (1) is *phronesis* more akin to thinking or theorising or to feeling and intuiting?, (2) can *phronesis* be communicated and explained or is it individual and personal? and (3) is *phronesis* needed in all decision-making in medicine or only in the making of decisions that are ethically fraught? In this paper we argue that, while these questions have received attention on the theoretical level, empirical investigation has the potential to shed light on these questions from the perspective of medical practice in the real world. Indeed, because virtue ethics insists that virtuous action can only be understood properly in the context of real decisions (and not in the abstract) there are good grounds for thinking that understanding *phronesis* must involve attention to real world particulars. In particular, we hold that empirical investigation of *phronesis* will have to involve in-depth narrative interviewing and analysis along with an arts based approach to presentation of findings.

1. Introduction

In medical ethics, a large body of work exists on the virtues that enable good medical practice. Medical virtue ethics singles out a number of virtues of the good doctor for attention; amongst others, these include empathy (Batt-Rawden, 2013), care (Leffel *et al.*, 2014), truthfulness (Jackson, 2001, 2002) and justice (Carel and Kidd, 2014). According to medical ethicists like Pellegrino and Thomasma, however, *phronesis* (or ‘practical wisdom’) ‘occupies a special place’ among these virtues. (1993: 83) For Pellegrino and Thomasma, *phronesis* is ‘indispensable’ to good medical practice because it coordinates all the different moral virtues that the doctor must bring to ethical decisions as part of wise moral action. This paper outlines the background to a current dispute about how moral judgements are made and how this disagreement shapes professional education and development. It is argued that empirical work is necessary to inform the required normative debate and that a particular narrative method is the best way to do this.

2. From rules to *phronesis*

The most ethically challenging decisions in medicine are often cases in which there are multiple conflicting moral and medical goals that the doctor feels bound to pursue. In many troubling cases in medical ethics, the clinician must, for instance, weigh up the different goods that they can pursue for the patient – should they seek to prolong life or ease pain in the palliative care setting, for example. On occasion, the good for a particular patient must also be weighed up against the good for others

– for instance, who, out of a range of suitable patients, should benefit from an organ transplant when only one organ is available. Furthermore, even when it is clear what good to pursue, there are often multiple ways in which this good can be promoted – is it best, for instance, to prescribe a drug, advise on nutrition or, *in extremis* advocate surgery, when faced with co-morbid conditions like overweight, high blood-pressure, high cholesterol, etc.

When faced with such uncertainty, the response of many policy makers, administrators and even clinicians is to reach for the rule-book – that is, to make ever more intricate guidelines, protocols and procedures to determine what clinicians must do in morally fraught situations. Upshur (2014), for instance, documents the growth of clinical practice guidelines over the last 25 years (he notes that 73 clinical guidelines could be found in PubMed in 1990 and 7,508 in 2012). However, in the face of this tide of ever-closer codification of good medical practice, many clinicians bemoan the loss of their professional autonomy. Greenhalgh and others (2012), for instance, document practitioners' resistance to (and, practically speaking, sabotage) of one system¹ that attempted to codify and constrain physicians' decisions. The paradox involved in real clinicians' experience of the rules, guidelines, protocols, etc. that today govern clinical practice is this: whilst these rule-based mechanisms are supposed to bring clarity, accuracy and consistency to clinical judgements and make it easy to know what to do, doctors themselves experience the growth of rules, guidelines and procedures as alienating, confusing and even demeaning.

¹ The UK National Health Service's 'Choose and Book' out-patient referral system.

The basic struggle between rule-based governance of clinical decision-making and clinical judgement is played out in a series of different contests. Often, the struggle is portrayed as one between evidence-based medicine (EBM) or, more broadly, scientific or rationalistic approaches to medicine and approaches that are more 'humanistic' and stress the role of tacit knowledge, clinical experience, professional judgement and even 'intuition' (Braude, 2012) in clinical decision-making. Sometimes, the struggle is over the relative power given to individual practitioners over and against administrators or over patients' expectations that they be treated as persons, not conditions. Moving to the realm of medical ethics, specifically, there is a strong current of thought (associated with virtue ethical thinking, but also with contextualist or particularist approaches) that suggest that ethical decisions simply cannot be made in a general fashion, but need to be made on a patient-by-patient basis. As Tyreman puts it:

'A rule-governed decision-making process fails at the crucial point where there is conflict over competing goods or which rules apply... It assumes that there is a right (and wrong) answer rather than a range of possibilities. The best doctor will...identify what is good and best for *this* patient.' (Tyreman, 2000: 121)

But how does the clinician *identify* what is good for the particular patient accurately and how do they bring about this good as best as possible through intervention? Clinicians reach for a number of concepts to explain what exactly this ability is that the good clinician is supposed to have to understand the good for the patient and how to bring it about. These include 'clinical judgement', 'experience', 'tacit

knowledge' and 'professionalism', but all of these concepts in turn need to be defined and unpacked. In medical ethics and the philosophy of medicine, one concept in particular is increasingly reached for to explain *what* it is that the expert clinician knows or can do in advancing the individual good for the individual patient – 'phronesis' or 'practical wisdom'. Starting with the work of Jonsen and Toulmin (1988) and much influenced by Pellegrino and Thomasma (1993), a number of scholars have built their conceptions of what good ethical judgement in medicine is on the concept of *phronesis* (e.g. Montgomery, 2006; Kaldjian, 2010 and 2014; and Toon, 2014). However, this approach has also been around long enough to generate a critical scholarship. Braude (2012) has argued that *phronesis* in medicine needs to be supplemented by intuition ('*nous*' in Aristotelian thinking). Waring (2000) and Hoffman (2003) hold that Aristotle himself saw medical knowledge as craft or technical knowledge ('*techne*') and not as a form of wise general ethical deliberation ('*phronesis*'). Kristjansson (2015: 305 - 307) holds that, arguably, contemporary medical virtue ethics is more informed by MacIntyre's view of *phronesis* than Aristotle's. He points out that 'MacIntyre's notion is wider than Aristotle's in incorporating paradigmatic examples of what Aristotle would specify as *techne*...' (2015: 305) What is at stake between more Aristotelian and more MacIntyrean approaches to *phronesis* is whether we can distinguish between technical and ethical aspects of the practice of medicine (as Aristotle seems to have held) or to hold, with MacIntyre, that all technical decisions within a practice (like medicine) already has an ethical dimension.

3. *Phronesis* in Medical Ethics: from Aristotle to Pellegrino

In Aristotle's system of ethics, the moral virtues like honesty, kindness, justice, courage, etc., do not by themselves prepare the moral actor for moral action. According to Aristotle, while the moral virtues ensure that we aim at the correct goal in moral action, it requires a form of practical moral know-how to bring those goals about. This is *phronesis*. For Aristotle, *phronesis* is wisdom in the domain of *praxis* (that is practical moral action) rather than in the domain of *episteme* (or science). *Phronesis* fulfils two cardinal roles in Aristotle's virtue ethics. Firstly, it completes the moral virtues in that it provides the practical know-how needed to turn virtue into successful action (this is the constitutive role of *phronesis*). Secondly, it enables the moral actor to weigh up the importance of the competing goals that they themselves (or others) may have in any moral situation (the integrative role of *phronesis*) (Kristjansson, 2015: 303).

One of the biggest problems in understanding *phronesis* in Aristotle is becoming clear on whether it is an essentially theoretical or intellectual ability (an ability to think well) or a practical moral ability (an ability to do the right thing). On the one hand, Aristotle quite clearly asserts that *phronesis* is an *intellectual* virtue and *not* a moral virtue; on the other, Aristotle holds that *phronesis* is practical, rather than scientific wisdom. In the debate between broadly scientific and humanistic perspectives on medicine, it appears that Aristotle takes no clear side.

As Russell (2012) explains the answer is most likely to be 'a bit of both'. *Phronesis* in Aristotle has four dimensions. Firstly, *phronesis* has to do with having 'comprehension' (*sunesis* or *eusunesis*): this is the ability to recognize the morally

important features of a situation and to assess what is important to achieve in such a situation. Secondly, *phronesis* requires good sense (*gnome*): this is an ability to be reasonable and to see a matter from a number of points of view. Thirdly, *phronesis* requires a form of intelligence or a form of quick and overall grasp of the situation that one finds oneself in and of what is to be done in that situation. According to Russell, while Aristotle describes this constituent part of *phronesis* as *nous* and while *nous* is more often associated with scientific than with moral knowledge, as a form of intelligence *nous* is present in both good theoretical discovery and in good practical deliberation. Indeed, Braude (2012) makes his case for intuition in medicine in much the same terms. Fourthly, for Russell, *phronesis* requires the cleverness (*deinotes*) needed to plan and execute an effective moral course of action.

For Aristotle, *phronesis* is not only being able to plan or being able to reason in a means/end fashion – it requires seeing situations in a morally intelligent and perceptive way (Russell, 2012: 20 – 24). The best way to explain what this ‘morally intelligent’ seeing is, is by asking what kind of activity the *phronimos* (the person with *phronesis*) engages. The activity of which *phronesis* is the excellence is practical ethical *deliberation*. While this form of deliberation is a deeply *intellectual* activity, it must not be confused with theoretical or scientific reasoning. A contemporary way of making clear the difference is to say that, while scientific reasoning is descriptive – in that it aims to describe ‘how the world is’ – moral deliberation is normative in that it attempts to settle ‘how the world of human actions or affairs should be’. Rather than descriptive (scientific) reasoning, *phronesis* is a form of practical normative reasoning.

Applying the concept '*phronesis*' to medical ethics, Pellegrino and Thomasma hold that medicine tends to see 'clinical judgement' mainly as an intellectual matter in the first sense – that is reaching the right scientific conclusions based on the evidence available. While not drawing the distinction between scientific and normative thinking as boldly as Russell, they hold that, because the doctor must seek what is good for the individual patient (a matter not settled by science alone), clinical decisions involve an 'integration of scientific and moral reasoning and judgement' found in *phronesis*.² (Pellegrino and Thomasma, 1993: 90) Kaldjian goes further and suggests that *all* clinical decision making is a *form of phronesis*. Firstly, both clinical decision making and *phronesis* must involve selection of the good for the patient; secondly, the elements of clinical judgement (understanding the mechanism of the problem, understanding the means available to address it and understanding the priorities of the patient) appear very much like the elements of wise decisions; and thirdly, both *phronesis* and clinical judgement are learned over time in practice-based communities (and not as pure theory or principles).³ (Kaldjian, 2010: 560 – 1) This matter – whether *all* clinical judgement involves *phronesis* or whether only those cases in which there are distinctively ethical considerations in play involve *phronesis* – presents the interesting problem of understanding whether all (or only some) medical problems are essentially ethical.

² It is important to point out that this integration only makes sense on the assumption that medicine has a particular end goal or *telos*. The goal of science, one may reasonably suppose, is knowledge, but, as Pellegrino and Thomasma (1993: 52) explain, the *telos* of medicine is the restoration and promotion of health. This, too, is an important difference between science and medicine – they *aim* at different things. We thank an anonymous reviewer.

³ For more on the importance of communal story-telling, see section 7.

Kaldjian's (2014) view is much influenced by MacIntyre. In his recaptulation of virtue ethics in *After Virtue*, MacIntyre sketches an account of meaningful human activities in terms of 'social practices'. For MacIntyre, a 'practice' is 'any coherent and complex form of socially established co-operative human activity' (1981: 187) and in the literature on professional ethics, MacIntyre's 'practice' view has proven very influential. For MacIntyre, social practices – like, for instance, practicing law, architecture or medicine – are individuated by their '*telos*' or goal.⁴ For MacIntyre, this *telos* is agreed and explored socially and is not fixed for all time (Knights and O'Leary (2006: 15); moreover, MacIntyre holds that in order to pursue this goal, characteristic sets of *virtues* are agreed within the practice that constitute agreed 'good practice'. Translating this view to medicine, one may say that, for MacIntyre, the whole of the practice of medicine would be 'ethical' in the sense that what counts as good medical practice is determined in terms of the virtues that are agreed by the community of medical doctors as being good practice. For those who see medical virtue ethics through a MacIntyrean lens, the community of practitioners of medicine is important in settling what counts as good practice; moreover, they stress that good practice can only be learned in a community.⁵

4. Studying *phronesis*

While they all stress the importance of practical wisdom in the practice of medicine, none of the authors listed above explore the actual psychology and manifestation of *phronesis* in real doctors' decision-making. Critical scholarship regarding *phronesis* has tended to answer questions about the nature of *phronesis* from the armchair;

⁴ In the context of medicine, we can readily agree with Pellegrino and Thomasma, that the *telos* of medicine is 'health'.

⁵ See section 6 on studying *phronesis* narratively for more on the importance of community.

that is, it has relied on well-known examples and on reasoning from these examples to characterise *phronesis*. However, many of these theoretical questions about *phronesis* can also be asked empirically. The question is: what does *phronetic* decision-making feel like or seem like to real expert practitioners of medicine when they look at wise decisions made over a whole career of practicing medicine – either by themselves or by others?

- Does *phronesis* seem to them more like a form of thinking, theorising or deliberating that is like scientific thinking?
- Or does it seem more like making intuitive or emotional judgements (the flash of insight)?
- Is *phronesis* something that can be captured in words or otherwise communicated in their experience?
- Or can it only be grasped by the individual in a moment of insight?
- Is the moral dimension of *phronesis* always in play when one practices medicine?
- Or does it only activate in those instances when something distinctly ethical is at stake?

Asking real medical practitioners what *phronesis* feels like ‘from the inside’ (or asking whether they recognise the concept at all) is *not* to reduce the philosophical and conceptual matter of what *phronesis* is to psychology. Rather, it is to hold that theorising needs to be tested for consistency against real experience. It is also to hold that real experience can generate intuitions that inform theorising. In medical ethics, there is today much greater acceptance of theorising that is empirically

informed (Christen *et al.*, 2014) and in the field of medical virtue ethics the benefits of describing real cases and experience are particularly attractive as virtue ethics *insists* on the importance of the features of the particular case in deciding what is the right thing to do.

Secondly, and perhaps more importantly, the reason why one might want to study *phronesis* in medicine is not only to understand it, but also to promote it – that is to help medical students and young doctors to become more practically wise or to create the kinds of medical institutions that will allow and promote wise practice. One cannot design a medical system that allows and promotes *phronesis* if one does not know (empirically) how the current system may promote or smother its development or if one does not know (empirically) how to bring about the desirable change one wishes to see. Neither can one teach a student or medical practitioner how to be practically wise if one does not know (empirically) what characterises their decision-making at present or if one does not (empirically) know what is the most effective way for a person to develop *phronesis*.

Putting flesh on the bones of empirically informed bioethical discussion of *phronesis* is, however, very hard. While many medical and bioethicists advocate for the importance of the development of *phronesis* in medical education and practice (see the impressive list above), the actual acquisition and development of *phronesis* has been little studied in medicine.

This leaves the field in somewhat of a bind, for the main rival to a *phronetic* approach to medical decision-making – the rule-based (usually deontological) approach to

ethical medical decision-making – has available a very well-established and powerful body of methods to measure the growth (or not, as the case may be) of logical and rational reasoning about ethical dilemmas in medicine. A useful way to see the terrain is as follows. On a rule-based way of thinking about the nature of moral decision-making in medicine, what is the right way to make an ethical decision is something that can be captured in codified rules, principles or guidelines. Moreover, what is needed for individual clinicians in order to do the right thing is for them to know and understand the rule in question and to be able to apply that rule in a particular context. How clinicians understand and reason about principles in medicine is a matter that has been studied very extensively. Scholars who study the moral development of medical students and doctors from what is called a ‘cognitive’ perspective draw on moral judgement tests in the tradition of Kohlberg (1981; 1982) in studying the sophistication of doctors’ thinking about moral problems. A large body of work exists on the use of such moral judgement tests in medicine (Baldwin and Self, 2005, Bebeau, 2006) and this is not matched by psychological work on the development of moral virtue in medicine. (Kotzee and Ignatowicz, 2015)

According to Kohlberg (1981; 1984) moral development from childhood into adulthood takes place through the gradual unfolding of different modes of moral thinking. For Kohlberg, the young child tends to think in terms of self-interest (pre-conventional thinking) and progresses in later childhood and early adolescence to thinking of right action in terms of what is socially desirable (conventional thinking). Eventually, the adult is able to transcend conventional thinking and become capable of independent thought about moral principles (post-conventional thinking). Compared to *virtue* approaches to ethics, the *cognitive* approach associated with

Kohlberg's work studies mostly patterns of thinking and a number of cognitive psychological instruments (like the Moral Judgement Interview or MJl and the Defining Issues Test or DIT) are much used to study moral thinking in medicine. Together, tens, if not hundreds of studies have used these instruments to study moral development in medical students and doctors. One great advantage that rule-based (often, specifically deontological) approaches to medical decision making have over virtue based approaches, then, is that there exists a considerable body of psychological scholarship on the main concepts in moral reasoning. By contrast, psychological study of the virtues in medicine is in its infancy. (Kotzee and Ignatowicz, 2015)⁶

What is the case for the moral virtues generally, is also the case for *phronesis*. Admittedly, there is a developing study of wisdom in psychology with a number of different wisdom scales entering use. Glück *et al.* (2013), for instance, survey psychometric measurements of wisdom and highlight the psychological measures of wisdom that are already in common use. As Glück *et al.* point out, however, there is no agreed definition of wisdom in psychology and all four of the most prominent measures measure wisdom constructs that are far removed from what Aristotle would call '*phronesis*'. As Glück *et al.* make clear, most wisdom research in psychology focuses on exploring 'personal wisdom' (that is the insight a person has gained about their own life and experiences) or 'general wisdom' (that is insight a person has gained into the human condition generally). While no doubt an admirable trait in any person, there is no obvious practical link between personal or general wisdom in this sense and what researchers in medical ethics would be especially

⁶ Although, see section 7 below.

interested in – the ability to make good clinical judgements or wise decisions on behalf of patients. It therefore looks highly doubtful that the measures of wisdom that already exist in psychology can simply be adapted for research on doctors' ethical decision-making.

5. The challenge of studying *phronesis*

The central challenge in the area is how we are to study *phronesis* while doing justice to the *complexity* of the concept. According to Kristjansson (2015) *phronesis* is generally understood to be the wisdom to judge the right action to be performed in a particular situation when different goals would call for different actions. Thus, by its very nature *phronesis* cannot be reduced to rules for action, or an algorithm for decision-making. This has led scholars like Hursthouse (1999) to suggest that *phronesis* is uncodifiable. Indeed, Irwin (2000) explains that Aristotle himself saw the study of virtue as an 'inexact science'. This does not mean that virtue is a completely subjective matter that cannot be studied; it is only to say that the extent to which a course of action is 'virtuous' is a complicated matter that requires much detailed knowledge and careful judgement of people, and the situations in which they act. As Curren and Kotzee (2014: 9) argue, the complexity involved in judging the character of a real person can be like the complexity involved in understanding a character in a novel; sometimes the amount of subtle information one needs to judge someone's virtues is much closer to reading and reflecting upon a rich book (or 'story') than to noting a few numbers on a standardised test.

For this reason, theoretically informed bioethical study of *phronesis* is much more likely to draw on qualitative approaches – and specifically in-depth narrative research – than quantitative psychometric approaches. As Zagzebski points out, people often

learn about virtue through first hand, narrative accounts of other people's actions which are thought of as virtuous (Zagzebski, 2013: 7-8). Put simply, people understand what it is to be, say, honest, in terms of the examples of persons that they, and others, regard as honest. Furthermore, people often communicate about what it is for a person to be virtuous narratively – that is by telling stories about people (real or fictional) – and how they have been or have not been virtuous. As MacIntyre puts it: 'generally, a stance on the virtues will be to adopt a stance on the narrative character of human life.' (1981: 144) There is little reason to think that this would be any different when it comes to *phronesis*; in fact, Aristotle sees the development of *phronesis* mainly as a matter of emulating and being taught by people who are themselves practically wise, and who tell stories about being wise.

Within the social sciences more broadly, narrative or storytelling approaches are important for the same reasons. As Hardy noted, 'narratives are integral to social life' (Hardy, 1975) such that stories are not just sets of facts, but like Zagzebski's exemplar narratives, stories are 'organising devices through which we interpret and constitute the world' (Lawler, 2008). Stories are a social and cultural resource that people use to make sense of their lives and others (Lawler, 2008), and one aspect of their lives and culture is morality and the associated moral education that builds morality.

Just as Zagzebski views narratives about exemplars' traits and actions as integral to moral education, so too do social science accounts of narratives link stories with learning right and wrong. Life stories, the factual stories we tell each other about each other, contain within them rules that adhere to what Lawler calls 'intelligibility

norms', norms that are local in time and space to our culture, and which contribute to our understanding of morality within our own community and culture (Lawler, 2008).

This approach to understanding virtues through storytelling and stories about exemplars not only reflects the different contexts in which people learn to make decisions, but allows the identification of these exemplars to be revisable should context or circumstance change (Zagzebski, 2013: 8). This type of flexibility allows virtues, and by extension *phronesis*, to be open to the outcomes of moral debate within and across practices and communities. Narrative studies are embedded in the hermeneutic tradition, focusing on the investigation of meaning and interpretation. According to this view, the importance of a story is not what happened in the story, but like a parable, what the significance of the story is to the teller, the listener and the culture within which the story is told (Lawler, 2008). Narratives about exemplars are especially significant as they promote moral education through stories about exemplars.

A qualitative approach that values lived experiences and the first-hand accounts of these experiences through story-telling is what is needed to fully understand the extent to which *phronesis* plays a role in moral development in medicine. This approach has already been used with some success in nursing studies examining *phronesis* in practice (Danbjorg and Birklund, 2011; Sorensen, 2012; Phillips and Hall, 2013; Eriksen et al., 2014; Farrington et al., 2015). The time is ripe to conduct similar studies in medicine and see what light empirical investigation can shed on

the theoretical puzzles that still exist regarding the nature of medicine's 'indispensable virtue' *phronesis*.

6. Narrative tools for studying *phronesis*

Above, we held that the study of virtue in medicine is 'in its infancy' compared with the study of moral reasoning. As we have seen, however, *narratives* (that can be the stories doctors and other health professionals tell in order to inform, to teach or simply to converse) do provide a vehicle to communicate what it is about a specific decision in medicine that makes it wise or unwise. In truth, such narratives have always been told in medical communities – it may just be that these narratives have not been recognised as what they are: an evidence-base that illustrates what virtue in medicine amounts to.⁷ No author has done more to advocate for the narrative turn in researching medical decision-making than Montgomery (1991 and 2006). In fact, Montgomery terms the specific character of rationality in medicine '*phronesiology*' (2006: 125); investigating decision-making in medicine, for Montgomery, is a matter of studying the extent to which such decisions count as practically wise. To illustrate how a narrative can serve to illustrate the *phronetic* character of good decisions in medicine, consider this case.

Jerome Groopman describes the case of a patient, called Alex, a physicist.⁸

Alex was diagnosed with life-threatening anemia and recommended a bone-marrow transplant by his own doctor, but approached Groopman for a second opinion. Groopman reviewed Alex's bone marrow biopsy and, while he recognised that Alex was suffering marrow failure, he did not agree with Alex's doctor that this was due to myelodysplasia or aplastic anemia. In particular, he did not agree with the primary doctor's suggested

⁷ We thank an anonymous reviewer for impressing this point on us.

⁸ The case is recounted in much depth in Groopman (2000). It is mentioned by Montgomery (2006: 128).

treatment – an unmatched bone-marrow transplant (a matched donor could not be found). Compared to Alex's doctor, Groopman was unsure what was causing the bone-marrow failure and he advised the comparatively slow-paced course of action of culturing Alex's bone-marrow in the laboratory to see how it behaves.

What stood out about Alex as a patient, for Groopman, was the difficulty of explaining to a physicist – a scientist who values certainty and intellectual understanding – that he could not be sure of what was the matter with his bone marrow. By comparison, Alex's primary doctor was sure and did recommend specific (but drastic) treatment. Groopman and Alex's primary doctor clashed bitterly, with the latter saying that Groopman's indecisiveness would cause Alex's death. The choice was Alex's and his decision came down to which of the two doctors he trusted more. When Alex's primary doctor said that Alex should not second-guess his advice and pointed to his own outstanding CV and accomplishments in the field of blood diseases as proof that *he* was to be trusted, Alex decided to follow the advice of the more cautious Groopman instead.

Matters soon took a turn for the worse. Alex contracted pneumonia that landed him in hospital for a month and Groopman, still not sure of the diagnosis, continued with the marrow culture and prescribed a growth factor to encourage white blood cell growth – despite knowing that this could trigger leukemia. Slowly, Alex's white cell counts improved and he began to recover. At the same time, Groopman's cultures showed that Alex's marrow was productive. This ruled out the primary doctor's diagnosis, but did not itself reveal what was the matter. Months later Alex had recovered fully and to this day, Groopman does not know what Alex was suffering from.

Groopman presents Alex's case as one where *intuition* lead him to follow a certain route (the cautious one) in diagnosis and treatment. Groopman also holds that, in this case, he was lucky to have been right! This may be so, but the example also shows much practical wisdom at work in how Groopman had to balance the certainties and uncertainties involved in his own thinking (as well as that of the primary doctor) and had to weigh up the advantages of decisiveness and caution in this case. It is *not* simply the case that Groopman was the more 'cautious' and the primary doctor the more 'decisive' in this case. About the bone marrow transplant, Groopman was certainly more cautious than Alex's doctor, but about administering

the growth treatment, *Groopman* was the more decisive (or risk-taking). Groopman also had to balance his uncertainty about what ailed Alex with enough confidence in his own judgement to over-rule Alex's doctor and he showed much interpersonal skill in winning Alex's trust – through honesty about the unknown and cautious optimism (rather than an appeal to technical expertise). What the case shows are the complexities – at once ethical and technical – that are at play in making judgements about what is best for an individual patient. The case also shows how clinical judgement is a case of weighing up different factors. The case shows that this weighing-up is not accomplished through a flash of insight or through an intuitive knowing what to do based on years of experience. Groopman describes his process of weighing up all the important factors as a process involving much careful thought – including theorising and experimenting with Alex's bone marrow in his lab. As such, the case shows that figuring out what is best for the patient *does* involve what we call theoretical knowledge.

However, the case also shows the relative importance of the demands of treatment and the demands of diagnosis. Recall that Alex was successfully treated despite the fact that Groopman could not reach a diagnosis of what ailed him. Intellectually, this feels unsatisfactory. Clearly, if Groopman could have diagnosed Alex's problem, he would have been able to treat him more effectively; without a diagnosis, we also do not know what the future holds for Alex and whether the disease may strike again. Given a choice between treating Alex successfully and understanding what ails him, however, the sensible course of action was and still is to focus on effective treatment. It is not that either Groopman or the primary physician necessarily prioritised the second over the first, it is that the field of medicine is such that the quality of thought that it requires is being able to make the best decision for a patient.

The quality of thought that is needed is practical wisdom – the wisdom to achieve the right thing for that patient – and not discovering the mechanics of what was wrong with the patient – the wisdom of theory. Aristotle labelled this difference as the difference between *phronesis* and *episteme*; but, in contemporary language, we can say that the rationality of medicine is practical rationality rather than theoretical rationality. This is not to minimise the clinical advances due to biomedicine at all! It is only to hold that, while decisions made on behalf of patients *draw* on science, they are not *identical* with science.

Groopman's story spoke to us because it illustrates so well the difficulty of making decisions under conditions of uncertainty and because of the range of considerations that Groopman had to balance in helping Alex. As Montgomery shows in her work, narratives like these are standard fare in medicine: during clinical or teaching rounds or in the presentation of cases at conferences doctors routinely tell stories like these about individual patients. Because difficult clinical decisions cannot be captured in hard-and-fast rules or protocols, Montgomery holds that doctors have no option but to tell salutary stories like these to represent how difficult clinical decisions are made. In fact, it would not be an exaggeration to say that learning what it means to be 'practically wise' will occur primarily in a communal setting where other doctors (seniors as well as colleagues) tell stories of decisions that they have made or have seen. MacIntyre (1981), for instance, holds that any practice (like medicine) is socially constituted and that *good* practice is essentially a matter of practicing in accord with the virtues that are admired by the community of practitioners. He writes:

'It belongs to the concept of a practice as I have outlined it... that its goods can only be achieved... in our relationship to other practitioners.' (1981: 191)

In this relationship, the sharing of narratives plays a crucial part because, for MacIntyre, virtues are essentially explained narratively – by telling stories about how certain people and actions exemplify virtue (see above). Above, we already encountered MacIntyre's concept of 'practice based communities' that define the virtues for their practice collectively. In this context, the theoretical frame afforded by MacIntyre's virtue ethics is considered to be very fruitful, because, for MacIntyre, the main way that new members are inducted into social practices is by way of the collective telling of stories about what makes for good practice in that community. Taking a MacIntyrean perspective helps explain the crucial role that narratives about good (or, sometimes, bad!) practice play in communities of practitioners: telling stories about good practice introduces new entrants to the tacit virtues and values that define the practice.

7. A systematic study of narratives of *phronesis* in medicine

While the growing literature on *phronesis* in medicine contains the telling of many stories like the one above, authors from the medical humanities (like Montgomery) have tended to collect and recount such stories opportunistically. Curious about exactly what *are* the stories told by doctors at various stages of their careers, we have designed a research project (Conroy et al 2016) to collect medical students' and doctors' narratives of *phronesis* in medical practice in the UK in a systematic way. We argue that virtues are understood narratively, and as such it is important to move the debate away from theory that describe examples of abstract or general features of *phronetic* decision, and instead examine examples of *phronesis* in action.

In our study, "*Phronesis* and the Medical Community" (funded for 2015 – 18 by the Arts and Humanities Research Council) we will conduct interviews, observations

and use diary methods to collect narratives of wise decision-making from 120 participating medical students and doctors. Participants will be taken from three medical schools and their associated hospitals in the West and East Midlands. These narratives will present interesting data to help us illustrate what *phronesis* means in current medical practice, to what extent it is possessed by practitioners and seen to be possessed at various stages of their career, and how it develops over time.

Conroy *et al.* (2012) have shown how one can analyse the stories that health and social care professionals tell about decision-making in terms of 'virtue continuums'. The method involves identifying all the different considerations that are in play in making a particular decision and showing how the *wise* decision in that situation is a matter of choosing (for each of those dimensions) a course of action between two extremes. Aristotle held that virtue lies in finding the mean between two opposite vices. Just so, our research will locate *phronesis* by identifying the different virtues that one must display in a difficult situation and finding the balance between them. For instance, in the example above, Groopman not only had to find the right mean concerning certainty and uncertainty, but also concerning honesty in his dealings Alex, courage in his dealings with the primary doctor, decisiveness (and no small degree of hope) in prescribing the growth factor, etc. Analysing *phronesis* narratives is a matter of identifying all of these dimensions and mapping them out.

Having identified the narratives that doctors and medical students at our study sites tell, we will identify ten such fictional stories to feed back to the medical education community. The stories will be dramatized, performed and recorded as a series of

video-clips linked to an existing virtual community (UoC 2016) to show the narratively constructed progression of moral development from the contained environment of medical school to interactions with other professions, hospital boards, and the community in the form of patients' family, patient representatives, pressure groups, press reports etc. These performances will serve as discussion and learning tools to aid in the teaching of medical ethics and professionalism. It is hoped that these dramatisations will illustrate for students and their educators not only the complexity of ethical decisions in medicine, acting as a moral debating resource but will serve as a potential source of narrative examples of wise and not so wise medical decisions in action during their education and future training.

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