
This review article will discuss the book mentioned above and will present critical reflections on related events of the preceding thirty-three years since the 1957 publication of Insight. This source book was reviewed very favorably, but the many admiring reviewers interpreted it in radically different ways. Their one point of intersection was their amazement at Lonergan’s mastery of so many different branches of learning and so many different topics of scholarly research from Aberrant scotosis to Zilboorgian therapy. By and large, the rave notices missed the forest because of the superabundance of trees: Lonergan’s real aim was to invite the reader to reflect on his own personal act of knowing.

The present reviewer confesses to such a lapse in that his initial interest in 1958 was to use Insight to prove that special relativity was not adversarial to cosmology as taught in some scholastic manuals. Years later, it dawned on him that emergent probability might be the key towards solving many controversial problems in theology and philosophy. In short, this reviewer failed to appropriate his own interiority and instead used Lonergan’s authority mainly to refute scholastic adversaries.
Lonergan himself discovered the aberration of his cheering squad and decided to give a set of ten lectures at Halifax in August 1958. This is how the first edition of *Understanding and Being* came to be printed in 1980. The task involved considerable rewriting and restructuring sentences, paragraphs and sections, and listening to tapes over and over again.

Lonergan personally congratulated the editors for their excellent transcription and editing of the lecture and discussion materials. The lectures are distributed into two parts: understanding and being. These correspond to the two parts of *Insight*, insight as activity and as knowledge. Part One of the lectures is divided into five chapters, roughly corresponding to eight of the ten chapters of "Insight as Activity." (Critical question: what happened to Chapters IV and V of *Insight*)

**EDITION OF 1990**

Shortly after Lonergan's death in 1984, a group of scholars saw the value of recording the history of his thought and decided to collaborate in the task of publishing his Collected Works, spanning the years from 1928 to 1983. The set is envisioned to be printed in twenty-two volumes, of which Volume 5 is this second edition of *Understanding and Being*, revised from the 1980 edition and augmented with a lexicon of Latin and Greek words, thirty-two pages of editorial notes by Frederick E. Crowe, four pages of editorial references to other Lonergan writings, and thirty-two pages of index. (Critical comment: still missing are explicit commentaries of Chapters IV and V of *Insight*.)

Lonergan's terse style raises difficulties in readers whose background in science, philosophy and theology is different from his. This makes it necessary for the editors to furnish extensive annotations. In the editorial notes, Crowe takes painstaking care to rephrase and paraphrase many condensed expressions and to cross-reference them with each other and with other writings of Lonergan to facilitate a self-correcting process of learning.

**SCHEMES, PROBABILITY, SPACE AND TIME**

In his Halifax lectures, Lonergan did not bother to expand on
the contents of his Chapters IV and V of *Insight*. These included reflections on the cognitional process of mathematical physicists such as schemes of recurrence, emergent probability, space and time. This reviewer cannot help but wonder why explicitations of these two chapters were omitted from the Halifax lectures, especially since these were the two chapters that initially attracted and continue to attract him. The section on emergent probability is particularly fascinating, both in itself and especially in its explanatory potentials relevant to world process. It is hard to imagine that Lonergan did not somehow anticipate these explanatory potentials in relation to two vital topics of this decade, macroeconomics and eschatology, for, having appropriated his own intellectual and rational self-consciousness, he discovered his personal need to integrate the fragmented foundations of insight into world process in the context of freedom, a process that spans the time from creation to parousia.¹

Other topics similarly anticipated by Lonergan in proposing the explanatory potentials of emergent probability may be mentioned. The latent metaphysics of the human mind involves elements relevant to the notion of development and, concretely, development occurs in the generalized context of emergent probability. Again, man’s free and responsible consent to solutions in regard to the problem of evil will be given more willingly through a grasp of emergent probability, for this connects human events to each other, not with chains of deterministic causality, but in a network of free decisions, of which each and every decision is a response to a grasp of a concrete sequence of actual conditions.

It is true that probability is mentioned here and there in the ten Halifax lectures and the five related discussions. But nowhere is there an inkling of the properties of a world process in which the design is emergent probability, nor how this can contribute to an understanding of cognitional process.

COGNITIONAL PROCESS

The main thrust of *Insight* is not theology nor philosophy nor

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¹. Paper in preparation.
science but the cognitional process in theology and in philosophy and in science. The cognitional process sublates all three departments. A person’s cognitive acts are targetted for self-appropriation. Did Lonergan feel that the majority in his Halifax audience had more experience in cognitive acts of theologians and philosophers and less in cognitive acts of natural scientists? If so, there is some justification for the omission of explanatory accounts of Chapters IV and V from the Halifax lectures.

TRANSCULTURAL COMMUNICATION

Lonergan was authentically responding at Halifax to an empirical reality in the context of a particular culture at a particular period of its history. He was being realistic in adapting his lectures to the actual interests of his Halifax audience of August 1958.

At that time and even now, intellectuals are divided into the two cultures that C. P. Snow once categorized as scientists and non-scientists. The two cultures do not communicate with each other because scientists, whether physicists or econometricians, express their central insights in the language of difficult branches of mathematics. Unfortunately, this language is disdained by non-scientists. Even now, three decades after the publication of Insight, the lack of communication between scientists on the one hand and theologians and philosophers on the other indicates traces of scotosis: there is an unconscious exclusion of the integrating role of theology and philosophy. Lonergan explicitly affirms this integrating role in Section 3 of his Lecture 4. Again, in the succeeding Section 4 (on p. 101), he gently reminds his Halifax audience: “But the territory you are occupying is very


3. Examples are vector-difference equations and matrix algebra. With these techniques, econometrician Peter Burley structures Lonergan’s macroeconomic insights along the lines of the growth model of Von Neumann in Economic Systems Research 1/3 (1989) 317-30. Even a basic grasp of these techniques, together with a calculus of probabilities, can evoke an intuitive response to the heuristic power and beauty of Lonergan’s “swan song” rendered in 1980-83 — quite fittingly — in a theology department.
small, and you lose your power of influencing and integrating other fields: the problem of integration is ignored.” To this, Crowe aptly appends the editorial comment that “wisdom would involve interdisciplinary studies” and cites three references to Method in Theology to this effect. If Lonergan’s reminder succeeds in initiating educational renewal, there are grounds for hoping that the present concerns of theologians and philosophers will, in the long cycle, expand to broader horizons such that they will want to experience for themselves the satisfaction and beauty experienced by the scientists. This may even inspire the scientists to seek to experience for themselves the cognitive acts of theologians. Communication can constitute community.

Communication lines can be constructed by using the “scaffolding” proposed by Lonergan in the first ten chapters of Insight, especially Chapter IV and its explanatory potentials for world process.

EMERGENT PROBABILITY AS SCAFFOLDING

Lonergan’s purpose in using a “scaffolding” can be grasped in the following paragraph:

Not only are earlier statements to be qualified by later statements, but also the later qualification is to the effect that earlier statements tend to be mere scaffolding that can be subjected to endless revision without implying the necessity of any revision of one’s appropriation of one’s intellectual and rational self-consciousness.4

Furthermore,

... the order in which the moving viewpoint assembles the elements for an appropriation of one’s own intellectual and rational self-consciousness is governed, not by considerations of logical and metaphysical priority, but by considerations of pedagogical efficacy.5

As an illustration, it is helpful to consider his account of

5. Ibid.
emergent probability as a part of the scaffolding he has erected. The sixteen paragraphs devoted to this account take seven pages to outline, and this outline is preceded by seven paragraphs on the probability of schemes, which in turn are preceded by ten paragraphs on the notion of a conditioned scheme of recurrence of events. Events then are the basic elements that constitute this scaffolding.

These events are experiential. In this sense, Lonergan is building from below upwards. This is empirical method. Pedagogically, this is more efficacious than building from above downwards, that is, by logical deduction from some a priori structure.

EMERGENT PROBABILITY AS "MERE" SCAFFOLDING

Emergent probability can be subjected to endless revision. It is expressed in a formula that is very general: "the probability of the combination of events, constitutive of the scheme, leaps from a product of fractions to a sum of fractions." There are many ways in which such a leap can be formulated. Revision will initially consist in the selection of the most accurate formulation that fits the actual seriation of conditions and conditioned schemes. Further revision will consist in generalizing emergent probability such as to include the human sciences, where human freedom is involved.

This recalls the notion of futuribilis or libera conditionate futura, both pura and non-pura, with which the foreknowledge of an omniscient Being is, in some scholastic manuals, reconciled with human freedom: the reconciliation is effected through the term conditionate as distinguished from a pre-determining causality that denies freedom.

Lonergan was surely familiar with this notion of futuribilis. He had to share this with the technological culture by translating it into terms that can be understood at least analogically in that culture. He did this through the notions of proper fractions, their products and their sums, and how these vary upon fulfillment (or non-fulfillment) of previous conditions such that the prob-

6. Ibid. 121.
ability can become almost one hundred percent certain (or almost zero, impossible). These notions and variations are already in existence in the provisional scaffoldings of the technological mind and thus facilitate for the technologist an insight into what theologians and philosophers are trying to communicate. In this way, communication lines between the cultures can be established.

The communication lines can be further strengthened by linking emergent probability with the moralist's principle of probabiliorism. According to this principle, in a state of uncertainty about different means of attaining an end that is absolutely necessary, one is obliged to choose the means that will more probably attain that end. Its relevance to macroeconomics is that the emergent standard of living of world populations is absolutely necessary, and that in democratic processes, the economic means to attain that end must respect individual freedoms and will therefore involve a measure of uncertainty and this in varying degrees. Hence the only moral option is to choose those means that have greater probability of attaining that end. From this, there follows a conclusion of utmost importance to democratic civilization: calculating these probabilities is a moral imperative. Its corollary is just as important: there is a moral mandate for an empirical method of calculating these probabilities. The heuristic function of emergent probability facilitates the discovery of such methods in a macroeconomy in which "the past cannot be changed and . . . the future is uncertain":

technological creativity — for the task of building the new earth. Eschatological faith foresees a new earth where an order of justice and peace shall reign. Such a task demands transcultural communication and an apt scaffolding for facilitating its construction.

In that direction lies progress. The opposite direction leads to fragmentation and decline.

NEW MODIFICATIONS?

This reviewer looks forward to the day when students of Lonergan can collaborate on new modifications of *Understanding and Being* that will further clarify *Insight*, all of its twenty chapters without exception. Modifications might well include the question whether a theologian’s understanding of world process is sufficiently attentive to the relations of the components of world process to one another, or whether he attends more in the commonsense mode of relating a few fragments of world process to his present concerns, whether individual or group concerns. They might also include the question whether Chapters IV and V of *Insight* can help to introduce a slight shift of attentiveness that might clarify the rich interdependence of all its twenty chapters. The common meanings emerging from such a shift might create a wider community of participants in a world process insofar as this is graced by a transcendent process that is, according to theologians, universally salvific.