

## ROGER BACON : THE PROBLEM OF UNIVERSALS IN HIS PHILOSOPHICAL COMMENTARIES<sup>1</sup>

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IN 1848 Victor Cousin contributed to the *Journal des Savants* an article describing an unedited manuscript of Roger Bacon which he had discovered in the library of Amiens.<sup>2</sup> Publication of the manuscript was undertaken by the late Robert Steele and, with the collaboration of F.-M. Delorme, O.F.M., completed between the years 1926 and 1935.<sup>3</sup> The manuscript dates from the closing years of the thirteenth century. It owes its existence, according to Steele, to the zeal of one of Bacon's pupils who was anxious to recover copies of his master's works from the Paris stationers. The manuscript contains a series of loose commentaries, *questiones*, on the text of various Aristotelian and pseudo-Aristotelian treatises. These commentaries bear the mark of oral delivery and were surely notes of lectures delivered by Bacon during his teaching career in the Faculty of Arts at Paris.<sup>4</sup> Historically, their importance lies in the fact that they are the earliest known mediaeval commentaries on the natural philosophy and metaphysics of Aristotle. They were written before Roger had turned to the study of experimental science and languages, i.e. twenty years before 1267. The *terminus ante quem* is, therefore, 1247. The *terminus post quem* is very probably 1241 or 1242.<sup>5</sup> Before 1240, to judge by available sources, the philosophical literature concerned only logic, ethics and grammar.

<sup>1</sup> Paper read to the Mediaeval Society at Oxford on February 12, 1951.

<sup>2</sup> V. Cousin, 'Description d'un manuscrit inédit de Roger Bacon qui se trouve dans la bibliothèque d'Amiens'. *Journal des Savants*, August, 1848, pp. 459-472.

<sup>3</sup> Cf. T. Crowley, *Roger Bacon : The Problem of the Soul in his Philosophical Commentaries*, Louvain and Dublin, 1950, pp. 73-74.

<sup>4</sup> *Opera hactenus inedita Rogeri Baconi*. Fasc. X. *Questiones supra libros Prime Philosophie Aristotelis*, ed. R. Steele and F.-M. Delorme, Oxford, 1930, pp. xv-xvi. In referring to the various fascicles of this series, I shall use the abbreviation O.H.I. followed by the number of the fascicle referred to.

<sup>5</sup> Cf. T. Crowley, *Roger Bacon . . .*, pp. 72-73.

Bacon's commentaries are, consequently, the work of one of the pioneers of the Aristotelian revival of the thirteenth century and enable us to gauge the extent of the penetration of Aristotelian philosophy in the first half of that century. They reveal the intellectual climate of the time, the problems discussed, the solutions proposed, the questions asked, the answers given, the authorities invoked, the influences that shaped the future development of European philosophy.

In selecting to read to you a paper on the problem of Universals in Bacon's philosophical commentaries, I have had no more in mind than these purely historical considerations: How does Bacon pose the problem? What solutions to the problem does he know? What does he conceive to be the correct solution? Does he adopt one solution and adhere to it? Did his teaching exercise any influence on his successors? The problem of Universals is an eternal one. No object of consciousness, nothing of which I am aware, can be described otherwise than in a judgment and the predicate of the judgment is necessarily affected with universality. Nominalists of all time, for reasons that vary and are at times contradictory, have condemned the concept, exploded the universal. As with the sophists of old and the art of discourse, the universal becomes the instrument of its own destruction and volumes have been written, replete with universals, to show the emptiness of the universal. But conceptual thought does not capitulate easily. The instrument that has served, and still serves, man to master the universe cannot be lightly discarded.

How does Roger Bacon state the problem? In the simplest terms. Is the universal something which exists only in the mind or has it an existence in things outside the mind? *Queritur utrum universale habeat esse in rebus vel in anima.*<sup>1</sup> *Utrum universale verius sit in rebus quam in anima.*<sup>2</sup> *Queritur quomodo ponendum est universale, an in rebus vel in anima solum.*<sup>3</sup> *Et queritur ubi est universale et quomodo, utrum in rebus an in anima.*<sup>4</sup> *Queritur utrum universale sit sola et pura intentio.*<sup>5</sup> This is the form under which the problem was stated and discussed by

<sup>1</sup> *O.H.I.*, xi. p. 144.

<sup>2</sup> *O.H.I.*, xi. p. 145.

<sup>3</sup> *O.H.I.*, x. p. 241.

<sup>4</sup> *O.H.I.*, x. p. 239.

<sup>5</sup> *O.H.I.*, xi. p. 150.

Roger Bacon in his lectures. The formula indeed differs little from that of Porphyry—*mox de generibus et speciebus illud quidem, sive subsistunt, sive in solis nudisque intellectibus posita sunt*. When, for example, I say 'this is a tree', 'Plato is a man', 'this is a substance', what precisely do the terms 'tree', 'man', 'substance' tell me about the object of which they are predicated? Do they signify something in the objects or are they mere names?<sup>1</sup>

To this question we can conceive various answers. M. de Wulf enumerates four.<sup>2</sup> In the first place, there is what he calls *le réalisme outré*, extreme realism. Out there there are universal entities; the ideal tree, the ideal man, the ideal substance exist. Somewhere, somehow, there is a world of ideal entities, of universal beings of which the things of sense are mere copies and pale shadows. It is to this ideal world that our universal ideas refer, to these never-changing, eternal, subsisting prototypes. Nobody in the middle ages adopted this solution. Extreme realism in the middle ages took the form that in the concrete, singular things of sense, there existed grades of being (referred to in many text-books as metaphysical grades of being) corresponding to the tableau of generic and specific notions. The schoolmen were familiar with the tree of Porphyry in all its branches, from the *summum genus*, the highest generic notion, substance, to the *species specialissima* or *species infima*, man, for example, that notion that had no subordinate species. The definition of man would be a rational, sentient, organic, corporeal substance. Extreme realism affirmed the real existence in the individual of these various grades of being affected by the appropriate degree of universality. This is important. Substance, body, living being, animal, man—are universals mentioned in descending order of universality. Each grade exists in the individual with its proper degree of universality. The real order thus becomes the perfect reflection of the logical order. Opposed to this extreme realism, there is the solution advocated by the Nominalists. Only individuals exist. In the extramental world

<sup>1</sup> I am concerned here only with the purely historical problem of Bacon's teaching on universals.

<sup>2</sup> M. de Wulf, *Histoire de la philosophie médiévale*, vol. 1, Louvain, 1934 (6th ed.), pp. 143-145.

there are only individual, concrete, singular things : this tree, that man, a substance. And every element of the individual is individual. Universality affects only mental words or concepts. These mental words are merely convenient recipes, names, under which we group individuals. They signify nothing outside the mind, they are mere names, *nomina, voces et praeterea nihil, flatus vocis*. It is nothing objective, but only convention, that determines the application of concepts to things. The relation of similarity which the mind perceives between things has no real foundation. A third solution is that of moderate realism. Its essential feature is the distinction it introduces between the *id quod concipitur* and the *modus quo concipitur*. The content of the concept faithfully expresses the reality ; to it the mind adds nothing. The universal character of the concept is entirely due to the intellect and cannot be projected into the object or thing outside the mind. Since the reality is rich and complex and our minds are weak and abstractive, we cannot exhaust in one mental act the whole reality of things. We advance in knowledge by multiple partial conceptions. But we cannot introduce into the reality the divisions we may find necessary to bring order of one kind or another into our concepts. A fourth solution to the problem, one never met with in the middle ages, is that which suppresses the distinction between thought and sensation and reduces the concept to a more or less lifeless and poverty-stricken relict of sensation.

Let us return to Bacon's commentaries and to the question, *an in rebus vel in anima?* Historians of mediaeval philosophy have been inclined to place Bacon either in the category of extreme realists or in that of nominalists ! It is not my intention here to discuss how they arrived at their conclusions but merely to note the strange divergence of opinion.<sup>1</sup> Let us forget the historians for the time being and allow Bacon to speak for himself. There are, he tells us, only three possibilities : the universal either exists in itself or in the soul or in things outside the mind. But

<sup>1</sup> Cf. B. Geyer, *Friedrich Ueberwegs Grundriss der Geschichte der Philosophie*, zweiter Teil, *Die Patristische und Scholastische Philosophie*, 11th ed., Berlin, 1928, pp. 470-471 ; J. A. Sheridan, *Expositio plenior hylemorphismi Fr. Rogeri Baconis, O.F.M. Analecta Gregoriana, xvii, series facultatis philosophicae, Sectio B, n. 2*, Rome, 1938, pp. xxiv f.

it does not, as Plato taught, exist in itself. At no stage of his chequered career did Bacon find any time for Plato's world of ideas : *quia stulta est posicio, et nullus dicit nunc sicut Plato*.<sup>1</sup> We are thus left with two alternatives—the universal exists either in the mind or in things outside the mind. Consider the question : *ubi est universale et quomodo*. The first answer is the following : *et est una posicio quod universale (secundum) id quod est in rebus est, sub ratione universalis est in anima*.<sup>2</sup> We have little difficulty in recognizing in this opinion the solution proposed by what we have termed moderate realism. But Bacon does not approve of this solution : far from it. *Ista opinio*, he declares, *nulla est*, which we may translate freely to mean that this solution is no solution at all. The distinction between what we conceive (*id quod concipitur*) and the manner of our conceiving it (*modus quo concipitur*) is illusory. Bacon attempts to prove this by taking a few examples. Wherever you find what is signified by 'man', there it is *sub ratione hominis* ; wherever you find what is signified by 'father', it is there *sub ratione patris*, and wherever you find what is signified by 'universal', it is there *sub ratione universalis*. The reasoning has only its vigour to recommend it. It will be repeated by Bacon twenty years later in the *Communia Naturalium* in the same terms.

What, then, is a universal ? It is some real, true nature or essence (the two terms being practically synonymous). The universal which is predicated of things outside the mind exists outside the mind : *universale, quantum ad id quod est, est aliqua natura vera et realis*.<sup>3</sup> Not, however, after the manner of Plato's ideal entities, apart from and independent of the world of sense realities. The universal exists in the singular ; it is one with the individual. *Aut est in anima, aut in rebus, set non est in anima, ergo est in rebus*.<sup>4</sup>

At this point we must advert to an evolution in Bacon's thought. The *Questiones altere supra libros prime philosophie Aristotelis* contain a much less personal and characteristic doctrine of universals than do the *Questiones supra libros prime philosophie Aristotelis*. Both sets of *questiones* date from Bacon's

<sup>1</sup> O.H.I., ii. p. 101.

<sup>2</sup> O.H.I., x. p. 239.

<sup>3</sup> O.H.I., x. p. 240.

<sup>4</sup> O.H.I., x. p. 242.

teaching career at the University of Paris. The more developed doctrine is, as we should expect, the later development.<sup>1</sup> In the first set of *questiones*, the teaching on universals, if interpreted *benigne*, could easily be made to agree with that of the majority of the Schoolmen who favoured moderate realism. The universal, considered as a common nature in which individuals share, has no existence apart from the individuals in which it is found to be realized. Humanity, human nature, has no existence independent of individual men. There is nothing to show that the reality of the universal is distinct from the reality of the singular, nothing to indicate that Bacon held a doctrine appreciably different from that laid down by Abelard and accepted by the vast majority of the Schoolmen.

When we come to the second set of *questiones*, we find a marked change. Bacon is more impatient with the received doctrine, his phraseology takes on a more personal note, his affirmations and denials become more clear-cut. There is, in the first place, a much sharper distinction drawn between the universal as it exists in the mind, the concept or *intentio*, and the universal as a *natura communis*, a common nature shared by individuals. In the early work, we are given seven terms as practically synonymous: *ratio, forma, similitudo, universale, intentio, ymago, natura—universale illis septem nominibus distinctum idem est in re, proprietatibus enim vel ratione diversatur.*<sup>2</sup> The two terms which are of greatest importance from our point of view are *universale* and *intentio*; they designate the common nature—*universale* as it is one in many (*prout est unum in multis*), *intentio* as it is considered apart (*prout est in anima, unum preter multa*), the objective and subjective face of the universal respectively. In the later work, a more fundamental distinction is drawn. The true universal is something outside and independent of the mind; the *intentio* or *species* is merely its reflection or likeness. The universal that is predicable of individuals is not a mental entity or concept; it is a real common nature (*natura communis*)—common to those things of which it can be predicated. It is altogether independent of the thinking or conceiving subject, it precedes the act of knowledge, it generates

<sup>1</sup> *O.H.I.*, xiii. pp. xxx f.

<sup>2</sup> *O.H.I.*, xi. p. 150.

its own concept in the mind. This *natura communis* is the reality to which the concept or *intentio* refers and not the singulars considered in their individual beings.

What is this *natura communis*? Is it a constitutive principle of the individual reality? Once again it is important to remark that Bacon does not admit the existence of a universal entity apart from the singular, concrete reality. His attitude to Plato and to Plato's ideal world has not changed. It can be asserted, therefore, that the *natura communis* has no separate existence, no existence outside the things of sense which are concrete and individual. *Universale nichil est nisi natura communis continuata in particularibus et existens in illis repplicata.*<sup>1</sup> There is then, out there, altogether independently of the thinking subject, a universal nature: *particularia sic conveniunt in natura communi predicabili de eis, sine omni operatione animae.* Socrates and Plato do share a common nature altogether independently of my thinking or comparing them and this common nature is a natural being — *est res naturalis et in predicamento . . . exclusa omni operatione anime.* This universal is neither the form, nor, a fortiori, the matter of the composite. One of the objections which Bacon encounters runs as follows: form is individuated by matter; but everything out there (*omne quod est in rebus*) is received in matter and, consequently, individuated; the universal is not individuated, therefore it does not exist outside the mind. To this objection, Bacon replies that *materia signata* (in reference to quantity) is the principle of individuation but that, besides this, there is a *materia communis* which is the matter of the universal. The universal has its own matter and its own form, a common matter and a common form opposed to the particular matter and particular form of the individual: *et sic universale est in materia communi, quia fit ex materia communi et forma communi . . . sicut singularia ex materia propria et forma.*<sup>2</sup> How can uni-

<sup>1</sup> 'Contra: non contingit ymaginari nisi triplex esse; aut in se, aut in anima, aut in rebus; set universale non est in se per se stans, quia sic esset ydea Platonica, nec in anima ut visum est, ergo etc. Item, universale est natura communis in qua conveniunt particularia; set Sor et Plato et huiusmodi non possunt convenire in aliqua natura communi que est in eis nisi aliquo modo natura repplicata in eis, quia universale nichil est nisi natura communis . . .' (*O.H.I.*, x. 243-244).

<sup>2</sup> *O.H.I.*, x. p. 242.

versals be said to be composed of matter and form? What is this matter which is said to enter into the constitution of the universal? In treating this question in connexion with Bacon's hylomorphic theory, I wrote that Bacon compared matter with the *genus* in the logical order. Matter is a genus. The genus contains potentially its subordinate species and is determined by the addition of *differentiae* which contract and limit it until the *species infima* is reached. In like manner, substance, the highest genus, a composite of matter and the form of substance, is determined in the real order by the reception of forms that become less and less general until the *species infima* is reached. The extramental reality, the individual substance in nature, is a veritable reproduction of the *arbor Porphyriana*.<sup>1</sup>

Have we now solved our problem? Can we now say, 'there is your universal existing in *rerum natura*'? A little reflexion will be sufficient to show that we are as far away as ever from a solution to our problem of universals. All that we can gather from Bacon's hylomorphic theory is that, in the evolution of the individual, the vague and general precedes in time the determined and particular. W. D. Ross has written that Aristotle anticipated von Baer in recognising that in development the more general precedes the more specific character, the nutritive soul (which we share with plants and animals) precedes the sensitive, and the sensitive (which we share with animals) the reasonable.<sup>2</sup> Bacon's interpretation of this gradual evolution may not recommend itself to either the scientist or the metaphysician. But it cannot be too strongly put that it is not to be interpreted as a solution to the problem of universals. Confusion on this point has led many historians astray.

The *natura communis* is not to be identified with any material or formal element in the singular, nor with the composite of matter and form at any stage of the evolution of the individual. Each individual of a species follows the same pattern of development; but Plato's nature is Plato's and not Socrates'. Plato may be a highly composite substance embracing strata of reality differing in degree of determinateness and completeness, but

<sup>1</sup> Cf. T. Crowley, *Roger Bacon . . .*, p. 107.

<sup>2</sup> W. D. Ross, *Aristotle*, p. 121.



every grade is intrinsically marked 'Plato', individualized, from the moment of conception to the moment of birth. No section of Plato is common to Plato and Socrates. The elaborate structure of the concrete individual leaves entire the problem of universals and it is only by complete misunderstanding that the former has been taken for an answer to the latter.

What is the *natura communis* of which Bacon so frequently speaks? We have heard Bacon say that it is the nature in which individuals share. But there is no nature in which they share other than the individual nature which each possesses, which is repeated or multiplied in the individuals of a species. In the very last question concerning universals in the second set of *questiones*, Bacon encounters the following objection: There is a principle which states *omne quod recipitur in aliquo, recipitur per modum recipientis*. In the present instance, the common nature is received in this individual and in that. Therefore, the common nature will be individuated, particularized. Bacon agrees. Nothing could be farther removed from extreme realism. Whatever is in the individual is individual and not universal: *secundum quod recipitur in isto habet esse signatum et participatum, unde ipsa essentia universalis est semper una, tamen illa replicatur in diversis secundum esse signata et diversa et particulata*.<sup>1</sup> Bacon frequently has recourse to the distinction between the *esse essentie* and the *esse actuale*; the *esse essentie* is the essence considered in the abstract, apart from the actual mode of existence or *esse actuale*. The universal is one considered apart, but as it actually exists it is multiple, numerically distinct in the various individuals in which it is realized. Considering his insistence on the extramental existence of the universal, this statement of Bacon's comes as a veritable anti-climax. Repeatedly and in the plainest terms, he affirms that the universal, *qua* universal, *reduplicative*, exists in the world of nature: *est res naturalis et in predicamento*. It is not contracted or individuated by its repetition in singulars—*non est necesse quod individuetur quia immediate recipitur in materia communi*. In spite of this he affirms that in singulars the existence of the universals is diversified, multiplied, individuated. The universal and the individual are not two, but one,

<sup>1</sup> *O.H.I.*, x. p. 245.

thing : *non est necesse quod sint duo, quia essentia universalis est in isto homine et in illo. Habet tamen esse aliquod appropriatum, particulatum, per quod appropriatur isti.* It would not be difficult to reconcile the dicta of Roger with the doctrine of the moderate realists in spite of certain expressions that seem to mark him as an extreme realist. But any conclusions that we might draw from his earlier writings would leave us dissatisfied and ill at ease. Fortunately, in his later works, and particularly in the *Communia Naturalium*, Bacon returns to a discussion of our problem. The doctrine is substantially the same as that we have discussed above. But there is an attempt to meet our difficulty squarely. With greater vehemence than ever he affirms that the universal exists outside the mind and that it exists outside the mind *qua* universal. But now he faces the objection that whatever is in singulars is singular : *quidquid est in singulari est singulare ; tunc non erit nisi singulare et individuum . . . ut in Socrate est anima singularis et corpus singulare, et scientia, et albedo, sicut ipse Socrates est singularis.* This is precisely the difficulty we have been stressing above. If everything in the individual is individuated and if only individuals exist, where is this famous universal ? Bacon distinguishes a twofold *esse* or being in every individual. There is its absolute being, the being it has in virtue of its constitutive principles ; for example, the being that Socrates has in virtue of his soul and body is his absolute being. Besides this there is the relative being, *esse comparatum*, that he has as compared to other men with whom he has in common a certain specific nature. When you say that whatever is in the individual is individuated, it is true in the first sense, in regard to the absolute being of things. Everything in Socrates, substance and accidents, is stamped and sealed with the mark of individuation. But your statement is not true in regard to a thing's relative being. And this latter is the universal. Two stones and two asses and two pieces of wood would be alike if there were never any rational soul : *etsi non esset anima rationalis, duo lapides convenirent ad invicem, et duo asini, et duo ligna sicut nunc ; set haec conveniencia facit universale, ergo universale remanet etsi anima non esset.*<sup>1</sup> This real relation of similarity, a relation which

<sup>1</sup> *O.H.I.*, ii. p. 94.

is independent of the mind, is precisely the universal objectively considered: *nam universale non est nisi conveniencia plurium individuorum, universale non est nisi conveniencia individui respectu alterius*.<sup>1</sup> The universal is not an element in the concrete essence; it is not an absolute entity entering into the constitution of the individual being. It is a relation which refers one individual to another in some particular way.

It is not difficult to link up this doctrine of Bacon with his hylomorphic theory. His conception of the real and his theory of universals are not contradictory. But we must not be led into confusing the two. The relative being of the individual will have as many grades and be as highly composite as its absolute being; individuals are related at every stage of development from the *summum genus* to the *infima species*. It would, however, be fatal to confuse the two kinds of being, the relative and the absolute. Failure to keep this distinction in mind has led some historians to classify Roger Bacon as an extreme realist. In fact, he is in no proper sense of the term an extreme realist. I am not here discussing whether his metaphysical doctrine did or did not contain the seeds of extreme realism or whether he could not have in fact been more alive to the dangers of extreme realism than he was. If we interpret extreme realism to mean that universals have an extramental existence as absolute beings or grades of being, Bacon was not an extreme realist.

The results of this inquiry can be briefly set forth. In the first place, Roger Bacon distinguishes two faces of the universal, the subjective and the objective, the former being the similitude or mental expression of the latter. The objective face is that real relation of similarity which holds between various individual beings. That relation exists in the real world, altogether independently of the thinking subject. Between Bacon's earlier and later works there is continuity of doctrine and, though the expression of his thought is clearer in his later works, the thought itself is the same. Further problems concerning the nature and role of the real relations which constitute the objective face of the universal are not, to my knowledge, discussed in Bacon's writings. In the second place, the connexion between Bacon's

<sup>1</sup> *O.H.I.*, ii. p. 94.

conception of the real, however great its defects, and his doctrine of universals is very close. There is a parallelism between the real order and the logical order, but it remains a parallelism and never becomes an identification. As Bacon sees it, the logical reflects the real rather than the real the logical.

Did Bacon's teaching exercise any influence on his contemporaries or on his successors? It is almost impossible to answer this question. The idea of the *natura communis* which looms so largely in Ockham's criticism of Duns Scotus needs to be investigated more closely. Perhaps it would not be wrong to suggest that this idea, like so many other of Bacon's ideas, was commonly received in thirteenth-century Oxford.