description'. 384 For Wittgenstein, the message of a valid philosophy was, 'there is the door'. It is not, I think, far-fetched to recall that Chesterton spoke of his discovery of Christian philosophy as going in through a door, only to discover that he was going out from the 'prison of one idea', 385 out into the world of ordinary experience, where he as free to look at, wonder at, and learn from things.

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³⁸⁴ See Josef Pieper, Happiness and Contemplation, E. trans. Faber and Faber, London, 1958, p. 92.

III. The Contemporary Thomism of Fr. Bernard Lonergan

Our times demand of us to know and to implement Aristotelian and Thomist method, to acknowledge in man's developing understanding of the material universe a principle that yields a developed understanding of understanding itself, and to use that developed understanding of human understanding to bring order and light and unity to a totality of disciplines and modes of knowledge that otherwise will remain unrelated, obscure about their foundations, and incapable of being integrated by the Queen of the Sciences, Theology.¹

CERTAINLY this is a vast programme for any one man. Yet, if one undertakes the exacting personal experience of Fr. Lonergan's *Insight*,² if further one follows his thought in his historical articles³ and in his theological treatises,⁴ one cannot but admit that the demands of that programme seem to have been met with a startling degree of success.

In the present article I have tried to place the work of Fr. Lonergan in the context of its historical background and its speculative background. I do not trace the historical context fully, for that would demand a survey of European thought together with a pinpointing of genuine contributory elements. Instead I restrict myself to a scant outline of the fortunes of Thomism. The speculative background, too, presents a goodly array of philosophies, theories and scientific developments. Here again selection was necessary and the main discussion is restricted

with Wittgenstein. It is a clinical examination of monism, whether of the idealist or the materialist varieties. He compares it with madness, in its 'combination between a logical completeness and a spiritual contraction'; its union 'of an expansive and exhaustive reason with a contracted common sense'. As with the madman's argument, so with the monist's, 'we have at once the sense of it covering everything and the sense of it leaving everything out'. Like the madman's, the monist's mind 'moves in a erfect but narrow circle . . . (and though) . . . a small circle is quite as infin's as a large circle, it is not so large; . . . (so) the insane explanation is quite : complete as the sane one, but it is not so large'. The monist's is 'a mean in nity, a base and slavish eternity'. It is his mind that has become 'diseased, ung ernable, and, as it were, independent'.

¹ Proceedings of the American Catholic Philosophical Association, XXXII (1958), B. J. Lonergan, S.J. 'Insight: Preface to a discussion', p. 74. To be referred to as P:

² Insight: a Study of Human Understanding (London: Longmans, Green & Co. 1957; pp. xxx+785). To be referred to as I.

⁸ St. Thomas' Thought on Gratia Operans. Its general movement 'Theological Studies (Woodstock, Md.), II (1941), 289-324; 'Habitual Grace as Operans and Cooperans', T.S. III (1942), 69-88;

^{&#}x27;St. Thomas' Theory of Operation', T.S. III (1942), 375-402;

^{&#}x27;St. Thomas' Thought on Gratia Operans', T.S. III (1942), 533-578. These will be referred to as G.T.S.

^{&#}x27;The Concept of the Verbum in the Writings of St. Thomas Aquinas', T.S. VII (1946), 349-392; VIII (1947), 35-79, 404-444; X (1949), 3-40, 359-393. To be referred to as V.T.S.

⁴ De Constitutione Christi ontologica et psychologica (Rome: Universitas Gregoriana, 1958). To be referred to as C.

Divinarum Personarum Conceptio Analogica (Rome, 1959). To be referred to as D.

^{&#}x27;De Verbo Incarnato' (Rome, 1960).

^{&#}x27;De Deo Trino' (Rome, 1961).

to six regions of contemporary debate. The first section considers Fr. Lonergan's work in reference to current problems in the foundations of Mathematics. The following section similarly treats two particular difficulties in modern physics. In the third section the relation of Fr. Lonergan's *Insight* to the problem of knowledge is discussed in more detail, since this topic is of general interest and occupies a central position in Fr. Lonergan's thought. In the fourth section two problems in contemporary theology are considered.

In conclusion I venture to make here an indisputable claim: that the work of this the logian cannot be ignored. It cannot be treated as a rehash of a position already familiar to the reader, as a translation into new terminology of an already familiar Aquinas. Also, for those who either cannot reconcile the thought of this modern Jesuit with the words of the medieval Dominican or regard the latter as essentially inadequate in synthesis or method, it is worth noting that 'here are two issues which can be kept distinct. On the one hard there is the question of what Aquinas really meant, and on this many are divided. On the other hand there is the synthesis provided by Fr. Lonergan and—if one prescinds from Fr. Lonergan's own claim to being faithful to St. Thomas—his synthesis can be judged on its own merits. After all, the criterion of coherence and veracity must be, not the possibility of classification in a respectable school but the actuality of one's own experience, understanding and judgment.

It is not proposed then either to explain Fr. Lonergan's thought, or to list his conclusions, or to assert that we are in the presence of a completed system. Explanation indeed is a vast pedagogical undertaking which must be to some extent proportional to the object of inquiry and which presupposes in him who explains the requisite habit of thought—a presupposition not here justified. A list of conclusions, on the other hand, displays more disadvantages than advantages: for the reader might either agree with them for the wrong reasons, or disagree with them because they clash with his own formed opinions, and in either case understanding is denied its proper role. Lastly, the assertion of completeness could only spring from the folly of considering man to be something other than potency in the realm of intelligence.

T

In the centuries prior to the thirteenth, although St. Augustine's crede ut intelligas had been echoed by St. Anselm, views on the relation of Faith to understanding varied considerably. At one extreme was the Logicism of Abelard, at the other the Theologism of St. Bonaventure, St. Thomas's contemporary. In the midthirteenth century however the currents of Christian and secular

thought were coming together and from the coincidence of the Aristotelian theory of understanding, St. Augustine's notion of judgment and neo-platonic thought on participation and being, there came forth, in the mind of Aquinas, a unique appreciation of Faith and understanding, and an expression of that appreciation from a universal viewpoint. What followed in the wake of that synthesis is well described by M. Gilson.⁵ Reactions to the truth vary according to the dispositions of the thinker. Faced with the truth one can come eventually to bow before it saying 'Yes, Amen', or 'Yes, and . . .' or 'Yes, but . . .' where the stress is rather on what is to be added than on what is agreed to. St. Thomas had uttered 'Yes, Amen', but those who came after him hastened to add their 'ands' and 'buts'. Scotus missed the point of Aquinas.⁸ Ockham succeeded in restoring much of the obscurity of an earlier time: he puzzled over the problem of the universals, yet he had no hesitation, when in difficulties, of having recourse to divine omnipotence, just as earlier St. Bonaventure thought it safe to hold a contradictory position for piety's sake.⁷ The central oversight was an oversight of insight. Nominalism seeped through Europe, so that Aguinas was more quoted than understood and when men like Cajetan and de Sylvestris initiated a Thomist revival it was an enfeebled version of Aquinas that emerged. Suarez's effort to save the situation by a synthesis of Aquinas, Scotus and Ockham only hastened the rejection of scholasticism by the lay thinkers of Europe.

In the following centuries the state of speculative theology was by no means happy. Undoubtedly a great deal of light was thrown on the relation of Scripture to speculative theology by men like Cardinal Bellarmine, and scholarly interest in the writings of the Fathers increased. Still, the words of Petavius, 'I have attempted to blaze a new trail, by discarding all the subtleties of theology, and making the study as simple and agreeable as a fast moving stream, whose clear and limpid sources in this case are Holy Scripture and the Councils and the writings of the Fathers', seem to echo the earlier radical anti-scholastic reaction of the Brothers of the Common Life immortalised in the words of A' Kempis, 'What matter is it to us of genera and species? He to whom the Eternal Word Speaketh is delivered from a multitude of opinions'. The decadence in both cases was patent, but the cure extreme.

Early in the nineteenth century efforts were made by, e.g., Cardinal Brenner and Lieberman in Germany, to re-vivify theology. However it was mainly through the work of Fr. Liberatore and

⁵ The Unity of Philosophical Experience, p. 61.

⁶ Cf. references, V.T.S. (1946), p. 373.

^{&#}x27;e.g. 'Minus est periculosum dicere, quod angelus sit compositus, etiamsi verum non sit, quam quod est simplex: quia hoc ego attribuo angelo, nolens ei attribuere quod ad Deum solum aestimo pertinere, et hoc propter reverentiam Dei' (In Hexaem, IV, 12, t.V., p. 351).

Canon Sanseverino at Naples that the Thomist revival took shape. The movement gained fresh impulse from the encyclical Aeterni Patris of Pope Leo XIII, and now contributors to the advance become too numerous to mention. Yet the Thomist revival was still an uphill fight, and basic clarifications had still to come. As Fr. Lonergan says, 'until recently Thomist commentators have tended, almost universally, to ignore Aquinas' affirmation of insight and to take it for granted, that, while Aquinas obviously differed from Scotus in the metaphysical analysis of cognitional process, still the psychological content of his doctrine was much the same as that of Scotus'.8 The essential lack was here and, while Rousselot and Hoenan hint at it, it remained for Fr. Lonergan not only to provide the remedy through a profound appreciation of Aquinas, but also to add significantly to St. Thomas's thought an analysis of explanatory genera and species and of development, the absence of which seemed to point to the inadequacy of Thomism.¹⁰ The idea of development had entered European thought through Herder and Vico. It became dominant through the philosophy of history of Hegel and recurred in the theories of Marx, Darwin, Compte, Bergson, Croce and Chardin. The significance of Fr. Lonergan's contribution becomes evident in view of the fact that, in the context of the profound influence of liberal, Marxist and Romantic theories of history, a Christian account of history, identifiable with a genuine treatise on the Mystical Body, becomes more than desirable.

PHILOSOPHICAL STUDIES

Father Loneigan has been criticised not only in his theology but also for his views in other branches of knowledge. His method of interpretation has been questioned.11 His booklet on the constitution of Christ has received a critical evaluation¹² which imputes a position, as Father Lonergan remarks 'that I fail to distinguish from heresy'. 13 His epistemology has been vigorously attacked.14 His philosophical position has been associated with idealism.15 His philosophy of science is, it is claimed, based on a

failure to make the fundamental distinction between the intelligibility immanent in, and that imposed on, things. 18 Now, while all these criticisms do not seem to affect the theological issue, all are liable to lead those unfamiliar with the scientific issue, to doubt the value of the entire synthesis, and so some comment is called for. In fact, even though Father Lonergan stresses that his concern in the early chapters of his study of human understanding is merely insight, and that failure on his part to appreciate the judgments of science do no affect that central aim, still the following sections would seem to show that even here he has not entirely missed the mark. Suggestion, rather than explanation is our aim: we might consider the matter discussed as pertaining to those facts of consciousness, too complex to present, of which Fr. Lonergan speaks in another context: 'my case rests on the facts of consciousness, and they are extremely numerous, extremely complex and far too delicate to be exposed when one has to deal with somewhat unperceptive charges of incomprehensibility'.17

Since Georg Cantor began his first paper on the theory of transfinite numbers with the vague description of a set as 'any collection into a whole of definite well-distinguished objects of our intuition or our thought',18 and Gottlob Frege began his reduction of arithmetic, both in content and method, to logic, 19 much ink has been spilt on the nature and foundations of mathematics. In the Principia Mathematica. Russell and Whitehead tried to extend Frege's thesis to the whole of mathematics, a programme generally termed Logicism. These new developments did not escape criticism. There was Kronecker, to whom the Cantor theory of transfinite numbers was not mathematics but mysticism. It was Kronecker's disciple, Brouwer, who formulated clearly the reactionary view that the basic ideas of mathematics are to be found in intuition, mathematics being fundamentally independent of either language or logic. The programme of 'Intuitionism' was to derive all mathematics from the fundamental series of natural numbers by 'intuitively clear' constructive methods.

Hilbert, who formulated the programme of Formalism, pinned his hope on the axiomatic method as being capable of ensuring consistency in mathematics. Previous to this, proofs of consistency had been given for axiomatised theories by interpreting their undefined terms in another theory, so that the axioms became

⁸ I. p. 413.

⁹ I. pp. 451-487; p. 738.

¹⁰ Cf. Saplentia Aquinatis, Communicationes IV Congressus Thomistica Internationalis, 1955; Pars 2a: Doctrina S. Thomae comparata cum dialectica Hegeliana et Marxistica.

This congress may be said to have dealt with the three great 'scandals' of modern Thomism: its failure to keep pace with science (pars 1a), with theories of history and of development (pars 2a), and with Existentialism (pars 3a). One might claim that the analysis of the conscious subject in Insight is the basis for the removal of all three 'scandals'.

¹¹ M. O'Connell, Modern Schoolman XXIV (1947), pp. 224-234.

¹² A. Perego, S.J. 'Una nuova opinione sull'unita psicologica di Cristo', Divinitas 2 (1958), pp. 409-424.

^{18 &#}x27;Christ as Subject; a reply', Gregorianum (1959), p. 242.

¹⁴ C. R. Fay, 'Fr. Lonergan and Participation', New Scholasticism XXXIV (1960), 461-487.

¹⁵ D. J. B. Hawkins, 'Insight or Idealism?' Clergy Review (1960), p. 734.

¹⁶ J. 'Albertson, S.J., Modern Schoolman XXXV (1958), p. 238.

¹⁷ C.R., p. 270.

^{18 &#}x27;Contributions to the Founding of the Theory of Transfinite numbers' (1895): Dover Series, p. 85.

^{18 &#}x27;Die Grundlagen der Arithmetik' (1884): English Trans., Oxford, 1950.

true, briefly, by giving a model. Hilbert, however, demanded that the axiom system be formulated in a manner which prescinded from interpretation. He required that consistency be demonstrated in a proof theory whose methods resembled intuitionist methods on the level of number theory. In the following decades the work of Hilbert, Post, Ackermann and others seemed to point towards success, but it gradually became clear, through theorems such as Gödel's that the arguments needed in a consistency proof for any deductive theory are always in some respects less elementary than the arguments admitted in the theory itself. Recourse was had to stronger methods of proof, as well as to the formulation by Tarski of semantic rules by which the formal system could be related in rigorous fashion with the objects with which the system was intended to deal. Yet while insight was gained, the goal became indefinitely remote.

PHILOSOPHICAL STUDIES

That Fr. Lonergan's work could have significance in such a field seems hardly possible; yet, though his comments are brief, they show startling penetration. In the first place it would appear that the basic value of Hilbert's approach is clarified by the discussion of primative terms, 20 of the significance of symbolism, 21 of implicit definition and mathematical meaning.²² In the light of the short treatment of deductive inference23 and of the limitation of the treatise²⁴ both the strength and the weakness of Logicism are discernible. Brouwer's attitude becomes more intelligible through the appreciation of the restrictibility of the principle of the excluded middle25 and in the light of the role of inverse insight;26 the obscurity of intuitionism is removed by the sound analysis of mathematical cognitional process²⁷ and the consequent affirmation of the mathematician's profound unconcern for the existent.28 Moreover, this analysis and the consequent unconcern, and in particular the distinctions between utterance formulation and judgment,29 are relevant both to Tarski's semantics and to the whole question of mathematical existence—not to speak of the various paradoxes.³⁰ And penetrating comments are made regarding the nature of mathematics, 31 its relation to empirical science and its programme, 32 with suggestions regarding biology 83 which recent work substantiates.34

Ш

Albert Einstein, in his 1905 paper, 35 preposed and solved a problem which has since that time—and especially in the last decade—caused much dispute. The 'twin' or 'clock' paradox may be popularly put as follows. John and James are twins. John, having an itch for travel, speeds off in his space-ship at, say, five million miles a minute. After travelling 'straight' out for 'ten years' he becomes bored, reverses, and arrives home safely, to be greeted by James, who is now fifty years old. What age is John?

In his original paper, Einstein concluded from special relativity to an asymmetric solution. Later however, he looked to general relativity to provide an adequate solution.³⁶ Since then the treatment has unfortunately taken more popular form. The spice of variety has been added through the introduction of mesons, telescopes, clock-gases, mechanical accelerators and extra observers. Some have argued for symmetry, some for asymmetry. Special relativity has been used by most, but it has been regarded as inadequate by others.37

In another region of modern physics we find an even more unpleasant obscurity. While the working physicist is satisfied to avail of the Born interpretation of Quantum Theory, there is none the less much semi-philosophical discussion of the foundation of the theory.³⁸ An extraordinary variety of views are held by Heisenberg, 39 Einstein, 40 Cassirer, 41 Bohm, 42 von Neumann 43 and Lande.44 We might generate the atmosphere of such a variety through a series of questions. What is the objective significance of a wave equation, its solutions, its eigenfunctions? Does the wave equation express a subject-object or macro-micro relation? Or is it statistically related to micro-multitudes? Does it express the present limitations of our knowledge, or an intrinsic indeterminacy in nature? Is its continuity a replacement of the classical notion

²³ I. p. 310. ²⁷ I. pp. 7-19, 645-647. ²¹ I. pp. 76, 17. ²⁴ I. pp. 573-574. ²⁸ *I*. p. 312. ²² I. pp. 38, 13, 146, 641, 395. ²⁵ I. p. 576. ²⁹ I. pp. 271-274.

²⁸ I. pp. 19-26. ⁸⁰ Cf. E. W. Beth, Foundations of Mathematics, pp. 353-518.

⁸¹ I. pp. 313, 395.

³² I. pp. 37-43, 313. ³³ *I.* pp. 314, 463-469.

³⁴ e.g. M. A. MacConaill Studies in Neurological Structure', Irish Journal of Medical Science, June and November, 1959.

J. H. Woodger 'Studies in the Foundations of Genetics', in The Axiomatic Method (Ed. Henkin, Suppes, Tarski), pp. 408-429.

²⁶ English trans. in The Principles of Relativity (Dover Series).

⁸⁶ Naturwissenschaften, 6,697 (1918).

³⁷ The list of publications on this problem does not merit inclusion here: readers may be familiar with the long McCrea (asym.)—Dingle (sym.) controversy in Nature, especially during 1956-'7.

For a substantial presentation of an asymmetric special relativity solution, cf. Schild: Amer. Math. Monthly, Jan. 1959. For an asymmetric general relativity solution, cf. Möller: Theory of Relativity (1952), p. 258.

³⁸ Cf. Maric Bunge: 'Strife about Complementarity', British Journal for the Philosophy of Science; May, Aug., 1955.

³⁹ Heisenberg: Physics and Philosophy.

⁴⁰ Cf. Einstein's Reply to criticisms in Schilpp's Albert Einstein, Philosopher-

⁴¹ E. Cassirer: Determinism and Indeterminism in Modern Physics.

⁴² D. Bohm: 'A suggested interpretation of the Quantum Theory in terms of hidden variables', Phys. Review, 1952 (85) pp. 166, 180.

⁴⁸ J. v. Neumann: Mathematical Foundations of Quantum Mechanics.

⁴⁴ A. Lande: e.g. From dualism to unity in Quantum Mechanics (Cambridge, 1960).

of causality, or does quantum theory result naturally from a necessary continuity of physical causality?

The relevance of Fr. Lonergan's thought in this context is founded basically on the clarity of his account of the nature and function of science, 45 of scientific method, 46 of the cognitional process involved47 and of the complementarity of classical and statistical theory.⁴⁸ Still, because our quest is for concrece instances of success, two definite points of confusion were noted, and it remains to offer some suggestions on Fr. Lonergan's contribution to their clarification.

Firstly, it is to be noted that both classical and statistical laws are abstract, 49 that abstraction is an enrichment not an impoverishment,50 and that 'an abstract system is neither sensible nor imaginable; it is a conceptual object constituted by terms and relations that, at least in the last resort, are defined implicitly '.51 This notion of implicit definition is central, whether one is considering a definition of mass or the coupling of fields. Since the abstract system is not imaginable, the unified synthesis, e.g., of Schroedinger's field equations, subtends no imaginative synthesis. Nor does Heisenberg's matrix mechanics offer a portraval of the objective processes leading up to observables.⁵²

As systematic unification does not include imaginative synthesis, so it does not even guarantee its possibility. It is true enough that images are necessary for the emergence of insights, but the images may not be representative but symbolic, not of the visible universe but mathematical notations on pieces of paper.⁵³

In summary form:

From the days of Galileo the real object of the scientist was thought to be some imaginable stuff or particle or radiation that moved imaginably in some imaginable space and time. But relativity has eliminated the imaginability of scientifically conceived space and time; and quantum mechanics has eliminated the imaginability of basic processes. Whether he likes it or not, the scientist has transcended imagination.54

Secondly, I will put Fr. Lonergan's position into symbols familiar to the scientist and, while this does constitute a distorted simplification, it has a jolting value which will be appreciated in the next section.

Science, S, is taken as a function of a complex variable: the complex variable being the human mind, its component parts being Insight, I and imagination, i. The significance of both the complexity and the variability should be clear. In symbols we

may write: S=f(I+i). Here it must be remarked that imagination is taken in its broadest sense, meaning our total sensitive integration of the real, as well as free imagination. Were we to discuss fully the role of imagination, our mathematical metaphor would of course break down. We can, however, note that the variable associated with the real through convention in mathematics is associated with the real through verification in science.

Thirdly, in the light of the foregoing the discussions of the 'clock' paradox are not altogether satisfactory. If special relativity is in fact a well verified theory, considerations of its significance involving non-permissible transformations, or the abandoning of Minkowski space with the implicit return to Newtonian space and time seems a little odd. The problem, whether in special or general relativity, involves essentially a discussion of the correlation of four-dimensional manifolds, and of the mathematical formulation and physical significance of such correlation.55

A parallel inadequacy prevails in the discussions of elementary processes, basically because theorists of science are handicapped by peculiar epistemologies. Much to the point is the following remark:

The canon of parsimony excludes any problem concerning the picture of objects too small to be sensed. For the image as image can be verified only by the occurrence of the corresponding sensation. Thus the visual image of a small ball can be verified only by seeing a small ball, and the visual image of a wave can be verified only by seeing a wave. When the sensations neither occur nor can occur, all that can be verified are certain equations and the terms implicitly defined by such equations.56

If clarity is to be achieved here, the theorist of science must grasp the basic indeterminacy of the abstract,⁵⁷ the determinists' failure to appreciate the function of insight in the transition to the concrete, 58 the actuality of non-systematic processes, and the particular intelligibility offered by statistical theory.⁵⁹ It is worth noting also that the part played by classical concepts. 60 and openness to further classical concepts, 61 emphasize that quantum theory is not merely a closed statistical system. With regard to the question of the relation of quantum theory to relativity, special or general, Fr. Lonergan's brief comments are extremely enlightening. 62

The above considerations are neither complete nor coherent. nor will complementary hints in the next section provide a wishedfor unity. Both sets of remarks may be regarded as elements in the dialectic of developing understanding.

⁴⁵ I. pp. 301-304, 313, 435-437, 498.

⁴⁷ I. Cp. 2; Sapientia Aquinitas (1955), pp. 119-127, ⁵² I. p. 92. ⁴⁸ *I*. Cp. 4.

⁴⁹ *I.* p. 110.

⁵⁴ Sapientia Aquinitas, p. 125.

⁵⁰ I. pp. 88-89. ⁵¹ *I*. p. 86.

⁵⁵ I. Cp. 5. 56 I. p. 99.

⁵⁷ I. Cp. 3, section 6.5.

⁵⁸ I. p. 97.

⁵⁹ Cf. index of I, under 'non-systematic' and 'statistical'.

⁶⁰ J. pp. 98-99,

^{.61} I. p. 107,

⁶² J. pp. 41-42,

IV

Since Descartes began his search for sure and certain foundations, the critical problem of how we know objective reality has engaged the attention of many thinkers, ranging from the naive but surprisingly popular view of Dr. Johnson to the subtle analysis of Kant. I suggest that in Fr. Lonergan's handling of the problem there is both an adequate strategy and a profound clarification.

Now it seems clear from numerous criticisms that both the strategy and elucidation have been misunderstood. One critic shows some enthusiasm for seeing the hand in front of his face: 'In fact if you can't see the hand in front of your face you can't solve this old problem at all'. Then we are undone, for the strange situation is that I can no more see the hand in front of my face than I can see its cellular, molecular or subatomic structure. 68 To quote Fr. Lonergan:

A useful preliminary is to note that animals know, not merely phenomena, but things: dogs know their masters, bones, other dogs, and not merely the appearances of these things. Now this sensitive integration of sensible data also exists in the human animal and even in the human philosopher. Take it as knowledge of reality. and there results the secular contrast between the solid sense of reality and the bloodless categories of the mind. Accept the sense of reality as criterion of reality, and you are a materialist, sensist, positivist, pragmatist, sentimentalist, and so on, as you please, Accept reason as a criterion but retain the sense of reality as what gives meaning to the term 'real', and you are an idealist; for, like the sense of reality, the reality defined by it is non-rational. In so far as I grasp it, the Thomist position is the clear-headed third position: reason is the criterion and, as well, it is reason—not the sense of reality-that gives meaning to the term 'real'. The real is, what is; and 'what is' is known in the rational act, judgment.64

The statement 'I cannot see the hand in front of my face' in its clear ambiguity fulfils the purpose of being mildly startling like the quaint phrase of Tenessee Williams: 'We are all condemned to solitary confinement within our own skins'. We might raise such simple questions as 'how do I know that the stick in the water is not really bent? i, 'are the leaves on the tree less distinct because I am shortsighted?' And to the scientist the following transference may prove helpful:

no less than his predecessors, the contemporary scientist can observe and experiment, inquire and understand, form hypotheses and verify them. But unlike his predecessors, he has to think of knowledge not as taking a look, but as experiencing, understanding and judging; he has to think of objectivity, not as mere extroversion, but as experiential, normative and tending towards the absolute; he has to think of the real not as part of the 'already out there now', but as the verifiable.65

So much for the first stumbling block, the sense of reality. The second and central stumbling block occurs when one raises the question of direct understanding. Here, the difficulty of some lies in the fact that understanding is such a commonplace word and such a common occurrence that to spend over 700 pages trying to generate an understanding of understanding seems more than a little odd. For others the source of difficulty is a pre-possessed theoretic account of understanding which is used as a standard in judging all other accounts.

If one is to overcome these difficulties, one must be clear that what is being sought is not the definition of a word, nor the development of a theory, but the understanding of one's own personal experience of understanding. An obvious pre-requisite is this personal experience of understanding, and it is the more sure in so far as one has, in various contexts, raised and answered in a genuinely scientific manner the question, 'what is it?' For one must beware of the bogus article. If, for example, one claims that everyone knows what a dog is, the biologist is out of a job. The taximan knows that his car accelerates when he puts his foot down, but he does not understand acceleration. The undergraduate may use the tensor calculus with ease without having an idea of what it is. Some may say that I am narrowing the notion of understanding too much. Perhaps I might describe understanding more broadly as that which makes a man capable of defining intelligently, of facing the Socratic question without embarrassment, of explaining through relevant illustration and telling variation rather than by repetition of the same words, and indeed of generating understanding in others by example and diagram rather than generating confused admiration by an air of mystery. Understanding is what intervenes between puzzledom over a cut in geometry and the minor ecstasy of solution, between the accumulation of the clues and the solving of the mystery and, on the grand scale, between the formulation of Kepler's Laws and a grasp of universal gravitation.

In so far as one has such experience, one can take the further step of, as it were, catching oneself in the act, and so of coming to some understanding of understanding, of making the transition from merely being present to oneself to genuine knowledge of oneself. One moves thus towards the appropriation of one's own rational self-consciousness:

it is not an end in itself but rather a beginning. It is a necessary beginning, for unless one breaks the duality in one's knowing, one doubts that understanding correctly is knowing. Under the pressure of that doubt, either one will sink into the bog of a knowing that is without understanding, or else one will cling to understanding but sacrifice knowing on the altar of an immanentism, an idealism, a relativism. From the horns of that dilemma one escapes only

⁶⁸ I. pp. 249-250; 331, ¹⁶⁴ V.T.S. (1946), p. 356. ⁶⁵ *I*. pp. 424-425.

through the discovery (and one has not made it yet if one has no clear memory of its startling strangeness) that there are two quite different realisms, that there is an incoherent realism, half animal and half human, that poses as a half-way house between materialism and idealism and, on the other hand, that there is an intelligent and reasonable realism between which and materialism the half-way house is idealism.⁶⁶

The process is long and difficult, and there undoubtedly will be those to whom the startling strangeness—if it is noticed at all—is merely the strangeness of idealism, and for whom objectivity is a matter of meeting persons and dealing with things that are 'really out there', 67 or perhaps the result of the more refined but not more profitable process of looking into oneself.

One further difficulty is that which concerns concept-formation. Is it a fact that my concepts are mechanically and unconsciously formed and that progress in understanding consists merely in analysing them; or is it a fact that before I understand I haven't an idea, that in order to understand I must be intelligently conscious, and that only when I understand am I in a position to formulate an idea, an explanation?

In *Insight* there is a large scale strategic shift⁶⁸ of the critical problem from 'that we know' to 'what we know', from the quest for certitude to the question of what exactly occurs when we are knowing. For this reason it is only at the end of a prolonged effort at understanding his own activity of understanding that the reader is engaged in a judgment. This judgment does not commit the reader to any position on the nature of reality. Whether reality is one or many, material etc., there is the undeniable and intelligently formulated factual judgment, 'I am a knower'. With the identification of 'being' and the objective of the pure desire to know there is, strangely enough, still no commitment on reality. By the conscientious objector the definition can be taken as nominal: whatever I can know or want to know I will call . . . Umpa? Odo? what's in a name? . . . Being?

One is led further to an appreciation of the complex notion of objectivity. Yet it is only in the clear statement of the 'position' and the 'counterpositions' that the key element in the strategy falls into place.⁷¹

If a spatial image and a military metaphor may be helpful, the advance of metaphysical evidence is at once a break-through, an envelopment, and a confinement. The break-through is effected in one's affirmation of oneself as empirically, intelligently, and rationally conscious. The envelopment is effected through the protean notion of being as whatever one intelligently grasps and reasonably affirms. The confinement is effected through the dialectic opposition of twofold notions of the real, of knowing, and of objectivity, so that every attempt to escape is blocked by the awareness that one would be merely substituting some counterposition for a known position, merely deserting the being that can be intelligently grasped and reasonably affirmed, merely distorting the consciousness that is not only empirical but also intelligent and not only intelligent but also reasonable.⁷²

The foregoing description may be a help or an encouragement but it is obviously not an explanation. If indeed what is involved in the process described is a *ransition from being empirically conscious of oneself to a scientific knowledge of oneself, then what has been said here may well be classed as popular science. For popular science is not science, but a presentation of science in commonsense categories. Further, there is no short cut to scientific understanding, and so as long as one has not tackled the scientific task one has no more than the anticipatory notion of what might be understood, that is the lot of every man.

Fr. Lonergan's question on the central issue is a straightforward question of fact:

Is it a fact that our intellectual knowledge includes an apprehension, inspection, intuition, of concrete, actual existence? Or is it a fact that our intellectual knowledge does not include an apprehension, inspection, intuition, of concrete, actual existence?

On the former alternative, a judgment of existence is simply a recognition of what we already know. Hence, on this view, in its basic instance, it is not through true judgment that we reach knowledge of existence, but it is through knowledge of existence that we reach true judgment.

On the latter alternative, however, we first reach the unconditioned, secondly we make a true judgment of existence, and only thirdly in and through the true judgment do we come to know actual and concrete existence. On this view it is only through the actuality of truth that we know the actuality of being; and truth is reached, not by intuiting actual, concrete existence, but by a reflective grasp of the unconditioned.^{73a}

V

The mere mention of Banez and Molina is sufficient to bring to mind the controversy associated with their names. One might risk a partial summing up in a simple remark of Molina:

⁶⁶ I. p. xxviii. ⁶⁷ I. p. 385.

⁶⁸ There is also a primary shift which Fr. Lonergan discusses elsewhere: 'The most shocking aspect of the book, *Insight*, is the primacy it accords knowledge. In the writings of St. Thomas, cognitional theory is expressed in metaphysical terms and established by metaphysical principles. In *Insight*, metaphysics is expressed in cognitional terms and established by cognitional principles. The reversal is complete. If Aquinas had things right side up—and that is difficult to deny—then I have turned everything upside down' (p. 74).

⁶⁹ I. pp. 319-332.

⁷⁰ I. pp. 348-350.

⁷¹ I. p. 388.

⁷⁸ *I*. p. 484.

⁷⁸a P. p. 81.

I do not see what is this application, in secondary causes, by which God moves these causes to act. . . . And I candidly confess that I have difficulty in understanding this motion and application which St. Thomas requires in secondary causes. 73b

It is clear from its modern discussion⁷⁴ that the debate is by no means solely of historical interest.

A different question is that raised by the development of Dogma, the central problem here being to resolve the apparent contradiction between development and dogmatic immutability. Long before Newman, it was discussed by Suarez⁷⁵ in a manner which greatly influenced scholastic thought. The attempts to clarify the issue in modern times gave rise to two main schools of thought. One group, the relativists, inclined to the view that, since it is not always possible to find a logical link between revealed and defined truth. Revelation is to be conceived as a living reality. Christ Himself entrusted to the Church, which the defined 'formulas' try to express. Because of the clear statements of Humani Generis on the dangers of this approach, this group has ceased to be of significance as a source of genuine solution. The second group. the 'intellectualists', maintain that dogmatic development is a progress in knowledge of Revelation, which as a body of truths was closed before the death of the last Apostle, and so a logical link has to be found between the truth defined and that revealed. While all agree that a theological conclusion is a truth deduced from revelation by means of a genuine syllogism, various differences occur regarding the status of the derived truth, the nature of the link, etc. The most hopeful explanation to date has been perhaps. that of Fr. Dhanis, 78 whose concept of formal testimony extends, so to speak, the reach of revealed truth.

It would seem that neither of these problems is worthy of the reverence of obscurity paid to them. As regards the first problem Fr. Lonergan has observed that

one has only to read St. Thomas to realize that this question (the possibility of sin) did not worry him a great deal, and our present purpose is to discover the root of this strange insouciance; for the problem has worried others. Banez offered to solve it by means of a two-lane highway. . . . Molina also offered to solve the problem by means of a four-lane highway. . . . A first observation is that St. Thomas appears to have thought neither in a two-lane nor in a four-lane but in a three-lane highway. 77

⁷⁸b Concordia, on Ia, q. 14, a. 13, disp. 26.

⁷⁷ G.T.S. (1942), pp. 547-548.

The problem basically is one of understanding, for there is no denving either the fact of freedom or the divine transcendence.78 And it is a case of clarity only in synthesis:79 a synthesis, which includes St. Thomas's grasp of the nature of divine knowledge80 and transcendence, 81 and of the nature of operation, 82 application, 83 instrumentality.84 of the four necessary components of human freedom⁸⁵, of the objective falsity of sin⁸⁸ and—only in the context of an understanding of the previous elements—of gratia operans and cooperans.87

The second problem can be resolved only by a genuine grasp of what theology actually is. In fact it involves more: even if it is granted that theology is an understanding of Faith, to grasp the nature of developing understanding requires some understanding of understanding. Fr. Lonergan has clarified both the nature of theology88 and of development;89 and a few remarks on the main lines of solution would not be out of place.

The relativists were led to their position, not only by their environment, but also by the extreme variability of notions, modes of expression, etc., of the properly human sciences, from age to age and from culture to culture.90 Their solution was equivalent to the denial of the possibility of a transition to a universal, or transcultural, viewpoint. 91 Such a viewpoint involves an appreciation of the invariant element in the human make-up, and hence looks to a philosophy.

The basic lack in the theories of the second group seems to have been a failure to appreciate the nature of syllogism. 92 In the context of what has been said already this failure is understandable both from a historical and a speculative point of view. The growing understanding of Faith of which the Vatican Council speaks 98 is neither a matter of finding logical links, nor of producing theological

⁷⁴ Cf. Garrigou-Lagrange: God: His Existence and Nature, Vol. 2, Appendix iv and Epilogue.

⁷⁵ De Fide, d. 3, s. 11.

⁷⁶ 'Revelation explicite et implicite', Gregorianum XXXIV (1953), pp. 187-237.

⁷⁸ I. p. 621; pp. 661-663; G.T.S. (1942), p. 578.

⁷⁹ G.T.S. (1942), pp. 576-578.

⁸⁰ I. pp. 644-651; 662-663; De Verbo Incarnato, pp. 499-520.

⁶¹ I. pp. 661-663; G.T.S. (1942), pp. 541-547.

⁸² G.T.S. (1942), pp. 375-383, 395-402; D. pp. 240-252; V.T.S. (1947), pp. 408-

⁸⁸ G.T.S. (1942), pp. 383-391; I. p. 664.

⁸⁴ G.T.S. (1924), pp. 391-395; I. p. 664.

⁸⁵ G.T.S. (1942), pp. 533-537; I. p. 620. ⁸⁶ G.T.S. (1942), pp. 549-553; I. pp. 666-667.

⁸⁷ G.T.S. (1942), pp. 554-572.

⁸⁸ D. pp. 7-51; C. pp. 42-56, 80-82; De Deo Trino, pp. 272-303; I. pp. 732-748; V.T.S. (1949), pp. 380-388;

^{&#}x27;Theology and Understanding', Gregorianum XXXV (1954), pp. 630-648. 89 D. pp. 28-41; De Deo Trino, pp. 83-113, 144-163; I. pp. 738-740.

⁹⁰ D. p. 31.

⁹¹ I. pp. 564-568. 92 V.T.S. (1946), pp. 363, 381-385; V.T.S. (1947), pp. 39-44; I. p. 710; D. p. 50;

^{&#}x27;Theology and Understanding' Gregorianum XXXV (1954), p. 365. 98 DB 1796, 1800.

—much less philosophical⁹⁴—premises. Rather it is an insight into data which enjoy the complexity of the actual divine economy. 95

The two examples discussed involve, as a central element of solution, some understanding of understanding: in the former example, of unrestricted divine understanding, in the latter, of developing human understanding. Both serve to raise the basic question of the role of understanding in theology. Now just as the physicist, from a failure to appreciate the direction and significance of his work, can come to doubtful conclusions regarding the relation of formulation to data, so the modern theologian, in the absence of a genuine grasp of the nature of his science, can become engrossed in the thankless task of demonstrating his data. 97 The predicament of the theologian, however, is more acute, for he does not profit from the dialectic influence of experiential verification which continually orientates the scientist from his false philosophical position. Hence arises the great need for clarification of the nature of theology as science:

The conceptualist ideal of science is not the only ideal. For Aristotle perfect science is certain: but all science is knowledge through causes, and knowledge through causes is understanding and so of the universal and necessary. Because the conceptualist accepts only one element of the Aristotelian ideal, while modern science realizes the other element, a quite unnecessary abyss has been dug by conceptualists between the Scholasticism they claim to represent and, on the other hand, the contemporary ideal of science. Further the conceptualist ideal of science has no exclusive claim to represent the ideal of theology as science. St. Augustine's Crede ut intelligas no more means 'believe to be certain' than it means 'believe to have an intellection'; it means 'believe that you may understand'. When the Vatican Council affirms that reason illuminated by faith. inquiring 'pie, sedulo, sobrie', can attain some limited but fruitful intelligentia of the mysteries of faith, intelligentia means not certitude. for by faith one is already certain, nor demonstration, for the mysteries cannot be demonstrated, nor intellection, for a mystery is not a universal, but rather obviously understanding.98

One might also discuss Fr. Lonergan's contribution, not only by explicit statement, but by the entire structure of *Insight*, to the method of metaphysics. 99 Or his important clarification of the nature of relations. 100 Or his consideration of the canons of

hermeneutics. 101 Or his treatment of the nature of consciousness. 102 Or his analysis of the nature of the created image of the divine processions. 103 Or the clarity of his discussion of the hypostatic union.¹⁰⁴ Or the manner in which his theory of emergent probability¹⁰⁵ and of the triple bias in human living¹⁰⁶ lead to a unique philosophy of history. Or his outline, in the cast of a Christian theory of history, of a genuine treatise on the Mystical Body. 107

It is not to be regretted that St. Thomas did not adopt a specialist viewpoint, for it is the nemesis of all specialisation to fail to see the wood for the trees, to evolve ad hoc solutions that are indeed special yet profoundly miss the mark for the very reason that they aim too intently at a limited goal. There is a disinterestedness and an objectivity that comes only from aiming excessively high and far, that leaves one free to take each issue on its merits, to proceed from intrinsic analysis instead of piling up debaters' arguments, to seek no greater achievement than the inspiration of the moment warrants, to await with serenity for the coherence of the truth itself to bring to light the underlying harmony of the manifold whose parts successively engage one's attention. Spontaneously such thought moves towards synthesis, not so much by any single master stroke as by an unnumbered succession of the adaptations that spring continuously from intellectual vitality. 108

What was the method employed by Fr. Lonergan?

To understand what Aguinas meant and to understand as Aguinas understood, are one and the same thing; for acts of meaning are inner words, and inner words proceed intelligibly from acts of understanding. Further, the acts of understanding in turn result from empirical data illuminated by agent intellect; and the relevant data for the meaning of Aquinas are the written words of Aguinas. Inasmuch as one may suppose that one already possesses a habitual understanding similar to that of Aquinas, no method or effort is needed to understand as Aquinas understood: one has simply to read, and the proper acts of understanding and meaning follow. But one may not be ready to make that assumption on one's own behalf. Then one has to learn. Only by the slow, repetitious, circular labour of going over and over the data, by catching here a little insight and there another, by following through false leads and profiting from many mistakes, by continuous adjustments and cumulative changes of one's initial suppositions and perspectives and concepts, can one hope to attain such a

⁹⁴ 'Christ as Subject; a reply', Gregorianum XXXV (1959), p. 264, footnote 48. ⁹⁵ D. pp. 34, 42.

⁹⁷ D. p. 8; V.T.S. (1949), p. 384.

⁹⁸ V.T.S. (1949), p. 385.

⁹⁹ I. pp. 385-430, especially p. 398.

¹⁰⁰ I. pp. 490-496; D. pp. 110-116, 272-296.

¹⁰¹ I. pp. 562-594; D. pp. 29-33; De Deo Trino, pp. 88-95.

¹⁰² C. pp. 83-99; I. pp. 319-335; 'Christ as Subject; a reply' Gregorianum XXXV (1959), part 2, 'The notion of the Subject', pp. 249-265; De Verbo Incarnato, pp.

¹⁰⁸ V.T.S.; D. pp. 52-91.

¹⁰⁴ De Verbo Incarnato, pp. 290-366; C., pars iv; D. pp. 212-215.

¹⁰⁵ *I*. pp. 115-139.

¹⁰⁶ I, pp. 191-244, 530-548, 619-633.

¹⁰⁷ I. pp. 738-743; D. pp. 34-41; 224-240; De Verbo Incarnato, pp. 676-734.

¹⁰⁸ G.T.S. (1942), p. 573.

development of one's own understanding as to hope to understand what Aquinas understood and meant. Such is the method I have employed and it has been on the chance that others also might wish to employ it that these articles have been written.¹⁰⁹

Further, his investigations carried him into fields other than his own, for his aim was that outlined in the initial quotation. He recognised clearly the folly of those who imagine that metaphysicians intuit essences while scientists study phenomena, 110 or the gnosticism of those who believe that an understanding of understanding could spring from any source other than repeated acts of understanding:111

Without repeating the Aristotelian process in oneself, one may use the words *intelligere* and *quid sit*, but one does not know what they mean. Further, one has not got a proper grasp of the nature and virtue of the human soul. Aquinas also wrote: '... anima humana intelligit se ipsam per suum intelligere, quod est actus proprius elus, perfecte demonstrans virtutem ejus et naturam'.¹¹²

There is little in philosophy or in speculative theology that ignorance in these matters does not corrupt. 113

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IV. The Germination of Belief within Probability according to Newman

1.—In February 1846, preparing to sever the last link with his Anglican career, John Henry Newman paused to reply to a request for 'a few of the leading popular arguments' from his recently published Essay on the Development of Christian Doctrine, whose broad statement of principle had confirmed and explained the individual motives of his conversion the previous year. Insisting that the grounds of real conversion are not readily reducible to a simple formula, Newman trenchantly stated a characteristic thesis:

I do not know how to do justice to my reasons for becoming a Catholic in ever so many words—but if I attempted to do it in few, and that in print, I should wantonly expose myself and my cause to the hasty and prejudiced criticisms of my opponents. This I will not do. People shall not say, 'we have now got his reasons, and know their worth'. No . . . you cannot get them, except at the cost of some portion of the trouble I have been at myself. . . . You must consent to think—and you must exercise such resignation to the Divine Hand which leads you, as to follow it any whither. I am not assuming that my reasons are sufficient or unanswerable, when I say this—but describing the way in which alone our intellect can be successfully exercised on the great subject in question, if the intellect is to be the instrument of conversion. Moral truths are grown into, not learnt by heart.\(^1\)

In 1864 'prejudiced criticism' did in fact move him to expound the personal history of his religious development in the masterful Apologia Pro Vita Sua,² but the philosophical justification of his faith came even later and with greater difficulty. Newman was a very personal thinker committed to no readymade conceptual system. Indeed there was no mature philosophy of religion,

¹⁰⁹ V.T.S. (1949), p. 389.

¹¹⁰ *I*. p. 269.

¹¹¹ I. p. 542.

¹¹⁸ Sum. Theol. Ia, q. 88, a. 2., ad 3m.

^{118 &#}x27;Christ as Subject; a reply', Gregorianum XXXV (1959), p. 261.

¹ The Letters and Diaries of John Henry Newman, XI (ed. C. S. Dessain: Nelson, Edinburgh, 1961) pp. 109-110: letter to J. S. Northcote on behalf of W. H. Buckle who 'had not the time to read the whole' essay.

² 'It is not pleasant to be giving every shallow or flippant disputant the advantage over me of knowing my most private thoughts, I might even say the intercourse between myself and my Maker. But I do not like to be called to my face a liar and a knave; nor should I be doing my duty to my faith or to my mame, if I were to suffer it '—Part II concl. of original edition, reprinted in Image Book edition (ed. Philip Hughes: Doubleday, New York, 1956) p. 124.

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