I answer that, it was necessary for man's salvation that there should be a knowledge revealed by God, besides philosophical science . . . Firstly, indeed, because man is directed to God, as to an end that surpasses the grasp of reason . . . But the end must first be known by men who are to direct their thoughts and actions to the end. Hence it was necessary for the salvation of man that certain truths which exceed human reason should be made known to him by divine revelation. . . .

There then follow his replies to the objections stated at the beginning.

Thus St. Thomas reconciled the views of those who had been arguing that every part of the revelation should be understood and those who held that no part of the revelation could be understood, and so he bridged the gap between the order of what we believe by faith and the order of what we know by reason. The monastery, the institution of faith, and the university, the institution of knowledge, were in the process of reconciliation. Thomas' view might not satisfy us, but it served his day, even though there was a kind of circularity about the view. Thomas appealed to faith in the face of philosophical criticism and to criticism against unbelief. By philosophy he would answer what he regarded as error, yet he would evade the force of philosophy by turning to Christian mysticism beyond philosophy. Through it all one thing emerges dominant however—the ultimate authority of revelation, even though reason was held as not possibly being in conflict with it.

In ethics (the theory of moral value), Thomas followed Aristotle, who was concerned primarily with two questions: (1) What is the good? and (2) What is the right? -- the "good" being understood as the end toward which our actions are directed, and the "right" being understood as what we must do to attain the good. All action is chosen for some end. We choose roast beef for dinner because the ends of the action are the pleasure of our sense of taste and the maintenance of health as well as the removal of the pangs of hunger. In choosing, it often happens that we must choose between ends--between pleasure and duty perhaps, or between our own convenience and our responsibilities, and so on. All such things are importantly, if not wholly, relative, but they can be, and are, evaluated by us in terms of what we consider more valuable in the long run, and of these more valuable ends we also choose the more valuable, and so on until we arrive at a supreme value--that is, at a supreme good. Thomas, and Christianity generally, held that the supreme end and good for people is to know God, the supreme good, and to enjoy him forever.

This is true for the Christian not as a theoretical matter in the hierarchies of goods but because the good is also to be understood as the fulfillment of the nature of a thing, as we say in Aristotle. Now the nature

Donner, Eble, and Helbling, The Intellectual Tradition of the West (Glenview, Illinois: Scott, Foresman and Company, 1967), p. 316.

of mankind is found in the image of God in mankind, so that to achieve the supreme good for individuals is simultaneously to perfect their own nature in a divine likeness and thus to know God and enjoy him forever.

This is further held by Thomas to be true because the image of God in mankind and mankind's essential nature are both found in the human intellect. The nature and the end of intellect is knowledge, and the highest knowledge is knowledge of God. Yet the intellect is limited and faulty, and of itself cannot lead us to perfect knowledge of God, any more than faith can, faith not being an organ of knowledge at all. The perfect knowledge is a gift of God that we receive in the mystic vision of God, which transcends both intellect and faith.

If, then, this is the good for people, what constitutes right (moral) action? Any human act derives its moral quality from several sources—the external object involved, the motive, the circumstances, and the suitability of the act to the occasion—and all of this is subject to the primary rule of the fulfillment of mankind's nature, or "form," a person's end as a human being. Put all this together and the right action becomes whatever action leads to the fulfillment of the image of God in the human intellect and which leads thus to the knowledge of God and the vision of God. For the external object of human good is God, and the moral motive is to know God and to enjoy him.

But to know God is to know the intelligible structure of the universe that constitutes the divine forms in the mind and will of God, and the right then becomes making the human will conform to the divine law in the structure of things. Yet this is also to be understood as being the only way in which people can fulfill their own nature, because the fulfillment of the form or nature of mankind is not individual, private, but is universal and already given in the eternal structure of things, yet at the same time given in each individual.

Furthermore, for Thomas and the Christian in general, to act thus is moral duty, for a person has an obligation not only to fulfill his own nature in accordance with his nature as a human being but also in accordance with the divine sovereign's will that people should fulfill in themselves the divine image and come to enjoy God in eternity.

The fulfillment of the natural virtues, according to Thomas, can be achieved by people themselves. The difficulty lies in the will. For contrary to the Greek view of virtue expressed classically by Socrates, that to know the right is, for the rational person, to do it (Socrates said, "Knowledge is virtue"), Thomas and the Christian knew full well that people who know the right frequently will what is wrong. Yet by self-discipline and by self-dedication to doing the will of God in natural matters, people can come to achieve natural virtues. The rule is Aristotle's old rule of the Golden Mean. People surely can understand and achieve temperance in matters of appetite and love of money and of power, etc., especially as the grace of God is present to assist them in their efforts.

The theological virtues—the final mystic vision of God and the love of God—on the other hand, are not within the competence of people and must be produced in them by God's grace in order to complete human virtue and to bring people to their full and final happiness. Yet because we cannot either perfectly know God by the intellect, nor perfectly fulfill the will of God in moral action, nor perfectly love God in this life, the full end of mankind can be achieved only in eternity.

In politics as in ethics, Thomas followed Aristotle. Politics is the extension of ethics; it defines what is good for people in community, for people cannot fulfill their natural good in isolation. The state must, therefore, regulate people's behavior to fulfill their natural end. But it must also regulate their lives to prepare people for their divine end, without which their natural end cannot be complete. It follows thus that within this system political power must be subject to theological power. Yet this political power, according to Thomas, precisely because it is established to educate and assist people in the fulfillment of both their natural and their theological good, ought not to be tyrannical and enslaving. Such a government, Thomas thought, is best achieved by a monarchy. In any event, it is limited in its power by the Church and finally by the Roman pope. Such a monarch is also limited by the community because he is actually only the agent of the people and their divine and eternal, as well as their natural, interests. For such reasons Thomas believed that revolution to overthrow a tyrant who fails badly in his functions is proper.

It is important for us to observe here that this double concept of sovereignty and revolution is based on the understanding that sovereignty really rests in God, not in the statistical and arbitrary will of individuals or masses, and that it is the inherent obligation of the ruler to provide the social structures in which people are enabled to achieve the final good that resides in their potential nature as children of God and in the will of God and not in any sovereign appetite or whim of those ruled.

In all of this it would seem apparent that people's wills must be free in the achievement of the natural virtues by the willing of moral acts, and to this Thomas agrees, for he understood full well that there can be no moral excellence in any act except as the act is freely willed.

It is thus puzzling, therefore, to find that Thomas, together with Augustine and others, believed in double predestination—that God predestines some to be saved and some to be damned, and that his will in this matter is irresistible. We might suppose that a person's free will exercised in moral choice producing natural good is, in view of predestination, not enough in itself to save the person, and that the love of God acts to save a person or to leave him to damnation by completing or leaving incomplete the process of virtue. But Thomas explicitly shuts this out. He makes it quite clear that "even the good movement of free choice, whereby anyone is prepared for receiving the gift of grace, is an act of free choice moved by God." The entire treatment of mankind's natural capacity to achieve the moral good as its natural end seems to have been sacrificed

to theological demands.

Thomism quickly became the authoritative view of the Church, even though it was not without its critics within the Church; but it was barely well established before it was also under much more radical attack from outside the Church. It is a poignant fact that the very thing, besides Thomas' own genius, which made his achievement possible—that is, the rediscovery of Aristotle—was to be the same thing which would lead, through Aristotle's interest and work in natural science, to the undoing of the whole Thomist structure.

## ROGER BACON (1212-1292)

Contemporary with Thomas Aquinas was Roger Bacon, also a good Scholastic, who believed thoroughly in the Christian revelation but was much out of sympathy with Thomas' method. From a more thorough knowledge of Greek than any other medieval scholar, he achieved a more exact understanding of Aristotle and his empirical method of direct observation and experience, and so became very impatient with Thomas' deductions from axioms. His method of direct experience led Bacon into all sorts of studies that were far afield from philosophical theology. He discussed how to construct and set giant magnifying glasses so as to focus them on enemy ships to set them on fire, and how to build mirrors so as to make a small military unit look like an army, and so on and on. Yet he firmly held to the view that the utility of science must finally be in the service of God and that there is one perfect wisdom and that is found in the Christian scriptures.

While holding firmly to the ultimate authority of the revelation as the means of knowledge in inner spiritual matters, he said there are four sources of error in people's beliefs about matters of fact. They are (1) submission to faulty authority, (2) influence of custom, (3) popular prejudice, and (4) the covering of one's own ignorance with a display of one's own knowledge. These four sources of error are to be overcome, said Bacon, by the principle of "experiment," or "empirical science," as he variously called his method.

The issue between Bacon and the Scholastics over method was based on the fact that no matter what certainties the Scholastics arrived at by their logic, it was lacking in certainty in empirical matters, i.e., in matters of experiment and experience. No matter how logic might prove that fire burns, we cannot believe it with the same certainty that we can when we put something combustible on the fire or put our hands in it.

While it is true that we find in Bacon the early beginnings of the modern scientific movement, we should not be overly impressed, because he remained solidly a Scholastic in other ways and stressed the ultimacy of the orthodox Christian view; and when it came to the knowledge people obtained through mystic vision as over against the empirical knowledge of

his experimental method, he was much more of a mystic than a scientist and much more of a mystic than Thomas could ever have been. In his empirical science he believed himself to be merely writing footnotes to the revealed truths of the laws of God.

### DUNS SCOTUS (c. 1270-1308)

Duns Scotus, a Scottish Scholastic who taught first at Oxford, then Paris, and finally at Cologne, was more typically medieval than Roger Bacon. Yet he had serious differences with Thomas. Thomas had held with Aristotle that people are by nature limited in their knowledge to what can be known by and through the senses. The universals, according to Aristotle and Thomas, are derived by the mind from sense experience because the universe is real in the particular sensory forms. But Scotus said that if the mind is in fact limited to what it can know by and through the senses, then metaphysics and the knowledge of God are impossible, for God is certainly not a sensory object nor embodied in the particular things. If Scotus were correct, then Thomas' carefully developed theory was bound to come tumbling down.

Furthermore, if this were true, then in the Thomian system we had no way of arguing from human virtues--goodness, love, mercy, etc.--understood through sense knowledge, to the same virtues in God (which the Christians did) because the being and properties of God are beyond intellect as well as beyond sense. If it were argued rather that this extension of human qualities to God is possible, then we would have to hold that God and mankind are the same kind of being, which orthodoxy could not admit. Scotus' solution was to hold that the human mind is not limited to sense knowledge but can by nature also know being itself, beyond sense experience, and hence can have a natural knowledge of God.

The danger in saying that mankind and God are alike in being is of falling into pantheism--the view that God and the universe are one thing. But Duns held that it does not involve pantheism. He held that there is "a formal distinction with respect to the thing," which saved him from pantheism. This distinction and its implications are more clearly understood when we examine Duns' thinking about knowledge. He held to a threefold distinction in knowledge: (1) the objectively real distinction between things, e.g., two turtles; (2) the merely subjective difference between the sensations and thoughts of the two turtles, or the perceptions anyone may form of the turtles, which he called the rational distinction; and (3) what he called the "formal distinction" -- the distinction that sees both turtles as actualizations of the same turtle nature or turtle being, yet sees that "this" turtle is this turtle and "that" turtle is that turtle. Thus there are some properties the turtles have in common; most importantly they share in "turtle being." But there are properties they do not share in common; e.g., their markings and temperaments will never be exactly, precisely the same, even though the observable differences may be slight.

By analogy Scotus argued that God and mankind have one being and, therefore, in some ways we may infer from mankind to God, but they have their "formal" differences--mankind as it were is a "this" and God is a "that," just as two turtles are not the same thing. To help our understanding, the analogy can be extended to a turtle and a flamingo. Both share "being as animals," but "this flamingo" and "that turtle" obviously do not share the same characteristics, although they both share "being." So it is with God and mankind, and what cannot be known of God by analogy from human knowledge to God is assured by revelation.

But while this seems to have favored a greater knowledge of God by natural reason in line with Thomas' view, Scotus took the other tack and held that much less could be known by philosophy about God than Thomas thought, because while by nature it was originally possible, in the fall mankind's intellect was impaired. By this move, while thinking to secure the role and priority of revelation, he in fact established a trend--which he would not have approved--in the direction of total separation of religion from the field of rational inquiry, which marked the Age of Reason and began the movement from the medieval theologically-oriented culture to the secular culture of modern rationalism.

One of our chief interests in Duns Scotus is his sustaining interest in what Bacon had talked about in his method of "experience" as over against the Thomist method. Scotus believed that just as we have certainty about propositions dealing with definitions of terms—all bachelors are unmarried persons—because the term unmarried is contained in the term bachelor, so we have certainty about things known by experience. Duns held that if a cause that is determinate—not free—causes the same effect in a great many things, then we may count it as certain that such cause and effect will always occur together. Duns saw that we do in fact reason from repeated observations of the same cause—effect sequence—apply heat to popcorn in cooking oil and it will pop—to a generalization that it will with certainty always do so. He thus underscored the regularity of nature and the fact that nature is an "order," a system of regular sequences of events.

We cannot nowadays agree with Scotus that such inferences are certain in the same way the deductive inferences are logically certain, but he focused the problem more than Roger Bacon had done and set the stage for greater attention to the nature of induction (as this kind of reasoning about matters of experience is called), and in this sense he marked the beginning of the shift from the deductive method, which was typical of medieval scholarship and which had dominated the world of thought for many centuries, to the scientific method and the secularism that characterize modern culture.

This distinction underscores Duns Scotus' interest in and stress on the individual. Plato, you recall, held that the real is the eternal form, and that individual things are shadows or copies of the forms. Aristotle had defended the individual as the substantive reality embodying the universal form. Thomas had followed Aristotle in this view and held also that it is matter which makes individuation possible. But

there was a hidden difficulty here, because Plato and Aristotle had agreed that the mind knows only the universal forms, and only universal forms are immortal. It followed that the individual material body is not immortal, which is contrary to the Christian dogma of the resurrection of the body.

Scotus sought, therefore, a better solution for the problem of individuation. If what we know is form and if we know individuality, which we certainly do, then there must be individual form just as there is universal form. Here, again, Scotus used his idea of formal distinction of the "this" and the "that." We know Flip Wilson and Archie Bunker as "this" man and "that" man, as the "Flip Wilson" form and the "Archie Bunker" form, and thus know individual forms. But these forms are not separate from and other than the form "man." The distinction is only formal. To support this view Duns Scotus proposed that the universal forms are not, as traditionally believed, eternal and separate in the mind of God, but their being thought by God and their "contraction," as he put it, in the creation of the individual are simultaneous, so that all forms exist only in the individual. The form "Wilson" and the form "man" and the form "animal" exist only in the individual Wilson by "contraction," for there is nowhere else for them to exist.

The individual Wilson or Bunker, therefore, takes on a new significance because he is not a shadow or a copy of a universal, nor is his individuality resting in his bodily materiality, nor yet in some universal "reason" or image of God that is immortal, but in Wilson and in Bunker. Here, again, we have in Scotus a foreshadowing of the modern world and its emphasis on the value of the individual in himself. Yet it is important to remember that Scotus' individual value was not apart from the divine, universal form but because of it, for his individual form was none other than the divine universal form in contraction.

One other point is worth making. You will recall we have at least once already discussed the issue of philosophical theology of whether God wills a thing because it is right, or it is right because God wills it. In the first case we would be holding to the priority of the divine intellect which knows the good and so wills it because it is good. In the second case we would be holding to the priority of the divine will. The first view was held by Thomas and the second by Augustine, with whom Scotus joined cause. Thus he advocated the freedom of the will of God in the radical sense that nothing determined the will of God, not even the divine reason or knowledge. But when it came to the human will, Scotus held it completely free to choose any alternative possibility, in which view he departed from Augustine's view that the will of mankind is free only to sin. Scotus thus is a lot closer to Pelagius than either Augustine or Thomas in this matter and, incidentally, more removed from modernism, which holds to the determinism rather than the freedom of the will.

# WILLIAM OF OCCAM (b. ?, d. c. 1349)

William of Occam carried the view of Scotus to its logical conclusion, and in so doing revived the old cause of the nominalists, who, you recall, had held that universals are only "nominals"--names--for properties perceived by our senses to be common to many individual things, and that only individual things are real. Occam followed the lead of Roger Bacon and Duns Scotus in their emphasis on the method of "experience." The only realities, he held, are the ones we can know with the senses--the concrete, sensory individual things and bodies.

Thus, he argued, we have no right to explain the sensory world by supersensory things like "form" or even God as causes of sensory things. Even to argue causes for visible effects, we must, he said, be able to observe the causes also; i.e., we have no right to appeal to invisible causes (forms or God). This view is contained in a principle that came to be called "Occam's Razor," for which Occam became famous--"Essences are not to be multiplied except as may be necessary." In paraphrase we might say, "What cannot be verified in the senses (God, causes, etc.) must not be used to explain verifiable things (sensory objects) when these can be explained more simply and directly." For example, forms and universals are only names for things when we deal with them en masse and neglect their individualities, paying attention only to what they have in common, and therefore are much less real than the individuals. The value of these universal terms lies merely in their general handiness in referring to groupings such as "people," "residents," "cats," and so on.

The implications and consequences of this view are very radical indeed. If the view is true, then we can have no knowledge of God at all except by revelation. The overlap in which Thomas and the Scholastics believed in natural theology is "down the drain," as we say, for God cannot be seen and at best can only be a name for some properties we observe with the senses as commonly shared by all natural objects. Neither can the soul be known by the senses. Even admitting the psychological phenomena such as sensations of pleasure and pain, desires, thoughts, volitions, etc., they are experienced only as individual and distinct sensations, desires, etc., and not as a soul substance.

The same is true then for moral principles. They, too, are only fuzzy generalizations for individual moral experiences, and each moral experience is to be regarded in its individuality, not as governed by divine law. In other words, nothing is derived from eternal essences which give reality to particular things.

There is no reason, thought Occam, to believe that such eternal essences exist. Even if they exist, no knowledge of them is possible by natural reason, because they are not observable in the senses. On the contrary, natural knowledge is achieved by analyzing everything down to its irreducible units, its smallest possible individual parts. Knowledge then is not generalization or inference from known to unknown things but is analysis of aggregates to the parts which make them up.

Thus were born in the mid-fourteenth century three of the central principles of modern science: (1) only sensory knowledge is real knowledge; (2) knowledge achieves clarity and precision by analysis into irreducible particular parts; and (3) the simplest explanation which actually does explain must always be used. It must be observed, however, that Occam did not develop inductive reasoning, which came to be a central tool or method in natural science; this had to wait for two hundred years or so for significant development in the work of Francis Bacon.

All of this required, of course, that if Occam were to remain a Christian he had to assert what is known as the concept of the double truth-the authenticity of the Christian revelation independent of any ability to prove it by natural reason and the authenticity of the truths of natural science as unrelated to, and thence not possibly in conflict with, the truths of revelation. And so the gulf between reason and revelation was set deep and wide. Occam and his followers took comfort in the thought that this position relieved them of having to reconcile the two because the truths of one domain had nothing to do with the truths of the other. But the long range consequences of this radical separation of faith and knowledge were devastating to faith until the present day. It has limited knowledge and people's image of reality--including people's self-knowledge of their own reality--to what is knowable in the senses. As a consequence, modern humanity for over five hundred years has had no culturally dominant faith in its own spirituality but only in its own materiality and in analytical material truth.

No more radical change than this change from a theological to a secular theory of knowledge had occurred in the history of Western thought since 600 B.C. when, in a simpler age and a simpler way, Thales abandoned the old religious explanations of reality he had inherited in the Homeric and Hesiodic mythologies. That the shift has been enormously productive in the realm of natural scientific knowledge and the techniques of industry and medicine is true to a degree that staggers the imagination. Whether it has been at all productive or beneficial for our moral-spiritual humanity is another question.

R.J.M. 1974

#### FOR FURTHER READING

Jones, W. T. A History of Western Philosophy. New York: Harcourt Brace and Company, 1952, pp. 439-524.

#### ART

As in the case or Romanesque, the term *Gothic* is based on a misunder-standing, mainly by eighteenth century critics, as to the true nature of that final phase of the Middle Ages. To them *Gothic* meant "barbarian," and the Goths were incorrectly assumed to be the source of the style. The style and form, as well as the purpose and setting, of Gothic architecture is the antithesis of classical balance and order. It is irregular, frequently asymmetrical, and highly emotional in concept as the buildings themselves express the exuberance of the Christian spirit.

The Gothic style overlaps the Romanesque in terms of dates, and while it is true that Gothic engineering could probably not have been successful without Romanesque innovations in bay vaulting and an understanding of the stress limitations of the arch and the vault, the Gothic style ultimately becomes different in some very important ways. Apart from their common anti-classicism and the fact that Romanesque engineering predestined Gothic developments, the two styles are quite divergent and reflect rather different environments. The Romanesque world was a time of great tension and uncertainty; there was no central government, and the enforcement of monastic law was stern and final. In Gothic times central government and the foundations of the modern European state came into being, resulting in a system of law a bit less harsh, which gave a feeling of order and inspired confidence. The class system, in Romanesque times given a theological justification, became less rigid, and freemen, as well as serfs, left the land to become the skilled craftsmen and shopkeepers in the city. Many in this group rose to become the middle class--a political force to be reckoned with.

The Gothic world was markedly different in terms of its philosophical base, its economic and social structure, and in the organization and attitude of the Church itself. For one thing, the monastic system began to lose power to the urban bishops, whose orientation was much more secular and whose power frequently depended upon a coalition of parish priests, local royalty, and (for the first time) lay groups. As Gombrich points out, the Church militant, fighting the powers of darkness and preparing for doomsday in self-contained isolation and retreat from the real world, gave way to the Church triumphant, which expounded a positive and optimistic view of functioning in the real world armed with the spiritual intercession and support of God. Gothic art--particularly architecture-is the clearest flame of the Christian spirit and expresses the apogee of enthusiasm and faith. Gothic architecture evidenced a particular characteristic of Western thought -- a restlessness which spawned an unwillingness to work within the limitations of traditional forms. A kind of dynamic energy, from Western Europe's barbarian heritage, evidently