

Cantower XXXIX**Functional Dialectics**June 1st 2005

This Cantower has three sections. A first section introduces in a peculiar way the task of reading seriously the 250th page of *Method in Theology*. A second section is key to the motivation needed to face that task in full seriousness: still, if you find that you are gung-ho already, then you might skip that section and take your bearings from the third section, where I return to *Method's* chapter on Dialectics in a way that illustrates the task of foundations: a fantasyland reaching.

39.1 Introduction

If you and I were elders - and this is not a young person's specialty - tackling a shift in dialectics, where would we begin? We are, of course, in some stage of the existential and historic reading of that famous page 250 of *Method in Theology*. If you are reading our present dialogue in a hundred years or so you will perhaps be wondering why the page was not famous much earlier, indeed in the first years of its reading in the context of its shocking hodic context. But truncated reading was the norm in the twentieth century, even among those who professed self-attention, so that Lonergan's recurrent nudging on that page of "each investigator" was somehow always someone else.

I suppose we should be beginning wherever and whenever we are in a self-presence without which we are not beginning at all. And that self-presence has to be a growing thing, moment by moment as Gabriel Marcel says, picking up our somehow absent lives, our cover stories, so that we meet ourselves suddenly always for the first time.

"Once upon a time and a very good time it was there was a moo-cow coming down along the road and this moo-cow that was coming down the road met a nicens little boy named tuckoo ...

He was baby tuckoo.”¹

“For a long time I would go to bed early. Sometimes, the candle barely out, my eyes closed so quickly that I did not have time to tell myself: ‘I’m falling asleep’.”²

I was baby tuckoo, with time now to tell myself at 72 and I think of others, nice little girls like Kate Chopin and Nadia Boulanger, weaving their lonely daft way into the twentieth century, telling but somehow not telling themselves....³

What are you and I telling ourselves now, right your now paused?

But this is a one-sided conversation, with me writing more like the old guy at the end of Proust trying to cross the room, or the endrunners of James Joyce and Kate Chopin, heading into the sea⁴, or Nadia picking up her endpace for the first final dance to soundless music.⁵ But I am trying to cross a cultural gap, trying to head you to a secret⁶ “riverrun past Eve and Adam”⁷ towards the sea, past the longer cycle of decline

¹I am quoting the first lines of James Joyce, *The Portrait of an Artist as a Young Man*.

²I quote the first lines of Marcel Proust, *Remembrance of Things Past*, or as my present edition has it, *In Search of Lost Time*, translated by C.K.Scott Moncrieff and Terence Kilmartin; revised by D.J.Enright, The Modern Library Paperback Edition, 1998.

³This is a very deep axial issue. The third stage of meaning will be quite a different aesthetic ballpark. Further, it will ground a massive shift in the aesthetic presence of prior stages of aesthetic objectification.

⁴I am referring here to Joyce’s *Finnegans Wake* and to Kate Chopin’s *The Awakening*.

⁵Accounts of Nadia Boulanger’s last words are available in the various biographies. I quote the conclusion of my Afterword to *Process*, which in fact is on the topic of editing oneself. “And finally, Afterwards? I recall once more Nadia Boulanger. She is floating between coma and sleep on her deathbed. Leonard Bernstein comes to visit and surprizingly, is recognized ‘Cher Lenny ...’. Bernstein reports: ‘Then I heard myself asking: ‘Vous entendez la musique dans la tete?’ Instant reply: ‘Tout le temps. Tout le temps’. This so encouraged me that I continued, as if in quotidian conversation: ‘Et qu’est-ce que vous entendez, ce moment-ci?’ I thought of her preferred loves. ‘Mozart? Bach, Stravinski, Ravel? Long pause. ‘Une musique ... [very long pause] ... ni commencement ni fin ...’”(Leonard Bernstein, *Findings*, McDonald and Co., London and Sydney, 1982, 353).

⁶An Irish speaker recognizes the linguistic pun of the first word of *Finnegans Wake*: run (pronounced roon) is the Irish for secret - also for ‘dear’ as in the song *Eileen a run*. It has broader European resonances, and connects with my general title for the 117 Cantowers: *Roun*

if only in fantasy and poise.

The fantasy reaches to a luminous childhood as an heir we breed, seeding the next five million years or so⁸ of a cosmopolitan humanity. But whose fantasy reaches?

So I shift to seeming duller prose. There must be tentative risky steps taken in the suspicion of a personal gap⁹, if you are to reach fantasy and poise. That last sentence mentions what seems a normal sequence: but Lonergan's genius was to make the sequence a global suspecting and fantasy and poise, for *suspecting* and *fantasy* and *poise* become names now for his three specialties of humanity's collaboration in the making of luminous childhood in a post-adolescence of history.

Doll, Home James.

⁷The beginning of *Finnegans Wake*. "Adam and Eve's" is the name of a Church on the right bank of the Liffey as it moves towards Dublin Bay. It is the flow of the end of the book, which winds about itself through the unfinished concluding sentence, halting with "the".. So, we are interested, are we not, in "the riverrun" that is tuckoo talking to self about about about self in groupself and history? About about about is what its all about, an about facing beyond the literary talent that I quote for starters.

⁸See the conclusion of note 11 below. The glory of history may be the thinking of what might have been if it ends, so to speak, as a sapling. But there are deeper eschatological issues and theological problems that Thomas would call problems of convenience. How long will the planetary system last? Why do I raise such a question, when in the next million years we may have traveled elsewhere. Because there may a convenience in the end-times including realities related to the events of the divine incarnation. But at all events, the solar system as we know it is good for quite a few million years.

⁹This is a huge axial problem lurking in the you reading these pages, hopefully jolted in you biodynamics. You may be helped by absorbing some of the mood of Lonergan's treatment of the Existential Gap in *Phenomenology and Logic*. There are the subtleties of the triple-twisting of self-attention. But there is the more evident issue of slow adult growth that I focused on especially in the *Bacchus* pages at the end of *Lack in the Beingstalk*. So, think of the gap that I mention there as a personal possibility: you can become a stranger to yourself of last week, and this can become a life-pattern. My analogue is learning physics. You cannot tell yourself of last week with any swiftness - any year - what you **grew** to understand during the week. How, then, can I tell you of this axial problem? You have to somehow be lucky enough to be displaced from your axial prejudice, to re-cognize human life as tuckoo-dark-longing-echo. "History, heredity, personal experience, all combine to rivet my prejudice upon me I gradually outdistance the disturbing echo until at last it happens that I hear it no more"(R.H.J.Steuart, *The Inward Vision*,(London, 1929, 113).

I do not know if I have caught your twenty-first century attention, but my optimism reaches towards a later century that will smile at the obviousness of the counter-cycle.

There: we have got to the heart of the matter: cyclic decline is to be opposed by cyclic *Remembrance of Things Past*, cyclic *Awakening*, *UsagainWake*. And the genius of the counter-cycling is that it meets the cycle of Machiavelli and friends with Machiavellian cunning. Success is the name of the game: but the counter-cycle spins your self-interest out of your control into a global whirl. It is to become a poise of decent and respectable culture, beyond avoidable embarrassment in inevitable embrace. "Doctrines that are embarrassing will not be mentioned in polite company"¹⁰ is certainly a first stage, and the doctrine of global cycling and re-cycling has not been mentioned in the polite company of Lonergan followers in the more than thirty years since it flashed forth. And I have been impolite in pointing this out for more than thirty years. This is my last pointing: might it nudge some to get the show on the roll?

So, I come to today, January 15th 2004, in my tuckoo tale, early started with time to tell me "I am falling awake", with a large fall into new sightings from yesterday. Twenty four hours ago I was nudging some downunder people - a day ahead of me in Australia - to get the show on the roll. We were, are, to roll into the rolling, the cycling, of page 250 of *Method in Theology*. The concrete project belongs to the editor of *Journal of Macrodynamic Analysis*, Michael Shute, who has volume 4 shaping up as a shot at functional interpretation¹¹ and anticipates the next volume as risking some struggles in

¹⁰*Method in Theology*, 299.

¹¹The volume is to appear in the Autumn of 2004. It should be grist for this group's mill. The bent of both groups involved is towards getting some initial sense of what functional collaboration might be about. In my effort to collaborate with individuals and to write about the matter (the topic of *Cantowers XXXIV-XLI, LI, LII*) I have been amazed at the concrete possibilities of the seeded shift in culture over the next million years or so. Is it daft to envisage, contemplate daily, such possibilities? "Part of the glory of history is man's envisagement of its schedules of probabilities and possibilities. If the sapling of history is cut down from within, still it can have, within, a vision of the temporal noosphere that, paradoxically, redeems God. The envisagement is the core of future academic growth: its opposite is an elderhood that is the fraud

the area of dialectic, round that not-yet famous page. Twenty four hours ago I had a plan. I was almost finished the essay on Lonergan's fifth canon of science that is to follow here and was very much focused on physics and metaphysics. There was to be a year or so in that world before I continued the *Cantower* project in May 2005.

I had left off with *Cantower XXXVIII*, on functional history. The next three Cantowers were to be on "functional dialectics", "functional foundations" and "functional policy" : or perhaps you are taken by new possible titles from the previous page: *Suspecting, Fantasy, Poise*.

Why the gap in my writing effort? Obviously, there is a matter of taking time to contemplate the realities of micro- and macro- and meta- physics in line with what I wrote in Part Two below: might I make a little progress in reaching, word by word, sentence by sentence, metaphysical equivalents of present struggles and muddles in chromodynamics and astronomy and quantum mechanics that would lift our heuristics towards a better telling of where we are? But there was also another matter, a matter of pausing to see whether the centennial of Lonergan's birth might bring forth a seriousness regarding his suggestions about how to get beyond our contented living in the cycling of decay, an axial unlife. Such a shift would certainly unburden me, leave me free to write those next three *Cantowers* in a remotely theoretic and creative way. There are enormous problems of commitment and collaboration to be work through regarding the twists of dialectic work, its slowness in encompassing of the full range of disciplines, its grim spiraling into a necessary world of remote meaning, its disturbing demands on personal exposure. Similarly, the activity of fantasy that is the *per se* creativity of foundational work is itself remote from present imagination and fantasy. And present thinking about policy sees no distinction between policy articulated by the streetwise and the policies that are to be the metatheoretic output of an esoteric

of being in reality, 'not old folk but young people of eighteen, very much faded'(M.Proust, *Remembrance of Times Past*, Random House, New York, Vol. 2, 1042: that was the edition I was using at the time). Our molecules, 'our arms and legs filled with sleeping memories'(*Ibid.*, 2, 874) passionately demand that we fly after the butterfly" (I quote from the conclusion of my preface to *Searching for Cultural Foundations*, University Press of America, 1980).

specialty. So, these three zones need a massive lift into an impossible dream.

But how, really, are these problem to be effectively tackled, beautifully implemented? Even if I had reached a personal perspective on their solution, what would three essays add to the problem of intussusception and implementation? Lonergan after all, did give some quite reasonable hints.

The answer is one I have cherished for some decades: it is the How of poor performance expressed in my slogan “if a thing is worth doing it is worth doing badly”. So, I am led to tackle some new talking about the three specialties, a new talking that will not be functional specialist - the specialty for such talk is foundations - but a commonsense appeal to goodwill that sustains some molecular looseness.

Now I am not going to talk about the nature of molecular looseness: that would carry us back to the beginnings of the *Cantowers*, indeed back to my first efforts to shake the foundations at the Florida conference when I spoke of philotherapy.¹² In fact, I am not going to assume that you have been working on any of these previous efforts of mine. Perhaps all I need appeal to is some sense of discomfort with the Lonergan community’s contribution to changes in history? Has there been any impact from it on the living of the poor, the messy reductionism of the sciences, the muddling along of philosophy and theology? Is this it? Just another -ism with its in-talk?

Is there a defense in saying that it is too soon, that it is only taking shape as a cultural force? I do not think so: the only shape I see it taking within cultural reflection is the shape of the usual debates of contemporary philosophy and theology. Certainly, the tilt towards existential meaning has had a pastoral and personal value, but this is mainly a shift in the commonsense of limited groups. But I do not see it shaping up for a revolution. So, here I am, content now with my shift of agenda to writing these three

¹²The two papers I wrote for that conference form the first two chapters of *The Shaping of the Foundations*. I dealt with philotherapy at the end of the first paper, which was mainly a paper on the philosophy of botany, “Image and Emergence: Towards an Adequate *Weltanschauung*”. Lonergan remarked to me then about that paper “it just opens up area after area”. But for whom?! The second paper, “Metamusic and Self-Meaning”, was my first effort to show the relevance of functional specialization in a particular area of culture, that of musicology.

Cantowers 18 months sooner than planned. Did I really think that the centennial events would show a discontinuity of approach from the usual muddled conferences and papers? What I now expect rather, and what is shaping up - or down - from reports that reach me, is the same old same old of comparative and critical stuff, that academic in-talk which has no serious street value, walking the streets of the longer cycle as if they only needed a little sweeping, not a massive cleaning sweep that would slowly, efficiently, beautifully, rock the long centuries of ecumenic decay that possess our bones and byways, our schools and governments, our churches.

I write of a new efficient unity of metaphysics, something that was quite beyond Lonergan's view of metaphysics as he wrote of it in *Insight*, though he had aspired to finding some fresh unity from the beginning of his career. As he moved forward beyond *Insight* in that first year of teaching in Rome he wrote:

"The Method of Theology is coming into perspective. For the Trinity: Imago Dei in homine and proceed to the limit as in evaluating $[1 + 1/n]^n$ as n approaches infinity. For the rest: ordo universi. From the viewpoint of theology, it is a manifold of unities developing in relation to one another and in relation to God, i.e. metaphysics as I conceive it plus transcendent knowledge. From the viewpoint of religious experience, it is the same relations as lived in a development from elementary intersubjectivity (cf. Sullivan's basic concept of interpersonal relations) to intersubjectivity in Christ (cf. The endless Pauline [suv- or] sun- compounds) on the sensitive (external Church, sacraments, sacrifice, liturgy) and intellectual levels (faith, hope, charity)."¹³

The letter was typed; handwritten immediately following the last words were "Religious Experience: theology: Dogma :: Potency: Form: Act".

We shall come back to this quotation and these parallels later, but you can suspect, note, that he was a long way then from the Form that shook up for him the goal and the parallels, that took him by surprise in February 1965 when he sketched out the general structure of groups of groups of operations and ended his handwritten scribbling with the concluding words "vital intelligent reasonable responsible mine and

¹³From a letter of May 1954 to Fr. Fred Crowe.

catholic".¹⁴

The sad fact is that we are a long way even from his first aspiration, or from the aspirations that he expressed in *Insight*, concluded in the summer of 1953. Might we not come to acknowledge, act-knowledge, this with some existential authenticity? This is the question to which these odd few introductory pages have led, a question for pausing, for poisoning, a question for you alone or as a group.

You, grouped or alone? Others in later times may read this, but I am thinking now of the you that is the group interested in writing something in this volume 5 of the *Journal of Macrodynamical Analysis*. On a fuller scale I am thinking of the efficiency that goes with beautiful metaphysics: we are not just sitting round on our arses bitching about life: we are nudging a treacle towards a great spin of redeeming later children. I suppose that I might remind you that this is where the *Cantowers* began, when on Easter Monday of 2002 - it was also providentially April 1st - I recall the shabby group that took over an Irish post-office on Easter Monday of 1916 to stand against a seven-hundred year occupation.

Are you up to taking a stand? But let me come to our smaller scale of the possible challenge for you. Are you up to taking, making, a stand? "Here I stand" sez Luther, nailing his theses and his life on the spot in the cosmos. Your stand-making might not be so shattering, but it has to involve a making that is a vulnerable portrait and a remembrance and an awakening of a nicens little boy or girl, one that aims feebly beyond Joyce and Proust and Proff. What is this feeble making that is beyond and vulnerable? I could leap immediately to our page 250 and ask whither you might do even a swift and shabby applying to your own story of the italics-words of the top of the page, so that your colleagues - friendly or hostile but frankly - could carry you through the exposure of the second half of that page. It cannot, of course, but be feeble,

¹⁴I reproduce the page in chapter four of *Process. Introducing Themselves to Young (Christian) Minders*. It is also reproduced in Darlene O'Leary, *Loneragan's Practical View of History*, Axial Press, Halifax, 2004. You will notice that the scribble is connected by Loneragan to the problem of *oratio recta*, a key problem in our dealing with the second half of page 250, which represents the transition-zone to direct speech in functional specialization.

in these axial days: we are generations away from the emergence of what I would call the working of how-language.¹⁵

But perhaps I can point towards that later lift by inviting you to go back to some traditional talk of Lonergan that yet has a cutting edge. I am thinking now of two essays in *A Second Collection*, [2C in the notes] both on the question of belief: “The Dehelenization of Dogma” which is really a review of a book on *The Future of Belief* by Leslie Dewart, and the essay titled “Belief: Today’s Issue”.

Dewart “lays out” his views, but he does not lay out Dewart. And Lonergan calls him on that missing lay-out: “Dewart has written a book on the future of belief. Does he mean the future of belief, or something else, or nothing at all?”¹⁶ Are you up to laying out “the book of yourself”¹⁷ and your future activity of self-believing living? So that you are vulnerable to “the nasty things said”?¹⁸ Are you up to putting “Today’s Issue” in that context: the article lifted out of its old-style language, the issue lifted into your hidden life? Read now the first and last paragraphs of that essay in this new disturbing light.

“Man’s coming to know is a group enterprise. It is not the work of the isolated individual applying his senses, accumulating insights, weighing the evidence, forming his judgment. On the contrary, it is the work of many, with each adding, as it were, to a common fund, the fruits of his observations, the perspectives caught by his understanding, the supporting or contrary evidence from his reflection.”¹⁹

“To grasp the contemporary issue and to meet its challenge calls, then, for a collective effort. It is not the individual but the group that transforms the culture. The

¹⁵See the conclusion of the second chapter of *A Brief History of Tongue*, entitled “How-Language: Works?”.

¹⁶2C, 15.

¹⁷A Joycean theme.

¹⁸See note 125 below.

¹⁹2C, 87.

groups does so by its concern for excellence, by its ability to wait and let the issue mature, by its persevering efforts to understand, by its discern\ment for what is at once simple and profound, by its demands for the first-rate and its horror of mere destructiveness."²⁰

The contemporary issue is the horror of axial destructiveness within your own life, within today's issue. It could blossom into a therapeutic tale from tuckoo to thesis or tenure, to today, but I would reduce its discomfort immediately to a lesser reach. Are you up to a self-lay-out on today's issue of belief, an operative belief in the relevance of two fundamental structurings of the future and of belief that bubbled out of the tired old mind of the elder Lonergan? Let us name the two structures and pause over the operative believing.

There is then, Lonergan's suggestion of two structures: the "Dialectic: The Structure" and the larger containing structure of eightfold functional collaboration. Both wonderously neglected - or avoided? - by his followers.

I have named the two structures, and perhaps caused you to pause over the operative disbelief of his followers. Now I have nothing against people who do not believe Lonergan: what I do stand against is oxymoronic followers. I shall return to that in the more elaborate context of the next two *Cantowers*. Meantime, the question is how the group "operates on the material to indicate the view"²¹. The material is autobiographic and phylogenetic, with the bent I suggests of "a process of objectification ... towards an autobiography" that would end up with statements of what - I leave it vague till Part Three - is considered as worth personally acting on. The group may not be ready for the agony of autobiography, so let us be minimalist for the present and just pose the question: do you, individually and as a group, think that either structure should be implemented?

Obviously we are in the zone of "worth personally acting on", but note that the

²⁰2C, 99.

²¹Method in Theology, 250.

acting may take the important form of persuasion: getting others to do the hard work! So, let us home in on the first structure, where the hard work is the groups but the personal acting seems less strenuous, more immediate. Indeed, it is connected to my reason for shifting my agenda about so as to write as I write now: we would like to risk some written reactions to "Dialectic: The Structure". Let us home in concretely: what might be said or done about the structure?

There is a clear sense in which nothing can be said until something is done: the page has to be read, a doing that seems to be beyond Lonergan readers. So, to read with some minimal intelligence about *Assembly* or *Selection* demands some envisagement of the process, etc. To read with serious comprehension - *experto crede*²² - is the job of decades of fantasy. The groups efforts will be in between these extremes. So, what might be written, done, about page 250, that would merge effectively with a future beauty of metaphysics?

Even to take the page - I mean of course the whole section 5, but I have for decades referred to the problem of the single page, hoping that someone would take me serious enough to read it! - to take the page and write of out more fully, in the manner of Thomas' commentaries on Aristotle: that would be a serious push in the right direction. I have my own notes in that direction and am certainly willing to share and to comment. And I would note that the latter point - possible commenting - belongs on, to, with, the page: "the results of the foregoing process are themselves regarded as materials". I found, and find, this last sentence of the page quite hilarious, a marvelous entrapment.²³ So, for instance, you and, say, nine others write your stuff, then you all

²²I am recalling a remark made by Lonergan in one of the economic fragments that I edited into *For A New Political Economy*: "To discover such terms is a lengthy and painful process of trial and error. *Experto crede*.... Hence it is only fair to issue at once a warning that the reader will have to work through pages in which parts gradually are assembled"(p.112) Assembled? Work through a single page! You have been warned! Recall note 9, and change my analogue to economics. It took me 25 years to master the economics of Lonergan.

²³This is a more pragmatic confinement that the encirclement etc talked of in *Insight*. They are related strategically: I leave the question of how to your delighted puzzlement!

read all that stuff and see where it leaves you, lifts you.

Some might like to do more than just take the page. I already wrote of the autobiographic venture. But some shy person might prefer to do the historic thing, perhaps in some small zone. The value of such an exercise, even if it be only sketchy, is that I expect it to reveal deep disorientations of axial reflection. How much of philosophy since Socrates would merit inclusion if we proposed Lonergan's later definition of generalized empirical method as a standard of inclusion?! Or take that little word on the second line: "events". How much of modern theological talk takes seriously the event of the scientific revolution, beyond sliding comfortably into the cop-out associated with Fontanelle?²⁴

But I must halt abruptly with this hint of disorientations. The disorientation that the group has to face is the immediately present "horror of mere destructiveness"²⁵ that could keep the discussion comfortable on the level of the established seminar, axially desensitized from the fact that "the social situation deteriorated cumulatively"²⁶ since Plato's nephew took over the Academy and cut off real concern about the local town.

And it is as well to end with that great Athenian Stranger caught wonderfully in the image of an old man giving the nomos to the flute player.²⁷ The nicens little boy had traveled a long lonely road in search of Shobogenzo.²⁸ The nicens little boy Lonergan took that road in a different age with illusions of companionship when really he only had the society of Jesus. I think now of an evening with him when the bright eyes of the

²⁴The final chapter of Butterfield's *The Origins of Modern Science* identifies him as the father of popularization. However, something like popularization is a necessity for human survival. See below, notes 97, 99.

²⁵The concluding words of the essay "Belief: Today's Issue", (2C, 99) already quoted.

²⁶Insight, 229[254].

²⁷The death of Plato is commented on by Voegelin in volume 3 of *Order and History*. It is not available to me at present.

²⁸I am recall the life-work of Dogen (1200-1253). See the conclusion of *Music That Is Soundless*, Axial Press, Halifax, 2004.

little boy shone in the face of the 72 year old man, when he spoke of hearing his mother playing the Kreutzer Sonata as he paused standing small on grass.²⁹ “His mother had a nicer smell than his father. She played on the piano for him to dance”³⁰ in his childmind. His reach was battered by axial life and its expression beaten down by demands for the popular and the palatable: but that is another story beyond the biographies of Fred Crowe and Bill Mathews. “There would have been a far more successful Aquinas, if human beings were less given to superficial opinions backed by passion” .³¹

We are not remotely in the ballpark of such people who seek “to embrace the universe in a single view”³², and to meet its deepest problems, but this does not mean that “one had best regard such problems as practically insoluble”.³³ The two structures that Lonergan discovered lift Plato’s two problems of dialectic and of implementation into a new statistics of helping the lonely global wayfarers. But now “the antecedent willingness of hope has to advance from a generic reinforcement of the pure desire to an adapted and specialized auxiliary”³⁴ such as the structure of collaboration sketched on page 250 of *Method*. Might this group, this fifth volume of the *Journal of Macrodynamic Analysis*, get the show on the roll?

²⁹I took me quite some time to check out this memory by eventually finding a piano version of the Kreutzer done by Czerny. I can provide a copy is anyone is interested in having a shot at it: it is quite a piece to attempt.

³⁰The first page of James Joyce, *The Portrait of the Artist as a Young Man*.

³¹*A Second Collection*, 99. It begins the third end last paragraph of the article already quoted, “Belief: Today’s Issue”. Today’s issue, as we will sense in the digestion of Part Three, is not doing the same to Lonergan. Nor is it a matter of believing Lonergan, but of returning to Tuckooland: but that is another topic. Meantime, it might be of interest to self-ask whether the discussion of belief in chapter 220 of *Insight* has been intussuscepted? A massively challenging business.

³²*Insight* 417[442].

³³*Ibid*.

³⁴*Insight*, 726[747].

Here it might be well to deviate into Part Two, a possibility of cherishing the remoteness of this genius' reach in a single zone: even a skimming can sow seeds. If nothing else, it might get you to share my conviction that the book *Insight* was and is quite beyond these last three generations of Lonergan scholars and enthusiasts, and that it would be a good move to recycle the work, the event, through the process of page 250 of *Method in Theology*.

39.2 Part Two

Lonergan's meaning of *complete* in the fifth canon of scientific method

Philip McShane

I follow the editor's suggestion in dividing this essay into sections dealing with a) content, b) context, c) personal context. However, I break the personal reflections into two sections which bracket the presentation of content and context. So, sections 1 and 4 present my personal perspective; section 2 is a shot at a hypothetical expression³⁵ of the content of Lonergan's meaning of *complete*; section 3 handles the context problem. The immediately relevant expressed contexts for the effort here are *The Sketch*³⁶ in *Insight*

³⁵“Hypothetical expression” comes from the context referred to in the next note. The expression in sections 2 and 3 are attributed to Lonergan. This includes the footnotes. Occasionally I add ‘my own’ comments in these note: these comments are in square brackets. I must add that those sections are not at all an effort at adequate interpretation and expression. The function of this essay is to illustrate, to get the show on the roll. So, I would need the functional feed-up of adequate research not only on Lonergan but on 20th century work in the area. I think, for instance, of one author and one book in both these contexts: Arthur Eddington, *Space, Time and Gravitation*, originally Cambridge University Press, 1920: a really fine mid-level introduction to the problems dealt with in this essay. I shall return to the book later. Did Lonergan read it? The direction of Eddington's searchings parallel remarkably Lonergan's push in chapter five of *Insight*. I do not recall finding any reference to the work in the archives, though he knew of Eddington (index, *Method*). And the canon of residues steps in, joined by the canon of forgetting. I recall asking Lonergan in the mid-1960s about his possible reading of S. Alexander and O. Veblen on questions of space-time (see comments relevant to the present topic in *Randomness, Statistics and Emergence*, Gill Macmillan and Notre Dame, 1970, pp.115-6): he was not ‘up’ on his own research.

³⁶*Insight*, 579-81[602-3].

and page 250 of *Method in Theology. The Sketch* speaks of content and context of an interpretation; the page pushes uncomfortably for a personal stand

39.2.1 Personal Context I

No one needs reminding, perhaps, that the meaning Lonergan gives to *context* is existential. It is the incarnate character's setting of answers and questions.³⁷ That setting, within a developed functioning of specialization, has its *per se* creative lifting and expression in the operations described so bluntly on page 250 in *Method in Theology*, and I take it that the intention of the editor, whose plan includes a following volume centered on this page, is to invite some elementary attention to the perspective of that page within the present effort. That is what I attempt now, in a manner that I have described for decades as "rambling dialectics".

The mention of decades locates me as someone who has been struggling in this zone for some time. I suppose in the *Assembly*³⁸ that this would lead to my self-*Classification*³⁹ - in my life-style of the mid-1940s - as a groupie of Frederick Chopin and Rene Descartes (the Mathematician). The affinities⁴⁰ seem to have "other grounds" than dialectical, yet was there, is there, not the seeding of a tunneling here towards a positional stance compatible with harmonious theoretic sensibility? But the tunneling became one of a Lonergan groupie only in 1956, when I completed graduate studies in mathematical physics and moved to the study of philosophy. A timely business: the shock of extreme realism came out of the first *Verbum* article⁴¹ and, in the following

³⁷*Method in Theology*, 163-4, 183-4.

³⁸The last word on p. 249 of *Method in Theology*.

³⁹*Method in Theology*, 250.

⁴⁰*Ibid.*

⁴¹*Verbum. Word and Idea in Aquinas*, University of Toronto Press, 1997, 20. An unforgettable moment with the unforgettable text dealing with the "fifth element in the general notion of the inner word", dealing, of course, with you and me as notions, patterns of evolutions

year, the humility of discovering the Chopin of - among so many other zones - relativity theory as expressed incomprehensibly in chapter five of *Insight*.⁴² Forty five years later it begins to make more sense, and that *more* is what this little essay is about. But I would draw attention to my seriousness in using the word *begins*: only in the Summer of 2003 did I reach a sufficient grasp of Lonergan's meaning of *energy*⁴³ lurking subcutaneously in phrases like "tensors are defined by"⁴⁴ and "at a certain temperature".⁴⁵

Yet such a sufficient grasp is an existential presupposition of interpreting adequately Lonergan's meaning of *complete*: surely a cautionary message in our efforts to interpret Lonergan here, there, anywhere, since that meaning of energy resonated for Lonergan in the very print of the empirical residue of *Insight*.⁴⁶ Still, I suppose I have made enough progress to attempt a poor interpretation of the word *complete*: later generations, operating in the hodic sublation of the third canon of hermeneutics, will recycle my reaching and spin-off, with recurrence-schemes of statistical success, the non-pure.

However, I would risk here a general comment on attempts to interpret

chemistry, in our strange layer infolding of energy.

⁴²I had given a great deal of time and energy in 1955-6 to such works as Schroedinger's *Space-Time Structure*, - a book I refer to later (see note 116 below) - but this was a shockingly new ballpark.

⁴³I deal with that in *Cantower XXX*, "The Conservation of Energy". This essay, and others of the 117 so titled, are on www.philipmshane.ca.

⁴⁴*Insight*, 147[171].

⁴⁵*Insight*, 165[189].

⁴⁶It is sobering to ponder, in the inwardness of extreme realism and of a committed explanatory heuristic, the status of the already-out-there-now *Insight*. The status of the already-out-there-now space-time is, of course, the larger problem lurking here. The required inwardness is the topic of *Cantower IX*, "Position, Poisition, Protopossession", and I return to the larger problem in *Cantower LXIII*, "Considerations of Gravity" (June 1st, 2007).

Lonergan on any topic, a comment I have made previously in a context of humour and satire.⁴⁷ Normatively, a functional interpretation has a controlled fullness: the control comes from the incarnation of the contemporarily-adequate general categories,⁴⁸ the fullness comes from the orientation of that incarnate effort that guides us luminously to “say definitively”⁴⁹ something precise, novel, neglected, to the community of historians.⁵⁰

But when we think thus we are thinking forward, in foundational fantasy, of later generations and centuries. The present effort at collaboration in functional specialization has to be an honest effort to lift-off poorly⁵¹ out of more than seven centuries - or seventeen, or twenty seven centuries - of disorientation and malice into a luminous redress of poise. Page 250 of *Method in Theology* grounds multiply-rich paradigm shiftings of the practice of *Comparison*. Aristotle’s brief dance⁵² and present minced two-steps⁵³ have to be replaced by a global symphonic ballet of “the completed assembly”⁵⁴ in which all disciplines madrigal. Present mosh-pit honesty needs to

⁴⁷See *Cantower XI*: “Lonergan: Interpretation and History”.

⁴⁸*Method in Theology*, 292: “The use of the general categories occurs in any of the eight functional specialties”.

⁴⁹*Insight*, 560[583].

⁵⁰Functional interpretation and its relation to functional history are dealt with in *Cantowers XXXVII and XXXVIII*.

⁵¹In using the word poorly I am thinking of the slogan I invented in the late 1970s regarding functional specialization: “If a thing is worth doing, it is worth doing badly”.

⁵²I am thinking of the beginning of the *Metaphysics*.

⁵³I am thinking especially of the type of comparative study, “Lonergan and X”, where regularly the categories of the interpreter remain unrevealed. *Comparison* is given quite a precise status on page 250 of *Method in Theology*.

⁵⁴*Method in Theology*, 250. Note the later creative addition by Lonergan to his early notion of *complete*: to the data of space-time we are to add the data of spacetime print and imprint on the sand of time.

“protect the future”⁵⁵ with a disconcerting bow to Lonergan’s logic: “the essential logic of the distorted dialectic is its own reversal”.⁵⁶

This volume and the present essay are such a bow and quasi-luminous disconcertedness is part of its curtsy. We fail to step to the measure of *The Sketch*, the *Canons*, the functional divisions, but we stagger in stumbling tune. My own stumbling avails of a simple strategy of the appearance of blaming Lonergan for my failure: I let him speak imperfectly for himself in the two following sections. How would Lonergan speak efficiently to functional historians of this coming millennium? Certainly, he would still hold that “adequacy is a variable standard”⁵⁷ but how might he reach a transient standard of getting from (A) to (F) and beyond? Would he try for the high achievement of a reflective interpretation despite its “two obvious difficulties”?⁵⁸

Any of my present readers, many of whom, hopefully, find the following two sections inadequate, could attempt that high reflectiveness that involves an estimate, (B’), of readers’ habitual grasping (C’’) of the selve’s intellectual development (C’).⁵⁹ In this way we might stumble towards later whirling. But please, don’t just sit there, bitching at this mazurka: I have had enough of that in the past decades.⁶⁰

39.2.2 Content

“The canon of complete explanation is culturally conditioned. By this I mean that

⁵⁵*Insight*, 240[265].

⁵⁶*Insight*, 233[258].

⁵⁷*Insight*, 557[580].

⁵⁸*Insight*, 563[586].

⁵⁹*Ibid.*

⁶⁰A deliberate little shock of style at the end of this first section. A matter of being complete, as will appear when we take up again after Lonergan has hypothetically spoken in the next two sections. I return to the question of shock, style and dissent below, at note 93, and conclude Part Two in that tone from note 125 on.

it will fade in so far as explanatory heuristics develops and is implemented.⁶¹ The cultural condition tends, however, to be an attractive disorientation, so the canon may have an indefinite future relevance.⁶²

But first I must note its central point. It is that experienced extensions and duration are no less data for inquiry than any other zone of experience. Indeed, they are to be identified as the data of physics when that science is viewed only in its objective content.⁶³ The data of physics in its fullness, of course, includes the physicist: that is the claim of my full expression of the meaning of generalized empirical method.⁶⁴ But for the moment I focus on objective content. Then extensions and durations are objects to be investigated in physics: indeed their investigation is an investigation of the conjugate forms and conjugate acts of the things of physics.

Why, then, the special canon? After all, there is no need of such a special canon in chemistry or zoology. There is a push for explanation, for complete explanation, in these areas. That push is sufficiently expressed in the other five canons. If the same is true for physics there would be no need for a separate canon of explanation. Is the need just cultural or is it more deeply human? That topic carries me into the question of context, and I am trying to home in here on content. Let us take it in stages.

The issue is massively complex, especially as I am writing from the non-moving viewpoint that controlled the moving presentation of *Insight*. *Complete* means that

⁶¹An extremely important text on this matter is my *De Deo Trino II. Pars Systematica*, Gregorian Press, Rome, 1964, 306-11. See especially section 3 on p. 308, which indicates the inconvenience of using descriptive relations even in the beginnings of scientific investigations.

⁶²Recall the problem that I raised at the beginning of chapter fourteen of *Insight*. I do not foresee an institutional overcoming, in the next few centuries, of the pressure of naive realism on scientific conversation. [See note 46 above]

⁶³*Insight* 80[104] permits this distinction but it should fade operationally under the pressure of my later definition of generalized empirical method. See the following note.

⁶⁴“Generalized empirical method operates on a combination of both the data of sense and the data of consciousness: it does not treat of objects without taking into account the corresponding operations of the subject: it does not treat of the subject’s operations without taking into account the corresponding objects.” *A Third Collection*., 141.

physicists have to push forward, in collaboration especially with geometers, towards an asymptotically adequate conception of the real geometry of the cosmos. That real geometry involves not only a determination of the conjugate forms of all the things of physics - one might think in terms of an analogue of the periodic table of chemical things - but also, heuristically, the acts by which these forms generated and generate and carry forward to its destiny the rich mesh of dispersedness that is its dynamic potency. It seems to me that physics to date has carried us sufficiently forwards to enable the identification of that dynamic potency with what the physicists call energy, always so called in a context of actual or proximately-potential formedness. It is that "always so called" that brings into focus the fundamental difficulty.

The difficulty of physics lies in what I might call its helplessly empty beginning. It is the emptiness identified by Aristotle in the non-identity of a prime part-reality which made here and there merely here and there. One is somehow helpless in referencing it unless one avails of well, either of some things that are here and there that need not be things of physics, or of some quite subjective referencing system. Different plants identify places in a primitive garden: or one can leap ahead beyond Descartes to label someway the undifferentiated places and times, Places and Times. Immediately we are trapped in the primitive garden that lies between China and Egypt, measured off by the additions of the Greeks. But is the Euclidean referencing system quite arbitrary and subjective? Indeed no: it turns the helplessness to advantage in emphasizing a sameness. It is an ordering on a principle of sameness. Rulers and clocks can be moved around safely in the ordered emptiness - but only if they are not there!

Obviously, I am pointing you towards my previous expression of this problem and into that context I add the present starker pointing. What is the frame of reference of real geometry? It is the concrete network of conjugate acts of the things of physics that pattern material finitude. How do we move towards the conceiving of that pattern and its forms? By sleepwalking.

The adjective *complete* points to a danger in that sleepwalking, a danger not eliminated by the shift from Euclid to Minkowski: that is a large part of the message of

chapter five of *Insight*. Perhaps I might identify the danger roughly by saying that the geometry of the cosmos is not some overlay on a simple four-dimensional structure of sameness gifted to us by either special or general relativity. The elimination of the danger, at least for the psyche of the intellectual pattern of inquiry, requires a shift to a luminous physics: “the extroverted subject visualizing extensions and experiencing duration gives place to the subject oriented to the objective of the unrestricted desire to know beings that are differentiated by certain conjugate potencies, forms, and acts grounding certain laws and frequencies”.⁶⁵ When holding to that pattern - but not luminously - people like Einstein can move forward within the ethos of the fifth canon to conceive of laws invariant under certain transformations: another key topic of chapter five of *Insight*. So, he arrives at a view of cosmic geometry as involving symmetric and anti-symmetric tensor, despite a massive lack of heuristic luminosity regarding things, conjugates, and the real dynamic potency of the complex patterning of the secondary relativities of real forms.

Of course the canon of explanatory completeness reaches further. In the first paragraph of chapter five of *Insight* I write of “a bridge”: if this canon is not cultivated existentially, the rest of the book lends itself to systematic mis-reading, even for those with the sophistication of intellectual conversion.

What, then, do I, did I, mean by *complete*? “All we know is somehow with us”⁶⁶ and “theoretical understanding seeks to solve problems, to erect syntheses, to embrace the universe in a single view”⁶⁷, “a single intelligent view”⁶⁸ which is itself brought forth in the embrace of the universe seeking its own unity. The first and fourth contexts mentioned in the first paragraph of the next section are central here. My non-moving viewpoint at the age of 46, when I wrote this canon, placed me integrally and

⁶⁵*Insight*, 514[537].

⁶⁶*Insight*, 278[303].

⁶⁷*Insight*, 417[442].

⁶⁸*Insight*, 520[544].

heuristically and existentially beyond imaginative synthesis.⁶⁹ The integrity, of course, was existentially incomplete: I was very much a displaced person both privately and socially. But I was dominated by the notion of *complete*.

So, my meta-physics led me to envisage and indeed achieve to some extent an on-going enlargement of the meaning for me *as physicist* of the canon of complete explanation. But I wrote, even from a moving viewpoint, in the manner of a doubly-displaced person, of “an intelligibility grasped in the totality of concrete extensions and durations and, indeed, identical for all spatio-temporal viewpoints.”⁷⁰ And only a doubly-displaced person could follow those phrases with a paragraph beginning “The answer is easily reached. One has only to shift”. A serious pause over the first paragraph of the next section would bring forth the humour, or perhaps the satire, that I did not notice as I typed the words *easily* and *only*.

I had placed Thomas’ reflections on the beginning - or non-beginning⁷¹ - of the cosmos and on its destiny in the context of centuries of science’s infant struggle with the matter, the energy, of that beginning and destiny. I had done this in the context of the creative innovations regarding the normative patterns of human and divine economics that held my attention through the 1930s and the 1940s. I had taught Christology the year I began *Insight*, 1948-49, and taught it a second time in 1952-3, the stressful year of my enforced incomplete completion of *Insight*. What, then, did I mean by *complete*?

⁶⁹*Insight*, section 6.4, “deals with” the contrast between systematic unification and imaginative synthesis. What might I have said here, about personally dealing with the contrast? [It involves the long haul described particularly in *Cantower IX*: “Position, Poosition, and Protopossession” and *Cantower XXXII*: “The Empirical Residence”. But what is needed is the new culturally-encouraged contemplative stance described in *Cantower XXI*: “Epilodge”].

⁷⁰*Insight*, 171[195].

⁷¹I refer here to Aquinas’ tricky answer to the problem of an infinity of days before today: see *Summa Theologica I*, q. 46, a.2, ad 6m.

“What, then, is being? Let us begin by taking our bearings.”⁷² This question, and its 46-year-old determinations, were my bearings, Trinitarian bearings, but held down and hidden by the device of a moving viewpoint, a device that broke down here and there, but most especially when I rose, in the thirty-first place of the final chapter, to speak of “a love that, so to speak, brings God too close to man”.⁷³ I rose, or was lifted, to make mention of God’s concept, God’s Concept, the Heart of my Christological teaching. “The antecedent willingness of charity has to mount from an affective to an effective determination to discover and to implement in all things the intelligibility of universal order that is God’s concept and choice”.⁷⁴ I had already discovered the “single frame of reference”⁷⁵ that held together what might seem “a large number of otherwise unrelated aspects”⁷⁶ of being, such as the frames of reference of physics. “Did Jesus Christ, his only Son, our Lord, suffer, or was it somebody else, or was it nobody?”⁷⁷ A descriptive frame of reference would place Him, God’s concept, and His suffering gravity, on a hill in this galaxy of the cosmos. An explanatorily controlled asymptotically-complete histogeometry would help to identify the fore-ground radiation of His effective presence in a Eucharistic finitude.

Did I mean all this when I wrote of the canon of *complete* explanation? As my spiritual mentor St. Ignatius wrote in *The Exercises* regarding the unmentioned first apparition of Jesus to his mother “Are you also without understanding?”⁷⁸

⁷²*Insight*, 642[665].

⁷³*Insight*, 726[747].

⁷⁴*Insight*, 726[748].

⁷⁵*Insight*, 740[761].

⁷⁶*Insight*, 740[761].

⁷⁷B. Lonergan, “Christ as Subject: A Reply”, *Collection*, 179.

⁷⁸I translate from memory, from my old Latin *Exercises*, in my possession since the end of my novitiate. It obviously is a central principle of my life. Perhaps you noticed something of Ignatius in my reflection on the Assumption? “Can one say that she adores in heaven the body to

39.2.3 Context

“My Context is a complex of overlapping cultural and personal contexts. I draw attention to four main contexts in the order of their importance for the present topic. There is the context of the past century or so in physics (1850-1950), represented fairly adequately by the books mentioned below.⁷⁹ There is a second context to which I draw attention in my expression of the canon in *Insight*, a context ranging through Galileo and Kant.⁸⁰ There is the context - an early development for me - of my work on science and logic and the geometry of Euclid.⁸¹ There is the fourth context of my work in theology, especially as it impinges on problems of space and time: *Gratia Operans*,

which she gave birth, yet is somehow without the body that gave it birth? Can one invent some metaphysical law or some principle of divine justice that overrules the best of sons' love for the best of mothers, that permits the Sacred Heart to be a living heart but forces the immaculate heart to be a dead heart?” (“The Assumption and Theology”, *Collection*, 1988, 73). [written in July of 1948: see Crowe's comment on Lonergan's piety, *Ibid.*, 267. On Lonergan and the *Exercises*, see Gordon Rixon, “Bernard Lonergan and Mysticism”, *Theological Studies*, 62(2001), 479-497] And in that context I end my reflection on content, assuming that you can understand that I had also thought of the meaning of *complete* in relation to our “destiny” (*Method in Theology*, 292): the full vertical finality of real geometry. The operative geovision of the wombed Word was a central interest of my life, a strange mutual self-mediation of a finite and an Infinite wayfarer. My last effort at Latin theology was in this area, continuing my struggle to improve thesis 12, on the knowledge of Christ, in *De Verbo Incarnato*.

⁷⁹A list could be compounded of my readings in physics but I mention here the two most relevant works: E.T. Whittaker, *A History of the Theories of Aether and Electricity*, Dublin University Press, Longmans, London, 1911; R.B. Lindsay and H. Margenau, *Foundations of Physics*, originally published in 1936, republished by Dover in 1957. The latter book was something of a bible in the field for me. [See my comment in note 1 above on research into Lonergan's readings].

⁸⁰*Insight*, 84-5[107-8].

⁸¹Again, I limit myself to key references. H.W. B. Joseph, *An Introduction to Logic*, Oxford at the Clarendon Press, 1906, 1925 (second revised edition, frequently reprinted) was a central text. The final chapters, on explanation, on induction, on mathematical reasoning, on the methodology of the sciences, were especially relevant. Then there was my focused work on Euclid, which I brought to bear on Peter Hoenan's rich searchings in my “A Note on Geometrical Possibility” (*Collection*, 92-113). A relevant overlapping is “Isomorphism of Thomist and Scientific Thought” (*Collection*, 114-132).

Verbum, the Trinity and the Incarnation. It was in hintings of that last context that I concluded the section on Content.

It is of interest to note that these contexts were personally overlapping rather than culturally over-lapping: one must advert here to the fact that the broad definition of context that I later gave in *Method in Theology* covers the case of non-overlapping contexts where the aggregate of answers and questions are distributed over diverse communities. This non-overlapping exacerbates the problem lurking in the word *complete*.

Elaborating here, old-style, on these contexts, would be lengthy and superfluous: the old-style expression is available in the texts noted. Elaborating new-style would, in the present state of hermeneutics and functional specialization, be lengthy and differentiatedly creative. Further, I would note that this paragraph does not belong in the new-style interpretation. In functional interpretation one would no more have to draw attention to the style than one has to draw attention to theorems of tensor invariance in an advanced paper of contemporary relativistic physics. That new-style would be dominated by the second canon of interpretation,⁸² which sublates the fifth canon of science towards a pure context of complete explanation. In a developed specialist collaboration, shared and sophisticated general categories would control the level of specialist work and inter-specialist communication so that “cumulative and progressive results”⁸³ would occur with a *per se* accuracy and efficiency that would give a new unity to the enterprise of metaphysics.⁸⁴ One must think, then, of a community sharing, in a manner quite beyond public discourse⁸⁵, a full genetic systematic control of

⁸²*Insight*, 587-8[609-10].

⁸³*Method in Theology*, 4.

⁸⁴I urge your attention to the context given by line 16 of page 160 of *Topics in Education*. A science has unity and beauty in its efficiency. Functional specialization shifts metaphysics discontinuously towards that efficiency. See below, note 87.

⁸⁵It is enormously important, personally and communally to take a stand on this. It is all too easy, for instance, to think of the eight specialty as somehow bordering on popularization. The

the ongoing genesis of meaning.”

39.2.4 Personal Context II

So, I step now back, or forward, to personal and rambling musings about the fifty years since Lonergan finished the climb of 1953 to his final words: “once that mind is reached it is difficult not to import his compelling genius to the problems of this later day”.⁸⁶ What the implementation of functional specialization does, will do, is increase, with a precise statistics,⁸⁷ the making it “difficult not to import” the genius of the past through operative embarrassment. It is a brilliantly human cosmopolitan twist on method that I rejoice in mentioning: “doctrines that are embarrassing will not be mentioned in polite company”.⁸⁸ It is an embarrassment that is to place the global culture, in the concrete good of a fresh pragmatism,⁸⁹ on a merciless roily rollaway.

But into my rambles here it is as well to place a shot at a precise and fuller meta-physical embarrassment that accrues to Lonergan’s view of *complete* by its multifaceted “Completion”, adding evaluative completeness in the fullest possible context of object and subject in a completeness that in this life remains essentially incomplete, but with possible and probably growing luminosity.⁹⁰ First I draw attention to the subjective

eight specialty requires an understanding of popularization not only categorially but in the possibilities made statistically probable by ever-freshening genetic systematics. No mean challenge.

⁸⁶The final words of the Epilogue of *Insight*, referring there to Aquinas.

⁸⁷*Insight*, 121[144] describes how probabilities are shifted from products to sums by scheme-structures. Functional specialization is a scheme-structure.

⁸⁸*Method in Theology*, 299.

⁸⁹A context of reflection here is “Inventing Pragmatics” and “A Fresh Pragmatism in Education”, chapters three and five, respectively, *Pastkeynes Pastmodern Ecnbomics: A Fresh Pragmatism*, Axial Press, Halifax, 2002.

⁹⁰I think it relevant to brood in this context over a remark Lonergan made in a book review in *Gregorianum*, 1955: “What then is needed is a qualitative change in me, a shift in the centre of my existing from the concerns manifested in the *bavardage quotidien* towards the

completeness, then to the objective completeness.

But I already drew attention, drew your attention and your attendant feelings, towards that *Completion* listed in page 250 of *Method in Theology*, at the conclusion of section 1, when I wrote of the mazurka that you might bitch about. Did that stir and comfort - or discomfort - your molecules? We are here at a very fine point of the communication that is dialogue in either its common or its dialectic form, biography speaking completely to biography in history, where the personal relating is burdened and bubbling with vertical finality.⁹¹

In functional specialization we reach for the pure cycle of efficiency in so far as the cycling triggers an effective lift in energy's your-heart loneliness for a freshfelt turn to the idea. It is then an echo of the economy that is the divine cycle.⁹² How do you feel about about about⁹³ this emotional twisting in and round page 250's residual finality?

participated yet never in this life completely established eternity that is tasted in aesthetic experience”.

⁹¹I would note that the third line of the ‘diagram’ of page 48, *Method in Theology*, is within the vertical finality of incompleteness. Authentic personal relating is a reaching beyond established relating, indeed, at its best, in the mood described in the previous note. Add the context of “Mission and Spirit”, *A Third Collection*, Paulist Press, 1985, 23-34. Of course, the context of the following footnote is the Heart of the matter.

⁹²The context here is the reflection on “novae relationes personales” in Lonergan, *De Deo Trino II. Pars Systematica*, Gregorian Press, 1964, 240ff. And so we may point to the complete meaning of *complete*, the complete meaning of energy, in the strange incompleteness of eternal surprise. Even, I would note, for the human mind of the second divine person. See *Summa Theologica*, I, q. 17 a. 7; III, q. 9, a.2, ad 3m; q.10, a.1. This is important in the conceiving of the eschaton in terms of “Infinite Surprise” (*Wealth of Self and Wealth of Nations*, 111).

⁹³Reflection on this peculiar triplicity runs through *CantowersXXVII-XXXI*, five essays which parallel the first five chapters of *Insight* with the first five chapters of Feynman's 3-volume work, *The Feynman Lectures on Physics*, Addison Wesley Press pb, many reprints. The five essays provide a context for understanding the present effort. The “about about about” comes from Lonergan's distinction of three orders of consciousness made in a draft, in early 1965, of a first chapter of *Method*. See Darlene O'Leary, *Lonergan's Practical View of History*, Axial Press, 2004. We are again in the shock and annoying zone of the end of part 1. Are you annoyed with my triple ‘about’? Well, that makes you annoyed with Lonergan, so I am in good company. Now try note 91.

But the twisting and perhaps the discomfort is now more refined through the addition of what I call objective completeness, the addition of companionship, in the *assembly* of those who reach towards complete explanation in physics. Here it seems important to pause over the difference between future normal theological science and our present situation of massive impoverishment and the shocking multilayered paradigm shift.

In the normal hodic science of later centuries what the cycling normally adds is a transforming piece to an already solidly established content. All the functional specialists will then go about their business of lifting history still further in the context of a systematic beauty shared like a post-Messien melding of East and West: a new chord, a piccolo note, is added to the expansive control of mature musical meaning. It can be a lift in any specialty, but it is a kindly ripple, not a shock wave desperately avoided by lesser folk trapped in convention. Perhaps the best analogue for such a hodic development is contemporary chemistry in its successful though non-hodic form: at its front-edge there is a massive complex implicit heuristic that grounds the ordering of discoveries in various domains.⁹⁴ In contrast, present “normal theology” has no serious heuristic, even in the non-hodic sense.⁹⁵

But let me get closer to my topic of completeness, of Lonergan’s meaning of *complete*, and of the completeness that he adds to twentieth and twenty-first century physics, by turning my attention to present “normal physics”. That last sentence and the last phrase are amusingly, challengingly, ambiguous. Part of the achievement of this essay is the thematization of myself for myself of just what I am “turning my attention to” in the next eight years, and central to that turning, turn-about, is the shocking discovery of the meaning of *complete* as it lifts the book *Insight* into a quite new context of answers and questions. So, “let me get closer to my topic of completeness” is at least

⁹⁴A context here is *The New Chemistry*, edited by Nina Hall, Cambridge University Press, 2000. On the heuristics of chemistry and its school teaching see *Cantower XXVIII*.

⁹⁵I reflect on this problem in *Cantower XXXIII*, where I survey from this perspective the last decade of Christological theology presented in the journal *Theological Studies*.

ambiguous, at most false. I do not wish you to “let me”; I wish some of you to come along in the search.

The search as I see it now, in this next 2/3 rds of my *Cantowers*, is for a meta-physics in a quite novel sense. There is a narrow novel sense contained in the heuristic program that I name GEMb, the implementation of the later view of Lonergan.⁹⁶ Physics and metaphysics must travel together in the new normative culture. Nor do I mean by that a limited metaphysics: this I shall illustrate below. There is the further full novel sense of hodic physics, physics twirled into the cycling process of functional specialization. Is this further novel sense really “further”? On the contrary it is the prior and dominant sense, as it is to be in theology. What I mean by this is that it is functional specialization that will bring about the lift - by embarrassment and peer-pressure and various other low human motives - towards the first novelty of GEMb either in physics or theology or any other zone of culture.

So, again, let me get closer - come with me obscurely⁹⁷ - to the topic of completeness. The problem has been emerging since the dawn of physics and chemistry. It emerged in the past few centuries of physics with more precision, especially because the contexts of Newton and Maxwell lent themselves to a mess of dialectic muddling regarding what we may name the couplings or conjugations of the

⁹⁶See note 64 above. I deal with a classroom form of this implementation in “A Reform of Classroom Performance”, *Divyadaan; Journal of Philosophy and Education*, 13(2002), 279-309. This article is the concluding section of *Cantower VI*.

⁹⁷The character of obscurity, popular or otherwise, is a vast undeveloped topic of methodological analysis. I opened it up in chapter three of *Lack in the Beingstalk. A Giants Causeway*, return to it in *Cantower LVI*, “Quantum electrodynamics, Pedagogy, Popularization”, in the context of one of most brilliant pedagogical efforts in physics that I have come across: R.Feynman, *QED: The Strange Theory of Light and Matter*, Princeton University Press, 1985. What is needed is a precise normative account of the strategy and content of popularization. “Never has the need to speak effectively to undifferentiated consciousness been greater” (*Method in Theology*, 99). What we need to work towards is the luminous presence - character-ization in the existential sense - of the understanding of the need. That luminous presence has to become an operative statistic of local community: this relates to “The problem of General History” raised by Lonergan in the final session of his *Topics in Education* (pp. 250-57).

things of physics and especially regarding the potency of that conjugation.⁹⁸ The muddling is easiest recognized in the present popular captivation of the minds of physicists and non-physicists with the structure of space-time: there seems to be an entity - it replace the aether of the nineteenth century - in which we live and move and have our being, that has a wondrous complexity of wriggles and bumps in three or four dimensions, but also beyond that in baffling larger dimensions of quantal and stringy foams.⁹⁹

My difficulty now is how to handle for you - presumable a non-physicist - the illustration of interpretation that places Lonergan's in the dialectic of the past century's physics. I wish to do this in two stages: one focused on the work of the Irish physicist Lochlainn O'Raiheartaigh, the other on the context of the work of Stephen Hawking. Let us begin with the restricted zone of physics relevant to the meaning of *complete* with

⁹⁸This is a massively complex topic of reaching for metaphysical equivalents and for a new language of the forms, acts and potencies of coupling (coupling values, constants, 'particles', factors, whatever). For people of the Aristotelian tradition there is the error handled by Lonergan in a fragment that I reproduced in *Phenomenology and Logic*, 13, note 13. The handling pushes one towards a view of conjugate potency that ties in both with a new metaphysics of energy (see note 8 above) and with a fresh clarity on the primary and secondary relational elements of real geometry. How, for instance, might one reach methodological luminosity on the claim that "the distinctive feature of the gravitational field is that it is *self-interacting* ... it defines the space-time over which it propagates. In order to obtain a definite equivalence class of metrics which represents a space-time, one introduces a fixed 'background' metric and imposes four 'gauge conditions' on the covariant derivatives of the physical metric with respect to the background metric"(Hawking and Ellis, *op. cit.*,227). This places Lonergan's problem of measure-standard (*Insight*, 166[190]) in an up-to-date context. See also notes 79, 87, 88, below.

⁹⁹The most recent *Scientific American* (January 2004) gives the tone of present popular mythological writing by serious scientists. The cover-story this month tells in Blue and Red of "Loop Quantum Gravity. A Physics Theory Shatters Space and Time". I already commented on popularization and its problems in note 97 above, where I mentioned Feynman. I should refer to him again here, for those interested in a serious glimpse of the problems of quantum-gravity: *Feynman Lectures on Gravity*, edited by Brian Hatfield, with a foreword by John Preskill and Kip S.Thorne, Addison Wesley Publishing Company, 1995. Lectures 12 and 13 are especially good as a broad introduction to problems of cosmic structure and the limitations of our struggles towards a full physics (leading, of course, to issues of eschatology).

which O’Raifeartaigh deals. I focus on a single book, providentially and suitably titled *The Dawning of Gauge Theory*.¹⁰⁰ It is the beginning of a dialectic analysis of twentieth century physics by a scientist working quite outside the Lonergan tradition.¹⁰¹ Lonergan, then, is not in there, as he will be in analyses later in this century.

In those later analyses, not only will the writing be comprehensible to physicists but the elders of dialectic will also be in the ballpark. After all, we will only be moving forward on lines suggested by the theologian, the 45-year-old Lonergan of the mid-nineteenth century. Further, the cycling of functional specialization at that stage will be such as to lift the entire community of specialists to this new level of comprehension. You find this claim strange, unacceptable? I recall now a Boston Lonergan workshop of the 1970s on “Theology as Public Discourse” (which of course, normatively, it is not and will not be) the reply of Lonergan to the question, “How much physics should a theologian know?” Lonergan’s reply was “well, he should be able to read Lindsay and Margenau”. *She*, of course, is included in his old-style talk. Theology has seven centuries of disorientation from which to recover.

What might I say here and now? To those very competent in physics I would

¹⁰⁰ Lochlainn O’Raifeartaigh, *The Dawning of Gauge Theory*, Princeton University Press, 1997. I may as well introduce here his second book that is relevant to our considerations: *Group Structure of Gauge Theory*, Cambridge University Press, 1986.

¹⁰¹ Lochlainn and I had in fact done graduate work together, 1955-6. The following year he was a research fellow in the Dublin Institute (where Schroedinger had worked, 1939-56) and then went on to study in Zurich under Heitler. He came to visit me in 1964, during my fourth year of theology in Heythrop College, Oxon. [Lewis Watt, Lonergan’s economics inspiration, was still there]. He knew of my interest in Lonergan but we were on different tracks. Yet at the time he was pushing towards a no-go theorem (see note 105 below) of fundamental significance in the conceiving of space-time. I met him last in the summer of 2000, when he was full of fresh hope as he talked about the long active life of some theoretical physicists. He died a few months later. I add these reflection here because it seems to me that there is a bio-lesson for theologians in the life of this brilliant man. There is a tendency in theology to expect creative contributions where few may be possible or probable. Most of us are simply learners, some of us may contribute a theorem, but in the main it is a matter of recognizing that symphonists are few, second-rate fiddlers in plentiful supply. But now I am rambling back to the message of the concluding page of “Features of Generalized Empirical Method. A Bridge Too Far?”, *Creativity and Method*, edited by M.Lamb, Marquette University Press, Milwaukee, 1980.

say, read O’Raifeartaigh’s book with a hodic eye: I come back to that shortly. What is the key point in it, that happens to bring Lonergeran’s brilliance into focus? In my first draft of this paper I foolishly envisaged some sort of a swing through the works of Weyl, Kaluza, Klein, Schroedinger, etc, made available in translation and commented on by O’Raifeartaigh. Instead it seems more appropriate just to quote summary introductory pointings by him. The pointings are pretty incomprehensible, even to many who graduated in physics, but you might get a sense of the shift in the past century regarding what I call **real geometry**.

“... almost entire due to the genius of Einstein, geometry graduated from being the stage on which the drama of physics took place to being a major player in the drama.

There remained, however, the electromagnetic and the nuclear forces, and the geometrization of gravity raised the question as to whether these other fundamental forces were ‘true’ forces operating in the curved space of gravitational theory or whether they also were part of the geometry. This question has still not been fully answered. But what has become clear is that these forces and gravitation have a common geometric structure. This is the so-called *gauge* structure. The purpose of this book is to explain how this structure gradually emerged.

It was actually the theory of gravitation that opened the way for the development in physics and mathematics that led to gauge theory. Although gauge theory is now universally accepted, its geometric nature is not always fully appreciated. This is partly because the success of gravitational theory has made the idea of geometrical forces less remarkable, partly because the geometry of gauge theory is not metrical and is therefore less intuitive, and partly because the geometry is not yet the whole story. Furthermore, the emergence of gauge theory has been a gradual process, a slow evolution rather than a revolution. The emergence of gauge theory has been gradual for two reasons.

First, on the physics side, its importance for gravitation and electromagnetism was not appreciated for various reasons that will become clear later, and its role in the

nuclear interactions was hidden by the phenomenology. Indeed, the short-range of the forces and the apparent absence of vector-like interactions in both nuclear forces, seemed to rule out a gauge structure. Only in the past two decades has it become clear that these were phenomenological effects due to spontaneous symmetry breaking and confinement respectively and that they masked the true situation. Second, on the mathematics side, the gauge structure that was eventually required, the fibre-bundle form of differential geometry, was itself in process of development, taking its final form only in the early fifties.”¹⁰²

Perhaps this quotation, however, obscure, gives you a nudge towards glimpsing Loneragan’s eventual place in this development, grounded in a product also of the early fifties. But before moving on to Loneragan’s ongoing place in the *complete* development of physics, I wish to note a few features of O’Raifertaigh’s work in physics helpful towards understanding the functioning of the specialties.

O’Raifertaigh unknowingly¹⁰³ illustrates that functioning magnificently through two books. The one just quoted, *The Dawning of Gauge Theory*, anticipates dialectic. The second of his books that I reference in note 66 is clearly systematic: indeed I wish to draw your attention to the notion that it is the expression of an up-to-date slice of the systematic physics. Coming to grips with that *slice* notion is important, though I cannot enter into detail here.¹⁰⁴ I would note that O’Raifertaigh shows in *The Dawning* that he is competent in what I might call all the slices right through the twentieth century, beginning with the early slices that include the usual Maxwell stuff, the special relativity stuff, the ‘black body’ stuff. He could have written a 1918 slice, or a 1958 slice, etc: most of the top physicists are like him in this. I would further note that he wrote *The*

¹⁰²*The Dawning of Gauge Theory*, 3-4.

¹⁰³One must be clear on the meaning of ‘knowingly’ to detect this unknowingness. Lochlainn ‘knew’ in a culturally acceptable sense and was capable, as I witnessed personally, of sophisticated discussion. I am talking here about “about about about”. See note 93 above.

¹⁰⁴For a beginning, see *Cantower VIII*: “Systematics and General Systems Theory”.

Dawning in a way that helps the reader to ‘get’ the moves that sets up the dialectic stuff towards its function of generating the full genetic systematics that is to be the communal possession of those working in the seventh specialty. He writes with the twisting tactic that reveals and reverses the counterpositions. Detailing this would be at least a long article.

How is he able to do this? Because he brings to the work a genetic perspective: it is part of his incarnate heuristic. He has a powerful control of meaning. So, for instance, he was the master in the relevant mathematics of group theory, in a full control from Lie and Cartan on. Indeed, out of that context came his no-go theorem, which cut off a line of work decisively. One expert remarked “I felt Lochlainn was going to kill the program. He was sharp and his knowledge of group theory was way ahead of anything I or most physicists knew at that time”.¹⁰⁵

This, I hope, is helpful in our efforts to envisage the later working of the functional specialties in theology.¹⁰⁶ The front-line people - and it is these that are to

¹⁰⁵Quoting the physicist McGlinn, from p. 288 of “Lochlainn O’Raifeartaigh 1933-2000” by Siddhartha Sen, *Physicist of Ireland. Passion and Precision*, edited by Mark McCartney and Andrew Whitakker, Institute of Physics Publishing, Bristol and Philadelphia, 2003. It was McGlinn that first formulated the problem that led to the no-go theorem. “The prize was to discover a symmetry that combined the internal symmetry of the Gell-Mann with the full Poincare symmetry of space-time associated with Einstein’s special theory of relativity, as it was well known that rotational symmetry was only a part of Poincare symmetry. O’Raifeartaigh showed that under very general conditions the problem posed no useful solution. The methods used by O’Raifeartaigh to prove his result were subtle and made use of deep results from the theory of Lie groups way beyond the topics covered in Racah’s Princeton lectures and hence unfamiliar to most physicists. This work brought to an abrupt end major efforts to combine internal and Poincare symmetries” (*Ibid.*, 287-8).

I leave the reader to think out this illustration of inverse insight and the character of the systematic lift it grounds. “When you discover these limitations, the real significance of them is that you know that such-and-such is a dead-end street and that you have to find another street. What are the implications of this looking for another street?” (Lonergan, *Phenomenology and Logic*, 62).

¹⁰⁶What I have written here supplements the prolonged analogy I drew in chapter 4 of *Lack in the Beingstalk* (www.philipmcs Shane.ca) between the calculus of variation (the basis of Least-Principle investigations: see note 87 below) as studied by Husserl in his thesis of 1882 under Weierstrass. Husserl was on the edge at that time of a central field of inquiry which he

occupy the Tower, competitively screened, selected - will share a heuristic that resembles but varyingly surpasses the heuristic named in *Method in Theology*.¹⁰⁷ A few cycling generations in this century will generate a community of the caliber of O’Raifeartaigh in physics, but luminously so.¹⁰⁸ Can you envisage this series of cyclings? It is not easy: it is, *per se*, a function of the community whose contemplative vocation is foundational fantasy.¹⁰⁹ Let me throw out a few suggestions.

In the first place, you have to think out *Research* functionally. At its best it involves the same heuristic as any other specialty. She or he is tuned to the contemporary cycling, capable of catching a relevant cultural imprint and passing it on. The Interpreters? Well, that is what this volume seeks to illustrate: they sniff out, with H₁ help, significant emergent or neglected gems, and steer them on to the community of historians. But note, please, that this is not “uniform”: take Benton’s point, central to

abandoned in favour of a brand of conceptualism. What I cannot emphasize enough is the stand against *theoria* that keeps theology out of the significant climb to desperately relevant meanings. Perhaps my own single contribution to theology is my push for a no-go theorem regarding the sick merging of serious theology with sophisticated but readable description. Serious theology is not open to commonsense reading: full stop. See the final two notes below. And in line with the conclusion of the previous note, I would ask you to connect my no-go theorem with the higher system that is functional collaboration.

¹⁰⁷Pages 286-291. There is something to be said for locating these at the end of page 250: they were Lonergan’s stand.

¹⁰⁸Recall the challenge pointed to in note 93 above. The move towards post-axiality will be complex, embarrassing, fostered by linguistic feedback and narrative bio-exposure. I would draw attention especially to the place of a fresh communality of kataphatic contemplation: Aristotle’s finest way is not just for the privileged few. Here we must look to a new economics which “adds to aggregate leisure” (*For A New Political Economy*, 20). “Such leisure may indeed be wasted, just as anything else can be wasted. But if it is properly employed, then it yields the cultural development that effects a new transformation” (*Ibid.*, 22). In the concluding notes here I draw attention to the manner in which both the leisure and the transformation can be blocked by academic busyness.

¹⁰⁹This *per se* character of foundational vocation needs detailed spelling out. I shall attempt that in *Cantower XL*: “Functional Foundations”. But you can, perhaps, detect its pragmatic reaching in this essay on two levels. There is the vision of a lift in physics, front line and frontclass; there is a vision of a stumbling hodic lift in Lonergan studies.

his article, regarding a spectrum of tracks. So, in physics there is a subgroup pattering along for and against the Copenhagen interpretation of Quantum Theory who are less and less in the main stream of seriousness. In theology there will be those marching for Karl Rahner or Martha Nussbaum. In linguistics there will be die-hard Chomskyites. And so on. But there is the beauty and efficiency of Controlling Meaning, shadow of the Word, lifting luck to luminosity, lifting the global culture towards an open critical cosmopolis.

I have already attempted to spell out the character of functional history and shall later attempt to nudge forward the heuristics of the following three specialties. Here I would simply recall the complexity that I have insisted on for three decades, symbolized in the matrix that I presented in the mid-seventies.¹¹⁰ C_{ij} is a non-symmetrical matrix of 64 types (i, j, each going from 1 to 8) of exchange: it is to become a taken-for granted ethos of the twenty-second century and beyond. And into this anticipated context one may fruitfully put the anticipation of the tasks and conversations of dialecticians: the refined relative invariants to be aired with foundational colleagues; the remote policy-meanings to be suggested;¹¹¹ etc.

We may now usefully turn to Lonergan's place in all this. A general context is already available in "Elevating *Insight*: Space-Time as Paradigm Problem"¹¹² so I focus on a few particular points here.

In the full dialectic and the full systematic ordering that my sketch above anticipates,¹¹³ Lonergan's achievements will represent distinctive slices: indeed two

¹¹⁰First published in chapter 4 of *The Shaping of the Foundations*; it is reproduced on page 108 of *A Brief History of Tongue. From Big Bang to Coloured Wholes*.

¹¹¹I am holding to elementary pointings here. You may notice that e.g. policy-gestation is at least a three layers of larger group-conversations!

¹¹²*Method: Journal of Lonergan Studies* 19(2001), 203-229.

¹¹³Throughout the *Cantowers* I have been gradually developing the parallel between the drive of physics towards GUTs (Grand Unification Theories) and the reach in culture for functional specialization, a reach which sublates Lonergan's earlier notion of UV (Universal Viewpoint). One can fruitfully parallel GUTs and UVs, but the fuller view, to emerge in

slices in each, corresponding to his published contributions of 1957 and 1969. I say nothing much more here about his illumination of functional specialization: that is his outstanding achievement, shifting metaphysics to its due and overdue contemporary unity, beauty, efficiency. I focus, then, on his fifth *completeness* canon. It was an extraordinary anticipation of the drive of the next fifty years. No, he did not arrive at gauge theory or fibre bundle geometry: but he was quite clear heuristically on the geometric character of the forms of physics, on the possibilities of anti-symmetric coefficients in a generalized relativity theory, and he would not have been surprised at the richer and non-metrical character of such geometries.

What is richer, however, is his general heuristic of physics or of any enterprise, a richness which I have symbolized particularly in two of my words of metaphysics, the first and the third. W3 makes symbolic and embarrassing the achievement of 1969, but let us pass over it for the moment; W1 gives the full context for any serious consideration of the structure of space-time and its measurements.¹¹⁴ According to the levels and convictions of the physicist it invites, cajoles, forces, explanatory attention to the total concrete cosmos.¹¹⁵ I can only give two instances here of the rich nudging of

Cantower LXV of August 2007, “The Guts Diagram” sublates both, and other disciplines’ searches for unity, into an integral hodic anti-foundational perspective.

¹¹⁴W1 is simply a symbolization of the heuristics of a hierarchic aggreformic cosmos. W3 diagrams a heuristic of the implementation of functional specialization. These symbolizations are recurrent in the *Cantowers*, but were originally made available in chapter 4 either of *Process: Introducing Themselves to Young (Christian) Minders* (available on www.philipmcsane.ca) or of *A Brief History of Tongue*. The topic of measurement has come up here in the context of classical physics, but there is the more complex context represented e.g. by the work of John Bell, who raises also the larger issues of metaphysical equivalence. See e.g. J.S.Bell, *Speakable and Unspeakable in Quantum Mechanics: Collected Papers on Quantum Philosophy*, Cambridge University Press, 1987. John Bell’s life and work is described briefly, in the work cited in note 71, by Andrew Whitaker, “John Stewart Bell 1928-1990”, 273-281. A disturbingly honest Belfast man.

¹¹⁵See *Insight* 396[421], 398[423]. A homely push for the concrete envisagement of metaphysics in operation is pp. 27-38 of *Cantower XIV*, “Communications and Ever-Ready Founders”, dealing with the metaphysics of Manhattan.

that perspective, relating to two works on *Space-Time Structure*. I give there the title of the first work, written by Schroedinger in Dublin in the late 1940s, a brilliant and clear book that I highly recommend.¹¹⁶ He begins with the problem of labeling: Lonergan's work not only puts that labeling into a full context of meaning but it specifically identifies the formed dynamic ground of the labelability.¹¹⁷ The other work I would invite you to attend to is a standard classic on relativity theory: *The Large Scale Structure of Space-Time* by S.W.Hawking and G.F.R.Ellis.¹¹⁸ A few scattered comments on the latter book are useful: a serious consideration belongs in the specialty dialectic.

It is obviously far from the silly world of Hawking's pop-works.¹¹⁹ But how does it stand in the context of the new "GEMb" physics? First, I recall now a previous effort to deal with deficiencies in a contemporary classic regarding the meaning of *cause*: we really are way beyond time for the community of science to step forwards out of its ignorant stupidity in this area.¹²⁰ In the case of the work of Hawking under consideration, the simplemindedness of the view of causality is perhaps obscured by

¹¹⁶Cambridge University Press, 1950. I commented in "Elevating *Insight*..." on the problem, in Schroedinger, of attending to things and their notion. It would be a whole other topic to move into the relevance of Lonergan's perspective for Schroedinger's other lines of thinking e.g. regarding Quantum Mechanics. Further, some of my comments here on the second work apply equally to Schroedinger's book if considered in isolation, but Schroedinger's perspective was a much richer one: see, for instance, my comment below (note xx) on his little work, *What is Life?*.

¹¹⁷*Cantower XXX* pushes towards a conception of the prime matter of Aristotle and Thomas in terms of energy, something compactly suggested by Lonergan in section 4 of chapter XV of *Insight*. See note 43 above.

¹¹⁸Cambridge University Press, 1973. Many paperback reprintings: my own is 1999.

¹¹⁹I have written critically previously of Hawking and of his naive notion of popularization in the Introduction to *A Brief History of Tongue. From Big Bang to Coloured Wholes*, Axial Press, Halifax, 1999. My title may remind you of his first popular book. His second pop-book is still more 'popular' and more expensive: *The Universe in a Nutshell*, Bantam Books, 2001.

¹²⁰*Cantower XV* deals with the final work of Stephen Jay Gould, *The Structure of Evolutionary Theory*, Harvard University Press, 2002. Section 15.2 focuses on "Causes and Laws".

the context of the reflections of Hawking and Ellis. As with O’Raifeartaigh’s work, so hear the possibility had occurred to me to deal in some detail with this and with other problems that arise regarding relativistic modeling, but such detail would probably be beyond even the graduate in physics. The straightforward question of causality itself - for the authors mainly either a simple matter of consequence-possibility or a more complex issue of boundary-problems¹²¹ - would call for a separate essay and quite specialized considerations. It seems best, then, to be as brief here as possible, holding myself to making a main yet central point.

The point regards context, the massively rich heuristic context required and offered by Lonergan, the slim context of the presentation in *The Large Scale Structure of Space-Time*. A proper focus on that large scale structure is the focus given by a general heuristic that would acknowledge the problems of things and conjugates layered aggregiformally in a hierarchy of informing acts of dispersedness, a dispersedness moreover, which grounds sets of sets of divergences from determinate modelings.

The astute reader will have noticed that here I am sweeping the first half of the book *Insight* into the fuller context of its sixteenth chapter. One might claim that the Hawking-Ellis presentation does not need that, since it is a sort of graduate introduction to a specific topic. I refrain from going into technical details but I would make the general popular point that a reader would be better off with at least some

¹²¹The index to Hawking and Ellis gives jump-off zones, but the context must be lifted to that hinted at in notes 98, 113, 122. It seems worthwhile to add here that a full causal analysis of the Principle of Least Action, which underpins model and Lagrangian selection, is a central need in contemporary physics. Both Feynman and Eddington were sensitive to this. I may quote Eddington. He is on the edge of a discussion of entropy as he writes “since the logarithm of a probability is necessarily negative, we may identify action provisionally with minus the logarithm of the statistical probability of the state of the world that exists. This suggestion is particularly attractive because the Principle of Least Action now becomes the Principle of the Greatest Probability.” (*Op. cit.*, note 1: page 178 - my copy is Harper, 1959) The Principle was a central interest in Feynman’s life (*The Feynman Lectures*, II, chapter 19, which also happens to be a good introduction to the topic): it is most evident in his path-integral approach to quantum theory which meshes action and statistics. See R.P.Feynman and A.R.Hibbs, *Quantum Mechanics and Path Integrals*, McGraw-Hill Book Company, 1965.

appreciation of the facts that there is no such entity as space-time, bounded or unbounded; that study of the large-scale structure is on a par with the study of Boyle's Law and its descendants; that neglect of scales below 10^{-13} cm puts the considerations in a strange context, especially when issues of extreme densities are at issue; that indeed, the structure of the universe on the level of physics is to be conceived heuristically as a real space-time geometry of aggregated events quite beyond formal definition, but whose forms are to be grasped through the discovery and testing of ever-more complex possible geometries.¹²²

My compact random comments on this work and on present work in physics and metaphysics are obviously a pale foreshadow of the rich dialectic collaboration that is to eventually emerge and integrate dialectic work across all areas of culture. So, for instance, instead of Hawking you might consider Heaney or Heidegger, to discover parallel needs in poetic and philosophic criticism.¹²³

But at least I have given an impression of a need, a direction, a relevance of reaching for Lonergan's perspective if we are to interpret, narrate, criticize, ground,

¹²²I do not see this ambitious project moving forward in any genetic seriousness without the perspective hinted at in notes 98 and 113 above, which would lift the words and sentences of physics into a due critical and normative metaphysical equivalence. Meantime, one must hold to parsimony. "The next step in creating a more unified theory of the basic interactions will probably be much more difficult. All the major theoretical developments in the last twenty years, such as grand unification, supergravity, and supersymmetric string theory, are almost completely separated from experience. There is a great danger that theoreticians may get lost in pure speculation" (L.O'Raiheartaigh and N.Straumann, "Group Theory: Origins and Modern Development", *Review of Modern Physics* 72 (2000), 15. And certainly parsimony requires the elimination of strange galactic observers: "This raises the intriguing possibility that one might be able to travel to other universes by passing through the 'wormholes' mad by charges. Unfortunately it seems that one would not be able to get back again to our universe to report what one had seen on the other side" (Hawking and Ellis, *Op.cit.*, 158-9). More generally, there is the messy moving between general and particular that haunts both relativity theory and quantum mechanics. I attempt to say something on these matters in *Cantowers XLII-LXIV*.

¹²³In *Cantower VIII*: "Slopes: An Encounter", I draw attention to the manner in which disciplines converge in dialectic in a concrete completeness. In particular, I draw attention to the weakness of Heaney's foundational perspective. See there pp. 16-17.

progress. The problem, of course, is the receiving of the impression.¹²⁴ Again, in the mature cycling of later times the giving and receiving will be institutionalized in an embarrassing efficiency: there will be a receiving by historians, sets of discomfoting nudges for dialecticians, foundational shiftings, and so on. In our current situation, however, there is the clear and present danger of the silent treatment for eccentric reachings such as this essay, this volume.

So, I return to the conclusion of the first section, swinging into the discomfoting mode of narrative aggression, something that occurs regularly in physics.¹²⁵ Am I, are we, wrong about the neglected power of Lonergan's suggesting of a complex of paradigm shifts quite beyond our present instituted habits? At least read with us seriously that quite clear page 250 of *Method in Theology* which unambiguously asks you to take a stand, "indicating the view that would result from developing what you have

¹²⁴At an elementary level one may think of *impression* in terms of *species impressa*: then the problem is current molecular indisposition to enlarged harmonious intellectual living. But there is the elementary and embarrassing impression that the shambles of culture in all domains cries out for the division of labour suggested by Lonergan. See note 79 above.

¹²⁵Heated disagreement was the order of the day in twentieth century physics: such feelingful disagreement is to be lifted into the context of the fourth specialty. It is desperately needed in theology, where biographic absence in implementing the task of *Method in Theology* - as expressed feelingfully on page 250 - can hide rejection behind pious and detached generalities and misreadings. We need something of the spirit of "the nasty things I said" (*The Dawning of Gauge Theory*, 108) - Pauli regarding Weyl - or of Carver Mead's critique of his friend Feynman's presentations in Mead, *Collective Electrodynamics. Quantum Foundations of Electrodynamics*, MIT Press, 2000. "I remember being very angry when I sat in on this particular lecture. Why hadn't he started this way in the first place, and saved us all the mess of the **B** field, which, as he told us himself, was not real anyway?"(xiii-xiv); "If Feynman was stuck about something, he had a wonderful way of throwing up a smoke screen; we called it 'proof by intimidation'"(xviii). Mead's little book is a great feelingful scientific rejection of the "Copenhagen Clan" (78, 122) that dominated the twentieth century. Do we not need such a rejection of the smoke screen of the B-field of sophisticated description that dominated twentieth century theology? We desperately need explicit stands on the homely no-go theorem that Lonergan points towards: "systematic theology is elitist: it is difficult" (*Method in Theology*, 251). See above note 71. Further, note that systematics is the key cyclic operator in the efficient hodic process, and that it is also on the edge of its street value. Communications "bears fruit. Without the first seven stages, of course, there is no fruit to be borne" (*Ibid.*, 355).

regarded as positions and by reversing what you have regarded as counter-positions."¹²⁶ The issue is not just some armchair stance but a quite novel, even terrified,¹²⁷ poising before the shambles of our autobiohermic intussusception of axial pretense. Lonerganism travels along in centuries-old stale ways, in a committedly and destructively¹²⁸ untheoretic fashion.

There is nothing wrong with good popularization when it is recognized as such: there is a desperate contemporary need for a turn to the lonely daft subject in all zones of present unlife. But what is a sin against history is popularization comfortably pretending seriousness. The fifth canon of empirical method invites high seriousness in physics and metaphysics. But that metaphysics is not just the metaphysics of physics. It is the terrifying cultural challenge to slowly and hoddically conceive, affirm and communally implement the integral loneliness of cosmic physics and cosmic chemistry and their highest achievement, the psychic wayfaring of our human hearts.

¹²⁶*Method in Theology*, 250. "Indicating the view" are the discomfoting words here: how do I really stand, in my daily and annual doings, taking my place among the lonely, the lame and the poor, taking us all forward as best I might during this bone-twisting axial horror, in the deep loneliness of eschatological invitation? Dare I reach for, express, indicate, my stand, even to myself?

¹²⁷"If a man is a hero, he is a hero because, in the first reckoning, he did not let the monster devour him but subdued it not once but many times" (C.G.Jung, "The Relations between the Ego and the Unconscious", *Collected Works, Vol. 7*, Princeton University Press, 1966, 173. I especially look for heroines (see *Cantowers IV* and *XXVI*) in these desperate days of quiet Lonerganist terrorism, but the heroics need the cunning of serpents, as the end of the next note hints. But make no mistake about the serial killers in the classrooms, committed to a stable culture of suit and tie conventional wisdom and continuity and to a subtle discouragement of adult growth.

¹²⁸I wish to draw attention in this final note to the primary destructiveness that must be existentially remedied: classroom destructiveness. The first three generations of Lonergan scholars were, are, incapable of teaching either *Insight* or *Method in Theology*. This real situation must be made relatively luminous and faced pragmatically, if we are to move forward together. But the key to progress lies, I would say, in the hodic cycling that will emerge in other disciplines. Then the doctrine of embarrassment that lies in my policies will become a discomfort in the halls of academe. Meantime, however, the presentation of Lonergan in the context of the confusions of contemporary commonsense pundits needs to be flushed. But if you are a student, don't try to remedy this: recall Lonergan's advice: "never try to teach your professor anything"!

39.3 Part Three: Return to the Structure of Functional Interpretation

You may have skipped Part Two, or perhaps skimmed through it. No matter. Its elementary importance is in toning up your bent towards our present task, of trying to 'make sense' of page 250 of *Method*. Let us pause over that phrase, 'make sense' in relation to that toning or tuning tuning to the "room filled with music".¹²⁹

Let us pause; let you pause. Eyes off the page, as Bachelard would say otherwise, he would claim, the reading is not serious.¹³⁰

You have, I assume, also skipped the first 38 *Cantowers*, and that is O.K. My new perspective of these last few days is to place these three *Cantowers* - XXXIX, XL, XLI - in such a context. But I do now ask you to pause - that word again! - over the last two footnotes of Part Two, about the present problem of teaching and studying *Insight* and/or *Method*. The mood does connect with where we left off at the end of Part One, and where we might realistically go in and with these next essays. After that, for me, it is a matter of picking up, at 72, on the challenge of *Cantower XLII*, the beginnings of dealing with muddles in quantum theory, and seeing how far I can get towards a new strange metaphysics in the following years. My aim, of course, is to come up with something better than Karl Rahner at the same age [80] in that final *Cantower* year, 2011, regarding my future and yours in the oddness of the "Infinite Surprize" of our multiformed energy.¹³¹ I refer to what seems to be his final lecture, worth perusing in the present context, where he concludes with a short section on "What is to Come".¹³² Rahner humble admits that he has nothing much to say, but he has some good things to say that are relevant to our struggle for a room-present meaning, for us all 'making

¹²⁹*Method in Theology*, 290.

¹³⁰Note 29, p. 98, of *Wealth of Self* gives Bachelard's mood with regard to serious reading. Put it in the context of Lonergan's comments on serious reading in the Epilogue to *Verbum*.

¹³¹*Wealth of Self*, 111. Now it has the context of *Cantower XXVIII*, on energy.

¹³²"Experiences of a Catholic Theologian", *Theological Studies* 61(2000), 3-15. The translation is by Declan Marmion and Gesa Thiessen.

sense' of - to borrow a phrase of Tom Halloran - our journey to the Feast.¹³³

“Hope for eternal life is normally spoken of in rather unctuous and consoling tones. For be it from me to disprove of such language provided it is meant sincerely. But I must personally confess to feeling a little uncomfortable when I hear such talk. It seems to me that the conceptual models used to clarify what is meant by eternal life are for the most part insufficient to deal with the radical break that takes place at death. Eternal life - strangely described as continuing ‘beyond’ and ‘after’ death - is clothed too much with realities with which we are familiar. Eternal life is thus imagined along the lines of continuing to live on, or as meeting those who were close to us, or as friendship and peace, or as a banquet and a celebration. These and similar conceptions focus on the never-ending and ongoing character of eternal life.

Yet I fear that the radical incomprehensibility of what is really meant by eternal life is in this way trivialized. What we call the direct vision of God in eternal life is downgraded to one pleasant activity alongside others that go to make up this life. What is not properly perceived is the unspeakable enormity of the fact that the absolute divinity, God’s very self, stoops down naked and bare into our narrow creatureliness. I admit that it seems to me to be both an agonizing and an always incomplete task for the contemporary theologian to come up with a better model for understanding the notion of eternal life - a model that would exclude these difficulties from the outset. But how? But how?”¹³⁴

¹³³The reference is to *Journey to the East* by Herman Hesse, from which I quote (*Wealth of Self*, the beginning of the “Epilogue: Being and Loneliness”, p. 101) in a manner relevant to the group-mood I talk about in some of the concluding notes here: “...each member, each group, indeed our whole host and its great pilgrimage, was only a wave in the eternal stream of human beings, of the eternal strivings of the human spirit towards the East, towards home...”(London, 1970, p. 12).

¹³⁴Op. Cit., 14-15. The entire *Cantower* project is an answer to the question, But how? It is eventually a problem of coming up with a satisfactory pastoral commonsense intimation, but the heart problem is the problem within theology of conceiving eternal life within a contemporary cosmology. What might be meant, theologically, by “Rill open-ends a trill / Annotaste of Throat”? (see the poem that begins and ends *Cantower II*), in an ultimate view of $[1 + 1/n]^n$?

I recall now, as I have before in these essays, walking with Lonergan in Dublin at Easter 1961, talking of cosmology, and he remarked that one can get quite a coherent cosmology out of Thomas. The point I wish to make is that Thomas did have a shot and lifting the contemporary cosmology into an eschatology. That cosmology was muddled, quite insufficient as a jumping-off ground for the shot, and I like to think that he was providentially ‘beamed up’ before he got bogged down in a final attempt to talk of our eternal brain-functions.

But I am not heading us into that topic just yet. What I would like to think is that I am heading, we are heading in a spiraling group, in a head-sensed heading that tunes our toes to mystery. This is, of course, an impossible dream, in our axial world, and it is a topic that I skim past here and now.¹³⁵ But at least do you somewhat ‘get’ our problem? ‘Making sense’ for us pilgrims is glimpsing forward in the dark, edging along in a snail-tunnel of fragmentary fluorescings: the post-axial period of the next million years or so will merge the fragments into a dawnglimmer that is luminously dark.¹³⁶

And that tunneling and merging depends on our humble herenow hodic focus, cunning as unjust stewards.¹³⁷ It depends on the precision of our ‘forward’ in the glimpsing forward: and that brings us round and back to the genius of the hodic focus as a human solution to the problem of a cosmopolis. And within that precision is the precision of our task: reading with dark hopefilled gentleness¹³⁸ that single page of

¹³⁵A context is *Cantower XVII*, section 1, which is a comment on section 1 of chapter 17 of *Insight*.

¹³⁶The context here is an article in the Website Archives - www.philipmcshane.ca - originally published in Spanish, “Towards a Luminous Darkness of Circumstances. *Insight* after 40 years”.

¹³⁷ The parable points to the painful fact that “the children of this world are wiser than the children of light”, or in my own lecturing version, there is a lot more energy going into selling soap than into selling salvation.

¹³⁸It is the gentleness of the mood of *Cantowers XXI, XXVII, XXXI*, seeking quietly small insights, small molecular changes in our nerves. A useful instance of this is talked of in the Epilogue to the recent edition (Axial Press, 2004) of *Music That Is Soundless. A Fine Way for the Lonely Bud A*. It concerns intussuscepting the sonnet by Hopkins on *The Windhover*.

Method.

But let us be prosaically practical, even if we sense the wondrous dark. Why this focus on section 5 of the chapter on dialectic? Because, really, that's it, that's the agendum of dialectic. On various other occasions I have written and talked of Lonergan's tired struggle with the book and this chapter is no exception to his battling. The surround of section 5 are just that: surrounds, illustrations, contexts: possibly even fillers. A younger Lonergan might have taken up parts of such efforts as his *De Intellectu et Methodo*¹³⁹ and lifted them into the new context. But this page is the heart of his revolution and the expression of his cunning. I looked back at some of my own sketchings around it of the past twenty years.... should I add in pointers from them? A THEN¹⁴⁰ master would rather point you to the Koanic¹⁴¹ sentences: that indeed is the seminar project, a reading perhaps in the mood I suggested, but certainly in the mood Lonergan suggests in the Epilogue of *Verbum*.

Still, do you not share my puzzlement at the absence in interest in this page? Is it not gloriously obvious? Perhaps I should recall for you my visiting the page earlier in the *Cantowers*?¹⁴² But it is not necessary to go back just now (... sometime later in your elderthen climb! ...).

So, as I say, it seems odd that the plain uncomfortable message hasn't sown any

¹³⁹There is a translation of this from 1990 by Michael Shield available from the Lonergan Centre in Toronto. I quote a very relevant passage on pp. 11-12 of *Cantower VIII*, which deals with the sort of development I am hinting at in this essay: instead of the development of a notion of the development of mathematics there is the challenge of a development of a heuristic of the development of, say, one's own development.

¹⁴⁰This brings us back, or forward, to the bent introduced in *Cantower V*, "Metaphysics THEN", where there is the mood of replacing both Ken and Zen attitudes by the lean-forward attitude popularly described in note 143 below.

¹⁴¹A nice ambiguity here. There is the familiar meaning, the not-sense puzzletalk that lifts the student contemplatively. But there is the literal Japanese: "public plan" (*ko*: public; *an*: a proposal, plan).

¹⁴²E.g. *Cantowers VIII* and *XXV*.

serious seed of work-program among the followers of Lonergan. Go figure.

Or, of course, go do something about it, which is what 'make sense' means in human history.¹⁴³ But what? Well, we are following Lonergan's suggestion, a few pages later, of making conversion a topic. The conversion in question is a conversion to the method of this section 5, relatively undeveloped in form either in ourselves or in those to whom we speak or write. For it is early days in this new ethos.¹⁴⁴ Making it a topic for ourselves, peculiarly, makes it both an elementary foundational exercise and an undeveloped doctrinal or policy stance. It is to stay a topic for us through these three Cantowers. Out of that staying pow-wow¹⁴⁵ there is to emerge the impressions¹⁴⁶ of volume 5 of *Journal of Macrodynamical Analysis*.

I have already suggested directions for our efforts. They can be autobiographic;

¹⁴³See note 140. A large topic, related to the meaning of *Praxis*. Think of it in terms of the present enterprise, its gatherings, its revolutionary talk. Certainly we are interested in fully understanding, but we lean forward psychically, we are going, leading somewhere. Metaphysics matures when that leaning becomes the norm and the leaning has a decent statistics of efficiency. In contrast think of the usual intellectual gathering and its normally slim outcome - even if it has an output of print! Recall Lonergan's comments on decay and the "effete" (*Method in Theology*, 99). Carry on into the next note.

¹⁴⁴I am thinking of **style** and the mysterious aesthetic presence of the challenge in the group, your group. "... an aesthetic apprehension of the groups origin and story, ... operative when the group debates, judges, evaluates, decides, or acts - and especially in a crisis" (*Topics in Education*, 230). "And the individual is extremely sensitive to all this. His living takes its inspiration, its guidance, its justification from the opinions of others. Consequently, the style that is the man is not something individual; it belongs to the group" (*Ibid.*, 252). CANYOU, canoe, canned your imagination, imagine the Tower of Able that **CanTower** in the **character** (*Method*, 356,73) -isation of the characteristics of Cosmopolis, an eventual global grouping of groups of groups? "There will be individual variations, but there is something common to all. There is something similar in the tone, the color, the way of doing things, that attitudes that are said to be characteristic of the regional group" (*Ibid.*)

¹⁴⁵With the nice original Algonquian meaning of dreaming: so, fantasy.

¹⁴⁶How do you read this word? Eventually you may be reading it with the full heuristic which would place it within the words of Metaphysics (see **Cantower XXIV**) but for the moment think a little - or a long lot! - of the print as netted into the impressed species by neural dynamics. We are trying to "get at" our own and others' molecules.

they can be phylogenetic; they can home in on some particular history in an attempt to figure out the meanings of that odd list *assembly, completion*, etc. They can end up as one-page comments or a score of pages. But they will all be flowing into the second half of page 250, read, rewritten, whatever, so that each member of the group somehow takes a stand on what is progress and what is its basis.

But I permit myself one further odd suggestion which, I think - and hope to show in the next two *Cantowers* - will prove extremely fruitful. Why not take page 250 as ... an assembled, the assembled? It fits in with nice symbolism to a concrete beginning, a page turning. So, you are reading the last two lines of page 249. "Before being operated on the materials have to be assembled, completed, compared, reduced, classified, selected. *Assembly*" ... and then the next page begins with "includes". But the next page begins with the readying up-process described now in more detail. Yet, the next page is the result of the entire process: it is Lonergan's selection. Old Tuckoo has it all in this page, and he knows it with a fearsome luminosity that reaches down the ages. Note that there are marvelous and tricky twists involved here. The entire past as history in both senses is a selection.¹⁴⁷ the third stage of meaning aims at shifting that selection and its re-expression in histories and autobiographies, in the sciences and arts and technologies and ultimatings. But now we are focused on a tall tail piece of an autobiography, selected like the last page of *Finnegans Wake*. And you can only reveal the marvelous twists by twisting about about about.¹⁴⁸

So, what happens when you twist, turn, the page? What does *assembly* mean for you? Recall my reflections on the single word *complete*. Is it a shock to find that we are in the same pattern, but now involving far deeper complexities and realities that the galaxies and the geometries and gauges that reach out to them? *Assembly* means a shocking shift to understanding, a climb of interpretation. Certainly, a door to modesty

¹⁴⁷Known by God with a fearsome luminosity that reaches down the ages. A context for beginning to intussuscept this is *Insight*, chapter 19, section 9, "In the 18th place".

¹⁴⁸This is the tricky triplicity I wrote about above, note 93.

of reading. How, then, might we **read** and **do completion**? Completion, perhaps - for the person who just does not like all this McShane obscurantism - means adding anger, resentment. But I have written enough to get you going, glowing or growling.

I end, THEN, this first of three *Cantowers* that cycle about about about page 250 of *Method in Theology*, nasty man nudging you, nicens little growed-up boy or girl, about the hole story of your tuckood-away life. I like to think that each of us might be reaching, against all the odds of our sick times, for the sea and the music of the spheres, like the hero of Shakespeare's late play, *Pericles*. And if we cannot reach, like Chopin or Loneragan, perhaps at least we could point others towards this massive solitary achievement of selection that promises a lightsome meaning-control of the selections of selections in biographies and in history.

Nor can I resist repeating myself, recall for you, cauling in you, the mood of the infant search in each of us that has been battered by the axiality of the twentieth century. I am thinking of the conclusion of chapter 2 of *Lack in the Beingstalk*, balanced towards a greeting of "The Little Flower".¹⁴⁹

My quoting begins where Patrick Kavanagh's magnificent essay on Shakespeare's *Pericles* ends, where he talks of the sea-changed ear-cleaning that tunes to the hearing of cosmic harmony.

I leave the footnotes as in the text, adding only here that a key book is mentioned that needs reference: *Journey into Joy* is a remarkable little book by the Irish poet Brendan Kennelly about the place of suffering in the inner growth of a series of Irish writers.¹⁵⁰

"So ends Kavanagh's airing, mouthing, of his 'bardshighview' of Shakespeare's *Journey into Joy*. We are his feeble *audiens*. Is there a hearing of hearing¹⁵¹ that would

¹⁴⁹The title of chapter three of *Lack in the Beingstalk*.

¹⁵⁰Edited by Ake Persson, Bloodaxe Books, England, 1994.

¹⁵¹I must add the context of the conclusion of the final chapter of my *Process*. *Introducing Themselves to Young (Christian) Minders*: "The third stage of global meaning, with

ferret¹⁵² our feebleness and freshen out future airs? The poetry of Kavanagh, 'the Van Gogh rather than the Cezanne of Monaghan,'¹⁵³ entwines nettles and roses in hearing and mounting Mother Earth's breathings, reachings, axial ashes.

'The Mother

(*comes nearer, breathing upon him softly her breath of wetted ashes*) All must go through it, Stephen. More women than men in the world. You too. Time will come.

Stephen

(*choking with fright, remorse and horror*) They say I killed you, mother. He offended your memory. Cancer did it, not I. Destiny.

The Mother

(*a green rill of bile trickling from a side of her mouth*) You sand that song to me. *Love's bitter mystery*.

Stephen

(*eagerly*) Tell me the word, mother, if you know it now. The word known to all men.¹⁵⁴

'All we know is somehow with us it lurks behind the scenes'.¹⁵⁵ Skin-within are molecules of cosmic all, cauled, calling. The rill of her mouth can become the thrill, the trill,, of a life-time, the word made fresh. Might we inspire and expire with the

its mutual mediation of an academic presence, is a distant probability, needing painfilled solitary reaching towards a hearing of hearing, a touching of touching, 'in the far ear', 'sanscreed', making luminously present - in a focal daydream - our bloodwashed bloodstream. It is a new audicity, a new hapticity, to which we must aspire, for which we must pray". That final chapter ends by quoting the beginning of book four of *Finnegans Wake*, from which the inner quotations are taken. This book, I suppose, carries on from there, eleven years later.

¹⁵²*Ferrett*: both a little flower and a routing beast.

¹⁵³Seamus Heaney, "From Monaghan to the Grand Canal: The Poetry of Patrick Kavanagh", *Preoccupations. Selected Prose 1968-1978*, Faber and Faber, London, 1984, 118.

¹⁵⁴James Joyce, *Ulysses*, Penguin, 473-3.

¹⁵⁵Lonergan, *Insight*, 279[303].

lungs of history? But the hole story is you and I, with and within global humanity, upsetting *Love's Sweet Mystery* into a new mouthing, an anastomotic¹⁵⁶ spiral way of birthing better the buds of Mother."¹⁵⁷

¹⁵⁶*Ana-* again, *stomein*, to provide with a mouth. "Using the device of *anastomosis*, Joyce attempts, in the last chapter of his last work, to bridge all the great ontological chasms". Margot Norris, "The Last Chapter of *Finnegans Wake*: Stephens Finds His Mother", *James Joyce Quarterly* (25) 1987-8, 11. The device layers into the transition to my concluding page above. Think of the French for *sea* and *mother*, and move to the final page of *Finnegans Wake*.

It seems as well at this centre stage to circle the deeper axial patriarchal issue. Did Stephen find his mother? Joyce sought to write all (see note 47, p. 89; note 87, p. 99), not right all. He was a fragmented axial man, like many of the grated women of his time. Ezra Pound took him to task for his detachment from economics (see *Shaping of the Foundations*, 72,75). The Russians against the Finns was for him another instance of Finnsagainwake. As he end-wounded *Finnegan* he was successfully failing to find his daughter, eventually letting Jung have a go at the grated Lucia. And is there not perhaps a madly sane symbolism for post-axial life in Lucia's view of the doctor's mandibling: "To think that such a big fat materialistic Swiss man should try to get hold of my soul" (quoted in William Wiser, *The Twilight Years. Paris in the Thirties*, Carroll and Graf Publishers, New York, 2001, 216).

¹⁵⁷*Lack in the Beingstalk: A Giants Causeway*, 75-6.