

What Are Applied Ethics?

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Received: 3 November 2009 / Accepted: 18 February 2010 / Published online: 24 March 2010
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Abstract This paper explores the relationships that various applied ethics bear to each other, both in particular disciplines and more generally. The introductory section lays out the challenge of coming up with such an account and, drawing a parallel with the philosophy of science, offers that applied ethics may either be unified or disunified. The second section develops one simple account through which applied ethics are unified, vis-à-vis ethical theory. However, this is not taken to be a satisfying answer, for reasons explained. In the third section, specific applied ethics are explored: biomedical ethics; business ethics; environmental ethics; and neuroethics. These are chosen not to be comprehensive, but rather for their traditions or other illustrative purposes. The final section draws together the results of the preceding analysis and defends a disunity conception of applied ethics.

Keywords Applied ethics · Biomedical ethics · Business ethics · Environmental ethics · Neuroethics

This paper was developed after attending a conference, *Applied Philosophy as Common Ground* (Princeton, NJ, 2007); I thank those conference participants for their dialogue. I also thank six anonymous referees from this journal for their comments on an earlier draft and the journal's editor for facilitating such extensive feedback.

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Knowledge also is surely one, but each part of it that commands a certain field is marked off and given a special name proper to itself. Hence language recognizes many arts and many forms of knowledge.

Plato, *Sophist* 257c-d

Introduction

The title of this paper almost seems to belie some grammatical misapprehension, such is the extent to which ‘applied ethics’ is commonly treated monolithically. But, of course, it is not: there are all sorts of different applied ethics which might aspire to some sort of conceptual unification under that locution.¹ What has been inadequately explored, however, is exactly how this unification would proceed or, more fundamentally, whether it is possible.² In the philosophy of science, for example, disunities have emerged in recent years,³ and maybe something similar would be appropriate for applied ethics.

In this paper, I propose to consider the relationship among different applied ethics, both given particular cases and as a general abstract, theoretical project. As intimated above, I take it that there can roughly be two sorts of options: either applied ethics bear some unity to each other or else they do not. By this, I mean that they may stand autonomously such that various applied ethics each instantiate some sort of features that genuinely set them apart from other applied ethics or else that they lack such features. Autonomous applied ethics, then, would suggest a disunified account, whereas a lack of autonomy would suggest a unified account.

Principlism, Casuistry, and Reflective Equilibrium

While the next sections of this paper will try to clarify what some particular applied ethics are about, as well as what distinctive features they may have, let me make some brief comments in this introduction about the relationship between applied ethics and ethical theory. Though not the one that I will directly pursue (for reasons explained below), one avenue of understanding how various applied ethics stand to each other is to think about how each stands to ethical theory itself. There are, (very) roughly, three ways in which this relationship has been understood: “top–down”, “bottom–up”, and reflectively.

¹ When I talk about ‘applied ethics’ (plural), I will be referring to such fields as biomedical ethics, business ethics, environmental ethics, and so on. I think that this is fairly standard, though recognize that other distinctions might be drawn.

² In this paper, I will not have much to say about exactly what unification *is*, a topic that has not sufficiently been explored in ethics. For an introduction to this topic in the philosophy of science, see Cat (2007).

³ See, for example, Dupré (1995), Galison and Stump (1996), Cartwright (1999). Note that these references are not to suggest that the *arguments* in favor of disunity of science—many of which are predicated upon (anti)reductionism—are isomorphic to those that we would use in applied ethics, but merely that the *conclusion* is one that we might profitably consider, if supported by different argumentation.

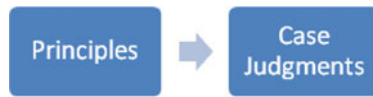


Fig. 1 Principlism

The top–down approach, also referred to as “principlism”, places applied ethics in a subordinate role to ethical theory: we *start* with ethical principles and use those to elucidate issues in particular cases. Consider Fig. 1.

In terms of nomenclature, this seems the most natural understanding since ethical principles, quite literally, are *applied* to particular cases. For example, consider Tom Beauchamp and James Childress’s principlist approach to bioethics (Beauchamp and Childress 2001, esp. Part II). (I choose this example because it is germane to a particular applied ethic—bioethics—but this approach could be more general as well.⁴) In this, they postulate four key moral values with associative principles: autonomy, beneficence, nonmaleficence, and justice. They then go on to explore various particular issues in bioethics (e.g., euthanasia, surrogate decision making, access to health care, and so on) by seeing how these principles bear on these cases. Note that the cases themselves are not doing any of the *moral work*: they are, in some sense, passively downstream of the principles themselves. We solve the problems by thinking about the principles, but the cases themselves have no implications for the principles.

Alternatively, we can imagine the opposite approach: the “bottom–up” approach. Also referred to as casuistry, this approach grants preeminence to the cases as against the principles (Fig. 2).⁵

Unlike principlism, the mode of inference is inductive rather than deductive. The principlist might, for example, say that we should respect autonomy and that such-and-such course of action respects autonomy, therefore we should do such-and-such. But, for the casuist, it goes the other way. We would judge that, in some cases, C_1, C_2, \dots, C_n , some course of action is appropriate and then abstract away from our approaches in those cases to some moral principle, P . So maybe we think that women should be able to exercise control over their own reproduction and that terminally ill patients should have the option of ending their lives.⁶ We could then



Fig. 2 Casuistry

⁴ See, for example, McKeever and Ridge (2006). While intuitionists certainly do not have to be principlists—as the intuitions could pertain to case judgments rather than to principles—it turns out that there seems to be a general congeniality between intuitionism and principlism. See, for example, Stratton-Lake (2003) for a balanced treatment of these issues.

⁵ The best introduction to casuistry, particularly from in historical perspective, is Jonsen and Toulmin (1988). See also Bedau (1997).

⁶ There is some issue about what the specification of the cases should be: “women should be able to exercise control over their own reproduction” could be taken to be a “mid-level” moral principle,

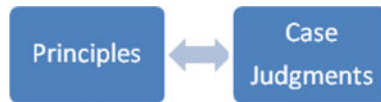


Fig. 3 Reflective equilibrium

seek to unify these judgments about these cases through some more general moral principle, such as some sort of principle respecting autonomy. On this approach, the principles come out of the cases and therefore the former exercise no priority over the latter (indeed, they are secondary).

Finally, consider John Rawls' reflective equilibrium (Rawls' 1999, 18–19, 42–45), which has been further developed by Norm Daniels (Daniels 1979, 1996). To put Rawls' position into our above language, we have various moral principles and various judgments regarding particular cases. Neither the principles nor the judgments enjoys any sort of privileged role. Rather, they engage each other in a process of mutual revision (Fig. 3).

For example, we might believe that we should always save as many lives as possible (principle). Confronted, though, with the choice of killing one healthy individual to save five other lives (case judgment), we are wont to retain our principle. Therefore we revise it to somehow incorporate some considerations reflecting the difference between killing and letting die, which we might thereafter revise given cases that get us to thinking about the Doctrine of Double Effect.⁷ But, given any conflict between our judgment in some particular case with our principles, we are free to jettison/revise *either* one (Fischer and Ravizza 1992, 12–16). The principlist is constrained to the principles: no judgments in *any* case could force the principlist to reconsider the principle of autonomy. And, similarly, the casuist is committed to the cases: the principles must *always* be revised given incompatible case judgments.

At any rate, this discussion is hardly meant to be either sophisticated or exhaustive, as these ideas have received much more thorough and critical discussions in the literature. Rather, the idea is to quickly get on the table the

Footnote 6 continued

somewhere between some general moral principle and an actual case. I do not think that anything hangs on this, though, and we could easily replace such a principle with “Ms. Jones should be able to exercise control over her own reproduction” if the former is regarded as too general in some sense. Of course, the latter follows from the former and; the former, therefore, is not “at bottom” in some sense. But, then, neither is the latter, really, for consider “Ms. Jones should be able to exercise control over her own reproduction this year”, which follows from that she could be able to exercise control over her reproduction. I take it that the cases can always be rendered more specifically such that it is virtually impossible to get to a truly basic case. For the purposes of this paper, however, I chose the formulations used in-text because those are of the degree of generality that we are most likely to see coming out of work in applied ethics.

⁷ For example, consider trolley cases wherein we might redirect a trolley onto a track such that the diversion saves the lives of five, while threatening the life of one. The previous principle, which said that we cannot kill one to save five would seem to inveigh against such redirection, unless we introduce a distinction between intentional killing and unintentional (but foreseen) killing; insofar as the latter is less morally bad than the former, we might yet be justified in redirecting the trolley since the killing would be unintentional (but foreseen). Of course, this is hardly uncontroversial. See Foot (1967). See also Thomson (1976), (1985).

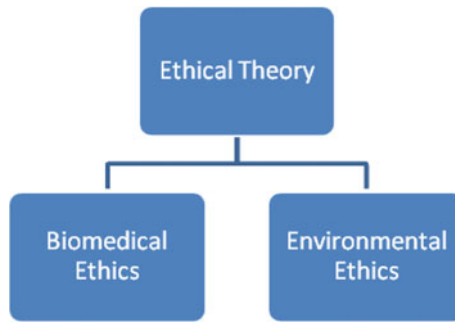


Fig. 4 Ethical theory and applied ethics?

ways in which applied ethics might stand in relation to ethical theory. And, in this discussion, we have achieved at least one answer to our question as to how applied ethics might be related to each other, and that is vis-à-vis their relationship to ethical theory. Biomedical ethics and environmental ethics, just to pick two examples, at least stand to each other in some mediated way through ethical theory. Consider, then, the above given schematization (rendered without arrows so as to leave open any of the above three possibilities) (Fig. 4).

Presumably, biomedical ethics and environmental ethics each stand in the same relation to ethical theory: they are the same *sorts* of things and therefore belong on the same level of the hierarchy. But this sort of relationship, that individual applied ethics bear some relationship (whatever it is) to ethical theory is quite uninteresting: of course they do. Our project, remember, is to explore what sorts of relationships applied ethics bear toward *each other* and the trivial one in which such a relationship is mediated via ethical theory hardly captures much insight. In fact, this relationship is as consistent with disunity as it is with unity. Consider, for example, the following structure, which even the most ardent unity of science advocate must surely condone (Fig. 5).

The question is not whether there is some gratuitous heading under which different things can be grouped—there probably always is—but whether there is any sort of unifying category that does any substantive conceptual work. In neither of the above cases is such conceptual work on offer.

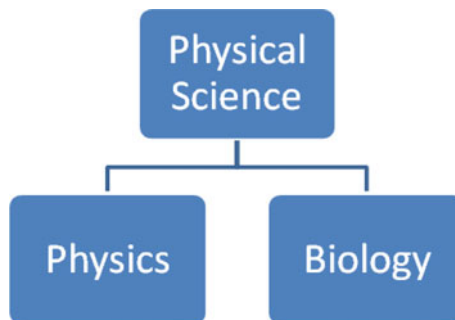


Fig. 5 (Dis)unity of sciences?

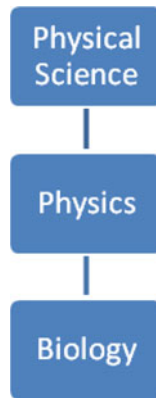


Fig. 6 Unity of sciences

Rather, the obvious thing to say that we should inquire more directly whether direct links apply between the lower levels of the hierarchies. Surely biology comes under physical sciences, but the unification project wonders whether it *just* comes under the physical sciences or whether it *also* comes directly under physics (Fig. 6).

The substantive debate, then, has to do with the relationship between physics and biology, not with the relationship between either and physical science, of which they are obviously parts. On a related note, in the ethics project, what we need to ask about is not how, for example, biomedical ethics and environmental ethics relate to ethical theory—this project having already been alluded to above—but rather how they *directly stand to each other* (Fig. 7).

If these two have some sort of independence, then I shall call them autonomous applied ethics. If, on the other hand, they do not, then I will deny such autonomy to either. And, again, autonomy suggests a disunified account of applied ethics, whereas lack of autonomy suggests a unified account. What is the sort of independence that matters? Returning to the simplified account of the relationship between physics and biology, we might gain some quick insights. First, it certainly cannot be the case that we need *complete* independence in the sense that no biological concepts can be explicated in terms of physics concepts as this just sets the bar impossibly high. Surely, for example, some facets of speciation supervene on various physical processes; consider some river formation (i.e., a physical process) that isolates conspecifics and gives rise to allopatric speciation. The question, though, is precisely not this one, but rather whether there are any *sui*



Fig. 7 Relation of applied ethics to each other

generis biological concepts that cannot be wholly explained by appeal to the best (or even complete) knowledge of physics (e.g., consciousness, life, etc.).

The analogy between physics and biology is someone unapt because the question there is whether biology *reduces* to physics,⁸ whereas we surely are not interested in whether biomedical ethics, for example, reduces to environmental ethics. But the reduction question does get at an issue that is relevant to us here, which is whether one domain can be appropriately derived (perhaps with appropriate translations) from another.⁹ If so, then that would certainly create a strong link between our applied ethics and would suggest that the disunity account is not appropriate (while not, in this case, suggesting that either applied ethics reduce to the other, only that they be interdependent). In the next sections of this paper, then, I propose to consider several applied ethics in particular, to try to figure out what features might set them apart from each other.

Different Applied Ethics

So, for now, the goal is to see whether applied ethics have distinguishing features and, if they do, then to see whether this sets them apart from each other. There are lots of different applied ethics, and I cannot hope to cover them all. Nevertheless, let me comment on the following, which are either chosen for their traditions or else have other instructive features that will become apparent: biomedical ethics; business ethics; environmental ethics; and neuroethics. Again, the point is not to provide a comprehensive analysis of these disciplines, but rather to try to motivate our continued discussion.¹⁰

Biomedical Ethics

In a seminal work, Edmund Pellegrino and David Thomasma write this about medicine:

Let us step back...for a moment and see why medicine cannot escape being a moral community. Three things about medicine as a human activity make it a moral enterprise that imposes collective responsibilities of great moment on its practitioners: (1) the nature of illness; (2) the nonproprietary nature of medical knowledge; and (3) the nature and circumstances of a professional oath (Pellegrino and Thomasma 1993, 35).¹¹

⁸ Of course, this question has generated a substantial literature. Some places to start are Rosenberg (1978), Kitcher (1984), Sober (1999). These latter two sources are on the particular issue of whether classical Mendelian genetics reduces to molecular biology, though more general discussions are also included.

⁹ For the classic treatment on this topic, see Nagel (1961). See also Boyd et al. (1991) for more contemporary literature. Kenneth Schaffner has also made important contributions to this literature, see Schaffner (1967), (1993). Chapter 9 of this latter source has a good discussion of developments since Nagel.

¹⁰ Parts of this section are adapted from Allhoff (2007). I actually find myself having slightly changed my view since that paper and those changes are reflected in this one.

¹¹ See also Pellegrino (1985).

Regarding the nature of illness, Pellegrino and Thomasma think that the sick are in uniquely dependent, anxious, vulnerable, and exploitable states; they must “bare their weaknesses, compromise their dignity, and reveal intimacies of body and mind” (*Ibid.*). Similarly, trust is critical in the relationship between patient and physician. Regarding (2), the physician’s knowledge is acquired “through the privilege of medical education...and [she] is permitted free access to all of the world’s medical knowledge” (*Ibid.*, 36). And, finally, physicians take oaths which bind them to their communities, to their patients, and which transcend self-interest and create moral duties.

Whether we agree with Pellegrino and Thomasma’s vision of medicine is less important than the fact that they can make plausible the claims that they do. Starting with (1), I am not sure that illness is necessarily as compromising as Pellegrino and Thomasma suggest, particularly if we think of things like flu shots and sprained wrists: rich moral notions like vulnerability and sacred trust seem attenuated in these contexts.¹² Nevertheless, medicine clearly introduces a moral feature not obviously instantiated in, for example, environmental ethics (cf., whether ecosystems have moral standing, whether non-human animals have rights, and so on). Regarding (2), many other applied ethics are almost precisely constructed around proprietary knowledge, thus setting medicine apart; consider the business ethics literatures on whistleblowing,¹³ insider trading,¹⁴ or, most obviously, intellectual property.¹⁵

Regarding (3), though, I think that the proper emphasis should be placed on codes of ethics, rather than on the oaths per se. The oaths, after all, reflect the ethical codes; in the medicine case, for example the Hippocratic Oath just *is* the (old) ethical code. Insofar as other professions have codes but not (explicit) oaths, I think that they deserve similar consideration. And, in fact, many other professions have codes of ethics: ¹⁶ law,¹⁷ engineering,¹⁸ and journalism,¹⁹ for example. And, for even some of the most fledgling applied disciplines, such as nanotechnology²⁰ and military intelligence,²¹ and interest is already placed on such codes. There are various movements to create them. There are at least some differences in these codes, though, having to do with their “bindingness”, and surely the medical

¹² For a more sustained critique of some of these ideas, see Allhoff (2006), especially pp. 395–400.

¹³ See, for example, De George (1986), Larmer (1992).

¹⁴ See for example, Werhane (1989), Machan (1996), Lippke (1993).

¹⁵ See, for example, Hettinger (1989), Paine (1991).

¹⁶ Many of these codes of ethics have been collected by the Center for the Study of Ethics in the Professions at the Illinois Institute of Technology. For more information, see ethics.iit.edu/codes/coe.html.

¹⁷ See the American Bar Association Model Rules of Conduct at www.abanet.org/cpr/mrpc/mrpc_toc.html.

¹⁸ See, for example, the Code of Ethics of Engineers at ethics.iit.edu/codes/coe/accreditation.board.engineering.tech.a.html.

¹⁹ See the various codes for those in media, including journalism. See ethics.iit.edu/codes/media.html.

²⁰ See, for example, Shew (2008). See also Institute for Food and Agricultural Standards (2007).

²¹ While no formal code has been ratified, the International Intelligence Ethics Association (IIEA) has already expressed an interest in this project. See intelligence-ethics.org for more details.

profession's reliance on its code, ancient in origin, has the longest tradition.²² I think that more could be said about the similarities and differences among these codes,²³ but it is not immediately obvious to me what could be said on behalf of the medical code that would genuinely set it apart from other professions. However, it is worth noting that some applied ethics are not concerned with *professions* at all (e.g., environmental ethics).

One way to go here would be to say that it is *professional ethics*—rather than, for example, biomedical ethics—that belongs at the same level of the hierarchy as these other applied ethics (Fig. 8).

This would have the advantage of taking all and only (sub-)applied ethics that have professional codes—as well as whatever other features are constitutive of the professions²⁴—and unifying them under professional ethics. The other way to go is to deny the domain of professional ethics proper; its constituent parts would still exist, but rather as a loose confederation rather than as a unified group (Fig. 9).

Notice that Pellegrino and Thomasma's (3)—or my emphasis on the codes rather than the oaths—is what took us down this road in the first place. While I do not want to get distracted from the central project, though I think the detour is interesting. Certainly we can still maintain the plausibility of medicine, and *only* medicine, as having (1), (2), and (3). Some other applied ethics are predicated upon fields that also have (3), but they lack features (1) and (2). Therefore, biomedical ethics can retain its autonomy from other applied ethics. Maybe. But I actually am sympathetic to the structure expressed in Fig. 8, since it seems to me that the structure expressed in Fig. 9 occludes interesting information: to wit, what biomedical ethics and legal ethics have *in common*. Both medicine and law are *professions*. Regardless, I shall leave this for now as nothing hangs on it for the remainder of the analysis.

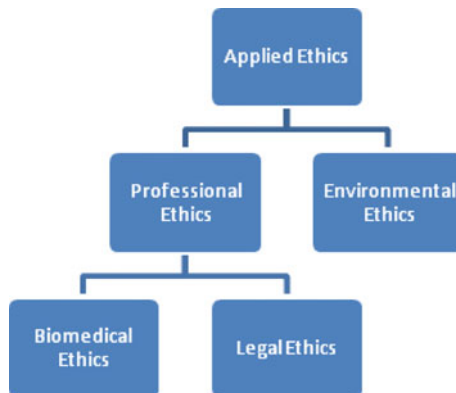


Fig. 8 Professional ethics as applied ethic

²² For a discussion, see Baker et al. (1999).

²³ See, for example, the IIT Center for the Study of Ethics in the Professions' discussion of how to write a code of ethics at ethics.iit.edu/codes/Writing_A_Code.html.

²⁴ For more on this, see Pritchard (2007). See also Allhoff and Vaidya (2008b).



Fig. 9 Applied ethics without professional ethics

Business Ethics

Consider a classic debate in business ethics, which positions Milton Friedman against R. Edward Freeman about corporate social responsibility. At stake is whether corporations have any obligations other than to increase their profits, whether social, environmental, or otherwise. Friedman argues that they do not, and that any attempt by corporations to do so, absent the will of the shareholders, is an unjust exercise of executive power and, furthermore, one that is not likely to be successful regardless (as such ventures fall outside the executives' expertise) (Friedman 1970, SM17). Freeman, by contrast, argues that the corporation has duties to all of its stakeholders, among which he counts all those (including shareholders) that are affected by the activities of the corporation: employees, consumers, suppliers, community members, the environment, and so on (Freeman 1984, 1994).

In my mind, this disagreement forms the central debate in business ethics, from which other issues all follow (Allhoff and Vaidya 2008a, Unit 1). Consider, for example, worker safety: absent any (direct) obligations to the worker, corporations might only provide for worker safety if, ultimately, it maximized profits (e.g., through the avoidance of lawsuits); similar stories could be told about whistleblowing (cf., duties to consumers), bluffing (cf., duties to suppliers), and so on. In this sense, business ethics is then predicated upon a single ethical construct, which is rarely realized in other contexts: that of fiduciary obligation. To wit, the executive of the corporation has been entrusted to his post by a majority of the shareholders, and the principal question is whether his obligations are solely to them or rather whether those obligations extend elsewhere.

It seems to me that this issue is a good candidate for being endemic to business ethics, at least insofar as, *a fortiori*, it is the only area in which we have executives. However, it turns up in some other guises elsewhere, such as law (or medicine²⁵): consider whether the criminal defense attorney has obligations only to her client or whether she also has duties to the justice system (Freedman 1966). Consider also environmental ethics, wherein one important question is to consider what

²⁵ See, for example, Allhoff (2008).

obligations we have to the environment; the environment is explicitly one of the stakeholders on Freeman's theory.

Again, there are a couple of ways to proceed with the analysis. First, insofar as stakeholder/shareholder issues appear in legal ethics or environmental ethics, we could simply say that the issues are not *sui generis* legal or environmental. Rather, those are properly understood as issues in *business ethics* and we can recognize that law and the environment have business-ethical dimensions (as well as non-business-ethical dimensions). At the advantage of keeping our hierarchical distinctions neat, this comes at the cost of looking imperialistic: business ethics gets to annex projects that otherwise seemed, quite reasonably, at home elsewhere. The alternative, though, is more congenial to the unification project: we deny that there is anything special about business since its best candidate to set it apart is hardly its own. How do we adjudicate among these options?

A third option, which is almost never considered, is more skeptical: business ethics does not exist as a genuine field of study. The stakeholder/shareholder debate is not much more sophisticated than classical questions in distributive justice: who owes what and to whom? Business ethics, then, does not do any serious intellectual work that has not already been executed in this more general theoretical context. Furthermore, these questions certainly cannot be unique to business ethics. Consider, for example, access to medical care or environmental obligations to future generations: whether the business executive owes consideration to his suppliers, whether the state owes health care to its citizenry, and whether the population owes environmental protections vis-à-vis its future generations are reasonably isomorphic. While not completely convinced by these considerations, I nevertheless think that this is too fast, and believe that there are probably structural differences in the above obligations. I do think that the amount of dedicated work that has explored the stakeholder/shareholder debate in the business ethics context suggests that something indeed is going on there. I confess, though, to still having some misgivings about the independence of business ethics, which probably owes at least in part to my misapprehension as to what *business* itself is. (Contrast, for example, someone who says he is a physician with someone else who says she is a businesswoman; I take it that we have a lot more confidence what the former does with his days than the latter with hers.) But, *even if* business ethics is not doing much more than applying the distributive justice debate—and, again, I doubt that this is the case—then it is no worse off as an *applied* ethic than any other applied ethic which engages some analogous debate from ethical theory.

What, then, of the first two options mentioned above? Either business ethics gets to lay claim to use of the stakeholder/shareholder debates in other fields, or else not. I think this dilemma offers a false dichotomy, a mere linguistic game. What matters is whether there are genuine ethical issues that can be used to individuate different inquiries. And, for all that has been said so far, there is at least one: the stakeholder/shareholder debate. Maybe this debate is germane to different projects, but those projects can still be unified under it. The locution “stakeholder/shareholder ethics” is not likely to take off, nor are environmental ethicists or legal ethicists likely to stop thinking about how this construct is manifest in their projects. However, and this is the important part, the construct itself (perhaps *contra* some of the ill-formed

skepticism expressed above) still has a legitimate claim to being *sui generis*. I propose, then, that business ethics retain its autonomy, though not in a manner by which it imperialistically acquires debates from other fields. Rather, I propose that it maintain its autonomy through recognition that it should be called something else to prevent any attenuated understandings of what (non-business-oriented) people working in law or the environment might be doing though, again, what matters is the conceptual apparatus and not the nomenclature.

Environmental Ethics

Next, consider environmental ethics, which raises deep concerns about the limitations of economic cost-benefit analysis. In a seminal paper, Mark Sagoff writes about the outrage of the citizens of Lewiston, New York, who live near the radioactive waste disposal that resulted from the Manhattan Project. Despite assurances from the local governments that there are no associative health risks, the citizens simply do not *want* to live near such waste because it conflicts with values that they have (Sagoff 1981). Assuming for the moment that there really are no hazards from such waste, which seems a dubious assumption, it seems that traditional economic analysis cannot accommodate whatever considerations are due those citizens. The reason is that, *ex hypothesi*, there are *not* any (economic) costs; rather the costs have to do with senses of justice, propriety, and so on. To be sure, there are sophisticated approaches to cost-benefit analysis that try to accommodate these features,²⁶ but there is at least a *prima facie* problem for the approach.

Another example might be the value of the redwoods in California (or any other sort of environmental preservation project); the cost-benefit analysis system would hold that those redwoods are worth whatever people are willing to pay to not have them cut down.²⁷ If the revenues from the Redwood National and State Parks are less than what Disney is willing to pay—by which there are obvious extensions to what *consumers* are willing to pay—for a theme park, then it is Pareto suboptimal to maintain the trees to the exclusion of a theme park.

In either of these cases, economic analysis seems to miss the point, which is that there are relevant extra-economic values. In their more extreme formulations, the economic approaches could unequivocally deny that any other such values matter and, in their less aggressive versions, they might try to cache out those “extra”-economic values economically. Regardless, environmental ethics stands at a pivotal place in this debate; much of resultant framework has been developed precisely in environmental contexts.

I think that, if we are looking for some defining feature of environmental ethics discourse, the appropriateness of economic analysis is probably the best candidate. Two questions, then: first, can *all* of environmental ethics be understood through this lens? And, second, can *only* environmental ethics lay claim to this framework?

²⁶ See, for example, Shrader-Frechette (1998).

²⁷ For a recent discussion of cost-benefit analysis in the US that contrasts its use with the “precautionary principle” of the UK, see Sunstein (2005).

Regarding the first question, we already saw, in “[Business Ethics](#)” section, that some questions in environmental ethics pertained to our duties to the environment, though my preferred account was largely to appropriate those under the banner of business ethics. However the issue in that context was whether stockholder/stakeholder theory could develop those accommodations. If it could, the issue would be in establishing that the environment is a proper stakeholder of corporations and that, furthermore, obligations would be due to stakeholders. None of this has to do with whether economic value is the only value, but rather presupposes that the environment is valuable: stockholder theory will say that such value is irrelevant and stakeholder theory will then go onto develop the sorts of obligations that thereafter are due. Therefore, I think that the question of economic analysis has to do with *grounding* the value of various environmental features; the implications of those values may then be dealt with elsewhere (i.e., not necessarily by environmental ethics). Or not: whether, for example, a community has environmental obligations is hardly going to be dealt with under issues of corporate social responsibility. So, I think that the answer to the first question is, at least tentatively, yes.

Regarding the second question, though, there are other contexts in which the appropriateness of cost-benefit analysis might be investigated: consider torts liability reform in medicine where, despite economic inefficiency, some commentators nevertheless oppose such reform on the grounds that (extremely high) punitive damages are sometimes justified by the merits of evincing our moral disapprobation.²⁸ I think, though, that this position precisely imports a debate from environmental ethics into its own discourse, namely whether economic efficiency is all that matters. I further take it that this framework was worked out in environmental ethics and has only thereafter been incorporated into other discussions. And, just because one field utilizes some concept from another field, it hardly follows that the concept is less at home in the latter field than it was before. If, for example, I use tools from economics to develop game-theoretic approaches to morality, it is not the case that rational choice theory is no longer, properly understood, a part of economics. So the right question to be asking is not whether questions about cost-benefit analysis arise only in environmental contexts, but rather it is those contexts that generated the questions in the first place; again, I think that this condition is satisfied.²⁹

²⁸ See, for example, John Edwards’ comments during the [2004](#) (US) Vice Presidential Debate. Available at <http://www.debates.org/pages/trans2004b.html>.

²⁹ Given more space, I would like to say more about what I take this to mean. It is clearly not the case that if some question *Q* arises in some context C_1 and then is completely exported to some other context, C_2 , that C_1 retains any privileged status in regards to *Q*. Rather, I take it that for C_1 to retain that status, much of the important conceptual work regarding *Q* must be done within C_1 —rather than simply the initial work—and furthermore that *Q* continues to inspire research within C_1 . I think it also must be the case that *Q* motivate a predominant part of the research agenda in C_1 , and that C_2 have substantially (though not exclusively) different projects; this latter condition is required just so that C_1C_2 . At any rate, for the present paper, such details are not centrally important, though bear mentioning. Needless to say, I think that environmental ethics satisfies these conditions.

Neuroethics

Finally, consider neuroethics. This is a newer field, but it is one worth discussing precisely for that reason: our previous applied ethics have each attached to long traditions, so it will be useful to consider an emerging applied ethic as part of our analysis. While much of the small (but rapidly growing) literature focuses on the ethical issues in functional neuroimaging,³⁰ the field will surely expand to include brain implants, psychopharmacology, and so on.

Advocates of neuroethics certainly think that a lot is at stake with these new technologies. For example, Judy Illes and Eric Racine write that neurotechnology “will fundamentally alter the dynamic between personal identity, responsibility, and free will...Indeed, neurotechnologies as a whole are challenging our sense of personhood and providing new tools for society for judging it.” (Illes and Racine 2005, 10). Some neuroscientists even think that neuroscience will annihilate the concept of personhood altogether (*Ibid.*). I think that there are numerous reasons to be skeptical about these claims, but, for now, let us take them seriously and defer skepticism until below.

Personhood, given its associative relations to moral responsibility, is a foundational concept in ethics. Neuroscience, *ex hypothesi*, is the field that is most qualified to elucidate the workings of the brain and, with them, the psychological (if not conceptual) underpinnings for personhood.³¹ If, for whatever reasons, neuroscience can cast doubt upon the coherence of this concept, then that would have deep ramifications for ethics. Similarly, neuroscience might have something direct to say about moral responsibility: perhaps it can somehow vindicate determinism, or else provide evidence in favor of free will.³² Again, I have deep skepticism about these projects; it seems to me that they are predominantly philosophical ones to which neuroscience is largely irrelevant. Nevertheless, there is a burgeoning enterprise in these topics, and I trust that there are at least some issues worth talking about, even if the conclusions turn out to be negative.

Regardless of whether the project fails or succeeds, neuroscience is the only (non-philosophical) discipline that can even hope to make headway on these questions which, again, are foundational to ethics. If neuroethics is understood to encompass the implications that neuroscience has for ethics or else the proper ethical stance to take on various practices within neuroscience—it seems to me that it could be understood in both these ways—then this discourse really does offer something new that is not already instantiated in different applied ethics. And, furthermore, this is not just to say that neuroethics is different in the trivial sense that it takes a unique target (*viz.*, neuroscience), but rather that such a target really might concern itself with ethical and metaphysical issues for which it is uniquely positioned to render commentary.

³⁰ See, for example, Illes and Racine (2005), Stoller and Wolpe (2007), Meegan (2008).

³¹ The link between personhood, personal identity, and psychological criteria invites a long tradition which extends, at least, to John Locke. See Locke (1994). More recently, see Parfit (1984). For a dissent—one which postulates biological, as opposed to psychological criteria—see Olson (1997).

³² See, for example, Freeman et al. (2000).

Furthermore, while there might seem to be some superficial link between neuroethics and biomedical ethics, I take it to be just that, superficial. These issues in neuroscience need not have anything to do with medicine *per se*, but rather are simply about the brain. For example, maybe we want to subject potential terrorists to fMRI scans, to see, for example, excited activity in the amygdala, perhaps signaling anger.³³ Or maybe we want to subject known terrorists to fMRI-enabled polygraph tests, thinking these more reliable than traditional means and therefore expedient in our intelligence gathering.³⁴ Regardless, neither of these applications has anything to do with medicine. Certainly there is no “sacred trust” between the potential or known terrorist and those administering the scan. There might be medical applications for neuroimaging (e.g., diagnostics), but these applications then have little to do with Illes and Racine’s above prophecies. And then, for such medical applications of neuroscience, we might reasonably say that those should stay within the purview of biomedical ethics, thus leaving non-medical applications under the aegis of neuroethics. Surely the practitioners might find themselves in a turf war over entitlement—especially when grant money is distributed—but such skirmishes need not suggest any sort of *conceptual* (as opposed to prudential) consequences. No, as with our results from our discussion of business ethics, I take it that the disagreement, if any, would be more linguistic than substantive.

Returning to some of the skepticism intimated above, I think that the success or failure of neuroethics will come, not from its independence of other applied ethics, but rather on its success in vindicating its own claims. Again, consider Illes and Racine’s (widely supported) remarks that neuroscience has deep implications for personal identity, moral responsibility, and free will. This is either true or false, and I suspect that it is false (Buford and Allhoff 2005, 2007). If that is right, though, neuroethics founders not for lack of identity (no pun intended), but rather for lack of substance. Regardless, it lays claim to unique ethical features, the only question is whether it can realize such claims. Its independence, then, is not in question.³⁵

Conclusion

In the third section of this paper, we considered various applied ethics in order to consider what might set them apart from each other, a challenge laid down in the second section. There are, to be sure, many applied ethics that were not considered; I chose the ones I did for illustrative reasons, though any others could have been chosen. In addition to the “traditional” choices—biomedical ethics, business ethics,

³³ There have been several studies that demonstrate that there is activity in the amygdala when viewing faces with expressions of anger or fear, with the ability to distinguish between these two emotions. See, for example, Whalen et al. (2001), (1998). Given these studies, there is at least the potential for the use of fMRI scans during interrogations.

³⁴ Stoller and Wolpe (2007).

³⁵ Despite my skepticism, I hardly think that there will be any lack of industry in neuroethics; two new journals have just appeared to support the burgeoning field: *Neuroethics* from Springer and *AJOB Neuroscience* from Taylor & Francis. Rather, I think that it must find a way to define itself such that it can deliver on its process while, at the same time, remaining (reasonably) independent of biomedical ethics.

and environmental ethics—just war theory/military ethics would have been an obvious candidate, excluded only for space requirements.³⁶ As alluded to in the discussion on business ethics, professional ethics comprises many different professions: in addition to biomedical ethics, we could talk about accounting/finance ethics,³⁷ engineering ethics,³⁸ journalistic ethics,³⁹ legal ethics,⁴⁰ and so on. While neuroethics was chosen as the “emerging ethic”, others could also have been chosen, such as nanoethics,⁴¹ robot ethics,⁴² space ethics,⁴³ and so on. Again, though, the examples were meant to be illustrative, not comprehensive.

The results of the investigation were that these applied ethics at least lay claim to *moral* features which individuate them from each other. The difference among them, then, is not simply a matter of focus, emphasis, or context, but rather is metaphysical in that these moral features are only instantiated in certain applied ethics. The picture with some emerging ethics is going to be more equivocal, which is precisely appropriate given some of the skepticism that is expressed toward them. Even if these ethics lack some metaphysical foundation, though, they might still be at least pragmatically justified insofar as ethical attention is warranted to their respective fields, even if they lack some stronger some moral justification.⁴⁴

Returning to our opening question about unity versus disunity, the previous considerations suggest a disunity account for applied ethics (or at least for the

³⁶ For more on this, see Walzer (2000). Also, see the classic treatment of just war theory by Aquinas (1948), Question 40, esp. Article 1. See also Orend (2005). For my own views on related issues, see Allhoff (forthcoming).

³⁷ See, for example, Abdolmohammadi and Nixon (2002). See also Allhoff and Vaidya (2008b), Unit 1.

³⁸ See, for example, Harris et al. (2005). See also Allhoff and Vaidya (2008b), Unit 2.

³⁹ See, for example, Borden (2007). See also Allhoff and Vaidya (2008b), Unit 3.

⁴⁰ See, for example, Luban (1983). See also Allhoff and Vaidya (2008b), Unit 4.

⁴¹ See, for example, Allhoff et al. (2007). See also Allhoff and Lin (2008). See also Allhoff et al. (2010). I take a pretty negative line toward to autonomy of nanoethics, see Allhoff (2007), esp. pp. 193–198.

⁴² This is a pretty limited literature so far but see, for example, Sparrow (2007), Sparrow and Sparrow (2006), Sparrow (2002). Also, see the Robotethics Website at www.robethics.org (accessed March 5, 2008). There are also two journals that specifically address these and related issues: *Autonomous Robots and Robotics & Autonomous Systems*.

⁴³ For a recent discussion, see Lin (2006). In addition to *Astropolitics*, the journal *Space Policy* addresses issues related to space ethics.

⁴⁴ This argument is made in more detail with respect to nanoethics in particular in Allhoff (2007), pp. 193–198. Briefly, I appeal to a distinction made from David Luban, “The Adversary Excuse,” in Luban (1983), pp. 83–122. In seeking justification for some extant adversarial legal system as against any other sort of legal system, Luban denies that any strong moral justification is on offer insofar as there are various problems with the system; some are alluded to, for example, in Freedman (1966). Nevertheless, Luban thinks that the system has pragmatic justification insofar as it is not (substantially) worse than any other system any change from it would incur substantial costs.

I think that this suggests—or maybe even is—a distinction between metaphysical and pragmatic justification: something could be justified in virtue of what moral features it has, or else by various pragmatic considerations it deserves. Some new applied ethics, I think, lack distinctive moral features and, therefore, metaphysical justification. Nevertheless, we should still *care*, for example, about how nanotechnology affects the environment, even if no new moral questions are raised through this discourse. Likewise, some new technologies deserve ethical attention, even if they do not deserve independent applied ethics.

applied ethics that have distinctive moral features). In other words, it has been argued that exemplar cases of applied ethics do, in fact, have features that set them apart from each other such that these applied ethics cannot be translated from one to another or else reduced in similar ways. While this disunity account might not come as any surprise to practitioners within individual applied ethics, I nevertheless take that this conceptual framework and the specific argumentation elucidates an important question in applied ethics.

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