Aristotle on Principles in Ethics

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Bridging the Gap between Aristotle’s Science and Ethics

In the *Nicomachean Ethics* I,7, Aristotle warns that we should not “look for the same degree of exactness (akribêia) in all areas, but the degree that accords with a given subject matter (kata tén hupokeiménên hulên) and is proper to a given line of inquiry” (1098a27-30; cf. 1094b12-27). In particular, we should not expect ethics to display the exactness appropriate to science (epistêmê). Science concerns universals (to katholou), while ethics concerns particulars (ta kath’hekasta) (1140b30-31; 1180b23). Universals pick out the essences of the substances with which a science is concerned, and these essences belong to the kind-members of necessity. Particulars have no such connection to essences. Therefore, there cannot be a science of the particular, and no science of ethics.

Interpreters sympathetic to this line of reasoning take Aristotle’s remarks about inexactness to imply that the canons of ethical reasoning diverge radically from the canons of scientific demonstration. The aim of science is to articulate first principles that are “better known by nature”, insofar as they are necessary and universal, and to explain the per se accidents of the subject matter of that science with reference to these principles. For instance, the mathematician explains why a triangle has two right angles with reference to the nature of triangles, viz., that it is a three-sided, plane figure (Met. 1025a30-34; De Anima 402b18; A. Po. I, 10). The mathematician is not concerned with the peculiarities of this triangle or that triangle (a tode ti). According to the orthodox view, the ethicist, by contrast, is trapped inside the circle of common beliefs (endoxa) that form the starting point of her inquiry: she can never truly move beyond things that are “better known to us” – our beliefs about normative matters – to things that are “better known by nature” – the nature of goodness; the nature of happiness; the nature of virtue. Rather than provide definitions and explain necessary truths by way of demonstrative syllogisms, the ethicist articulates the intuitions of reasonable people about the subject matter of ethics, aiming to prove “most or the most important” after working through the puzzles (cf. EN VII, 1, 1145b4-8). At best, ethical inquiry can create greater coherence among our beliefs. It can never uncover the foundational principles which, according to Aristotle, are the starting points of scientific demonstration. Even if the ethicist could arrive at definitions of ethical kinds, these definitions would never suffice to show her what to do here and now. It is fine to know that justice is giving each his due, but that won’t help us determine what we owe to other people in specific circumstances. Aristotle’s insistence that ethics is concerned with particulars appears to preclude a demonstrative science of ethics since demonstrations always issue in conclusions that hold universally and necessarily, while the conclusions of a practical inference concerns how we should act here and now. If the right way to act depends on particular features of particular situations (1110b3-9; 1142a13-16; 1142b26-28), it cannot be specified in a context-independent way, and if it cannot be specified in a context-independent way, we shouldn’t expect practical reasoning to proceed as a process of subsumption under universal rules. Nor can ethics be reconstructed as a deductive system of principles in which a set of theorems concerning action are derived from a set of necessary, first principles. Ethical principles hold

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1 Aristotle’s example, tellingly, is geometry.

2 “Every definition is always universal: doctors do not say what is healthy for some particular eye, but rather for every eye or else for some determinate form of eye” (Post. An. II, 13, 97b26-27).

3 For the distinction between what is “better known to us” and what is “better known by nature” or “unqualifiedly”, see Post. An. 71b33-72a5, Physics 184a16-23, Met. 1029b3-12, EN 1095b2-4. What is better known to us are the appearances or beliefs which form the starting point (archê) of inquiry. They may be true or false. What is better known by nature are the definitions which form the end point of rational inquiry into essences, Aristotle’s first principles. They in turn serve as the starting points of demonstrative syllogisms.

4 Cf. John McDowell, “Some Issues in Aristotle’s Moral Psychology”, p 29; pp 34-35. McDowell maintains that Aristotle’s rejection of a rule-case conception of deliberation extends to a rejection of the “codifiability of virtuous action” tout court (p. 29). If there are no “ordering principles” that adjudicate between rules that apply in situations with a plurality of morally salient features, then principles won’t help us make the right decision. Therefore, the prudent person need only have the right “perceptual capacity” to discern the morally salient features of the situation at hand (p. 29). In a later note, McDowell rejects
only for the most part (hós epi to polu), and are therefore not necessary. Consequently, there is no scientific demonstration in ethics.

These are all familiar themes. All the same, the picture I have just painted distorts important aspects of Aristotle’s account of ethics, practical deliberation, and science in the *Nicomachean Ethics*. To begin with, Aristotle never states that prudence is concerned with particulars only. He insists that “the unqualifiedly good deliberator is the one whose aim accords with rational deliberation in pursuit of the best good for a human being that is achievable in action”, and then adds “nor is prudence about universals only. It must also acquire knowledge of particulars, since it is concerned with action and action is about particulars” (EN VI, 7, 1141b12-17). In other words, the prudent person must grasp what the best good for a human being achievable in action really is, and this is a universal. Knowledge of the nature of this good is not sufficient, however. It must be accompanied by the appropriate perception of particulars. That is why experienced people sometimes make better decisions than those with knowledge: “for someone who knows that light meats are digestible and [hence] healthy, but not which sorts of meats are light, will not produce health; the one who knows that bird meats are light and healthy will be better at producing health” (1141b19-22). As Aristotle’s example reveals, what he refers to as “particulars” in one context may themselves be universals, only of a lower order. In distinguishing prudence from scientific knowledge he is quite clearly not denying that knowledge of universals is necessary. It would seem, then, that the cut-and-dry distinction between science and ethics fails to capture Aristotle’s view.

**Political Science and the “What is it”-Question**

Aristotle’s discussion of prudence reveals that the role of universal knowledge in ethics is more complex than what is usually acknowledged. Although ethics cannot be reduced to a deductive science (it does, after all, concern actions, which by their very nature are “capable of being otherwise”), there is nevertheless a science of ethics that seeks to define the nature of a good human life, its constituent parts and instrumental preconditions. This science will not by itself tell us how to lead happy lives: it requires prudent discernment to make the right decisions in particular circumstances. That is why prudence is not scientific knowledge, yet presupposes it.

What division of labor does Aristotle envision between ethical theory and practical discernment? This question prompts us to wonder how Aristotle conceives of the objectives of the *Nicomachean Ethics*. He is wary of positing a sharp break between ethical theory and political practice; indeed, he repeatedly notes that his treatise is meant as a help to the politician and legislator in their efforts to create virtuous citizens and a well-ordered society (e.g. EN III, 1, 1109a34-35). A well-ordered society presupposes well-ordered citizens, citizens who possess the virtues required to lead a happy life. Still, the *Nicomachean Ethics* is not a handbook. It bears all the hallmarks of a scientific examination of the nature of happiness – the human good – and its causes. Though Aristotle denies that theoretical insight into the nature of the human good

Cooper’s suggestion that Aristotle admits “broad principles” to be applied with discretion, arguing that it “underplays how important situation-specific discernment is for Aristotle”. To McDowell’s mind, then, the prudent person can dispense with principles altogether. I argue that this interpretation fails to do justice to Aristotle’s account of “usual” principles, as well as the parallels he draws between ethics and medical science. John McDowell, “Some Issues in Aristotle’s Moral Psychology”, in his *Mind, Value and Reality* (Cambridge, Mass: Harvard University Press, 1998), pp 23-49. McDowell defends the same view of principles in his “Comments on T. H. Irwin’s ‘Some Rational Aspects of Incontinence’”, *the Southern Journal of Philosophy*, vol. 27 (1988).

In this dietary example, “Bird meats are light” provides the explanation for why they are healthy. The explanatory syllogism runs “Light meats are healthy”; “Bird meats are light”; therefore “Bird meats are healthy”.

“We have said that happiness is a certain sort of activity of the soul in accord with virtue, [and hence not a result of fortune]. Of the other goods, some are necessary conditions of happiness, while others are naturally useful and cooperative as instruments [but are not parts of it]” (EN I, 9, 1099b26-28).

Compare the *Nicomachean Ethics* to Epictetus’ *Encheiridion*: Aristotle’s treatise is a contribution to moral theory; Epictetus’ handbook is not.
will suffice to create excellent characters, he thinks that a proper conception of the end will steer our efforts in the right direction. If there is such a thing as a highest good, an end at which all our actions and decisions aim, we should seek to determine what it is.

This knowledge has practical repercussions:

Then surely knowledge of this good also carries great weight for [determining the best] way of life; if we know it, we are more likely, like archers who have a target to aim at, to hit the right mark. If so, we should try to grasp, in outline at any rate (tupó), what the good is (ti pot’ esti), and which is its proper science or capacity (tínos tôn epistémon è dunamenón) (EN I, 1, 1094a22-26).

Aristotle calls this science “political science”, “the highest ruling science”, and “the most controlling science”. His use of the label “science” is not whimsical. The purpose of the Nicomachean Ethics is to uncover the nature of happiness (ti esti), and to explain why certain ways of life are suited to promote happiness while others are not. There is continuity between everyday habituation and theoretical inquiry into the highest good: they both have the same end. Insofar as practical wisdom is a precondition for true virtue of character, and practical wisdom requires a grasp of the nature of the human good, virtue of character presupposes knowledge (epistêma). Importantly, Aristotle here uses “epistêma” in the psychological sense, to refer to the mental states of someone who possesses knowledge of the universal; he is not insisting that in order to be good people we must be excellent philosophers of the kind that could write a treatise like the Nicomachean Ethics or the Republic. Possessing the results of a rational inquiry will suffice. Politicians need not be philosophers, pace Plato. In light of Aristotle’s efforts to distinguish scientific knowledge from prudence in EN VI, 3, it is easy to overstate the differences he sees between ethics and science in the Nicomachean Ethics. When Aristotle insists that prudence is not science, he means that it is not simply science, but that knowledge of universals must be supplemented by a proper discernment of particulars. This leaves room for a science of ethics. This science will examine the nature of happiness, virtue, and other ethically relevant kinds, uncovering truths that hold of necessity of all kind members. But because this inquiry is only half the story, since we need to act in widely varying circumstances in order to promote the human good, philosophical ethics cannot be a self-contained science like mathematics. Importantly, it has an applied side. Working in tandem with legislators, the ethicist seeks to develop a system of law that promotes happiness. It is up to the individual to decide how to act in her particular circumstances.

Interpreters taking their cue from Aristotle’s analysis of science as a capacity in book VI, 3 and his remarks about the methods of ethics in book I, have tended to underestimate the extent to which Aristotle’s model of philosophical ethics conforms to his model of non-apodeictic sciences. In particular, Aristotle’s model of ethics seems to build on his model of stochastic sciences like medicine, generalship, and navigation. These are sciences whose skillful execution depends on a high degree of context-sensitivity, and where the end result is partially dependent on luck. All the same, they are sciences with specific principles; they have constitutive ends that function as first principles (health, victory, and safe passage respectively), just as happiness is a first principle in ethics. Aristotle treats these sciences as sciences (epistêmai, 1096a32-35; cf.

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8 For the reciprocal relationship between virtue of character and prudence, see EN VI, 13, where Aristotle argues that “full virtue cannot be acquired without prudence”. He takes this fact to explain why some people (viz. Socrates) say that the virtues are instances of prudence, but corrects their opinion by noting that they are prerequisites of prudence, not instances of it (1144b18-22).

9 The psychological notion of epistêma recurs when Aristotle discusses Socrates’ contention that it would be “terrible (deinon) for knowledge (epistêmê) to be in someone, but mastered by something else, and dragged around like a slave” (VII, 2, 1145b24-25). Aristotle’s response to Socrates’ denial of the possibility of akrasia is that what is in fact being dragged around is not knowledge of some universal, but rather our beliefs about something perceptible, i.e. a particular (VII, 3, 1147b10-12). As a consequence, we fail to use our knowledge of the universal. See also VI, 6, for the relationship between science as a body of knowledge and science as a state of the soul. The same distinction between a body of knowledge and the psychological states of those who are knowledgeable about it recurs in Aristotle’s discussion of craft (technê), see e.g. Metaphysics 980b28)
Metaphysics 980b27-981a30) despite the fact that they issue in action-guiding principles that hold only for the most part. This is not simply because the practitioners are “knowledgeable” in some loose sense of the word: “Craft is knowledge of universals” (Metaphysics 981a16-17). Insofar as craftsmen know the reason why things are the way they are, they know the cause (tên aitian, 981a28-30). Aristotle must therefore recognize that there can be sciences whose subordinate principles fall short of necessity. Though Aristotle frequently reserves the label “science” to bodies of knowledge that concern the necessary and the universal (Prior Analytics 71b12; 75a18-22), he sometimes slips into a more permissive way of talking about science, allowing that science may study also what is usually the case, and that a science may even concern particulars although it is primarily concerned with universals (Metaphysics 981a5-30; 1039b27-1040a7). The first concession opens the door to a science of nature (sublunary substances); the second opens the door to a science that explains individual occurrences rather than merely universals. My proposal is that this more permissive notion of science underlies Aristotle’s categorization of ethics as part of a science; political science. Like all sciences, ethics has first principles, and it is the search for these that takes up the first books of the Nicomachean Ethics.

Principles in the Ethics

Talk of “principles” (archai) hides a plethora of phenomena, however. In order to determine what role, if any, principles play in Aristotle’s ethics, we should first examine the many ways in which we may speak of “principles” in an Aristotelian context. Let me distinguish between four different types of principles that Aristotle recognizes in ethics:

(1) First principles

Aristotle treats the fundamental definitions of the beings with which a science is concerned as first principles of that science. In the Metaphysics, he underlines that “any discipline deserving the name of wisdom must describe the first causes (ta prôta aitia), i.e., the principles (archas)” (981b28-29). These first principles are most explanatory, since they explain why members of the relevant kind have properties that flow from its essence. They cannot themselves be derived from more fundamental principles. Therefore, in searching for first principles we must proceed dialectically, relying on appearances. Aristotle treats happiness as a first principle in ethics (1102a2-5). It is the highest good, since we want happiness for its own sake, not for the sake of anything else, and because everything we choose, we choose for the sake of it. Aristotle reports unanimous agreement that happiness is the highest human good, since it is both self-sufficient and complete. Therefore, we do not disagree over the nominal definition of happiness or that there is such a thing. Controversy only enters when we try to determine the nature of happiness – what it really is. The natural desire for happiness that he attributes to all human beings is furthermore constitutive of humankind. It is a rational desire, not simply because it is a wish which originates in the rational part of the soul, but because it allows us to rationally adjudicate between different life plans and different courses of action. Happiness is a first principle, because it explains why other things that we choose are worthy of being chosen.

Aristotle infamously derives his substantial conception of the happy life from observations about human nature. There is a tight connection between what a human being essentially is and what is good for a human being. This is not the place to examine the intricacies of the function argument, nor the criticisms to which it has, fairly or unfairly, given rise. For our purposes it suffices to note that in defining the happy life as activity of the soul in accord with the best and most complete virtue in a complete life (1098a17-19), Aristotle has set the stage for an inquiry into the nature of the virtues. This leads him to search for a different type of principles:

10 Against Plato, he argues that “In fact, there are many sciences even of the goods under one [type of] predication; for the science of the opportune moment, for instance, in war is generalship, in disease medicine. And the science of the measured amount in food is medicine, in exertion gymnastics. [Hence there is no single science of the good, and so no Idea]” (I, 6, 1096a32-35).
Definitions of states of character, virtues and vices, feelings, the voluntary and involuntary etc.  

These are principles of the science of ethics to the extent that they explain why certain types of activities promote the happy life while others lead to misery and frustration. Though Aristotle does not explicitly treat his definitions as principles of a science, they form the departure point for justifications of types of activities, namely those that are in accord with virtue.

States of character and feelings are furthermore principles in a third sense: they are causes of movement, whether “movement” is understood in the strict sense (praxis as a manifestation of our rational natures) or in the unrestricted sense (any episode of behavior, whether rational or non-rational):

1. Principles of movement / action (archē tou kinein / praxeôn)

Aristotle uses “principle” about each of the four causes. While movement may be caused by all types of desires, rational and non-rational alike, action is always caused by rational desires. In all cases of action (praxis), happiness is a principle insofar as it is the final cause of all our rational activities. All ends subordinate to happiness are likewise final causes, and hence principles of action (to hou heneka archē). Wish (boulēsis) is a rational desire for the ends we rationally desire. Decision, which concerns actions that we undertake for the sake of these ends, is an efficient cause of action (hothen hē kinesis).

In addition to these three kinds of principles, Aristotle recognizes

2. Action-guiding principles, including
   (a) Ethically imbued principles (act generously, justly, temperately, prudently, hit the mean)
   (b) Rules of conduct (finish what is on your plate, give up your seat to little old ladies, return what you owe)

The fourth kind of principle if the one that Aristotle is often thought to eschew by those who espouse a particularist interpretation of his ethics. Although Aristotle says little about rules of conduct, having vowed to treat ethics “roughly and in outline”, he nevertheless recognizes their importance, an emphasis that is unmistakable in his discussion of legislation in book V of the Nicomachean Ethics. It is a task for those who frame the law to determine which universal rules of conduct serve to promote a well-ordered and happy society. All law is universal (katholou), according to Aristotle, “but in some areas no universal rule can be correct” (V, 10, 1137b15).
who frame the law to determine which universal rules of conduct serve to promote a well-ordered and happy society. All law is universal (katholou), according to Aristotle, “but in some areas no universal rule can be correct” (V, 10, 1137b15). That is why legislators should choose universal rules that are usually correct (to hôs epi to pleon), in full awareness of the unavoidable error being made, and allow discretion to judges. The source of the error is neither in the legislators nor in the law, but rather “the nature of the object itself, since that is what the subject matter of actions (hé tôn praktôn hulê) is bound to be like” (V, 10 1137b15-19). Those who deny that principles play any role in Aristotle’s ethics would be hard pressed to deny that he places any emphasis on action-guiding principles.

Contrary to received opinion, principles play a vital role in Aristotle’s ethics. Indeed, we will miss the architectonic structure of his inquiry if we see its methods and aims as completely divorced from those of science. The *Nicomachean Ethics* is shaped as a search for the nature of the highest end, happiness, as well as for the activities that make up a happy life. Aristotle defines the human good with reference to human nature, a universal. Insofar as the happy life is the life of activity in accord with virtue, he thinks our efforts will be greatly aided by definitions of character states and feelings. When we know what virtue is, we will be better equipped to choose virtuous activities, and to choose them for the right reasons. Just as in other stochastic sciences, the measure of virtuous activity is not whether we end up achieving our objective, however (saving the city or equipping a trireme), but whether we have “done everything in our power to shoot straight”, to quote a later Stoic description of the ultimate aim. In other words, it is aiming at the target well, not hitting the bull’s eye, that is the mark of an excellent marksman. Sudden gusts of wind may interfere with the arrow’s path once it has left the bow, just as they may blow the pilot’s ship off course. While success in achieving the objective of our action is subject to luck, virtuous activity is up to us: we can make the best of the hand we have been dealt. That is why virtue “controls” happiness (I, 10, 1100b9-11). In aiming for excellent activity, we will, moreover, be helped by a set of action-guiding rules. These principles must be sufficiently general to function as explanatory principles (“why is that the right thing to do under the circumstances?”) but sufficiently particular to afford guidance in practical matters (they must put us on the right track when we seek to survey the ethically significant features of a situation). Insofar as these ethical principles are defeasible, they share a feature with the principles that govern biological science: they hold “usually” rather than “always”. That is why ethics lacks the exactness of mathematics or astronomy, but may nevertheless aspire to the same degree of exactness as medicine and other inexact sciences.

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14 The references to the *De Anima* are clear throughout book I (e.g. *De Anima* II, 1-5). Aristotle’s subsequent distinction of virtues into those of character and thought furthermore relies on a metaphysical distinction between rational and non-rational psychic parts in *De Anima*, as well as Aristotle’s “popular works”, and Aristotle tells us as much (EN I, 13, 1102a27-34). These definitions have the universality required of scientific premises, since they hold always, rather than for the most part, about members of a natural or non-natural kind as well as their organic parts. It is striking in light of Aristotle’s insistence on the inexactness of ethics as normally interpreted that he relies on necessary premises to defend his conclusion about the human good, a conclusion that would appear to hold of necessity since it follows from necessary premises.

15 Cicero, *De Finibus*, III, 22: “Take the case of one whose task it is to shoot a spear or arrow straight at some target. One’s ultimate aim is to do all in one’s power to shoot straight, and the same applies with our ultimate good. In this kind of example, it is to shoot straight that one must do all one can; none the less, it is to do all one can to accomplish the task that is really the ultimate aim. It is just the same with what we call the supreme good in life. To actually hit the target is, as we say, to be selected but not sought.”
Ethics as a Stochastic Science

Aristotle’s emphasis on the reciprocal relationship between the method and subject matter of a science leads him to abandon Plato’s search for a definition of the good itself, a highest principle of explanation in all areas of study. Nor is there a universal good of all living beings. Just as there is no one medical science about all beings, there is no one science about the good of all animals, but a different science about each specific good (EN VI, 7, 1141a33-35); the good of each kind depends on its specific nature. In Nicomachean Ethics I, 6, he notes that knowledge of the “good itself” is neither possible nor helpful. It is not possible, since “good” is used homonymously in different categories of being; it is not helpful, since if, per impossibile, we could attain knowledge of the good itself it would not have improved our expertise in individual sciences. Each science has its own specific end.

Aristotle therefore distinguishes his own ethical inquiry from Plato’s investigation into the form of the good. This departure is unwelcome to him, “For those who introduced the universal good were friends of ours”. Still, he says, “it presumably seems better indeed only right, to destroy even what is close to us if that is the way to preserve truth. We must especially do this as philosophers [lovers of wisdom]; for though we love both the truth and our friends, reverence is due to the truth first” (EN I, 6, 1096a13-17). With the form of the good securely dispatched, Aristotle embarks on a search for the first principle of political science.

Because the mode of inquiry mirrors the nature of the subject matter, Aristotle rejects Plato’s presumption in favor of one model of science. He continues to refer back to the demonstrative conception of science from the Analytics (e.g. EN VI, 3, 1139b27; 33), insisting that science is only concerned with demonstrations from principles that are incapable of being otherwise. In the narrow sense of the word, “science” is limited to apodeictic disciplines like arithmetic, geometry and astronomy. Still, he is prepared to call politics a science (epistêmê, EN I, 2, 1094a26; I, 3, 1094b15). It is the most controlling and architectonic of the “practical sciences” (tais praktikais tôn epistêmôn, EN I, 2, 1094b4-5), since the ends of the other practical sciences are subordinate to the prescriptions of political science, as are the ends of crafts such as generalship and household management (EN I, 2, 1094a27-1094b8). These practical sciences have first principles insofar as they proceed from definitions. Indeed, the first principle of politics holds of necessity, for politics is concerned with the human good, and the human good is a function of human nature. Politics therefore proceeds from a principle that holds “always” and “of necessity” of all members of humankind. What distinguishes practical sciences from theoretical sciences is that the latter aren’t demonstrative all the way down. For they aim at fine action or fine production. And as Aristotle emphasizes time and again, actions have “principles which admit of being otherwise” (EN VI, 1, 1139a8-9; 1140a33-1140b4). That is why politics is an inexact science. Insisting that we shouldn’t rigidly impose the same standards of exactness in all areas of study, Aristotle suggests that we instead employ a standard akin to the “Lesbian rule” that he invokes in his discussion of justice and equity (EN V, 10). Instead of forcing the standard of mathematics on subject matters whose principles hold for the most part, we should bend our rule so that it fits around the subject matter at hand. Demonstrative proof is not what we demand from a rhetorician, nor do we accept persuasive arguments from a mathematician (EN I, 3, 1095a26-27). Still, both mathematics and rhetoric have first principles.

16 “Now no one deliberates about things that cannot be otherwise, or about things that cannot be achieved in his action. Hence, if science involves demonstration, but there is no demonstration of anything whose principles admit of being otherwise (since every such thing itself admits of being otherwise); and if we cannot deliberate about things that are by necessity, it follows that prudence is not science (...)” (EN VI, 3, 1140a33-1140b4). But though prudence isn’t the same as science, since its end is acting well itself, it nevertheless presupposes a science, namely the science of politics.

17 The judge therefore rectifies the deficiency in the unqualified rule through his judgments. Aristotle adds: “This is also the reason why not everything is guided by law. For on some matters legislation is impossible, and so a decree is needed. For the standard applied to the indefinite is itself indefinite, as the lead standard is in Lesbian building, where it is not fixed, but adapts itself to the shape of the stone; similarly, a decree is adapted to fit its object” (EN V, 10, 1137b14-19; 28-33).
Aristotle’s sensitivity to the reciprocal relationship between the methods of individual sciences and the nature of their subject matter does not, however, prevent him from categorizing arts and sciences according to the features that their subjects share.

Throughout the *Ethics*, Aristotle systematically compares the ethicist’s task to that of the physician, general or captain. These are skilled in “stochastic arts”, arts where (i) the result depends in part on forces outside the practitioner’s control, where (ii) individual circumstances determine the right way to proceed, and where (iii) the end lies not in knowledge *per se*, but in its skillful application. While the pilot makes use of the astronomer’s calculations, his aim is not to know the positions of the stars, or why they appear the way they appear, but to steer his ship safely to its destination. In the same way, the end of political science “is action, not knowledge” (EN I, 3, 1095a5-6). The first book of the *Nicomachean Ethics* is therefore shaped as an inquiry into a first principle: the first principle of action (*praxis*).\(^{18}\) Although ethics differs from the stochastic arts by having an internal goal – an action is not a process, but is complete at any time – the parallels are clear.\(^{19}\) Each stochastic art has an end (*telos*) that is constitutive of it, and the foundation of the art itself is an account of the nature of this end. The physician must know what health really is, just as the general must know the nature of victory, and the rhetorician the nature of persuasion. Without knowledge of these principles, individual practitioners cannot achieve their practical goal, except incidentally. Their goal is to promote these ends in particular cases, through individual skilled actions. As his early examples indicate, medicine turns out to be a particularly fruitful model for ethics for Aristotle. Jaeger observes that Plato had already defined virtue as a kind of psychic health, and political science as its “therapeia”, in the *Republic* (444e). Aristotle now employs that parallel in an effort to subvert the Platonic conception of ethics as a science akin to mathematics.\(^{20}\) In Jaeger’s words, “The medical example, far from being a casual analogy, is present to [Aristotle’s] mind throughout. It belongs to the very foundation of his ethical science, at least in the form it has taken in the *Nicomachean Ethics*”. Indeed, Jaeger maintains that Aristotle tries to justify “almost every important step he takes in his ethical philosophy” in light of the parallel with medicine. This may be an overstatement, but it is unquestionably true that medicine is a paradigm for Aristotle’s account of the method of ethics. And medicine is a science where defeasible principles guide the decisions of the practitioner in treating individual patients.

An illustration of the parallel can be found in Aristotle’s remark on method in Book II.\(^{21}\) Aristotle here explains his initial remarks about inexactness by underlining (1) the practical purpose of ethics, (2) the

\(^{18}\) Introducing his discussion of virtue, Aristotle insists on the practical objective of his inquiry: “Our present discussion doesn’t aim, as our others do, at study, since the purpose of examination is not to know what virtue is, but to become good, since otherwise the inquiry will have no benefit for us” (EN I, 2, 1103b28-32).

\(^{19}\) Cicero makes much of the distinction between activities that have an internal end and those that have an external end, and insists on comparing prudence to “acting or dancing” where “the end, namely the performance of the art, is contained within the art itself, not sought outside it” (*De Finibus*, III, 23). He contrasts this to arts like navigation and medicine. His analogy breaks down insofar as even virtuous activities, say acting bravely, necessarily have some objective apart from the virtuous activity itself, say, saving the city.


\(^{21}\) Jaeger cites the discussion of the human soul in I, 13, as another early example: “Before he approaches the problem of virtue (*aretê*), as he is going to in Book II, he lays down a fundamental division of the human soul, or indeed of all kinds of soul, in order to pave the way for his basic distinction of intellectual and ethical virtues, which correspond to the two parts of the soul with which ethics is concerned: (1) the rational part that knows and rules, (2), that part of the irrational soul which is able and willing to obey reason. Aristotle motivates the digression from ethics into the problems of psychology by an example taken from medicine: the eye-doctor, though he is a specialist, must nevertheless know about the entire human body. Indeed, physicians who possess a higher scientific training always study the human organism as a whole. In the same way, the acting statesman, for whom his *Ethics* is meant, must be familiar with psychology to a certain extent. We find here a new aspect of the parallel between *politikos* and *hiatros* that runs through the whole of the *Ethics*.” (p. 57).
defeasible nature of its general prescriptions, and (3) the importance of the fine-tuned judgments of
individual practitioner:

Let us take as agreed in advance that every account of the actions we must do has to be stated
in outline, not exactly (tupoi kai ouk akribos). As we also said at the beginning, the type of
accounts we demand should accord with the subject matter; and questions about action and
expedience, like questions about health, have no fixed answers (ouden hestekos echet). While
this is the character of our general account (tou katholou logos), the account of particular
cases (ho peri ton kath’hekasta logos) is still more inexact. For these fall under no craft or
profession; the agents themselves must consider in each case what the opportune action is (ta
pros ton kairon skopein), as doctors and navigators do (II, 2 1104a1-10).

It would be unreasonable to expect a medical textbook to explain exactly how a physician should treat any
conceivable patient in any conceivable circumstance for any conceivable ailment. What we expect is
general prescriptions of some specificity. The question of application in particular cases must be left to the
physician’s trained judgment, just as the Hippocratics recommend. In the same way, we should not expect
an ethical treatise to explain exactly how we should act in every conceivable circumstance. We expect
general prescriptions of some specificity, leaving the question of application in particular cases to our own
trained judgment. In fact, Aristotle notes that it is far more difficult to know how to apply particular
remedies than to know their effects in general, abstracting from the circumstances, and this is even more
true in ethics than in medical science:

Knowing how actions must be done, and how distributions must be made, if they are to be
just, takes more work than it takes to know about healthy things. And even in the case of
healthy things, knowing about honey, wine, hellebore, burning, and cutting is easy, but
knowing how these must be distributed to produce health, and to whom and when, takes all
the work that it takes to be a doctor (EN V, 9, 1137a13-18).

Therefore, we must distinguish between the tasks of the ethicists and the prudent person just as we must
distinguish between the tasks of the medical scientist and the medical practitioner. While the practitioners’
application requires precision, the ethicist and the medical scientist need not – indeed should not – attempt
to give prescriptions specific to particular cases. That requires perception and judgment. They should rather
aim to define the relevant states and affections, and offer rules that hold “unqualifiedly” (haplos) – in
general – rather than prescriptions for the particular case (kata ton kairon) (cf. EN III, 1, 1110a9-14; V, 1,
1129b1-6). This entails that there’s a difference between holding the right views in ethics qua scientific
enterprise and being an excellent person. While holding the right views is a precondition for prudence,
prudence cannot be reduced to scientific expertise. The point of Aristotle’s cautionary remarks about
method, then, is not that an ethical inquiry could not in principle be exact, determining how we should act
in particular circumstances, but rather that if we seek this degree of exactness in a scientific treatise our
main task will be “overwhelmed by digressions” (ta parerga ton ergon pleio ginetai) (1,7, 1098a34). As
Aristotle himself explains, just as the carpenter could in principle inquire into the right angle with the
exactness of the geometer, the ethicist could, though he should not, seek exactness in his inquiry. The
reason is that it “won’t help his work” (1098a30-33).

22 Jaeger remarks that Aristotle “is following outright the methodological programme of the Hippocratic
author On Ancient Medicine, who declares in the same way as Aristotle in the Ethics that there is no
absolute measure, number, or weight, and that there is nothing stable in matters of health”, but that all is
left to feeling [perception] (aisthesis), cf. EN 1094b12. (Jaeger, p. 56).

23 Think, in a grim example of the application of “medical science”, of Socrates’ executioner, who warned
Crito that Socrates shouldn’t talk after drinking the hemlock, since that requires the condemned to drink the
potion two or three times (Phaedo 63d4-e2). Aristotle thinks that crafts are for opposites, so for instance the
doctor is uniquely qualified to produce both health and its opposite, disease.
Despite the centrality of the analogy between medicine and political science in the *Nicomachean Ethics*, interpreters frequently portray Aristotelian ethics as an unscientific enterprise. There are at least three influential inferences that should be avoided in interpreting Aristotle’s methodological remarks in Books I and II. The first undercuts ethics’ claim to being a science by undercutting its cognitive status altogether. Aristotle dismisses this view himself: the imprecision of ethics does not entail that there isn’t a fact of the matter, or that anything goes as far as action is concerned. As Aristotle puts the point in EN I, 3, the variable nature of the subject matter fails to support the conclusion that nothing is fine by nature (*phusei*), but instead by convention only (*nomoi*):

> Now fine and just things, which political science examines, differ and vary so much (*pollên echei diaphoran kai planên*) as to seem to rest on convention only, not on nature. But [this is not a good reason, since] goods also vary in the same way, because they result in harm to many people – for some have been destroyed because of their wealth, others because of their bravery. And so, since this is our subject and these are our premises, we shall be satisfied to indicate the truth roughly and in outline (*pachulôs kai tupôï*); since our subject and our premises are things that hold good usually (*hôs epi to polu*)[but not universally], we shall be satisfied to draw conclusions of the same sort” (EN I, 3, 1094b15-23)

Just as it isn’t an argument for the conventional nature of correct drug prescription that some patients are cured by penicillin while others die because of taking it, it isn’t an argument for the conventional nature of ethics that some have prospered because of their wealth, while others have been destroyed because of it. Wealth is still good unqualifiedly, though for this or that person perhaps not good (EN V, 1, 1129b2-6). True, we cannot deduce from the fact that “wealth is good unqualifiedly” that its possession will always benefit the possessor. Normally it will, but there are conditions under which wealth may be harmful (for instance if it permits you to indulge your vices). That is why human beings who pray for things that are good unqualifiedly are wrong: “the right thing is to pray that what is good without qualification will also be good for us, but to choose only what is good for us” (EN V, 1, 1129b4-7). The “difference and variation” Aristotle cites is a difference in which particular types of action are fine and just, and that will depend, *inter alia*, on the circumstances in which we act.24

The second inference we should avoid is an inference to particularism. It undercuts the claim of ethics to being a science by thinking that Aristotle rejects the existence of moral principles. But Aristotle’s remarks about the “imprecision” of ethics does not entail that generalizations have no part to play in moral reasoning. Aristotle is frequently fêted as a patron saint of moral particularism, the view, as Jonathan Dancy defines it, “that the possibility of moral thought and judgment does not depend on the provision of a suitable supply of moral principles” (*Ethics Without Principles*, p. 7)25. Although Dancy concedes that one could perhaps formulate a handful of very general, true moral principles, such as the formally correct injunction to “Do the right thing”, to “Act virtuously” and “Avoid vice”, ethical thought can get along perfectly well without them. Particularists like Dancy, McDowell and Nussbaum treat Aristotle’s remarks about the role of individual judgments and perception in moral deliberation as signs of a particularist outlook. True, Aristotle indicates that the particular features of circumstances matter, and that the prudent person will take them into account. But that’s a far cry from dispensing with moral principles altogether. The fact that these principles hold “usually”, and not “always”, is no argument for their dispensability. For we can admit that ethical rules hold *hôs epi to polu* while insisting that our judgment in particular cases should be guided by them. A particularist, by contrast, is a universalist who has been mugged by reality: he expected rules of conduct to hold in each and every case, but found that they don’t, and turned his back on principles altogether. But Aristotle was never under the illusion that there are exceptionless rules of conduct, and so he doesn’t suffer from Dancy’s disenchantment. The particularist fails to appreciate the

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24 Aristotle, then, is a circumstantial moral relativist, but that is perfectly compatible with moral realism.
role that “usual” rules play in Aristotle’s ethics. He erroneously infers that if ethics is an inexact science, then it isn’t a science at all.26

That Aristotle sees a central role for action-guiding rules is particularly evident in his treatment of legislative science. Though the Ethics does not attempt to articulate a set of laws that will promote a well-ordered society, Aristotle thinks his investigation can form the starting point of such an inquiry.

Finally, Aristotle’s insistence that ethics is an inexact science does not preclude him from presenting definitions of ethically relevant kinds. These definitions hold of the kind members always, and not just usually. His definitions of individual virtues of character and thought, as well as the genus to which they belong, are all meant to capture essences that the kind members possess in virtue of their kind membership, and the same applies to his definitions of friendship and pleasure, the voluntary and the involuntary. Nor, significantly, does the sketchiness of ethics preclude him from seeking a definition of happiness. And he thinks knowledge of such things has practical repercussions. The physician seeks to produce health in individual men, but he must nevertheless know what health really is, since this is the state that he seeks to produce in his patients. The same applies to the ethicist, (or statesman, as Aristotle designates the expert concerned with the human good). While health is the end constitutive of medicine, happiness is the end constitutive of political science, are the practitioner will aim at these ends in everything she does, either qua doctor or qua statesman.

“Usual” Premises in Ethics and Science

Insofar as Aristotle thinks that scientific demonstration and definition is compatible with the inexactness of ethics, the inexactness of ethics cannot be due to a lack of principles. Instead, it appears that the inexactness of ethics enters at the practical level, when we wish to spell out what a life well lived means in practice, for this or that person, in his or her particular circumstances. This is evident when Aristotle discusses the practical implications of individual virtues of character. Although he formally describes the actions and feelings characteristic of people with virtues of specific kinds, he avoids stating what actions and feelings we should choose in particular circumstances. Instead, he says, simply, that “the mean relative to us” should be defined “by the reason by reference to which the prudent person would define it” (EN II, 7 1107a2-3).

This hedging formulation can be unnerving for readers approaching the Ethics with particular normative questions in mind. Aristotle shuns principles that will allow us to determine by simple subsumption what we should do here and now. Instead, he reiterates to the point of boredom the parameters that determine what acting virtuously requires here and now. Definitions of individual virtues rarely stray from the general formula which states that we should experience feelings of anger or pity or desires or pleasures or pains “at the right times, about the right things, towards the right people, for the right end, and in the right way” (EN II, 6, 1106b22-24). To give just two quick examples, the brave person “stands firm against the right things, and fears the right things, for the right end, in the right way, at the right time, and is correspondingly confident, for his actions and feelings accord with what something is worth, and follow what reason prescribes” (EN III, 7, 1115b17-19). And the generous person will “give to the right people, the right amounts, at the right time, and all the other things that are implied by correct giving” (EN IV, 1, 1120a26-28). These parameters all fix the relevant particulars of the situation in which we act. They must all be

calibrated correctly if we are to hit the target. If we look for exact guidance regarding the “right reason”, we will be disappointed, however. The reason is obvious: apart from a full appreciation of the morally relevant features of the circumstances, we cannot determine what the right action would be, and if we were to try, our ethical science would be “overwhelmed by digressions” (τα παρέργα τον εργόν πλείο γίνεται) (1,7, 1098a34). In principle an ethical treatise could spell out the correct conduct and affections in a wide range of conceivable scenarios. But such a complete (or near complete list) wouldn’t be of much help in practice. For the challenge would now be how to use the index to find the prescription for precisely this type of case (giving up your seat or staying put at 6pm while pregnant and carrying two shopping bags to a lady who looks like she may have a bad hip). This is applied ethics run wild. It simply isn’t the job of the ethicist to provide such an exhaustive list. Again, a comparison to medical textbooks and clinical practice is illuminating. The resident could in principle be equipped with a textbook that describes the appropriate treatment for any conceivable patient. The textbook would have to consider every conceivable combination particular features that determine the right course of action: symptoms, drug resistance, allergies, weight, age, sex and so forth, in every conceivable clinical situation (whether in a research hospital or in the bush, in times of war or in times of peace). If the resident follows the book, she will get the treatment right. But using the book will be near impossible. Better then, to prescribe treatments at some level of generality, and train the physician in recognizing clinically salient features of the situation and weighing competing concerns.\(^{27}\)

Because prudence requires knowledge of universals as well as particulars, definitions of individual virtues are already action guiding to the extent that they tell us what types of states to avoid and what types of states to promote. When we know what types of actions and prohairetic and emotive states are associated with a given virtue, we will also know what types of actions and emotions are preferable unqualifiedly, and why.

Despite his emphasis on the inexact nature of ethics, Aristotle is prepared to illustrate his general points with action-guiding principles, though with the proviso that these rules hold usually rather than universally. We find, for instance that we should not be willing to accept insults to oneself or overlook insults to one’s family and friends, since “such a willingness (...) is slavish” (EN IV, 5, 1126a9-10, discussion of mildness), we shouldn’t give “a club dinner in the style of a wedding banquet” or outfit a chorus for comedy with “purple robes, like they do in Megara”, since that is a sign of vulgarity (EN IV, 2, 1122b25, discussing magnificence). We should spend in accordance with our means, and take wealth from the right sources (IV, 1, 1120b24, 31: discussion of generosity). Therefore, pimping, usury and gambling are base ways of making a living. And we should not meet danger in an impulsive rush (EN III, 1116b35). Rules at this level of generality, prescribing types of actions, are for the most part rules. As Aristotle’s discussion of coercion (ανάγκη) in EN III, 1 reveals, acts that are shameful unqualifiedly (haplōs) may all the same be praiseworthy in extraordinary circumstances, for instance when a tyrant threatens to kill your parents and children unless you accede.\(^{28}\) Still, though most rules of action are defeasible, there are some types of acts that are never appropriate, regardless of the circumstances: Rather than do them we should “suffer the most terrible consequences and accept death” (EN III, 1, 1110a28). The names of some actions and feelings by themselves reveal that they have no mean: “for instance spite, shamelessness and envy [among feelings] and adultery, theft murder, among actions”:

> [I]n doing these things we can never be correct, but must invariably be in error. We cannot do them well or not well – by committing adultery, for instance, with the right woman at the right time in the right way (EN II, 7, 1106b10-18).

\(^{27}\) John McDowell’s prudent doctor who just “perceives” what the right treatment is without any recourse to principles strikes me as a quack. We want the physician to know e.g. that giving patients hemlock usually has averse effects on his health, and will kill him unless CPR is administered until the paralyzing effect wears off. On how Socrates’ friends could have saved him by administering CPR, see Enid Bloch, “Hemlock Poisoning and the Death of Socrates: Did Plato Tell the Truth?”, in T. C. Brickhouse and N. C. Smith (eds.), *The Trial and Execution of Socrates* (Oxford: Oxford University Press, 2002), pp 255-278.

Ethically imbued principles, then, lack the variation characteristic of rules of conduct. The same invariability applies to general rules that enjoin us to always aim at the fine and choose virtuous actions for their own sake, or to act in accordance with what reason prescribes or generously or magnanimously or temperately or prudently. The difference between these ethically imbued rules, which hold always, and not simply usually, and rules of conduct that hold usually rather than always, is that the latter admit of exceptions while still articulating true generalizations. It is true that one should return what one owes even if there are circumstances where the rule is trumped by more weighty concerns (in Socrates’ example from Republic I, you don’t act justly if you return a weapon to a friend who has gone mad (Rep. 331c1d2)). Therefore, it cannot be the definition of justice to return what you owe or to speak the truth, although in normal circumstances justice requires that we speak the truth and return what we owe. And while it is true that one should not make a profit in a petty and disgraceful way, for instance by picking the pockets of a corpse (Rhetoric II, 6), one may presumably still pick the pockets of a corpse if the end is not to make a profit, but rather to survive.

Insofar as several competing concerns may apply to one and the same situation, how do we determine when a principle that holds for the most part is defeated? Most readers have resisted the view that Aristotle thinks there are “ordering principles” that tell us which concern takes precedence and which principle articulates the most salient features in particular situations. Instead, the ordering of “usual” principles happens in an act of moral perception.

Apart from the discussion of “mixed acts” in EN III, 1, Aristotle doesn’t consider many cases of competing ethical claims. But contrary to what particularists claim, there is no reason to think that he would deny that we could articulate such ordering principles. Most of us have no trouble recognizing that the principle that enjoins us to save the lives of innocents trumps the principle that enjoins us to speak the truth. And we usually realize when a concern is petty and unimportant relative to another (e.g. returning what you owe versus enabling your friend to kill, telling a lie versus allowing the innocent to die). The fact that such principles are complex when we try to spell them out does not mean that they don’t exist. Again, medicine is instructive: before administering a drug, the doctor will want to rule out that the patient suffers from conditions that will cause severe side-effects or render the drug inefficient. She knows that aspirin is usually an appropriate treatment for headaches. But she also knows that it is inappropriate when the patient is intolerant to aspirin, where the headache is caused by a brain tumor, or when the patient suffers from ulcers. We should again emphasize that the fact that aspirin won’t always be the right treatment for headaches does not mean that aspirin isn’t a treatment for headaches. Medicine, like ethics, contains true generalizations that admit of exceptions. They concern features of kinds, rather than features of particulars. Therefore, we cannot infer that since aspirin treats headaches, and I have a headache, that I should take an aspirin. But when I realize that I shouldn’t, it is because my knowledge of the principle is quite complex, insofar as I am aware of a range of possible defeaters. The practical syllogism may be thought to obscure Aristotle’s appreciation of the complexity of practical thought, leaving the impression that in each case there will be one, and only one salient feature of the situation that determines how we should act. As Donald Davidson complains, the practical syllogism does not allow for “ways of evaluating the relative force of various desires and beliefs in the matrix of decision”. Therefore it cannot serve as a model for practical reasoning: “The practical syllogism exhausts its role in displaying an action as falling under one reason; so it cannot be subtilized into a reconstruction of practical reasoning, which involves the weighing of competing reasons”.29 We can defend Aristotle against Davidson’s complaint by noting that Aristotle’s examples of practical syllogisms are not meant as a model of how we in fact deliberate. Aristotle never meant to suggest that every piece of practical deliberation can be captured in a neat syllogism with one major and one minor premise, end of story. Instead, practical syllogisms capture the explanation of why the agent thinks an act is to-be-choSEN.

Aristotle does not limit defeasible, usual principles to ethics. They play a central role in natural science as well. In the Physics II, 8, he observes that in natural things, the end results either “always or usually”, and he attributes the “usual” status of the outcomes of some principles to the interference of recalcitrant matter.

or to maiming. Errors result, for instance, when matter prevents the formal cause from operating unhindered. That is why we cannot deduce from the definition of humankind as, *inter alia*, biped, that this or that individual human being is also a biped, as Long John Silver or the quadruped Indian girl Lakshmi illustrate. Unqualifiedly, human beings are biped, but this or that human being may nevertheless be monoped or quadruped. But importantly, biology is still a science insofar as it uncovers definitions and identifies “usual” principles.

**Dialectics and Scientific Method in the Ethics**

The view I have defended has implications for Aristotle’s account of dialectics. It is a common (mis)-conception in the literature on the *Ethics* that if a mode of inquiry is dialectical then it is not scientific, and vice versa. For dialectics and scientific inquiry proceed from premises of incompatible kinds: the former from *ta endoxa*, common beliefs or reputable opinions that may or may not be true, the latter from premises that aren’t simply true, but which are true of necessity.

I have already presented reasons to think that even if ethics cannot be demonstrative all the way down, dealing as it does with particulars, it may nevertheless establish definitions of essences and rely on definitions of essences in defending a particular conception of the human good. Ethics is a science, then, by conforming to the canons of scientific definition laid out in *Posterior Analytics* II, and by depending, to a limited extent, on deductions from definitions of human kind. Inexactness enters at the level of action-guiding rules and particular decisions.

In an article supportive of the standard view of dialectics as a method of inquiry incapable of uncovering first principles, Marco Zingano observes that as long as the Aristotelian ethics rests on dialectical premises, it will never achieve scientific status:

> The opinions may be true, and the reputable opinions may have a stronger probability of being true than mere opinions; none the less, the premiss of a dialectical syllogism is not necessarily true. In scientific knowledge, on the other hand, premises are not only true, but necessarily true. Extensionally, dialectic and science may coincide, but they differ radically. There is a gap no opinion can bridge or bypass, whatever dialectic’s reputation: even if it is true, it is not necessarily true.

Zingano later describes the gap between science and ethics as an “abyss”. The *Posterior Analytics* I, 19, 81b18-23 contains, he writes, “undeniably a clear expression of the abyss that separates true science from reputable opinion” (p. 313). Zingano bases this assessment on Aristotle’s claim that “if you are making deductions with regard to opinion and only dialectically (*kata men oux doxan sullogizomenois kai monon dialektikos*), then plainly you need only inquire whether the deduction proceeds from the most reputable propositions possible (...) But with regard to truth, you must inquire from the basis of what actually holds (*pros d’alêtheian ek tôn huparchontôn dei skapein*) (*Topics* 81b22-23). Put in slightly simpler terms, if we proceed from dialectical premises, we are caught in the circle of beliefs. We will never ground our conclusions scientifically.

If Aristotle describes his method in the *Nicomachean Ethics* as dialectical, and still employs premises that are necessarily true, we face a puzzle. For the *Posterior Analytics* seems to Zingano to portray dialectics and scientific demonstration as incompatible enterprises. Zingano therefore advances the hypothesis that the dialectical method is typical of the *Eudemian Ethics*. By the time Aristotle sat down to revise his ethical

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31 Navigation likewise relies on the insights of astronomy, a deductive science.

treatise, he had changed his mind on the appropriate method. In the *Nicomachean Ethics* Aristotle thinks that ethics can aspire to a kind of scientific status. True, he appeals to dialectics in book VII of the *Ethics*, but since this is a common book, Zingano may well be correct to suspect that Aristotle grew more confident of the attempt to ground ethics scientifically between the composition of the *Eudemian* and the *Nicomachean Ethics* (assuming with the standard view that the common books belonged originally in the EE and that it predates the EN). Despite Zingano’s perceptive observations regarding the use of “scientific” method and vocabulary in the *Nicomachean Ethics*, the contrast he draws between science and dialectics is too sharp. First, the distinction Aristotle draws in the *Posterior Analytics* 1, 19 is between (a) deducing with regard to opinion and *only* dialectically, on the one hand, and (b) from what “actually holds” on the other. But this doesn’t preclude the two approaches from being combined. For Aristotle’s actual procedure in the *Nicomachean Ethics* reveals that he thinks the scientific approach, built on deductions from necessary premises, is subject to dialectical testing against “reputable opinions”. If a scientific proposal like Aristotle’s own is found to cohere well with most or the most convincing beliefs we hold about ethics and the good life, they command assent, but if they turn out to be radically at odds with common beliefs, the theory should be rejected rather than the common beliefs. The function argument, for instance, is treated as a hypothesis to be tested. In the discussion immediately following the function argument, Aristotle defends the conclusion of the argument by showing that it harmonizes with widely held beliefs (EN I, 8). As he states,

> We should examine the principle, however, not only from the conclusion and premises [of a deduction], but also from what is said about it, for all the facts harmonize with a true account, whereas the truth soon clashes with a false one (EN I, 8, 1098b9-12).

Aristotle, in other words, treats his own proposal concerning the human good as a member in good standing of “*ta endoxa*”. Having the *Organon* and the *De Anima* under his belt by the time he wrote the *Nicomachean Ethics*, Aristotle would have had to be unduly modest not to count himself as one of the “wise” whose opinions are worth taking into account. Insofar as the premises and he introduces in the function argument aren’t paradoxical, they are suitable for dialectical treatment. Nothing prevents Aristotle from drawing on his own metaphysical or psychological presuppositions as long as he can demonstrate that they withstand dialectical scrutiny and harmonize with “most, or the most important” of *ta endoxa* (EN VII, 1, 1145b7). Deductions, like the one found in the function argument, can be part of dialectics as long as we test the conclusions against reputable opinions. There is no tension between two methods, but rather one method that comprises many types of argument. Zingano is therefore wrong to contrast a scientific approach with a dialectical approach as if the latter entirely precluded premises or sub-arguments of a scientific kind. For it appears that Aristotle thinks the two approaches can coexist, indeed, that they supplement one another.

**Conclusion**

I have argued that Aristotle conceives of theoretical ethics as a science; in particular, it shares important features with the science of medicine and other stochastic arts. Aristotle reflects on the purpose of his treatise in an often-overlooked passage towards the end of the *Nicomachean Ethics*. Aristotle here revisits the relationship between particular and universal:

> [E]ducation adapted to an individual is actually better than a common education for everyone, just as individualized medical treatment is better (…) Nonetheless, a doctor, a gymnastics trainer, and everyone else will give the best individual attention if they also know universally what is good for all, or for these sorts. For sciences are said to be, and are, of what is common [to many particular cases]. Admittedly, someone without scientific knowledge may well attend properly to a single person, if his experience has allowed him to take exact note of what happens in a given case, just as some people seem to be their own best doctors, though unable to help anyone else at all. Nonetheless, presumably, it seems that someone who wants to be an expert in a craft and a branch of study should progress to the universal (*epi to katholou kaiseteon*), and come to know that, as far as possible; for that, as we have said, is what the sciences are about (*peri toutou hai epistēmai*). Then perhaps also someone who wishes to make people better by his attention, many people or few, should try to acquire
legislative science, if laws are a means to make us good. For not just anyone can improve the condition of just anyone, or the person presented to him; but if someone can, it is the person with knowledge, just as in medical science and the others that require attention and prudence (EN X, 9, 1180b7-29).

The passage speaks for itself: while in no way downplaying the importance of moral perception, Aristotle recognizes that there is a science of legislation which teaches us how to make people good. The Nicomachean Ethics lays the groundwork for the practitioners of this science. It is, truly, a metaphysics of morals.

Literature: