Is the Four Quadrant Approach to Military Medical Ethics a Cargo Cult? A Call for More Unity between Philosophers and Practitioners

ABSTRACT

Moral theory should be practically useful, but without oversight from the philosophical community, the practical application of ethics by other institutions such as the military may drift into forms that are not theoretically robust. Ethical approaches that drift in this way run the risk of becoming "cargo cults": simulations that will never properly fulfil their intended purpose. The four quadrant approach, a systematic method of ethical analysis that applies moral principles to clinical cases, has gained popularity in the last ten years in a variety of medical contexts, especially the military. This paper considers whether the four quadrant approach is a cargo cult, or whether it has theoretical value, with particular reference to the more popular four principles approach. This analysis concludes that the four quadrant approach has theoretical advantages over the four principles approach, if used in the right way (namely, with all four quadrants being used). The principal advantage is that the four quadrant approach leaves more room for clinical judgement, and thus avoids the charge of being too algorithmic, which has been levelled at the four principles approach. I suggest that it is the fourth quadrant, which invites the user to consider wider, contextual features of the case, which gives the approach this key advantage. Finally, I make a more general proposal that theoretical ethicists should work closely with those practitioners who apply ethics in the world, and I call for a symbiotic relationship between these two camps.

INTRODUCTION

Anthropologists visiting remote Pacific islands during and after World War II found that the islanders had constructed makeshift versions of the technologies they had seen as a way of attracting goods: '[n]ot knowing where the foreigners' plentiful supplies come from, the natives believe they were sent from the spirit world. They build makeshift piers and airstrips and perform magical rites to summon the well-stocked foreign ships and planes.'[1] The islanders had been given a brief glimpse into a world of technology that they did not well understand, and had consequently created their own version of that world in the hopes of reaping the same rewards. Belief systems such as these are known as "cargo cults".

In 1974, physicist Richard Feynman complained of the rising phenomenon of 'cargo cult science'[2]: the perversion of scientific principles to support spurious claims and practices. He cited reflexology and spoon-bending as more obvious examples, but also worried about education, criminal justice, and psychotherapy. Feynman compared these practices to the Pacific islanders' beliefs: correct in form and legitimate to the untrained eye, but missing the essential ingredients that would give them true value.

My purpose in telling the above story is to draw attention to the worry that unexamined pedagogical approaches can result in cargo cults that are worthless, or even perverse. I will consider whether the four quadrant approach[3], popular with the UK military as a way of applying and teaching medical ethics, is a useful tool, or is at risk of becoming a cargo cult.[1] Consideration of some of the theoretical advantages of the approach will show that it is far from reaching the status of cargo cult, but that

---

[1] I hope the reader will interpret this merely as an entertaining analogy and not as insulting to the military by comparing their understanding of medical ethics to Pacific islanders' understanding of aviation and first world technology. To be clear, the analogy points to a similarity in type rather than in scale, and I am sure the gulf between how the military uses the four quadrant approach and how a philosopher would use it is not so large.

nevertheless a close relationship between moral philosophers and practitioners is the best way forward.

THE FOUR QUADRANT APPROACH

In 2008, Daniel Sokol wondered why the four quadrant approach had not enjoyed the popularity he had expected it to in the nearly 30 years since it had been first presented[4]. He noted that, while the book in which the idea had been first described was in its 6th edition, he could find only one academic paper describing its use.

Ten years hence, with the book now in its 8th edition, the literature is less of a wasteland when it comes to discussions and mentions of this approach to medical ethics decision-making[5-13].[2] Sokol's clear, reflective analysis, with useful, practical examples, may have helped to give the approach some popularity.

It is interesting to note the types of places that the four quadrant approach appears. The papers above are aimed at people such as nurses, consultants, paediatricians, and medical students; these people are all practising (or at least, soon to be practising) clinicians. There is even a book that applies the method to veterinary practice[14]. The approach is particularly popular in the military, appearing in the (since withdrawn, with a new version as yet forthcoming at the time of writing) Ministry of Defence's 'Clinical Guidelines for Operations'[15]. It is the military's method of choice for helping medical personnel to consider and deal with ethical issues, both in the abstract (i.e. in classroom discussions and conferences) and on the ground, i.e. in real life scenarios.

Clearly, then, it is considered by some to be of practical use, either in the teaching or conduct of medical ethics. While there is conceivably a gulf between a tool's perceived practical use and its actual practical use, it is beyond the scope of this paper to consider in further depth whether these users are right to view the four quadrant approach as being practically useful. The first quadrant's emphasis on clinical, medical factors makes a practical application unsurprising, so we will assume that users see the applications of the approach more or less straightforwardly. My central question, then, is whether the four quadrant approach is sufficiently *theory*-sensitive. In the absence of more feedback data and measurements of the actual effects of the four quadrant approach (though some efforts to this end have already occurred[16]), I will consider more abstractly whether the approach confers greater moral and/or theoretical legitimacy on the training than a more theoretical approach to begin with. Since the military has adopted the approach as its key way of negotiating medical ethical dilemmas, this discussion should be of particular interest to military medical personnel.

IS THE FOUR QUADRANT APPROACH THEORETICALLY ROBUST?

Given the criticism levelled at the much more mainstream "four principles"[17] approach as risking 'sterility and uniformity of approach'[18] and being 'algorithmic [and] robotic'[19], the four quadrant approach would likely garner similar criticism from more theoretical moral philosophers. These criticisms accuse the four principles approach of leaving no room for *judgement*, and that, applied unthinkingly, the approach can lead to deleterious results. They echo Millian concerns about values

---

[2]Notably, one of these examples is dated *earlier* than Sokol's review: presumably he did not find it because they refer to it by a different name: the "four *box* approach".

and beliefs deteriorating into 'dead dogma'[20] if they are not perpetually and robustly challenged. What starts as a short*hand* way of applying moral theory turns into an unacceptable short*cut*.

If we take this complaint seriously, the four quadrant approach appears, *prima facie*, to be as guilty as the four principles approach, if not more so. Where the four principles approach asks us to analyse moral problems in terms of four very broad categories or value theories, the four quadrant approach appears to ask us to do so *sequentially*, given the clear advantages of starting in the first quadrant. As well as using the quadrants sequentially, it is important to use them comprehensively: it should be concerning to us if there are cases where the approach is interpreted as stating that, once the problem appears to be resolved, there is no need to move to later quadrants (should there be any left). For one, and as Sokol states: 'no quadrant will single-handedly settle the case'[4]. But on top of this, we will see shortly that using *all* the quadrants is key to the approach's usefulness over the four principles approach, and frees it from accusations of being too robotic.

The sequential approach to the quadrants is a double-edged sword. On the one hand, the decision whether to move on requires a degree of judgement in itself: namely, the judgement that the case truly is resolved by the quadrants already used up. On the other hand, ignoring remaining quadrants seems like an obvious way to forget about potentially important moral features of a case. The use of such an approach should serve to remind those without formal ethics training what kinds of things can be morally relevant, rather than lure them into the trap of thinking that the situation may be resolved at too early a stage. This may depend on the case at hand; a case may appear to be satisfactorily resolved by, say, the autonomy type considerations in the second quadrant. It is nevertheless possible that there will be relevant considerations from the later quadrants. If a patient with capacity refuses treatment, we might think that autonomy considerations are the end of the story. But there may still be contextual factors (per quadrant four) that affect the treatment of this patient: a patient with an infectious disease may have their freedom of movement restricted, for example. This contextual factor means that autonomy considerations are not the whole of the picture. It is therefore worth checking the other quadrants before concluding that one is satisfied with the answers provided by prior quadrants.

Indeed, the saving grace of the four quadrant approach comes in this fourth quadrant. The fourth quadrant asks the user to consider 'contextual features' of the case at hand. Sokol describes this quadrant as follows: 'It is, in effect, a hotchpotch of potentially relevant issues, reflecting the wealth of considerations that might affect an ethics case analysis. I do not see this as a major problem'[4]. He is right that the presence of such a "mop-up" element, in which the user can consider any further issues pertaining to the case is not a major problem. Far from being a problem, this invitation to consider wider features not covered in the previous three quadrants is what rescues the four quadrant approach from the charge of being algorithmic and robotic, and allows users to exercise their own ethical judgement. The fourth quadrant thus, at least in this way, elevates itself above the four principles approach, and gives more scope for the user to ethically analyse the case according to principles not explicitly prescribed by the quadrants.

This provides a very good reason to use the approach in a way that emphasises the equality of all the quadrants, much like the proposed equality of the four principles in Beauchamp and Childress's approach (notwithstanding Gillon's comment that of these principles, autonomy should be the 'first among equals'[21]). So, while it might make sense to use the quadrants in a certain order, they must each be considered, and the fourth quadrant serves as a final "human" check that the algorithm a) appears to cover all relevant ethical issues, and b) appears to have been correctly applied.

A CAVEAT

This paper has so far made the case that the four quadrant approach has genuine theoretical advantages, and is therefore in fact quite far from reaching the status of cargo cult in the hands of the military. There are nevertheless important steps that should be taken to ensure that continued use of this approach is sensible.

It has been several years since the military has adopted this technique as a practical way of applying medical ethics. Given that the role of "military medical/healthcare ethicist" is to date a non-existent one, it is incumbent on both ethicists and military medical/healthcare personnel to meet in the middle: to devise ways of working that are robust with respect to moral theory, but that are sufficiently sensitive to the realities of professional life as to be practically useful.

It is laudable that organisations like healthcare services and the military (and the parts of those organisations that overlap) aim to provide ethical training and guidance for their personnel. It is especially good that this training is underpinned by ethical theory, where approaches are taken that have their basis in robust theorising that withstands philosophical scrutiny. The potential pitfall, however, lies where the practical application of this theory is divorced from the scrutiny of that theory over a sustained period of time. It is good to begin with a basis in theory, but it will be useful for those applying these tools to return to the theory, or to those conducting the theory, from time to time, to report their results and their use of the theory, so that theoreticians can consider whether the application is really working. I propose more of this symbiotic, two-way relationship, so that the approach can have more of a grounding in what matters and what works at a theoretical level, lest teachings that appear practical become wrong-footed.

There may always be a distance between professionals who study ethics theoretically, and those who practice it. But there are will always be people in the middle of that dichotomy, at various stages: clinicians with Masters degrees in healthcare ethics; philosophers stationed in medical schools like the author of this paper; and philosophers stationed in philosophy departments but with clear agendas for generating practical, useful arguments.[3] These people will be particularly key in bridging theory and practice.

CONCLUSION

The four quadrant approach has clear practical advantages, but it also has theoretical advantages that may have been overlooked. In spite of this heartening example, the military should, where practical, work closely with ethics experts when they teach and apply medical ethics. The basis of this argument is that if the military becomes too distanced from ethical expertise, they run the risk of teaching and practicing ethics in a way that is too divorced from moral theory. Ethics experts should embrace the efforts of the military (and indeed other professions) to incorporate ethics into their professional lives, and work with such professions to make theory more practical.

REFERENCES

---

[3]Philosopher Peter Singer is a good example: 'It's nice when your colleagues in philosophy departments appreciate what you are doing, but I also judge the success of my work by the impact my books, articles, and talks have on the much broader audience of people who are interested in thinking about how to live ethically'[22].

1 Lindstrom L. Cargo Cult: Strange Stories of Desire from Melanesia and Beyond. Honolulu: University of Hawai'i Press 1993. Available at Project MUSE: https://muse.jhu.edu/chapter/2180281. Accessed November 2018.

2 Feynman RP. Cargo Cult Science. *Engineering and Science* 1974;37:10-3.

3 Jonsen AR, Siegler M, Winslade WJ. Clinical Ethics (8th edn). New York: McGraw-Hill Education 2015.

4 Sokol D. The "four quadrants" approach to clinical ethics case analysis; an application and review. *J Med Ethics* 2008;34:513-6.

5 Dudzinski DM. The Practice of a Clinical Ethics Consultant. *Public Aff Q* 2003;17:121-40.

6 Cho MK, Tobin SL, Greely, HT, et al. Research Ethics Consultation: The Stanford Experience. *IRB* 2008;30:1-6.

7 Wolfe J, Hinds P, Sourkes, B. Textbook of Interdisciplinary Pediatric Palliative Care. Philadelphia, PA: Saunders 2011.

8 Hickman SE, Wocial LD. Team-Based Learning and Ethics Education in Nursing. *J Nurs Educ* 2013;52:696-700.

9 Ho A, Spencer MS, McGuire M. When Frail Individuals or Their Families Request Nonindicated Interventions: Usefulness of the Four-Box Ethical Approach. *J Am Geriatr Soc* 2015;63:1647-8.

10 Connor DM, Elkin GD, Kewchang L, et al. The Unbefriended Patient: An Exercise in Ethical Clinical Reasoning. *J Gen Intern Med* 2016;31:128-32.

11 Carr MF, Winslow GR. From conceptual to concrete. In: Sorajjakool S, Carr MF, Bursey EJ, eds. World Religions for Healthcare Professionals. London and New York: Routledge 2017.

12 Tsuruwaka M, Asaharah K. Narrative writing as a strategy for nursing ethics education in Japan. *Int J Med Educ* 2018;9:198-205.

13 Toh HJ, Low JA, Lim ZY et al. Jonsen's Four Topics Approach as a Framework for Clinical Ethics Consultation. *Asian Bioeth Rev* 2018;10:37-51.

14 Pierce J, Shanan A. Ethical Decision Making in Animal Hospice and Palliative Care. In: Shanan A, Shearer T, Pierce J, eds. Hospice and Palliative Care for Companion Animals: Principles and Practice. Hoboken, NJ and Chichester: Wiley-Blackwell 2017.

15 Ministry of Defence. Joint Service Publication (JSP 999). Clinical Guidelines for Operations. London: MoD 2012.

16 Bernthal EM, Russell RJ, Draper HJ. A qualitative study of the use of the four quadrant approach to assist ethical decision-making during deployment. *J R Army Med Corps* 2014;160:196-202.

17 Beauchamp T, Childress J. Principles of Biomedical Ethics (7th edn). New York and Oxford: Oxford University Press 2013.

18 Harris, J. In praise of unprincipled ethics. *J Med Ethics* 2003;29:303-6.

19 Thornton, T. Judgement and the role of the metaphysics of values in medical ethics. *J Med Ethics* 2006;32:365-70.

20 Mill, JS. On Liberty. London: John W. Parker and Son 1859.

21 Gillon, R. Ethics needs principles – four can encompass the rest – and respect for autonomy should be "first among equals". *J Med Ethics* 2003;29:307-12.

22 Singer, P. Ethics in the Real World: 82 Brief Essays on Things That Matter. Princeton and Oxford: Princeton University Press 2016.