

Field Nocturnes 11

Horse Sense

Consciousness, our focus here, is a huge debated topic. Let us see can we make some sense of it within our venture round **study**.

Study's focus in *Insight* is plants, but we have spread our wings further towards the "statics"¹ of hearing etc. Here we ramble in the same fashion, helped by pushing for the broader consideration that keeps an evolutionary slant to the fore.

But the difficulty is that we need the balance of help from a come-about² attitude, and this attitude, in present culture, is not easily reached by even very serious persons and personal efforts. It's pursuit would be analogous to the pursuit of Tensor physics in pre-Newtonian times. Still, let's see what can be done with a pedagogical ramble.

Come back with me forty five years, to my own struggles with the difference between the nature of the living as different from the non-living.³ The difference became relatively clear to me after months of struggle, but I failed to mark, in print, the road I had taken. Marking that road should be the task of later generations of teachers in school biology. But now some few must repeat Lonergan's climb, and we might well start that climb with a brooding over irritability in plants. Here, however, I range around as I have been doing, and invite you to do the same: the organism of your

¹Obviously hearing is not static. Here I would point to a parallel that should be of some interest. An economics without invention is static is somewhat the same sense. Dynamic economics then parallels genetic development in plants.

²The "come-about" text is familiar: available on *Insight* 514[537]. It means that the thinker, or the community - and I think of the Tower Community of A.D. 2111 - is in a decently-controlled explanatory pattern.

³The context was the writing, over a period of six months, of the article "*Insight and the Strategy of Biology*", *Spirit as Inquiry*, Herder and Herder, 1964. The article is also available, on the website, as chapter 3 of *Lonergan's Challenge to the University and the Economy*. The problem of the article is the foolishness of compacting. Weeks spent brooding over Aquinas on vivens and contemporary biology shrunk in the telling to a sentence or two.

interest at any stage may be a flower, or a mouse, or a maiden or a man. Of course, the organism of your interest is primarily you, in your irritability.

In a later struggle of mine - five years later indeed - with the gap between the chemical and the living I invented a terminology which helped me hold my discovery together: I took the conjugate forms of physics and chemistry to be **synnomic** and the forms of things above the level of chemistry to be **autonomic**.⁴ What do I mean by these names? I mean something that you have to brood over, but the something is the various goings-on that we have already been cherishing, the goings-on in the ear all the way to the auditory cortex. The use of the word *cherishing* points to the need we have of not somehow - and the somehow is especially the some-how of a present reductionist ethos - cutting off elements of commonsense experiences and descriptions.

We are back at the beginning of our paragraph, “study of the organism begins from the thing-for-us”, and the **from** does not invite a departure, except in a disorientated culture such as ours.⁵ With that in mind we mind our minding of the difference between, say, a motorbike and a horse. They are both automobiles. We look after them both, if we happen to own them. But we have no problem in saying, “admitting”, that somehow the horse looks after itself. An odd phrase that, whose commonsense meaning is, strangely, both obvious and elusive.

⁴The essay, “*Insight and Emergence: Towards an Adequate Weltanschauung*”, was one of two written for the Florida Conference of Easter 1970. They are the first two chapters of *The Shaping of the Foundations*, available on the website. The third chapter there is also relevant to our topic, “*Zoology and the Future of Philosophy*”. That chapter touches on the need for a shift in contemporary styles of classification in zoology to classification in terms of forms of consciousness. That topic is way beyond the present little introductory essay. Perhaps it would be useful to ponder over the meaning of *Sonata Form*. To know sonata forms is to venture into the giant task of appreciating and understanding the microstructures of the vast population of sonatas.

⁵The problem of restoring horse sense to scientific searching is an enormous one. Think of the strange mood suggested by the titles of two of the Cantowers: *Cantower 2*, “Sunflowers, Speak to Us of Growth” and *Cantower 58*, “Tadpoles, Tell Us Talling Tales”.

The horse is a massively complex chemical hierarchy,⁶ just as the motorbike is a lesser chemical complexity. "Look after itself" has the meaning that eventually is the referencing of *autonomic*: it has characteristics that reach for an asymmetric benefitting of the horse as compared to other things, in isolation or in the aggregate. The horse has avoidance behaviour in relation to both lion and lightning. The motorbike may be damaged by lightning but we would be surprised to see it taking shelter: the lion is not resisted by it when it scratches its painted surface.

In a decent explanatory perspective you and I, part of a community of scientists for whom *from* means not **off** but **of**, this difference is to be caught in the difference between the meanings of *autonomic* and *synnomic*. Writing of this in another context I described the different response to light of, say, hydrogen and a hydrangea. The hydrangea has an up-beat welcome for the light, received in its hydrangeaic white, blue or pink way; hydrogen's reception is not up-beat, but cousin to the world of physics' "action and reaction".

But you must be careful of and with your reading of the previous paragraph, since my pedagogy slides about on the edge of *haute vulgarization*. *Haute vulgarization* as a danger to scientific searching is very much a matter of context. In a first university course on physics, popular suggestions of things to come - say, in quantum theory - are received as such. Not so when the context is pop-presentations of physics. Then the misled reader, or even the pretended thinker, are dangerously muddled. "They do not apprehend the concrete, the individual, the particular, as they really are ... They are lost in some no man's land between the world of theory and the world of common sense."⁷

⁶Contemporary neurodynamics considers the brain as a modular distributed system, a complex non-linear hierarchy for which W.S.McCulloch invented the name *heterarchy* in "A heterarchy of values determined by the topology of nervous nets", *Bulletin of Mathematics and Biophysics*,(1945) 7, 89-93.

⁷B.Lonergan, *Collected Works*, vol. 6, (University of Toronto Press, 1996), 121, in the essay "Time and Meaning".

What, then, do I mean by *up-beat*? I mean what emerges in the mind of a serious searcher into the patterned neurodynamic hierarchy of the hydrangea or the horse.

The same can be said of my using now the word *self-presence*, which echoes the meaning of self-preservation that is in the flexible circle of recurrence-schemes of the horse's muscling its way from the lion. Notice, here, that I have leaped from the top of our paragraph, **study**, to the bottom. But that leap is the long journey of scientific effort that the paragraph describes so densely. And, alas, one must reach for that meaning in a larger context than botany or zoology. What are we grappling with? We are grappling with the big bang and with the slow taming of the dispersiveness that is energy.⁸ Slow? Well, not in that first second when already there is the taming that is chemistry, the infolding of physical things.⁹ Infolding, of course, is a richly-suggestive but metatheoretically loaded word. The flower infolds light and water; the horse infolds the lion's roar and smell.

I use words like *self-presence* and *infolding*, but you do know that I am climbing as helpfully as possible towards that muddy word *consciousness*. Consciousness is involved in the horse's infolding of the lion's roar and the lion's smell. We have so far here only made a beginning of considering the lion's roar, air trembling towards the horse. When and where is the roar heard by the horse? Might I say **registered effectively** by the horse? If I do say that, then I am talking about a complex of locked-together operations of the horse that involve some presence of self-presence, of infoldings that we would label conscious. We can say that a subset of the set of neurodynamic activities are autonomic in a manner that goes beyond the irritability

⁸On the problem of coming to grips with Lonergan's notion of energy see *Cantower 30*, "The Conservation of Energy".

⁹I have regularly recommended Ian Lawrie, *A Unified Grand Tour of Theoretical Physics*, (Institute of Physics Publishing, Bristol and Philadelphia, 1998), as a supplement to the still-relevant work, *Foundations of Physics*, referenced by Lonergan. Chapter 13 deals with "The Early Universe".

that we associate with normal plants.

But I am floating round our problem, when it is better to be blunt. What is consciousness? It is an element of a sub-set of forms of zoological activity. Element? characteristic? quality? The science has to settle for some name that sheds myths both of old philosophy and of new scientific muddling.

And it is better to end here so that you are aware of? conscious of? alert to? my roar about *haute vulgarization* and about not taking **from** in that first sentence of **study** as an invitation to the doubly impoverished abstraction of our present ethos of reductionism. I am making distinctions between chemical complexes in the mind of the horse that are to become complex and detailed and explanatory as science moves forward in this millennium. You are aware of that making in the strictest sense of infolding by eye.¹⁰ You may even be aware, in a loose sense of that word, of the relevance of those distinctions for the restoration of reality and reverence to botany and zoology and medicine. And, in that loose sense, I invite you with Lonergan to consider some helpful ramblings about the polyphony of human consciousness. "Perhaps I may add a few random indications that depth psychologists are not unaware of the existence and relevance of some such distinctions."¹¹ You can find the random indications in the next page of that text. Karen Horney, commenting on Harry Stack Sullivan's musings over the foginess of the distinction between consciousness and unconsciousness, remarks, "for the sake of saving repetitive explanations I shall use the term 'register' where I mean that we know what is going on within us without our being aware of it."¹²

¹⁰We shall be pushing on into such complexities in later *Field Nocturnes*. For example, seeing words has a range of heterarchic patterns that vary, for example, with language-structures: the most obvious difference being the different neurodynamics of alphabetic, pictographic and ideographic languages.

¹¹B.Lonergan, *A Third Collection*, 58.

¹²Karen Horney, *The Neurotic Personality of Our Time*, W.W. Norton, New York, 1937, 69.

The term *register* may save the day for popular purposes in our time, but progress in our understanding of autonomic forms demands a new culture where new, remote, explanatory terms may be repeated and cherished, effective in saving us from shrinking violets, shrinking violin-players, shrinking violence.