

ROUND TABLE DISCUSSIONS

DIVISION A: LOGIC AND METHOD: FRANCIS M. TYRRELL, *Chairman*

Problem (a): *Ethics as Science*

This paper owes its origin to a chance perusal of the opening chapter in a certain commendable ethics text.¹ In a particular part of this chapter the author is interested in establishing ethics as a science in its own right. In doing so, he makes the following statement: "The definition of science as the *certain knowledge of things in their causes* is traditional among philosophers; ethics pre-eminently fulfills this definition, for it studies the purpose, or final cause of human life, the principles governing the means to this end, and establishes its conclusions with demonstrative thoroughness."² This sentence called to mind certain passages in Aristotle and St. Thomas in which they seem to indicate that in their view the definition of science as *certain knowledge through cause* is not pre-eminently fulfilled in ethics, nor does moral science establish its conclusions with demonstrative thoroughness. There seemed, in other words, to be a diversity of opinion on the character of ethics as science between the author of this text on the one hand, and Aristotle and St. Thomas on the other.

This suggestion of diversity, in turn, gave rise to certain more determined questions. For all three mentioned the definition of science is the same, certain knowledge through cause, and for all demonstration apparently plays a role in the acquisition of science. Yet, if it is true that Aristotle and St. Thomas regard ethics as an imperfect science, why is this? Is there something about the subject matter of ethics that renders demonstration impossible in this science? If so, what characteristics of demonstrative principles cannot be verified in moral? Moreover, for the author of the text, ethics is rightly denominated science, knowledge through cause, for the reason that it never loses sight of the final cause of human life, while being concerned with the principles and laws governing the use of means to this end. But if, for Aristotle and St. Thomas, ethics is defective as science, then it must be that in their eyes the moralist's concern with the end does not constitute knowledge through cause as Aristotle intends this phrase in his definition of science. If this is the case, then what is the difference between the moralist's concern with final cause and the kind of knowledge through cause which does constitute science?

An attempt to discover the answers to these questions led to a further investigation of the *Posterior Analytics* wherein the two definitions of demonstration are worked out, and of those passages in the *Nicomachean Ethics*, and in St. Thomas' original works, wherein the defective character

¹ Austin Fagothey, S.J., *Right and Reason* (St. Louis: Mosby Co., 1953).

² *Op. cit.*, p. 22.

of ethics as science is mentioned and explained. From this investigation emerged the considerations which follow.

Aristotle's definition of science in the first book of the *Posteriora*, the justification of that definition, and the first definition of demonstration are too well known to require elaboration here.³ But if demonstration produces science, and if Aristotle and St. Thomas find ethics defective as science, then it must be that one or another of the characteristics of demonstrative principles cannot, in their eyes, be fulfilled in moral reasoning. Just what these requisite properties are appears in the definition of demonstration from its material cause: if demonstration is a syllogism producing science, and if science is certain knowledge through cause, then a demonstration must be constituted of principles which are immediate or self-evident, and, at the same time, proper causes of the conclusion.⁴ A discipline characterized by such demonstrations can be called a science according to the primary meaning of the word. But it seems that from an understanding of these requisites on the part of demonstrative principles emerges the reason why the definition of science is not and cannot be fulfilled in moral: moral, because of the very nature itself of its subject matter, human actions, can have no principles which are at the same time necessary and self-evident, and also proper to, or proper causes of, the conclusion.

The notion signified by the phrase self-evident principles, or first and immediate principles, is too familiar to need elaboration here. The need for such as the principles of demonstration arises, as St. Thomas points out, from the impossibility of an infinite process; there must, in any science, be self-evident principles from which all demonstrations proceed.⁵

The meaning, however, of the word proper, when it is said that the principles must be proper, is more mysterious. St. Thomas, in commenting on the phrase, merely points out the following: Aristotle, he says, omits the addition of this note, that demonstrative principles must be proper. But the Philosopher himself says that this is to be understood from what has been said. For it has been said that the principles are causes of the conclusion: they must, therefore, be principles proper to that conclusion, since causes must be proportioned to their effect.⁶

Albertus Magnus, in his commentary on the same part of the *Posteriora*, quite neatly disengages the notion of a proper principle, which St. Thomas here refers to as *causas proportionatas effectibus*. St. Albert identifies such a principle as one which is first and immediate, not only in the sense that it itself is self-evident and has no medium by which it is demonstrated, but also in the sense that it is first and immediate with respect to the conclusion. That is, such a principle is the immediate cause of the conclusion,

³ Ch. II, 12-29; St. Thomas, lect. 4, 28-36. All references to the *Posteriora* are to *S. Thomae Aquinatis, In Aristotelis Libros Peri Hermeneias et Posteriorum Analyticorum Expositio* (Turin: Marietti, 1955).

⁴ Aris., *ibid.*, 20; St. Thomas, *In I Post. Anal.*, lect. 4, 37, 39.

⁵ *Ibid.*, 41.

⁶ *Ibid.*, 38.

and is first in the sense of being nearest to the effect to be demonstrated: "*primum dicitur immediatum quod est essenziale principium, inter quod et principiatum nihil est medium.*"⁷ Given two such principles, one subordinated to the other in form, the conclusion follows with absolute necessity. Within the principles, moreover, is contained the middle term which is the cause of what is represented by the conclusion.

When Aristotle and St. Thomas seek to exemplify science, they frequently resort to Euclid's geometry. Here, all the conditions for demonstration are perfectly fulfilled.⁸ When the proof, for example, by which it is manifested that an exterior angle of a triangle is equal to the sum of the two opposite interior angles is reduced to a demonstration in syllogistic form, in the major the predicate of the conclusion is predicated of the definition of the triangle. The resulting proposition, although not itself self-evident, has been demonstrated in prior theorems from principles which are self-evident. In the minor, the definition of the triangle is predicated of the triangle, and the resulting proposition is self-evident. From the two premises in form the conclusion follows with rigorous necessity. Here the principles are both self-evident, or demonstrated from self-evident principles, and proper to the conclusion. Moreover, the middle term, the very essence of the triangle, as represented by its definition, is the proper cause of the conclusion: the triangle has an exterior angle equal to the two opposite interior angles, not because it is right or obtuse, scalene or equilateral, but precisely because it is an enclosed, three-sided figure. The resolution of the conclusion into self-evident principles is here perfect.

It was mentioned above that moral appears defective as science precisely because it has no principles which are both self-evident and proper to the conclusions. The nature of its subject-matter, human actions, eliminates the possibility of such principles. This is the point St. Thomas makes when he contrasts ethics with the speculative sciences early in his commentary on the *Nicomachean Ethics*.

In any science a proper principle is one which is proportioned to the conclusion, immediate to the conclusion. Now moral, unlike mathematics, for example, or metaphysics, is not speculative science, but practical. In speculative science, the end is simply to know the truth, and this end is attained when a conclusion is resolved into self-evident principles in which the truth of that conclusion is seen to be contained. But practical knowledge is entirely different. Here the end is not simply truth; here the end is action, or operation, and a conclusion of practical reasoning must be a judgment about what is to be done. The moralist is not finished when he has defined justice or temperance, for example. A truly moral conclusion has not been reached until the question is answered: what must be done?

⁷ Albertus Magnus, *In Libros Posteriorum Analyticorum Commentarium*, Lib. I, Tract. II, ch. 4.

⁸ "... primo in demonstrativis in quibus acquiritur scientia. In his autem principales sunt Mathematicae scientiae, propter certissimum modum demonstrationis." St. Thomas, *In I Post. Anal.*, lect. 1, 10.

by what operations is virtue to be acquired? by what actions will this good effect be attained?⁹

The goal of moral science, as St. Thomas alludes to it in one passage, is "to provide some help to man in this matter, that through this he may be directed in his operations."¹⁰ The conclusions of moral should, then, be such as to provide guidance for a man that his life may be virtuous and good.

Human actions, however, are not performed in the abstract. Rather any individual's practical judgment about what is to be done will have to be made in definite circumstances including determined persons, with their particular states of health, individual temperaments and values, and particular times and places with their different laws and customs: "*causae singularium operabilium variantur infinitis modis.*"¹¹ The proper principles of moral will constitute the more proximate help, or direction, that moral science is to provide a man. These, as proper principles, must be proportioned to the practical conclusions. Because of the contingency, or variability, inherent in the conclusions themselves, the proper principles of moral cannot be self-evident, immutable, necessary truths. Rather, the proper must partake of the variability of the subject matter and, therefore, can take the form only of general rules of action which will hold good for the most part, but which in some cases will admit of exceptions.¹²

St. Thomas compares the subject of moral to the subject of the medical art: "*ipsa dispositio corporis sanandi et res quae assumuntur ad sanandum multipliciter variantur.*"¹³ Because of the different dispositions of the

⁹ ". . . praesens negotium scilicet *moralis philosophiae*, non est propter contemplationem veritatis, sicut alia negotia scientiarum speculativarum, sed est propter operationem. Non enim in hac scientia scrutamur quid sit virtus ad hoc solum ut sciamus huius rei veritatem; sed ad hoc, quod acquirentes virtutem, boni efficiamur . . . Et quia ita est, concludit, quod necesse est perscrutari circa operationes nostras, quales sint fiendae. Quia, sicut supra dictum est, operationes habent virtutem et dominium super hoc; quod in nobis generentur habitus boni vel mali." *In II Ethicorum*, lect. 2, 256. All references to the *Nicomachean Ethics* are to *In Decem Libros Ethicorum Aristotelis Ad Nicomachum Expositio* (Turin: Marietti, 1949).

¹⁰ *Ibid.*, 259.

¹¹ *Ibid.*

¹² "Sic manifestum est, quod materia moralis est varia et difformis, non habens omnimodam certitudinem. Et quia secundum artem demonstrativae scientiae, oportet principia esse conformia conclusionibus, amabile est et optabile, de talibus idest tam variabilibus, tractatum facientes, ex similibus procedentes, ostendere veritatem, *primo* quidem grosse, applicando universalialia principia et simplicia ad singularia et composita, in quibus est actus. Necessarium est enim in qualibet operativa scientia, ut procedatur modo composito." *Op. cit.*, lect. 3, 34.

¹³ "Vidimus autem, quod ea quae sunt in operationibus moralibus, et alia quae sunt ad hoc utilia, scilicet bona exteriora, non habent in seipsis aliquid stans per modum necessitatis, sed omnia sunt contingentia et variabilia. Sicut ipsa dispositio corporis sanandi et res quae assumuntur ad sanandum multipliciter variantur." *Ibid.*, 258.

human body what works for most may not work for all. Thus, that penicillin should be administered to reduce a fever might be denominated a proper principle of medicine. But such a principle cannot possess universal validity: this patient, for example, may be allergic to penicillin. So too it is with the proper principles of moral.

In the *Summa Theologica*, Question 94, St. Thomas contrasts the common and proper principles of moral with those of speculative science.¹⁴ Whereas in the latter truth is found in the proper conclusions without any defect, just as in the common principles into which those conclusions are resolved, this is not the case in moral. Moral certainly does have common principles which are self-evident and necessary, such as "justice must be done," or "a man must be temperate." But in moral, as soon as the mind leaves such commons and descends to the propers, a defect of universal truth appears: "*in operativis non est eadem veritas vel rectitudo practica apud omnes quantum ad propria, sed solum quantum ad communia.*" This doctrine St. Thomas exemplifies by pointing out that it is a certain and common principle that a man should act reasonably, "*ut secundum rationem agatur.*" From this it follows, "*quasi conclusio propria,*" that one should pay one's debts, since this is the reasonable thing to do. That a debt should be paid is a proper principle of moral. It holds good as a general rule which will guarantee the goodness of action most of the time. But, as St. Thomas points out, in this or that case it may be detrimental, and consequently irrational, to pay a debt—for example, if the creditor is known to be seeking money "*ad impugnandam patriam.*" The conclusion of the article is that the common principles of the natural law are certain and known to all; but the propers hold true only as general rules which admit of exceptions; in some cases they will not be applicable "*propter particularia impedimenta.*"

In this same passage he refers to the propers as "*quasi conclusiones principiorum communium*"—not *conclusiones*, but *quasi-conclusiones*.¹⁵ That is, between the propers and the commons from which they are derived, there is not a sufficiently necessary connection such that these propers may be denominated conclusions with no qualification. Thus, for example, between acting rationally and paying a debt the connection is not absolutely necessary; sometimes the rational thing is to withhold payment.

Again, in the *Nicomachean Ethics*, the objection is raised that there can be no precept which can rightly be denominated *naturaliter justum*, that is, no precept pertaining to justice which can be said to hold true from nature itself. The reason given is that what is natural is immobile and the same everywhere; but the precepts of justice are not so. The

¹⁴ Art. 4.

¹⁵ "Sic igitur dicendum est quod lex naturae, quantum ad prima principia communia, est eadem apud omnes et secundum rectitudinem et secundum notitiam. Sed quantum ad quaedam propria, quae sunt quasi conclusiones principiorum communium, est eadem apud omnes ut in pluribus, et secundum rectitudinem et secundum notitiam . . ." *Ibid.*

example is given: "one must pay one's debts" admits of exceptions. In commenting on Aristotle's response to this difficulty, St. Thomas points out a parallel between two meanings of natural when something is said to be natural to some physical being, and two meanings of natural when some precept of justice is said to be natural. Thus, whatever is natural to a physical being as constituting its essence admits of no exceptions—for example, that a man should be an animal. But there is a second sense in which some characteristic may be called natural to a species and that is that this is consequent to the principles constituting the essence, and among these exceptions do appear. For instance, it is natural for a man to be born with ten fingers. St. Thomas gives the example: it is natural for a man to be right-handed, but some are ambidexterous. Similarly, there are certain precepts of justice founded on the very definition itself of justice and they admit of no exceptions. Any action, for example, whose definition involves a violation of justice, such as theft, if theft is defined as the unjust taking of what belongs to another, would be always and everywhere wrong. It is such self-evident principles as these that constitute the common principles of moral. Then there are other precepts which may be called naturally just in the sense that they are not self-evident from the definitions of the virtues, but are rather consequent upon, or derived from, the commons. These hold good for the most part, but do admit of exceptions. Such, for example, is the precept mentioned above: a debt should be paid.¹⁶ It is these latter that are *proportionata conclusionibus* and constitute the proper principles of moral.

The author of the passage cited at the beginning of this paper mentions that moral qualifies as knowledge through cause, since it "studies the purpose or final cause of human life, the principles and laws governing the use of means to the end." If cannot, of course, be denied that ethics is concerned with final cause. But whether the fashion in which ethics considers final cause constitutes knowledge through cause is another question. Science, as Aristotle defines it, is obtained when what is expressed in a conclusion is seen as a necessary effect of its cause. Science through final cause would be attained when something is seen as a necessary effect of its end. Thus, for example, that some animals have sharp teeth in front would be known through its final cause when the scientist realizes that it has to be that way if the animal is to be able to bite. In fact, the naturalist's quest for science is completed when he has discovered the final cause. For the end is the cause of causes, and then the scientist is in possession of the ultimate "why" this must be as it is. The conclusion is resolved in the final cause.

But in moral, it seems that the end plays an entirely different role. Here, too, the end plays the role of middle term in the reasoning process, since it does not appear in the conclusion. Yet in speculative science the end is seen as the cause from which some observed arrangement of matter or course of activity derives its necessity. But in the order of operation,

¹⁶ In *V Ethicorum*, lect. 12, 1025 ff. See also *Summa Theologica*, Pars Prima, qu. 100, art. 8, corp. and *ad primum*.

with which moral is concerned, the end is last; and the conclusion, which is a means to the end, is the *primum in operando*. Thus the end is regarded not so much as a cause as an effect to be attained. In medicine, for example, the reduction of a fever is the effect to be produced; the conclusion of the doctor's reasoning will be the determination of a means calculated to produce this effect. Similarly in moral, the possession and preservation of temperance, for example, which is an end of individual actions, must be regarded as an effect to be produced, and the conclusion will assume the role of a precept determining means to this end, and, as has already been mentioned, because of the shifting circumstances in which human beings act, no such means are of universal validity. Since moral's interest in the end, therefore, is a concern with an effect to be attained, rather than the determination of the final cause of an effect already known, this concern does not appear to constitute moral as science through cause as Aristotle intended this definition.

The preceding remarks constitute certain reflections on Aristotle's and St. Thomas' view of moral as a science, occasioned, as mentioned at the beginning, by one sentence in a modern ethics text. As logicians, Aristotle worked out the first meaning of the word science and St. Thomas accepted it. If we understand them correctly, their verdict on moral is that this discipline, because of the variability inherent in its subject matter, must necessarily fall short of fulfilling this definition.

As regards the allied question of the application, or use, of logic in ethics, this would seem to be minimal. In speculative science, if the first principles are worked out carefully according to the laws of definition, and composed in accordance with the rules of syllogistic consequence, the conclusion necessarily follows. Logic, particularly the art of definition and the art of resolution, is the indispensable instrument of speculative science.

But moral discourse seems to be quite different from speculative. The commons must of course be known, for these govern the entire range of moral matters. In fact, it is the certainty and invariability of the commons that constitute ethics a science. Moreover, it is the commons that provide the more proximate ends for moral activity. But moral discourse does not terminate with the discovery of the commons. If ethics is to provide man some help that his life may be good, the moralist must descend further—to the propers. Here the reasoning process is engaged in discovering means to ends; the reason must link means to ends. At this point it seems that the art of resolution is no longer of assistance. What is indispensable appears to be, rather, broad experience.

St. Thomas himself seems to imply this when he mentions that in moral it is not necessary to know the *propter quid*. Rather, *quia ita est* suffices as a principle. Thus, if someone knows that this or that work does actually for the most part produce the desired effect—that concupiscence is overcome by fasting, for example—this suffices. It is not necessary to resolve in a cause.¹⁷ Yet such a principle as this cannot be deduced with logical

¹⁷ " . . . oportet in moralibus accipere ut principium *quia ita est*. Quod quidem accipitur per experientiam et consuetudinem; puta quod con-

necessity from the definition of temperance; its value as a practical rule, including its limited applicability, can be judged only from experience. The same would seem to hold for all the proper principles of moral. For this reason experience is necessary not only for the moralist, but also for the student of ethics. Only if he has had a broad experience of human life can he judge what effects actually do follow, and under what circumstances, from certain rules of conduct.¹⁸

The formulation of laws in a state is similar to the formulation of proper principles in ethics, since the laws prescribe works which should assure the habitual goodness of human acts; the goodness of laws is measured by the goodness of the acts which result. But St. Thomas points out that only the experienced are apt to be good lawgivers, since only they can pass judgment on the aptitude of the rules as means for the intended effects.¹⁹ Similarly, within the entire range of moral matters it seems to be the case that a vast experience, rather than the rules of resolute reasoning, must be the moralist's guide in the formulation and evaluation of the proper principles.²⁰

²⁰ "Illi enim qui sunt experti circa singula, habent rectum iudicium de operibus, et intelligunt per quas vias et qualiter huiusmodi opera perfici possunt, et qualia opera qualibus personis vel negotiis concordant." *Ibid.*, 2176.

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cupiscentiae per abstinentiam superantur. Et si hoc sit manifestum alicui, non multum est necessarium ei ad operandum cognoscere propter quid. Sicut medico sufficit ad sanandum scire quod haec herba curat talem aegritudinem. Cognoscere autem propter quid requiritur ad sciendum, quod principaliter intenditur in scientiis speculativis. Talis autem, qui scilicet est expertus in rebus humanis, vel per seipsum habet principia operabilium, quasi per se ea considerans, vel de facili suscipit ea ab alio." *Op. cit.*, lib. I, lect. 4, 54.

¹⁸ "... oportet illum qui sufficiens auditor vult esse moralis scientiae, quod sit manu ductus et exercitatus in consuetudinibus humanae vitae, idest de bonis exterioribus et iustis, idest de operibus virtutum, et universaliter de omnibus civilibus, sicut sunt leges et ordines Politicarum, et si qua alia sunt huiusmodi." *Ibid.*, 53.

¹⁹ "Leges autem instituendae assimilantur operibus politicis. Instituuntur enim quasi regulae politicorum operum. Unde illi, qui nesciunt qualia sunt opera convenientia, non possunt scire quales sunt leges convenientes. Sic igitur ex legibus congregatis non potest fieri aliquis legis positivus, vel iudicare quales leges sunt optima, nisi habeat experientiam." *Op. cit.*, lib. X, lect. 16, 2176-77.