

Ascend with the greatest sagacity from the earth to heaven, & then ^{again} descend to the earth, & unite
together the powers of things superior & things inferior. Thus you will obtain the glory of the
whole world, & all obscurity will fly far away from you.

attributed to Albertus Magnus.

..... the traffic of Jacob's ladder

Pitched betwixt Heaven and Charing Cross. Francis Thompson: The Kingdom of God.

No lily-muffled hum of a summer-bee,
But finds some coupling with the spinning lass.

Elizabeth Barrett Browning: Aurora Leigh

I swear to you that body & yours gives proportions to your Soul somewhere to live in other spheres.

Walt Whitman: Works, November Ed. p. 570

..... from the inmost heart

Outwards unto the thin
Silk curtains of the skin,
Every least part
Cosmically'd hears
And sweet replies to some like region of the spheres.

Conventry Palmrose: 'The Body'

The motions akin to the divine part in us are the thoughts & revolutions of the universe; these,
therefore, every man should follow and.... by learning to know the harmonies & revolutions of
the world, he should bring the intelligent part, according to its pristine nature, into the likeness
of that which intelligence descends, & thereby win the fulfilment of the best life set by the
gods before mankind.

Plato: Timaeus, 90 C-D, trans. Cornford.

Slave to no sect, who takes no private road,
But looks thro' Nature up to Nature's God;
Pursues that chain which links the th' immense design,
Joins heaven & earth, & mortal & divine;
Sees that no Being any bliss can know,
But touches some above & some below....

Pope: Essay on Man

My flesh is generated in this world & is ruled by the quintessence of the stars & elements,
which dwells in it & is master of the body & the outward life..... This world in its inmost
unfolds its properties & powers in union with the heaven aloft above us..... All is in man,
both heaven & earth, stars & elements..... This is the philosopher's stone.

Boehme (The Confessions of Jacob Boehme, compiled & edited
by W. Scott Palmer, pp. 58, 23, 87.)

In what measure we

PORTRAIT IN SPACE:

PORTRAIT IN SPACE:

The Doctrine of Symmetrical Pairs

COUPLES

Man as an axis of
cosmic symmetry



Hierarchical Pairs

1. Symmetrical Pairs in the Hierarchy

What am I? In this chapter ^{the next} ^{propos} ^{provisionally} ^{am going to} sum up the answers so far given & ~~draw~~ draw certain general conclusions from them, thus completing the second stage of this self-portrait: the inquiry

I am an organised series of views out, & an organised series of views in — the first corresponding to what is called 'mind', & the second to what is called 'body'. (Up to the moment I have made no other distinction than this between the 'mental' & the 'physical': the 'mental' is what others are to me, the 'physical' is what I am to others.) And ~~then~~ ^{the two} ~~are~~ ^{are} ~~the two are parallel, matching~~ each other at every stage. A single hierarchy of contained & containing individuals ^{sentient world & a meta-universe} does for both aspects. Thus I have a double claim to be this pyramidal hierarchy: the moving outside observer & the static inside observer tell the same tale, not repeating one another (the one sees that part of me which is necessarily invisible to the other) but each completing the other's version level by level. The two accounts are always of individuals of the same rank, but never (except at the extreme levels) about the same individual. Therefore the whole story of what I am must be told jointly by the two observers. Only at the limiting levels of the Whole & the Centre do these descriptions of me ~~agree precisely~~ coincide; ^{all} a partial view of the ~~whole~~ is a contradiction in terms, & it is impossible to make more than Nothing of Nothing. At the level where I am the whole, & at the level where I am Nothing, the view out and the view in are the same.

I am, as Emerson says, entitled to the world by my constitution^o; for the world is my constitution. Now I am concerned with the natural history of ^{this} my ^{entire} whole self; Anything but this is ~~too~~ too vague. While ~~this~~ ^{the} ~~whole~~ ^{whole} is artificial history. There is an enormous mass of piecemeal information about what I am lived by lived: the ^{of make} ~~to make~~ sense of this information, to organize it, the architect's two-dimensional floor plans only have meaning in so far as they refer to ^a the three-dimensional building, & their ^{flat} details fail to reveal their real connections with depth is given to them; ^{as any} Then is no clear modern notion of what I am ^{is lacking, until} & no wonder. The artificial horizontal sections are bound to be full of anomalies with their reversed vertical links are restored. At the moment, when I ask science for a ^{three dimensional} scale-model of myself, I am presented with a worst

The view

The view

max

obave

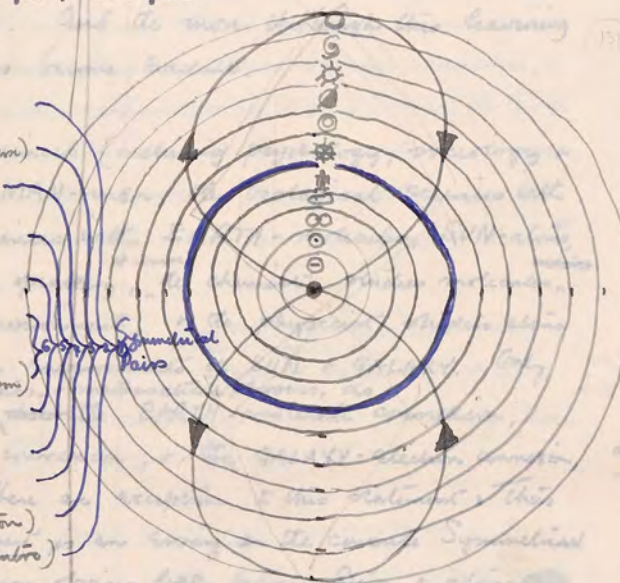
◦ *Nature* [1836], I, 2.

+ Joseph Needham ~~poor~~ has pointed out that we predict at the isolated levels without understanding them. "Meaning can only be introduced into our knowledge of the world by the simultaneous investigation of all the levels of complexity & organisation" (Art. in The Philosophy of A.N. Whitehead, Ed. Schilpp, p 269.)

the principles of vertical notes
the various ~~forms~~ ~~of~~ ~~cross~~ ~~of~~ ~~what~~ ~~my~~
notes I ~~am~~ only be only make some
in as far as they are
the same as the
the same as the
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My ^{aim} ~~task~~, then, is to discern this many-levelled ^{self} ~~me~~, complete with all its dimensions, & to study it as a natural object - as an object more natural than any which science studies. ^{I propose in this chapter to} ~~let~~ look for signs of vertical order, for ^{all kinds of} ~~such~~ relationships between levels ^{that} ~~as~~ Science ^{looks for} ~~does~~ ^{within at each level} ~~express at each level separately~~. What are the vertical patterns that knit & explain the horizontal patterns? What are the laws of organization in depth? ^{Whether or not} ~~This~~ world is a cosmos, or a clumsy piece, because all disposed & governed by a certain order, ^{there} could hardly be a more worthy object for investigation.

Scale	Series	Symbol	Object	Example
Upl. - known	Superior series		WHOLE	
			GALAXY	(Island Universe)
			SUN	(Star)
			EARTH	(Planet)
			LIFE	(Geophyte)
Upl. - unknown			MAN	(Species)
			man	(Multicellular organism)
Dwn. - known	Inferior series		cell	
			molecule	
			atom	
			electron	(+ proton)
			subelectron (or Centre)	



The ^{full} evidence for these links & ^{the workings of} their full significance will extend beyond this chapter; ~~but~~ here I will ^{outline the doctrine.} ~~make a sketch of~~ ^{Provisionally, I will take a Symbolical} ~~outline the~~ ^{Pair to be} the doctrine of the Symbolical Pair, which may be provisionally defined as a superior member & an inferior member, such that the former is the most inclusive clearly-defined unit in which the latter is everywhere present.*

Science, I have said, is essentially a horizontal activity, ^{this is not quite flat or} basically & originally, a department of science is what I call two-dimensional, but then comes a time in its development when ^{a little of} it becomes three-dimensional, but then comes a time in its development when ^{the} it becomes four-dimensional, but then comes a time in its development when ^{it} it becomes five-dimensional.

o Marinus Aurelius: Meditations, iv, XVII.
CF vii, VI: "all things are linked &
knitted together, & the Knot is sacred....
For all things are ranked together, & by
that decency of its due place & order
that each particular doth observe,
they all concur together to the making
of one & the same cosmos.... For all
things throughout, there is but one & the
same order; & through all things, one
& the same God, the same substance &
the same Law."

* let me say, once & for all, ~~that~~
with Douglas Fawcett, that the
"hierarchy of contents may prove
very remarkable subject" (Termite
Dialogues, p. 65) - far more remarkable
than this tentative sketch of mine
suggests. So far from my theme being
discovered, I am ~~quite~~ as certain that
it is inadequate in detail as I am certain
that it is correct in ~~outline~~ outline.

~~* Cf. G. P. Conger's definition of a unit as~~

- Cf. Aristotle, Politics I, 1.

In all sciences "the components should always be referred to the simple elements or least parts of a whole"

Also Mc Donald's Grounds

[illegible]

dimension of depth has to be added. ~~more or less unconsciously, & as if by accident.~~ There are limits to the pattern that can be discerned at one level, without dragging in other levels. This is not surprising, seeing that the two-dimensional is an abstraction from ^{the} ~~concrete~~ reality. But — here lies the irony — to the extent to which science leaves the horizontal for the vertical she is no longer science, ^{Scientia, Scientiarum, that is} but philosophy. It is the business of the scientist to slice up reality, & the business of the philosopher to reunite the slices. * But neither can afford to mind his own business. The Scientist must rise a little above the plane of his material to take in any of it, & the philosopher must pause in his ascent & descent to notice the view, or he journeys pointlessly in a void — that is, he does not journey at all. The fact is that science must be leavened with philosophy & philosophy with science. And the more thorough this leavening the more the Symmetrical Pairs become evident.

What may be called the anthropological sciences (including psychology, sociology & economics) are concerned with MAN-men, the biological sciences with LIFE-cells, & the physical sciences with EARTH-molecules, SUN-atoms, GALAXY-electrons. * Generally speaking, ^{of course,} the chemist studies molecules in abstraction from their EARTH environment, & the physicist studies atoms & electrons in abstraction from their environments of SUN & GALAXY. Only ^{astrophysicists, & mathematical physicists, do} in such sciences as mineralogy, ~~the~~ the EARTH-molecule connexion, ~~the~~ the SUN-atom connexion, & the GALAXY-electron connexion, ~~be~~ respectively, become explicit. There are exceptions to this statement & thus Henderson's The Fitness of the Environment is an essay on the concrete Symmetrical Pair EARTH-molecules; ~~that the more obvious links between Stars & atoms~~ ^{are} ~~to be more than coincidental; and~~ ^{as Eddington remarks} ~~not incidental~~ ^{are} sometimes granted. ~~the more philosophical astronomer who~~ ^{that 'It is of progress... in our understanding of directions, positions & quantities is bound up with this} ~~speculations on Nebulae has to concern himself to some degree with their composition.~~ ^{investigation of remote galaxies'.} * The study of the cell apart from LIFE is doomed to relative failure. ~~the science of ecology is coming to realize.~~ ^{itself a kind of recognition of the fact.} As for MAN-man, many have pointed out that society & the individual are correlative & inseparable. There is no such thing as a man, & no such thing as MAN: there is only MAN-man, & the anthropological sciences (since they cannot do justice to their concrete subject-matter & remain rigorously scientific) tend to realize ^{of its this extreme,} ~~recognize the fact.~~ ^{Finally,} this is the limiting Symmetrical Pair — the Whole-centre — when science altogether merges into philosophy. The rest of the hierarchy philosophy shares with science; ~~this~~ ^{ultimate} Pair she keeps for herself.

In short, science, in spite of herself & unaware, is vertically stratified, and symmetrical about ^{the} ~~any~~ horizontal axis; balance is preserved, & no science is 'higher' than another.

* The interdependence of physics & astronomy has been recognized. ** See R.A. Sampson: The Sun, p. 52 for an example.

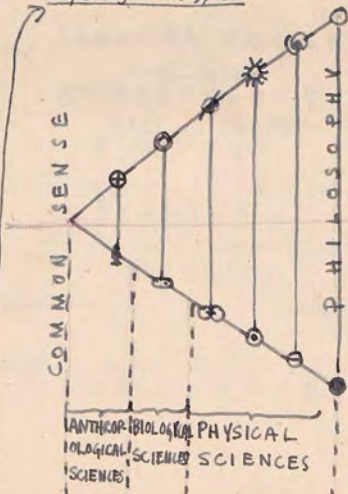
astronomical observations of the distances & velocities of spiral nebulae. (p. 113).

* On this, see F. R. Tennant: Philosophy of the Sciences, pp 18, 19.

As far as the sciences are concerned, I maintain, says Spinoza, that the order of knowledge is the order of nature. — see R. C. Marsh (q.v. F. R. Tennant Philosophy of the Sciences, p. 22 ff.) and Huxley.

+ This classification agrees roughly with that of Comte, whose hierarchy is ① Mathematics (numbers, geometry, & mechanics), ② Astronomy, ③ Physics, ④ Chemistry, ⑤ Biology, ⑥ Sociology. Each of them, says Comte, needs those that precede it & therefore arises later historically than they do. The principle of Comte's classification is that the order of science shall conform to the order of nature.

• Expanding Universe, p. 23



Later on in the same book, Eddington discusses the 'Cosmical Constant' as the connecting link between the galaxies & the behaviour of the electrons in the atom. "I believe that this wedding of great & small is the key to the understanding of the behaviour of electrons & protons" (p. 93). "To measure the mass of an electron, a suitable procedure is to make astronomical observations of the distances & velocities of spiral nebulae." (p. 113).

* I have already (Ch VIII, §13)
suggested the EARTH is,
through the chemist, self-
conscious down to molecular-
level. I now add that,
through the astronomer & the
physicist, the SUN is self-
conscious down to atom-level,
& the GALAXY down to
electron-level. Geology &
Chemistry, astronomy & physics,
are not human sciences

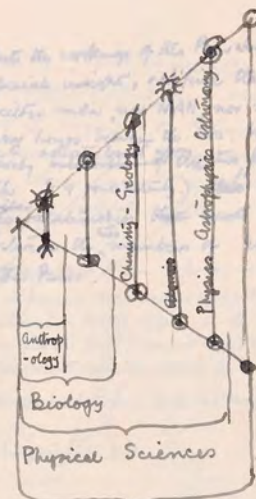
The following is a list of the names of the persons who have been appointed to the various committees of the Board of Directors of the University of California, for the year 1900-1901.

To those ^{fact} the history of thought bears witness. The philosophy of the Whole-Centre - ~~that~~ ^{the nature of the Cosmos & of its ultimate substance} the relation of the One & the Many, it preceded all science. Next came astronomy & physics, dealing of the very big & the very small. Geology and chemistry, taking as their province the fairly big & the fairly small, are comparatively modern. The biological sciences, whose maximum & minimum units approach still nearer, are still more recent. And scientific economics, sociology, & psychology are ^{now} ~~still~~ in the making. Of course the actual dates of these successive critical stages are arbitrary (did astronomy & physics ~~start~~ ^{begin} make a real start ^{before the time of} ~~with~~ ^{Newton}, geology ^{before} ~~with~~ ^{Lyell}, chemistry ^{before} ~~with~~ ^{Lavoisier & Priestley}, biology ^{before} ~~with~~ ^{Darwin}?). The order of ^{appearance} ~~is~~ ^{naturally, since it is the order of their dependence - the later sciences need the earlier ones.} ~~is~~ ^{not so doubtful.} Philosophy is the deepest & earliest tradition, upon which ~~all~~ ^{the} later ones have been built: in the broad sense it includes them all, ^{while} in the narrow sense it is confined to its original Symmetrical Pair - the Whole-Centre. Similarly physical science precedes, underlies, & includes the biological sciences, while retaining for its own province the three Symmetrical Pairs GALAXY-atom, SUN-atom, & EARTH-molecule. Again, the biological sciences precede, underlie, & include the anthropological. The later needs the earlier, in a way in which the earlier does not need the later.*

One result of the development of the later sciences has been that they hide the connexion between the two aspects (^{inferior & superior, or} minimal & maximal) of the earlier science which they overlie. Physical science is now, so to say, three Symmetrical Pairs of outcrops on ^{both} sides of the hill; biological science is one pair. What this comes to in practice is that the anthropological sciences ^{lead to} ~~lead to~~ ^{concentrate from me} my identity with LIFE & the cell, & ^{attempts to divide the} ~~attempts to divide the~~ ^{connection} ~~connection~~ ^{between} the biological sciences, both obscure & split my identity with EARTH. But these and all my intellectual strata go on functioning just the same. ^{And, however horizontal the sciences seem to be, they really do reflect.} ~~And these at all events do remain true that, the~~ ^{the} ~~alike in their~~ ^{alike in their} historical order & in their organisation the Symmetrical Pairs, ~~the sciences~~ ^{vertical} reflect the organisation of the subject-matter. Nor is this surprising, seeing that - according to the thesis of this book - science is nothing less ^{than its} ~~but its~~ own subject-matter becoming self-conscious. ☉ Every education

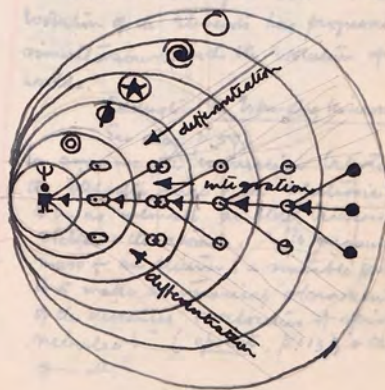
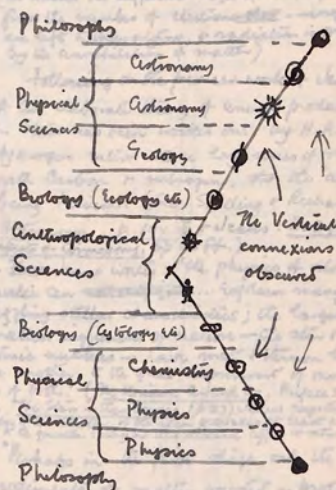
3. Genetic Pairs.

The evolution of the sciences ^{reproduces} ~~reflects~~ evolution at large. ^{The} ~~This~~ temporal development of the hierarchy is the subject of Part III; here I will anticipate some of the conclusions, leaving the more detailed evidence to follow.



PHILOSOPHY

* As for as the sciences are concerned, I maintain, ^{following} ~~with~~ Spinoza, that the ordo cognoscendi is the ordo essendi. - more or less. Many (e.g. F. R. Tennant: *Philosophy of the Sciences*, p. 21 ff.) would disagree.



* Into the workings of this Pair we have special insight, and find that it is neither men nor MAN, nor some halfway horse between the two, but ^{rather} a lively, active beast of the kind. (See Chs. 8 & 9 particularly.) ~~This~~ suggests that ^{the} relationships ~~that~~ exist between the ^{two} members of each of the other Pairs.

(in which the different sizes of stars follow from the number of electron ~~lines~~ - rings that are left to their actions, & radiation is produced by the annihilation of matter)

Following on the pioneer work of Jeans,
* An elaborate theory of energy production
in stars has been worked out by H.A. Bethe.
Hydrogen ratios into a long series of reactions
with Carbon & nitrogen, the 'ash'
being helium. (See Stiefling & Richardson:
Astrophysics, p. 194. $\pm$ & Jeans: Eos; The New
Aspects of Cosmogony, pp 28 ff.)

Chapters on Cosmology, pp. 1-10
 + these Jeans writes: 'the physics of atomic
 nuclei can ~~only~~ explain many hitherto
 puzzling stellar characteristics; the largest & the
 smallest ingredients of matter - the stars & the
 atomic nucleus - have met & thrown light on
 one another, & the great improvement of our understand-
 ing of both.' (The Universe, Cambridge Univ. Press, 1949, Edn.
 1952) The Stars, Three Centuries (1953) shows
 how the structure of the stars provides at least a partial
 answer to the question: why are these distant objects of stars?

"Perhaps in the first stage only the mediocrity of matter existed - protons & electrons traversing the void - & the evolution of the elements has progressed simultaneously with the evolution of worlds."

Edlington: The Expanding Universe, p15.

See also p. 59.

In any case the connection between the galactic laws & the electronic seems to be as intimate as that between the stellar & the atomic. "To measure the mass of an electron, a suitable procedure is to make astronomical observations of the distances & velocities of spiral nebulae!" (op. cit., p. 113, & Chapter IV Some etc.)

~~The A word remains to be said about the limiting Symmetrical Pair. Here~~

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St. Teresa was 908 in a point
(EX-109)

Creation
nihilus
Gt Thomas
Evy. 103

[illegible]

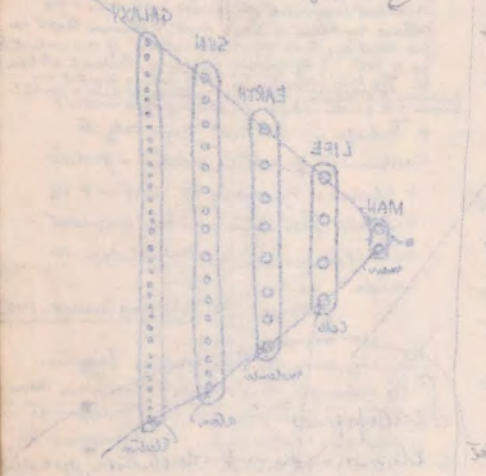
Another: "Accepting, but not denoting" is one way of expressing the mystery. "Of the Blessed Sacrament of the Eucharist"
 Another: St. Augustine: "God is present everywhere in His intimacy, & yet is nowhere."
 INGE P. 14 M. 149

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③ The Human Factor, p. 31
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④ The Human Factor, p. 31
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⑤ The Human Factor, p. 31
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Reason is the faculty of breaking up a concrete fact into its parts or attributes, which are then compared and contrasted with each other and with other facts. This is the process of analysis. The result of analysis is a set of abstract concepts or ideas. These are then combined and synthesized into a new, more complex fact. This is the process of synthesis. The result of synthesis is a new, more complex fact. This is the process of synthesis.

when I do discover these I have begun to move inwards towards the vertical axis. For this common-sense self of mine is neither man nor MAN, nor the two held together in a unity: it lacks the supra-personal outlook of MAN, & the sub-personal outlook of man. ^{It is} I am simply personal. At this extreme I owe no allegiance to anything higher than myself, ~~nor lower than myself~~, & I recognise in myself no inferior element as such. At the other extreme all is reversed. ^{In point of scope} I recognise the maximum contrast possible — the contrast between the All & the Nothing. If I am the whole ~~because~~ it is because I have been utterly abolished: the vacancy ^{has arisen}, the accommodation, has been prepared. It is because I exclude all I had looked on as myself, that I include, in addition to that self, all I had looked on as other than self. Here, instead of being personal, I am both sub-personal & supra-personal. Here my ~~att~~ detachment from all my interests is my attachment to the interests of all. In the final Symmetrical Pair of the WHOLE-Centre, such contrasts, such absurdities for common sense, are the rule. Everything in this Pair is itself because it is its opposite, just as, at the other or common-sense end, everything is itself because it is self-identical.

Connecting the two ends of the horizontal axis & easing the transition from the one to the other, are the intermediate Pairs, whose ^{superior} members contract more & more as they approach the vertical axis. Common sense does not give place to uncommon sense all at once, but stage by stage. The law is that the more I am the less I am, & the less I am the more I am. The two aspects are perfectly counterbalanced. Like the a string weighted at both ends, that passes over a pulley: ^{well-vised} the centre of the two weights does not change. In the same fashion, though I ~~ascend~~ ascend above common-sense man, I do so by descending beneath him, leaving him as the horizontal axis of my being. No matter how great my rise & fall, this axis of mine is not disturbed, & my organisation stays symmetrical. It is as if Alice was obliged to eat both sides of the mushroom — the one that made her expand & the other that made her shrink — at the same moment.

5. Symmetrical Pairs & direction.

While the hierarchy shows much significant pattern, a great deal of what looks like meaninglessness remains to be explained. To take a rather superficial instance, the number of units of one level that go to make a unit of the next level seems to ~~have~~ be quite arbitrary. Why should the number of electrons & protons to the atom, & the number of atoms to the molecule, be so small compared with the number of molecules to the cell & the number of cells to the man? Again, whereas the Geophysics of EARTH

The older ~~Heidegger~~ cosmologies make much of the contrast between the ^{inferior} material & the ^{superior} spiritual, of the perishable, chaotic, & base things, & the imperishable, heavenly, & living things, & the perfect Sun & Stars. Up & down have moral as well as physical meaning, & man is midway. ^{In this connexion see A.D. Ritchie, 'Cosmology, Science & Religion', p. 44.} I say this picture gives an important truth now generally lost sight of, (E.g. A.D. Ritchie, in his 'Cosmology, Science & Religion', p. 44, describes this world as naive & unfortunate) and that it is, with the contrasting inferior & superior levels ~~was~~ united by the achievement, fundamentally true ~~than~~ the ordinary modern picture. ~~It is an effort to~~ is to unite the two into a third picture that is truer than either.

For example Attar, the Sufi, of the twelfth century, thus advises one who would attain immortality, the highest station of immortality: "Clothe thyself with the garment of nothingness & drink the cup of self-annihilation. Cover thy heart with nothingness, & draw over thy head the robe of non-existence. Set thy foot in the shroud of complete renunciation & looking straight before thee, ride the steed of not-being to the place where nothing is." (The Persian Mystics: Attar, Margaret Smith, [Urban of the East Series], p. 57)

E.g. the chemist analyses a sample into so much water, calcium carbonate, & so on. The tiny sample has, by disintegration, into its parts, grown by becoming united with all the water, calcium carbonate, etc., in the world.

* The Self & Body & Freedom, p. 12.

personal law is that analysis & synthesis are inseparable: to join a thing to more inclusive it must be divided into its elements — such elements as clearly belong in the more inclusive wholes. The application of this law to my own constitution is the doctrine of Symmetrical Pairs. I ungrow to grow. In growing I am discovering ^{the} units less than man; my growth is the discovery that these units are greater than man. In laying claim to my part, I lay claim to ~~the~~ the world, & the world is ^{universally} proportional to the scope of the other. "How," inquires W.E. Hooking, "can any lay claim to its own body unless it is prepared somehow to lay claim to all of nature with it?"

- ~~1st time~~ The Will to Believe (pp 63 ff.)

~~(See James' Selected Papers (Livingston Edition))~~

...like ~~proving~~ ^{appearing}, does not demand initially
"a suspension of disbelief" at least it
demands a willingness to defer ~~criticism~~ ^{criticism} ~~to~~
an appropriate moment ~~and~~ ^{and} disbelief

Take this question of the numbers of units at each level. + I will disting-
-uish (rather arbitrarily) two categories of individual — (a) those of whom more
than, say, ten million go to build an individual of the next level, + (b)
those of whom less than this number are requisite. Call the (a) units "nume-
rous", + the (b) units not numerous. At once it is clear that a Symmetrical
Pair is always an (a)(b) Pair: if the one partner is numerous the other is not.

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CELL

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CHIRE

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EXT.

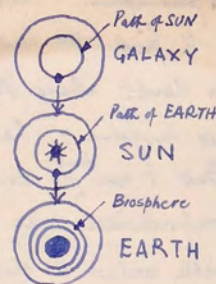
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12

way to be... (faint text, mostly illegible)

... (faint text, mostly illegible)

Much else might be said. (For instance, there are obvious family likenesses between the astronomical units: they tend to be involving spheres consisting of (i) a hot interior, (ii) a cooler 'biosphere', & (iii) a cold outer sphere.) The fact remains that I am ...



③ Jeans* has drawn attention to certain numerical parallels between the ^{very} largest & the ^{very} smallest units, & though many think the parallels far-fetched. Thus he (for example, the ratio of the radius of the universe to the 'radius' of the electron is 5.0×10^{29} , while the ratio of the age of the universe to the time light would take to travel across an electron is 1.2×10^{29}). As for molecules, ~~it is possible that they~~ it is ^{believed} by some authorities to involve ^{on its own axis, like the Earth.}

* The Astronomical Horizon.
(myself in Philosophy)

④ In this connexion see Benjamin Moore.
The Goggin & Nature of Life, p 136.

Jeans UAU 85/86
weights electron
weights universe

In this, as in so much else, the relationship between the two members of a Pair is one of contrast. It is also clear that there are two arrangements of (a) & (b) — an (a) arrangement where the numerous unit is superior, & a (b) arrangement where it is inferior. From the EARTH-molecule Pair onwards, the (b) arrangement holds: terrestrial Pairs are (b) Pairs & celestial Pairs are (a) Pairs. The indication is that there is, at the point of the switch-over, some large natural division or change. And, in fact, there are many indications of such a division. To give only a few instances, the terrestrial units EARTH, LIFE, & MAN are interpenetrant, concentric, & roughly equal in diameter, whereas the ^{celestial} units SUN & GALAXY, = ~~these~~ have none of these group characteristics, but well-marked characteristics of their own. Again, the structure of the terrestrial units is compact & more or less continuous, while that of the celestial units is markedly open. I have already noted that the parts of the terrestrial units lack that orderly rhythm which the parts of celestial units display. In short, all the evidence goes to show that evolution took a new turn with the elaboration of the EARTH-molecule Pair, and that the hierarchy itself constitutes one super-Pair or PAIR — the Celestial-Terrestrial.

I am, of course, still very far from the ^{complete} rationale of structures in the hierarchy. The suggestions that follow are only a step in this direction.

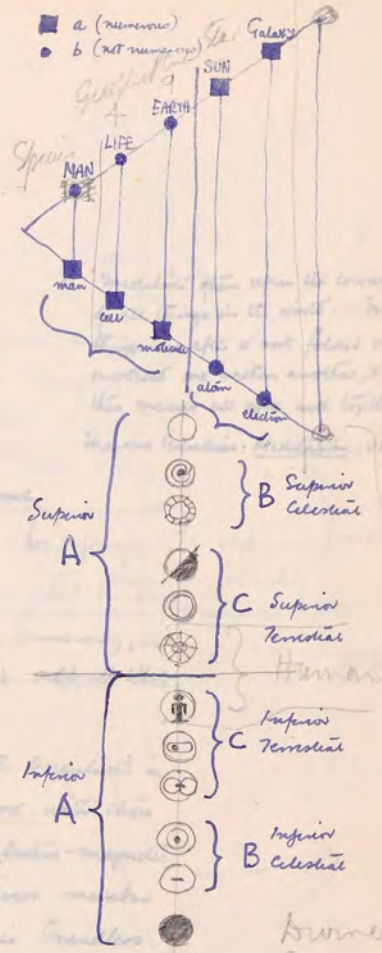
There is a tendency for the superior & inferior members of a Symmetrical Pair to resemble one another; contrast in scope, & offset by a certain similarity in structure. The most notable instance is the SUN-alion Pair, in which the remarkably close resemblance between the electrons circulating about this nucleus, & the Planets circulating about their Sun, has often been pointed out. ^{Such} likeness is less to be wondered at when the two are seen to be

maximal & minimal aspects of the same thing: the contrary quality is indeed it is ^{as these say} that the two components the alion & they mutually attract each other. SUN-alion. Again, the relatively amorphous economy of LIFE is matched by the economy of the cell, & MAN is sufficiently like man to lend colour & spicuousness to the elaborate analogies of Hobbes & Swedenborg, Spencer & Schaffle. * In respect of the EARTH-molecule & ~~the~~ GALAXY - electron Pairs, I will make the prophecy that further research will bring out more ^{convincing} likeness than are now to be found. As regards the extremes, common-sense man is entirely like himself, & I have already mentioned the Hegelian doctrine of the identity of Being & Nothing. To the ^{likeness in unlikeness} (I should say the ^{likeness in dissimilarity}) of the WHOLE & the

Centre, many points, many philosophies & many mystics bear witness. The divine belongs not to one but to two regions — the finite & the infinite; the organs of man's mind & the divine were, according to Aristotle, the phenomena of the human soul & of the heavens; & Kant said much the same thing.

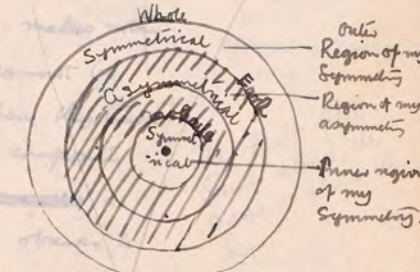
In addition, according to Bohr's theory, the electron in its journey round the nucleus obeys the inverse square law obeyed by the planets of the Solar System, and possibly, like them, spins upon its axis.

Rutherford showed that the size of an alion compared with the size of its nucleus is similar to the size of the SS compared with the size of the sun. Saunders & Clark: Alions p. 29. * See M. 5 Stages IV (#136)

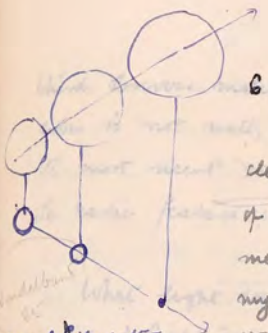


* It is found that alions give us information about the heavens, & that heavenly bodies, in their turn, give us further information about the alion. Thus alionic astronomy has illuminated cosmic astronomy to a surprising & almost overwhelming extent. And cosmic astronomy is reciprocally beginning to teach us something about alions. Each (star) is a sort of cosmic alion. Lodge: Modern Scientific Ideas pp 19, 72, 76.

It seems pretty clear that the wide difference in the size of the stars is associated with a corresponding difference in the size of the alions in the star's interior. Jeans: The Stars in their Courses, p. 93. * See p.



I inhabit or infect my middle regions (cell, man, MAN, LIFE, & to some degree molecule & EARTH) in a different way from the rest. I organise them more elaborately. I am present at no point in them exactly as I am present at another point in them. In the other regions, the inner & the outer, I am only according to distance from the centre.



6. Symmetrical Pairs + ~~range~~ the overlapping regions.

Consider now, instead of the number of units at each level, their scope. There is clear evidence of pattern here. The superior member is arena to the inferior members of a pair; it sets bounds to their ^{of forms} range. As a consequence, the lowest aspects of me, because they are linked with the highest, have the most extensive range, while my human self has least. The sphere of my human activities is MAN: beyond this narrow field they are not legal tender - they might as well not exist. + My molecular self has more scope: it is in touch with the EARTH's molecules right to the core, & the slightest motion of mine is effective there. Atomically, my range must be reckoned solar, since my atoms are (by the constant absorption & emission of quanta of radiant energy) in touch with the Sun's atoms. Similarly, the field of my electronic self is the GALAXY, & of my sub-atomic self, the whole.

Common sense points out that while this account agrees with the Scientist's in principle, it fails to do so in detail: - my molecules are in rapport with those of the Planets; & my atoms absorb the light of other Stars; electro-magnetic fields are worldwide. In every instance the field of the inferior member goes beyond the superior member, and, as a matter of fact, is boundless.

For science this interpretation is true, because science must more or less ignore the regional structure of things. I cannot do so. Take the case of the observer who (either because he is studying one of the earlier stages of my world-history, or because he is himself unqualified to observe vital phenomena as such, or because he ~~sets out from a position~~ sets out from what I call remote parts of my body) fails to see me as alive & as human. How does he map my regions? Just as the other observers did, except that he distinguished no separate regions lying between the place where I am molecules, & the place where I am EARTH. Instead of cell, man, MAN, & LIFE regions, there is only the molecule-region because, for him, there are no real or distinct units between the molecule & the Planet. In the same way, the observer who is not in a position to take in my molecular planetary status (to say nothing of my vitality & humanity) discovers no well-defined region between the place where I am atoms & the place where I am the SUN.

Now such handicapped observers (including also the one who makes nothing of me between electron & GALAXY) ^{are not deceived} ~~are truly~~ & their view ~~is~~ cannot be spaced. ~~In~~ In fact, the true picture of me only comes out when they travel in company, pooling their observations as they go and building a composite portrait. This portrait shows the later regions superimposed upon ~~the~~ a part of the preceding region. The spot where I am human to one observer is the spot where to another (more limited but not less reliable) I am cells, to a

Electronic of Kibbe's that removed mirrors, & in it, the universe, does not only to the individuals of the unity of this work. There is that the lower the individual scale the more of the more of mirrors abstract & more extensive the world. The sub-electron mirrors the & it is only at their electronic level that individuals are, & in of sense are, & in the whole. Only the lowest of levels the unity of the equality of the & in the whole hold good.



as Kibbe (Reason of Radio, 601) does not that while the highest mirror depends on the lower, lower does not hold, & in that the higher organisms do build as differentiations of environment for the lower.

Finally, as I have said, at the end, we are absolutely individual.

The stuff of the Sun is atoms, the arena of atoms the Sun.

In general, what is the stuff of the universe? In general, the stuff of the universe is the stuff of the universe; & the stuff of the universe is the stuff of the universe.

third observes molecules, to a fourth atoms, & to a fifth electrons. The first observer is not really more observant: he is only more up-to-date. He notes the most recent modifications which my regions have undergone, & neglects the earlier features which are in no way dissipated by the passage of time.

What light does this throw, common sense asks, on the extent of the inferior members' field? At this is not yet a true vital field as there is a greater universal or electric-magnetic field.

The answer is surely plain. For one of the company of observers who are entering from me, I am first electrons, then atoms, then molecules, & molecules further information comes & light - till I stay till in the course of time, I become EARTH, SUN, & so on. It is that is my EARTH-region - which EARTH that bounds my molecule-region & lays down its limits. In the same fashion the SUN bounds my atom-region, & the GALAXY my electron-region. This is only another way of saying that, while no doubt there is a sense in which the molecules, the atoms & the electrons are present throughout the whole of space, there is a sense - & for me a truer sense - in which, beyond a certain point, the molecule is not a molecule but a Planet, & the atom is not an atom but a Star, & the electron is not an electron but a Galaxy.

The 'range' of the inferior members, then, is its superior members. What is the latter's range. On this all entering observers agree: it is bounded by the region that lies next in order. EARTH gives place to SUN, SUN to GALAXY. The biological equivalents of the law of gravitation are still to be seen - but it provides the framework for an explanation. LIFE is not.

But examine now the reports of approaching observers. One of them finds no regions between EARTH & the molecule, & may be presumed to look upon the former as holding the field till the latter supersedes. Another finds that my EARTH region extends all the way down to my molecule region. The question then comes up: who is right, the receding observer who, relying upon what he last noticed, finds a region to be infected with molecules, or the approaching observer who, for by the same token, finds the same region to be infected with EARTH? Of course they are both right, & the region is really the region of the Symmetrical Pair EARTH-molecule. As always, the Pair is strictly indivisible. The Region of the Pair is one, & the events in the Region are one system of events. But they are viewed from two sides: for the inferior members they are external, for the superior, internal.

There is a final criticism which common sense has to make. It is that the Symmetrical Pair LIFE-cell is an exception to much of the foregoing.

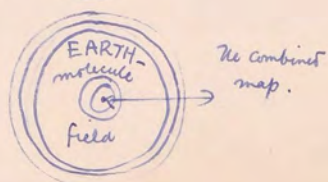
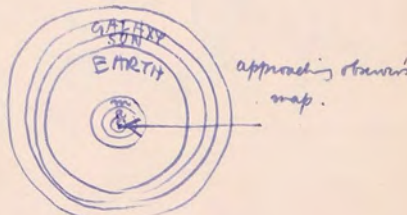
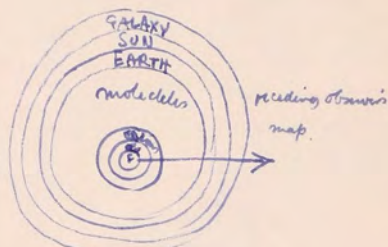


Combined maps prepared by four observers 0, 1, 2, 3, 4, — 04 being the latest.

"There seems to be in life something which mechanism cannot explain, & which, as I have said, is not naturally intelligent — being of an intelligence aiming at an end; but it is so cunningly difficult to satisfy oneself where this intelligence is, whether within or without the living being concerned..."

Clement D. Webb, History of Philosophy, p. 299.

* Perhaps the doctrine of the field of the Symmetrical Pair may throw light on such puzzles as the area of direction provided by various regions & migrating birds, dancing, and the like.



If we apply the label of 'gravitation' to events in the EARTH-molecule Region, & of 'light' to events in the SUN-atom region, what similar label can be attached to events in the LIFE-cell Region? Cells do not attract & repel one another as molecules do; they are not in rapport physically. Though LIFE may have begun, as Chapter VII maintained, to study & control its cells (just as EARTH & SUN & GALAXY have begun ^{anxiously} to take over their ^{respective} inferior members) the fact ~~that~~ remains, says common sense, that there is not yet a true vital 'field' as there is a gravitational or electro-magnetic field.

My reply — to be elaborated later on — ^{can be summed up in the words} ~~is this~~: it is precisely such a conception as this which biology cries out for. The writings of the more philosophical biologists, as well as of the more biological-minded philosophers, are full of admissions that the present ^{structure} ~~framework~~ of science is quite inadequate for the interpretation of vital phenomena. ^{++ (the differentiation of the cells of the growing eye, & of the regenerating organ are favorite instances) ++} ~~On the other hand, the vitalists' postulated a variety of life-forces & Intelligence,~~ ^{the vitalists have, in fact, as I think, an too vague & be of much use.} I do not say that the doctrine of regions in general, & of the LIFE-cell Region in particular, is in itself any great advance. But I am certain that it ~~is a step in the~~ points out a direction where great advances can be made. * Above all it is a means of grasping vital facts in their full concrete setting. As we refer to EARTH the falling of the molecular apple, so with equal justification we may refer the more complex behavior of the ^{growing} apple's cells to LIFE. ^{and, as I believe,} ~~to do so explains~~ nothing — the biological equivalents of the law of gravitation are still to seek — but it provides the framework for an explanation. ~~For~~ LIFE is not only accessible to man; but is a kind of his own consciousness, then the filling in of the framework can be undertaken with some assurance. Biology is the self-consciousness of the Symmetrical Pair LIFE-cell.

"There seems to be in life something which mechanism cannot explain, & which, as Kant said, we naturally interpret in terms of an intelligence aiming at an end; but it is exceedingly difficult to satisfy oneself where this intelligence is, whether within or without the living being concerned...."

Clement C. J. Webb: History of Philosophy, p. 249.

* Perhaps the doctrine of the Field of the Symmetrical Pair may throw light on such puzzles as the sense of direction possessed by carrier pigeons & migratory birds, clowning, and the like.

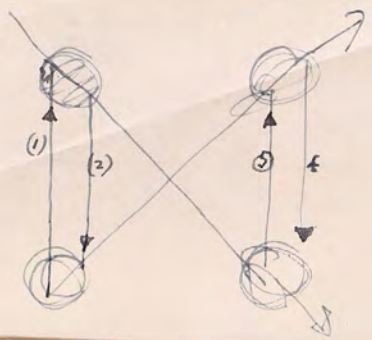
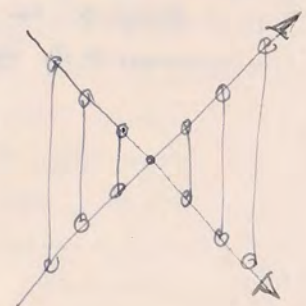
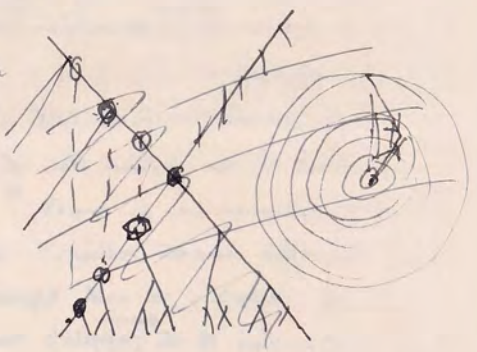
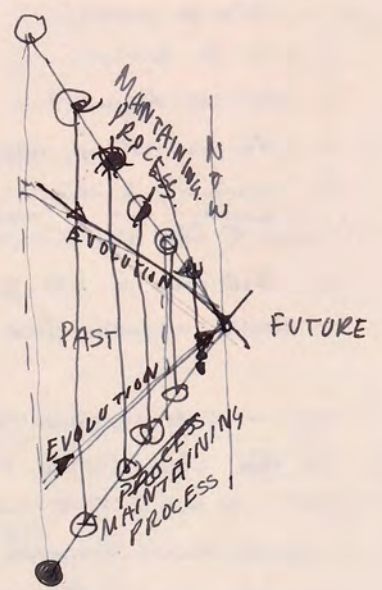
But common sense ^{very} justifiably calls for something less vague than this. What, in ^{unambiguous} language, are these vertical or Pairs processes, & how do they ^{help to co-ordinate} ~~illuminate~~ ^{our present} knowledge of natural fact? Now this is not the place for a long discussion of technical details ^{belongs to} many ~~fields~~ ^{departments} of science, but in order to ~~show~~ ^{indicate} the kind of process I have in mind, & to ~~give some~~ ^{avoid the risk of} ~~abstraction~~, the ~~beginning~~ ^{beginning} of this chapter, I shall lay ^{down} in the remainder of this section, to ~~illustrate~~ ^{illustrate} in summary fashion ~~some aspects of vertical process~~, furnished, as briefly as possible, some illustrations.

I have already produced evidence to show that the Pairs are evolutionary, & ^{the larger aspects of} ~~the~~ evolution may be described as the ^{concurrent} ~~parallel~~ ^{concurrent} differentiation of superior members ~~linked with~~ ^{the} ~~the~~ ^{concurrent} integration of their inferior members. Now it is one of the major theses of this book (a thesis which will be ^{further} ~~developed~~ ^{in Part II}) that the ^{main} ~~stages~~ ^{stages} of man's evolution ~~from~~ ^{are} recapitulated by the ^{main} ~~stages~~ ^{stages} of the processes by which he is ^{historically supported} ~~maintained~~ - that, in other words, the order of development is the order of the maintenance of what is developed.

The ^{historical} ~~order~~ ^{agents} of my evolution is solar, terrestrial, vital, & human; & this is also the order of the ^{much simpler} ~~process~~ by which I now live. Five stages, ^{may be} ~~described~~ ^{described} as desirable: I am ~~supported~~ ^{maintained} by (1) the Sun's radiant energy, which, conditioned & absorbed by ~~Earth~~ ^{the} ~~upper~~ ^{outer} planetary layers, becomes ^{Earth's own} ~~Earth's own~~ energy; (thanks to ^{chlorophyll} ~~green plants~~), much of this terrestrial energy is incorporated in ^{(3) Life, & then in (4) Humanity} ~~Life, & then in (4) Humanity~~ which feeds on Life; & finally a portion of it, ^{due to} ~~falls to~~ ^{me}, (5) the man. But this account, ^{in terms of} ~~tracing only~~ of the superior members, is incomplete without its complement, ^{in terms of} ~~the~~ inferior members. I am maintained by ⁽¹⁾ the ~~energy~~ ^{energy} exchanges of solar ~~alone~~, in the course of which energy is liberated - energy which is, in part, incorporated in (2) photosynthesis in certain complex ^{some of} ~~molecules~~ ^{cells}; then go to build (3) ~~the~~ ^{plant & animal} ~~cells~~ ^{cells}, which are eaten by ^{men who thereby acquire} ~~men who thereby acquire~~ energy which is used in preparing a proportion ^{of the} ~~for~~ (5) myself, the individual man. Observe how the differentiation of the superior members & the integration of the inferior members keep pace, & steadily converge upon the man that is here & now.

But the ^{vertical} ~~process~~ ^{of maintenance} ~~is~~ by no means ends here. ^{The} ~~There is~~ an outgoing & diving out series. ^{as well as} ~~My~~ ^{my} energy ⁱⁿ maintaining my human, cellular & molecular activities, ^{as well as} ~~the~~ ^{the} further the development of Humanity, life, Earth, & Sun. & this ^{which is it once} ~~is~~ ^{as a contribution to their self-consumption, is a case in point.} ~~is~~ ^{is} a case in point.

~~Still~~ ^{the} ~~the~~ ^{vertical bond} ~~connection~~ ^{between} the upper & lower series has still to be demonstrated. What, precisely, is the ^{vertical bond} ~~connection~~ between the integrating or ascending movement & the ^{differentiating} ~~differentiating~~ or descending movement? What, in other words, ~~holds~~ ^{are} the real links which bind the pairs? To this question several answers are possible, & according to ~~which~~ ^{which} Pairs ^{physical} ~~take~~ ^{is taken} ~~as giving~~ ^{the clue to the rest.} ~~But~~ ^{perhaps} the simplest answer is in terms of energy exchanges. If the S.M. ^{is} ~~may be~~ ^{is} regarded as the energy system whose ^{members} ~~parts~~ ^{parts} are the inferior members, then their history ^{(and of the S.M.) may be interpreted as} ~~the~~ ^{the} history of energy passing from the parts to the whole, & from the whole to the parts. The S.M. ultimately supplies this S.M. with energy, & derives energy from it. On the converging side, the rule is that in the ~~early~~ ^{early} stages of dev. the simpler or more primitive S.M., in the course of their integration, release energy to the S.M.; but beyond a certain point of development this process is reversed, & further integ. of the S.M. absorbs energy from the S.M. On the diverging side, the rule



* Chain reaction. The third stage is typically one of chain reactions, ~~whether~~ in nuclear physics (atom bombs, after all, are not 'unnatural' or 'wild phenomena'), in explosives & internal combustion engines, in population growth, & in revolutions. At all the levels - atomic, molecular, cellular & human, - the same type of occurrence is found, & it is capable of the same mathematical treatment. Cf. Alan Robinson's 'Jetties: Chains', in Energy-releasers Science News, III, May 1947, pp 143ft.

⑥ ~~law of spirals~~. The four phases may, in fact, be regarded as a further refinement of the law of the spindle, ~~accord~~ (See Ch 3 & Ch 3) according to which the observer ~~is~~ travelling radially through a region, finds the object first increasing in scope or intensity, & then decreasing. The law of the four ~~phase~~ energy phases adds that the fluctuations ~~that~~ noted by the travelling observer ^{in one region} are ~~from~~ ^{the} converse between capacity with the ~~that~~ region & its fellow members the region to which it is linked in a Pair.

This ~~very~~ ^{excellent} summary treatment of a vast topic (in anticipation of the somewhat
 now adequate ~~exposition~~ ^{discussion} in Part ~~at~~ V) is included ^{at this place} ~~in order to illus-~~
 trate how the concept of the Pairs, with their verbal processes, may serve to co-
 ordinate data that are at present ~~more or less chaotic~~ ^{scattered, disjoint & unrelated}. Here, at any rate, are
 some possible points of departure for the new hierarchical Science. B It is true,
 of course, that no discussion, however thorough, can ^{at set} repair the weak places in
 the schema, or complete the evidence for its ~~truth~~ ^{validity}. But I suggest that
 this fact, so far from damning the schema, is a recommendation. If it
 were already ^a complete ~~with~~ nest of pigeon-holes, each ~~the~~ ^{containing filled with} ~~acceptance for its~~
 appropriate empirical ^{data,} ~~status~~, its value would be as an instrument would
 be ~~as small as its~~ ^{that used to exist} ~~negligible~~. The ~~striking~~ ^{quite} gaps in the Periodic Table of the
 Elements ~~do not invalidate it~~ ^{the contrary, they tell us what to look for,}
 & ^{enable us to} ~~predict~~ ^{in some detail} the ~~missing~~ ^{nature of the missing} elements.
 In other words, ~~there is some or less~~ ^{no} valid general pattern is ~~discerned~~ ^{discerned}, its seemingly
 weak points ~~are its strong points~~, & the hiatus ~~is transformed into~~ ^{becomes} an organon. In
 the ~~same way~~ ^{same way}, the table of the Pairs (having, as I believe, proved itself ^{true}
 principle) may be expected not merely to throw up certain ^{clauses} ~~gaps~~ in our
 knowledge, but to suggest the kind of object which is likely to fill them.

VAU
115
all
about
front.

83 Churchstead St.
Mar 22.

Gras Mrs Shaw

May the father share the son's instruction? I have been entirely baffled by the questions on the back of this sheet: the authorities overwhelm me with detail, & I fail to get a general picture. It would be extremely kind of you to help.

The philosophical study on which I'm now engaged has (rather annoyingly) brought this question in thermo-chemistry, about which I know next to nothing.

Julian is rather vague as to your exact line of country: but perhaps if this is not up your street ~~for~~ - would you kindly ask the right expert at your school? Apologies for troubling you
Sincerely
Gough Harding

Northgate Grammar School for Boys.
Ipswich.

28. 3. 49.

Dear Mr. Harding,

Mr. Shaw has passed your letter to me. I am sorry I have been rather a long time in answering it.

In general the statements 1-4 are correct, but it would be dangerous to apply the general case to any particular example. In no 1, a certain minimum level of energy is necessary before the building up will start, so energy will have to be supplied first at first.

No 1 + No 4 appear to be the reverse of one another, as no 2 and no 3 are.

It is a safe generalisation that if

$A + B \rightarrow AB$ with liberation of energy,
then $AB \rightarrow A + B$ takes place with absorption of energy, but it does not necessarily follow that AB can be made to break up. Again, you can

Is it true to say that, as a rule or on the whole

- ① The formation of the simpler molecules (I mean those consisting of a few atoms) from simpler molecules, or from atoms, releases energy?
- ② ~~that~~ the formation of more complex molecules (consisting of many atoms) absorbs energy?
- ③ The breaking down of complex molecules
② releases the energy absorbed?
- ④ The further breaking down of less complex molecules tends to absorb energy rather than to release it?

I realize there are many exceptions — but is there any general picture?

Photosynthesis is presumably an instance of
② & ③.

Take it that the greater the amount of energy given out when $A + B \rightarrow AB$, the more difficult, i.e. the greater energy will be required to make AB break up into A and B .

I hope this will be of some help to you

Yours sincerely,
E.J. Black.

individuality to their societies. Only by the interpenetration of the two tendencies are ^{all} members & ^{all} societies preserved at their respective levels. This interpenetration is no stalemate in which each frustrates the other; it is a thoroughly active or dynamic opposition, like the equal & opposite charges on the two sides of an electric circuit. Any ~~loosening~~ slackening of the struggle, any lull between the contestants, is just so much less vitality & a sinking back towards undifferentiated nothingness. Any whole being, reality itself, is social - antisocial.

There are two main circumstances - the whole & the parts - in which the social organization of the hierarchy.

Whatever accountable & unaccountable differences of structure are shown by the members of the hierarchy, it is well to remember that such differences ^{belong to the static} ~~are~~ ^{and are} horizontal, & therefore (in a sense) superficial. They are the manifestations of the ^{concealed} ~~underlying~~ vertical process; & though the manifestations are various, the ^{flow of events} ~~undercurrents~~ that bears them up & gives them such reality as they have, is all along the same in principle. Primarily it is 'social'.

Units of the same order, becoming specialized & necessary to one another, make up a society that is a unit of a new order, having new characteristics. This society in turn finds itself among similar societies; differentiation & mutual dependence ^{again increase} ~~become marked~~; and a society of societies, a unit of the third order, with a third set of characteristics, comes into being. This is the story all the way up from the sub-electron (which, though a member of a society, is not itself a society) to the Whole (which, though a society, is not itself a society). The typical unit is a society of members, & a member of a society. ~~superior units & societies of their inferior units.~~

If this were the whole story, the lower units would be integrated out of existence, & disappear in the upward flux. But, in fact, this tendency of the members to vanish in favour of the society is offset by the opposite tendency of the society to vanish in favour of the member. Counterbalancing the rising 'social' movement is the descending 'antisocial' movement. Actually the 'antisocial' movement is as necessary (& ultimately as 'social') as the other. For the two in one, as inseparable aspects of the one process, jointly & simultaneously maintain all the levels of the hierarchy. In other words, the societies are always in the throes of destruction by the antisocial behaviour of their members, & the members are always losing their

+ Thus Heraclitus:-
"Was is the father of all & the King of all.... Men do not know how what is at variance agrees with itself.... We must know that war is common to all & strife is justice, & that all things come into being & pass away through strife." *Barnet: Early Greek Philosophy, p. 136, 137.*
Homer was wrong in saying: Would that strife might perish from among gods & men! He did not see that he was praying for the destruction of the universe. For, if his prayer were heard, all things would pass away."
Heraclitus (quoted in Barnet's *Early Greek Philosophy*)

+ Charles Hartshorne (*Hibbert Journal*, Oct. 1945) regards the 'social' interpretation of the universe as the philosophy truly characteristic of our time. In a society, law & freedom, ~~are~~ custom & initiative, are variously blended, & the universe is a society of such societies. The limiting extremes are absolute order or determinism, & absolute chaos or complete freedom on the other.



individuality to their societies. Only by the interpenetration of the two tendencies are ~~both~~ ^{all} members & ^{all} societies preserved at their respective levels. This interpenetration is no stalemate in which each frustrates the other; it is a thoroughly active or dynamic opposition, like the equal & opposite charges on the two sides of an electric circuit. Any ~~loosening~~ slackening of the struggle, any lapse between the combatants, is just so much less vitality & a sinking back towards undifferentiated nothingness. Any whole being & reality itself, is social - antisocial.

There are ~~two~~ ^{three} exceptions - the whole, & the Centre or sub-election - ~~that I have just written?~~ to the rule that a unit is always in danger of being destroyed by its parts & in danger of destroying its sub-election, being simple & without parts, is invulnerable from below, while the whole, being without superior, is invulnerable from above. These ultimate units have a stability & a reality which the others lack. They are something more than confluent of the stream - they are the stream's twin sources. And each source is asymmetrical: - the flow or process belongs to one side of it; the other side lies beyond process. But again, ^{the division of the members of the Pair is} ~~this distinction is~~ in the end artificial. The concrete reality is not the asymmetrical whole plus the asymmetrical Centre, but the ~~Symmetrical Pair~~ ^{the Whole-Centre}, which ~~embraces~~ ^{embraces} both a membership & a society, ~~which is~~ ^{which is} superior & inferior. ^{Above all,} note that this Pair involves the Society & the Members: all other societies in the hierarchy are only, so to say, ad-hoc groupings, sub-societies, temporary pseudo-units. ~~At no~~ ^{no} members other than sub-elections are ~~real~~ ^{real} members, but only ^{organ-}isations of members; ~~and no~~ ^{no} societies other than the whole are ~~real~~ ^{real} societies, but only its ^{local} sub-divisions. There is one membership - the Centre - and one Community - the whole. All the rest is internal organisation, ^{administrative devices} by means of which the Community deals with its Members ~~ship~~ & the Membership deals with their Community.

In unending flows the whole comes down to Nothing, & Nothing mounts to the whole, giving rise by the way to the ~~entire~~ ^{entire} range of Symmetrical Pairs. This is the pattern of the real. Nothing less than this really is. ~~Existence~~ I'm so far as I exist, this is what I am.

The whole, ~~then~~ is a Society of which the sub-elections are the Members. And, at the other end of the horizontal axis, MAN is a society of which men are the members. In these two instances the members of a Symmetrical Pair are 'socially' linked. Now, so far, the societies that lie between these extremes

+ Thus Heraclitus:-

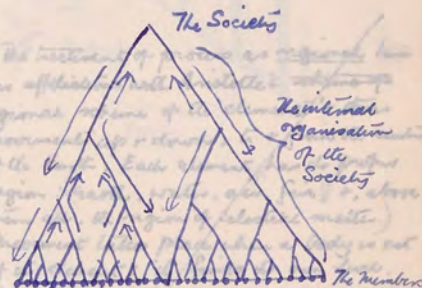
"War is the father of all & the King of all.... Men do not know how what is at variance agrees with itself.... We must know that war is common to all & strife is justice, & that all things come into being & pass away through strife." Burnet: Early Greek Philosophy, p. 136, 137.

"Homer was wrong in saying: Would that strife might perish from among gods & men! He did not see that he spoke for its destruction - even of the universe, for, if his prayers were heard, all things would pass away."

Heraclitus (quoted in Burnet's Early Greek Philosophy)

For me, the cosmology of Heraclitus is, in its main lines, still valid. This has three 'engines' - fire, water, & earth - each made of two equal parts, one proceeding upwards & the other downwards in an opposing tension. It is this opposition which preserves the equilibrium of things, & the upward path is nothing without the downward.

Burnet 163



A is a member of Society ^CB +
a member of Society A'
B' is a member of Society A'
+ B is a member of Society B'

• The treatment of process as regional, has
has ~~an~~ ^{an} ~~analogy~~ ^{analogy} with Aristotle's ~~scheme of~~
regional scheme of the 'elements' & their
movements up & down, to & from the centre
of the Earth. Each element has its proper
region: earth, water, air, fire, & above
them all, the region of celestial matter.
Movement takes place when a body is out
of its element: it finds its own level.
Aristotle's details do not hold good
now, but there is ~~nothing~~ ^{nothing}
wrong with the ~~general~~ ^{general} ~~principle~~ ^{principle}
in the ~~general~~ ^{general} ~~picture~~ ^{picture}
of ~~the~~ ^{the} ~~whole~~ ^{whole} ~~process~~ ^{process} the ~~the~~
horizontally, ~~model~~ ^{model} ~~age~~ ^{age} ~~the~~
upward, is ~~not~~ ^{not} ~~to~~ ^{to} ~~allow~~ ^{allow}.

A hand-drawn diagram of a cell cycle represented as a circle with concentric lines. A vertical line passes through the center. On the left side, the text "Anabolic Side" is written. On the right side, the text "Catabolic Side" is written. Two curved arrows originate from the center and point towards the top and bottom, indicating a clockwise cycle.

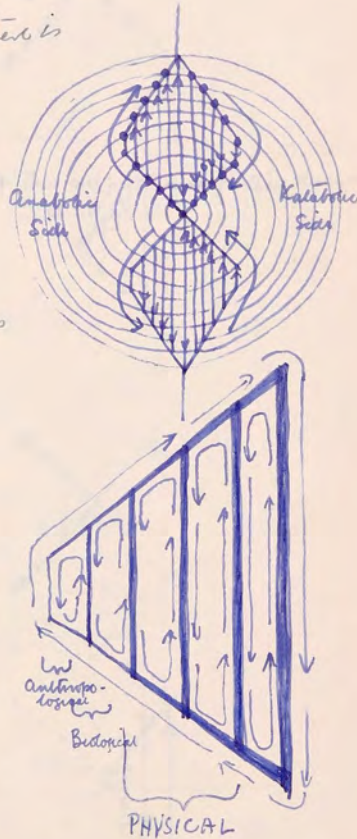
Throughout the previous chapters I have noted ~~and stressed~~ ^{comprising a} at being
 dual what I have called the two-way vertical process, ~~or the centrifugal~~ ^{upward,}
 integrative, ^{or} anabolic movement, and ~~the~~ ^a centripetal ^{downward} analytic, katab-
 olic movement. But I have been deliberately vague about certain
 features of this process, postponing their discussion till all the members of
 the hierarchy had been reviewed, till the doctrine of ~~Equilibrium~~ Pairs
 had been brought out, & the two-way process could be treated as a
 whole. One of the questions which I have ~~noted~~ ^{put it till now} is this: do the ~~up~~
 centrifugal & centripetal movements always involve ^{negative} ~~both~~ ^{between}
 the Centre & the whole, or is there some ^{system} ~~part~~ of short-circuiting, ^{by-passing &} ~~by~~ ^{account} to which
 whereby entire regions may be avoided?

which certain levels are left out? ^{Any} If such short-circuiting does happen (as it often seems to) what are the laws & the limits of it? The time has come to face up to these difficult problems.

Chapter has already ^{suggested} ~~supplied~~ the answer in this Chapter. Indeed there is ^{in this Chapter}. There is, ~~not~~ ^{say}, short-circuiting, & it proceeds between the members of a Symmetrical Pair: ^{That is to say, it is always vertical, never oblique. Any} ~~It is never anything but vertical.~~ ^{the} ~~this by-passing of a level that~~ ^{is} ~~the outer side is~~ ^{is} ~~incidental; it is part of normal functioning.~~ ^{is} ~~the reason is plain: any vertical stratum is (as I have said above)~~ ^{is} ~~dependent upon earlier or inner vertical strata (i.e. those lying nearer the~~ ^{is} ~~Whole-Entity axis) & not, in the same sense, dependent on later or outer ones. Thus~~ ^{is} ~~the physical processes go on~~ ^{is} ~~uninterrupted beneath the biological, the biological~~ ^{is} ~~beneath the anthropological; and whereas all processes within the last derive~~ ^{is} ~~from the other two, & all processes within the second derive from the first, the~~ ^{is} ~~processes within the first go on irrespective of whether the others exist or not.~~ ^{is} ~~In fact, it is somewhat of a rule for a train of events to emerge at the~~ ^{is} ~~It follows that only the processes which traverse the human~~ ^{is} ~~optimum of the horizontal axis involve living levels without by-passing any~~ ^{is} ~~is the rule rather than the exception. Evolution is the superimposition of new pairs upon the old,~~ ^{is} ~~which continue to function more or less as before.~~

This can be expressed in terms of the observer in my region. ^{is} ~~Up to the~~ ^{is} ~~as I have shown above, he need not take~~ ^{is} ~~present any observer has always taken the most interesting route - that~~ ^{is} ~~which passes through the maximum number of Nations. He need not~~ ^{is} ~~have done. Precisely six routes are open to him, & each of them will take~~ ^{is} ~~him all the way from~~ ^{is} ~~him from my sub-electron region to the whole. On one occasion he may find~~ ^{is} ~~no regions between my~~ ^{is} ~~electron region & my~~ ^{is} ~~Solar region: he will then~~ ^{is} ~~account for~~ ^{is} ~~his experience by saying he has picked for starting point a sub-electron~~ ^{is} ~~in the Sun. On another occasion he will find all the regions in~~ ^{is} ~~order except for MAN & man: here the explanation is that he has~~ ^{is} ~~started from a sub-electron in a cell which, instead of belonging in my~~ ^{is} ~~human body, belongs in some living extension of it. In such~~ ^{is} ~~instances my observer is still my observer - the only difference is that he~~ ^{is} ~~has chosen to set out from some~~ ^{is} ~~part of my body instead of from~~ ^{is} ~~the core. And, of course, there is one part of the world whatever that is not included~~ ^{is} ~~in my greater body. Whenever he starts it is~~ ^{is} ~~body he observes, & invariably~~ ^{is} ~~it begins as sub-electrons & ends as the whole: what else I can depends on~~ ^{is} ~~the circumstances.~~

But common sense requires that I relate this to the actual empirical processes that go on in my body & its extensions. Does the scientist's story bear out the scheme I have just outlined?



I think ^{it} does. I have already shown ^{agrees with} how ~~the evolutionary story~~ ^{the doctrine of the Symmetrical Pairs} conforms to the evolutionary story, so far as ~~it~~ ^{that story} can be traced. The process by which the levels came to pass were two aspects — the differentiation of the superior members of ~~a~~ Symmetrical Pairs, & the integration of their inferior members. What I now add is that the ~~empirical evidence here is impressive~~. What I now add is that the self-forming process which brought the successive levels into being keeps them there. The situation has not altered. What it takes to produce MAN — man it takes to maintain him. ^{two} ~~the~~ ^{appearances} ~~the~~ ^{his} requirements ^{appear} are very different; in reality they are the same, & the reason is that I am actually being brought about & destroyed every moment. The two-way process ensures that I live by perpetually dying, & die by perpetual re-creation. I have not evolved once & for all. Every moment sees my ascent from the ^{lowest} ~~lowest~~ ^{highest} ~~highest~~ physical units, to the, of course, its counterpart; my descent from the ~~highest~~ ^{lowest} units. To have done with my past is to have done with my present, & with myself into the bargain.

* § 3 above.

* This subject is further discussed in Ch. 19 §.

9. Symmetrical Pairs & process (ii)

Common sense finds this too vague, & asks for more definite information.

The working out of the process in further detail will be my task in Part III; what I can do here is to outline some of the conclusions I arrive at there, ^{with special reference to the way} ~~in the way~~ ^{indicate} how the Symmetrical Pairs are involved. The arguments & illustrations in support of this outline do not belong in this Chapter, but (to rescue the account from abstraction) I give one example at each stage. The Pairs I have chosen for illustration is EARTH-molecule, but it could have been MAN-man, LIFE-cell, or SUN-atom.

EXAMPLE

Atoms build up into molecules, ~~and~~ ~~plants~~ ~~build up~~ ~~into~~ ~~molecules~~ ~~into~~ ~~more complex molecules~~;

On the other hand, molecules split up into ~~atoms~~ ~~complex molecules~~ & into atoms.

process the energy for the photosynthesis (protein, cell, & chloroplast) of complex molecules, ~~in the process~~ ~~of~~ ~~complex~~ ~~molecules~~ ~~of~~ ~~carbon~~ ~~dioxide~~ ~~water~~, and the Superior Member, energy is needed to mineral salts. (See Ch. 19 §)

VI CONVERGING PAIRS: ENERGY EXCHANGE

PROCESS EXCHANGE

i. ANABOLIC BUILDING UP

I am ^{building up} ~~an anabolic~~ process which passes through all the stages of the hierarchy, from sub-electron to whole, by the integration or synthesis of units into more inclusive units.

ii. KATABOLIC BREAKING DOWN

I am ^{breaking down} ~~a katabolic~~ process which passes through all the stages of the hierarchy, from the whole to sub-electron, by the disintegration or differentiation of units into less inclusive units.



I derive energy from the breaking down of complex molecules stored in my bones - a breaking down which ^{is the consequence of} ~~is the consequence of~~ the building up by oxidation of these molecules.

EARTH'S ~~cooling~~ differentiation into Geosphere + Strata is the counterpart of the building up, in these increasingly varied environments, of more & more complex molecules;

the integration of EARTH (largely ^{principally} ~~principally~~ ^{again} ~~again~~) involves the ~~destruction~~ breaking down of ^{many} ~~many~~ complex molecules, e.g. in the manufacture of ^{by the decomposition of potassium chlorate.} ~~oxygen~~ ^{oxygen} ~~the reduction of iron to metal.~~

EARTH (a) is supplied with ^{heat} ~~energy~~ by the oxidation of rocks, & particularly released ~~energy~~ the combustion of coal & oil (i.e. the integration of Carbon dioxide & water (b));

EARTH (a') ^{some of this} ~~applies~~ ^{heat} ~~energy~~ to the use of metals to break down the molecules into simpler molecules or ^{atoms} ~~atoms~~.

EARTH (a), having made Sunlight her own, provides this energy for the photosynthesis (proteins, fats, & carbohydrates) of complex molecules ^{in the green leaf,} ~~in the green leaf,~~ out of ~~many~~ molecules of carbon dioxide, water, and mineral salts. (See Ch 8);

III ~~METABOLIC~~ BUILDING UP - BREAKING DOWN

I am i & ii working together in unity. The downward movement is the condition of the upward, & the upward is the condition of the downward.

IV CONVERGING PAIRS LINKED

The differentiation of the Superior Members is inseparable from the integration of their Inferior Members: the two proceed pair passu & meet at the horizontal axis.

V DIVERGING PAIRS LINKED

The integration of the Superior Members is inseparable from the differentiation of their Inferior Members: the two proceed pair passu starting from the horizontal axis.

VI CONVERGING PAIRS: ENERGY EXCHANGE

PHASE A.

The Superior Member (a) derives ~~the~~ ^{differentiation} ~~energy~~ ^{from that} ~~from that~~ ^{from its own immediate} ~~from its own immediate~~ Superior (c) & from the surplus energy released during the integration of its Inferior Member (b). Provides the latter are not already too complex, they have energy to spare when they combine forces.

VII ~~CONVERGING~~ PAIRS: ENERGY EXCHANGE

PHASE A

The Inferior Member (b) derives ~~the~~ ^{differentiation} ~~energy~~ ^{from that} ~~from that~~ ^{from its own immediate} ~~from its own immediate~~ Superior (c) & from the surplus energy released during the integration of its Superior Member. The ~~differentiation~~ Inferior member cannot part till they are again supplied with the energy they released when they joined forces (VI).

VIII CONVERGING PAIRS: ENERGY EXCHANGE

PHASE B.

The Superior Member / integration of the Inferior Unit (b) ^{above} ~~absorbs~~ ^{absorbs} a certain stuff of complexity ~~absorbs~~ ^{absorbs} energy from (instead of releasing it to) the Superior Member. Energy is needed to effect the union.



Unit Processes & Concentrations
 The Pair & Hierarchical Process - Concentration
 For common mind, what matters in the life stream of energy that is important

What I have put down above is...
 the breaking down (in animal bodies)
 of the molecules photosynthesized in plants,
 means energy in the form of locomotion
 & work

IX DIVERGING PAIRS: ENERGY EXCHANGE:

PHASE B.

Differentiation of the sufficiently complex
 Inferior Unit b' releases energy to (initial
 means energy in the form of locomotion
 of absorbing it from) the Superior Unit. The
 inferior Unit now gives up the energy put
 into it at the time of its synthesis (VIII).

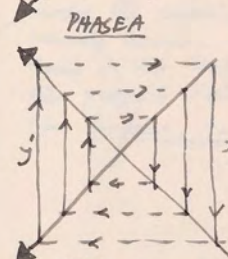
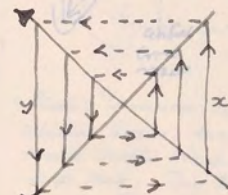


X CONVERGING & DIVERGING PAIRS

CO-EXIST

Historically, the oxidation of EARTH'S minerals
 precedes their smelting (A y), & the photosyn-
 thesis by plants of carbohydrates (B x) precedes
 their breaking down by animals (B y'). Yet all
 four go on at once: e.g. the heat energy
 released in the combustion (i.e. building up) of
 coal accompanies the smelting (i.e. breaking down)
 of iron ore (A y), while the carbon dioxide formed
 during the breaking down of the animal's carbo-
 hydrate (B y') is released in their breathing &
 absorbed by plants during photosynthesis (B x').

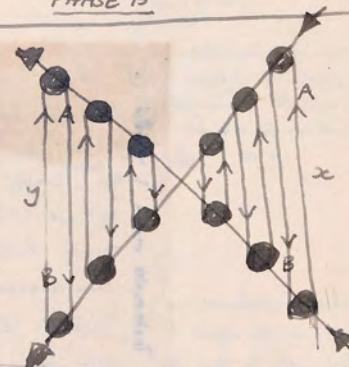
Though the divergence is later than the
 convergence, it does not supersede the
 convergence. The process is ~~in one sense~~
 cumulative from x to y, ~~in another~~
~~the whole is present at every stage~~
 & proceeds in circular fashion.



XI PHASES A & B CO-EXIST

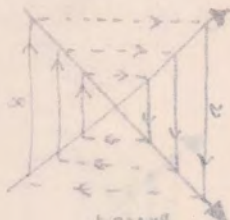
Historically, the building up of the simpler
 molecules (A x) (e.g. the formation of mineral
 salts) precedes & conditions the building up of
 more complex molecules (e.g. in photosyn-
 thesis). The breaking down of the latter (B y)
 (e.g. in animal katabolism) precedes & conditions
 the breaking down of the former (e.g. in
 iron-smelting). The smelter continues
 outside his flesh & blood body the breaking
 down process that occurs inside it.

Though phase B of a Symmetrical Pair
 is later than phase A, it does not super-
 sede phase A. ~~In one sense~~ the phases are
 cumulative, ~~in another sense~~ they are both
 present at every stage in the development
 of the Pair, & proceed in circular fashion.

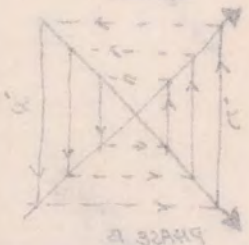


The whole, the whole
 the human, each
 change of energy, food
 while than a living
 a child, & by
 for, & the Sun's than the
 in Cooper's theory, how
 up almost like a
 mostly of the whole, but
 when, who said that the
 is really to mean
 & light!

Constitution (Brown, Bury)
 the system referred to as the 'Constitution'
 the human body, the theory of the 'Constitution'
 & the human body, the theory of the 'Constitution'
 the human body, the theory of the 'Constitution'

[illegible]

The following is taken from the
The following is taken from the
~~the following is taken from the~~
~~the following is taken from the~~



(A) 1. The first part of the paper is devoted to a discussion of the various methods of determining the rate of reaction. It is found that the rate of reaction is proportional to the concentration of the reactants. (A) 2. The second part of the paper is devoted to a discussion of the various methods of determining the order of reaction. It is found that the order of reaction is equal to the sum of the powers of the concentrations of the reactants. (B) 3. The third part of the paper is devoted to a discussion of the various methods of determining the activation energy of a reaction. It is found that the activation energy is equal to the difference between the energy of the reactants and the energy of the products.

② What I have divided must now be reformed. It must never be forgotten that the later Pairs, developing within the earlier ones, bring out their full meaning & richness ^{of the latter} ~~of the latter~~. Without this ^{filling} ~~content~~ supplied ^{in the course of} ~~long~~ time, the earlier pairs are empty frames waiting for the living pictures. With this content, superior & inferior members have ^{mutual} dealings, not only directly as in the beginning, but through every later Pair. Failure to see this is failure to appreciate the ^{abundant} life & intelligences of EARTH & SUN & GALAXY; ~~The Hegelians were essentially~~ ~~right~~ it is to live in a dead, abstract, & unreal world, a world sliced up by a naive science. The Hegelians were essentially right to make the world-process pass right through the head of the philosopher; ~~no~~ common sense is essentially wrong to make it by-pass all our heads.

One ^{more} example should be enough. Consider a number of arsenic atoms in the primitive SUN. In EARTH they appear ⁱⁿ ~~as~~, say, molecules of arsenical iron, & much later, ⁱⁿ the drug Salvarsan. They next figure in LIFE, taking part in the war between certain (human) cells & invading protozoa — the latter are poisoned while the former are left unharmed. This is of course accomplished through MAN — man, in the persons of large numbers of scientific workers. Now the point is that all this is internal to the SUN-atom pair: the later Pairs provide new routes, new ^{within the earlier pair} & infinitely more meaningful content. Lacking these ^{developments}, the original Pair is an empty abstraction; ^{embracing} ~~containing~~ them, it comes into its own. To understand the significance of the arsenic atoms in the primordial SUN, it is essential to follow their relation to all later developments.

Reshapings
Mars Hurdle
(56)

Common
Insects
'Aronia'

the superior, & this knowledge is the reunion of the sundered Pairs. On no other basis is knowledge possible. I realize the other aspect of myself, & I cannot recognize outside me what is not already mine. All my knowledge is self-knowledge.

This would be all very well (Common sense points out) if it did not flatly contradict all I have already said about equality of status between subject & object. When I contemplate a Galaxy, I am a Galaxy, & when I contemplate a Star I am a Star — such has been the doctrine of this book ^{up to now}. But now the suggestion is that, so far from being the equivalent of my object, I am its partner in a Symmetrical Pair, which is to say that I am more or less violently contradicted with it: as it grows so I shrink, till, at the point where it becomes all things, I am nothing. Instead of subject & object growing up together, the object grows at the subject's expense, & in the end devours ~~it~~ without remainder. ~~What is the explanation of this volte-face, & which of these two inconsistent doctrines is the true one?~~

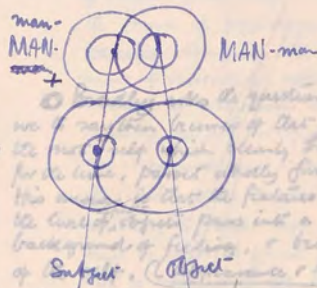
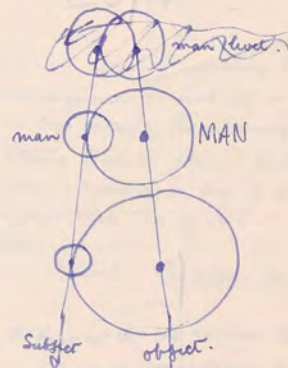
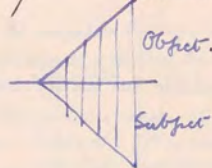
The answer is that they are both true. The ^{doctrine} ~~principle~~ of the equality of mutual observers holds good, only it is not so simple as it looks at first. For, to begin with, it is not a mere Galaxy that contemplates a Galaxy, or a mere Star that contemplates a Star; ^{on the contrary} (since a member cannot be divorced from its Pair) it is Galaxy-electron that contemplates Galaxy-electron, and Star-atom that contemplates Star-atom. ^{The entire Pair is involved on each side of the operation.} ~~But this is not the whole of the matter.~~ ^{the difference lies in which aspect of the symmetrical pair is emphasized.} It is I as electron-Galaxy who contemplates the Galaxy-electron, & it is I as sub-electron-whole who contemplates the whole-sub-electron. Mutual observers are equal, yet unequal, & the more they make of one another the more pronounced is the inequality. ~~To put the matter~~ I am what I see, & I am the not of what I see: the more of the Pair I have for object the less of it is left for me as subject.

Common sense feels this is too easy a way out. What substantial grounds have I for the view that the members of a Symmetrical Pair are related to one another as Subject & Object, & that the two sides of my organization it, ~~as it were~~, facing one another? +

Let me consult my own first-hand experience. When, listening from the men around me to the ^{larger units, & accordingly, to the} Stars, Planets, the Stars, the Galaxies, do I feel bigger or smaller? So far, I have reported that I have the experience of growing to match my object. I cannot think I was mistaken: — I do have a genuine ~~though vague~~ sense of identification with my country when I think of France & Frenchmen; I feel ^{that nothing is so true} EARTH is back of me when, for instance, I read ^{N.G. Wells'} ~~fanciful~~ about Martian life;

Q, the world's soul will never be united with mine, till what appears outside me, as though it were meant to be inside me, delightedly alights in me!

Rehke: Latin Poems (Trans. J. B. Leishman), p. 60.



+ Compare with the Avicenna's doctrine of the process of knowledge. Man (he says) has a rational soul with a lower & a higher part: the higher part is facing the lower world of the senses & acting as practical understanding, the lower part is facing the higher world of the intelligible forms. (See Stöckel: Phil. d. Mittelalters Geschichte der Philosophie des Mittelalters, Vol. II, pp. 23 ff.)

Encly Britt III, 154
Luge Xtra M. 142

in so far as I grasp the Star-hood of Betelgeuse I seem to ^{reduce} ~~grasp~~ my own Star-hood. Yet this is not the whole truth. The more I expand, the more I contract. I do not, ^{merely mean that,} by remaining human, I diminish ^{growing} relatively to my object; I become progressively less than human; I diminish absolutely. These vast gulfs & spaces make me feel small, & the wider they are the tinier I then observe re-turn myself to be. At man-level I am on a par with my object, but as my object expands so ~~fast~~ (in so far as my grasp of it is genuine & not simply theoretical) ^{do!} I think less of myself till, when my object is the whole, I really do count myself Nothing. When this is apparently not so, & I can appreciate the whole & still retain all I ^{have} at man-level, then I decide myself: what I am occupied with is a word, or some other abstract & inadequate symbol for of the reality. On this the mystics are agreed: that to ascend to the All it is necessary to descend to the Nothing, & until the self has been brought to naught it cannot be filled with the whole.* My progress from man-level to the level where I am really real, is measured by - in fact, it is - my regress from man-level to the level where I cease to have any reality. I never lose my symmetry about the horizontal axis. To embrace the more inclusive & sublime aspects of the world is to feel humbled. Petty concerns melt away; all that ~~ordinarily~~ the ordinary contents of the self chindle; the little I is deflated. If I can look at the Stars & remain a man I am not looking at the Stars, but at a lighting scheme.

11. The Symmetrical Pair as Subject & object (b) the view in.

Experience, then, ^{seems to} ~~seems to~~ bear out the theory that my object's growth is my ungrowth, as well as (what is just as easily overlooked) the theory that subject & object grow & ungrow together. The members of a Symmetrical Pair are related as Subject & Object. In particular, the inferior member is the subject & the superior member is the object. (To be more exact, the inferior member observes, first & foremost, his superior's equals, & only goes on later to contemplate the superior member himself.) It is, ^{to electrons,} ~~to electrons,~~ who are concerned with Galaxies, & ^{the} ~~the~~ atoms who are concerned with Stars.

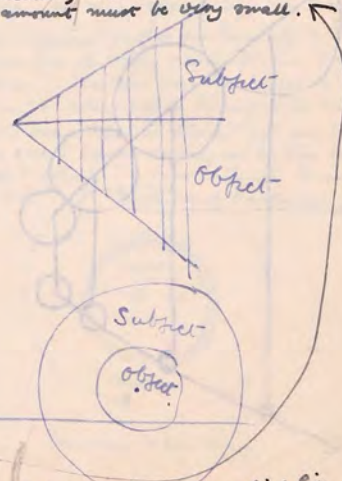
But I am also concerned with electrons & atoms. Who is the observing subject here? Is it I as the Galaxy who contemplate my electrons, & I as the SUN who contemplate my atoms? In general terms, do I, ^{the subject} ~~the subject~~ ^{above} ~~above~~ transcend man as my object sinks beneath him, even as I sink beneath man when my object rises above him?

I do, & for similar reasons. It is not I the GALAXY, but I the GALAXY-electron who am concerned with electrons - that is, with GALAXY-

* That is to say, the inferior member participates in what the superior member is to himself, in his outlook, or 'mind', ~~more~~

"In what measure we put off the creation, we are able to put on the Creator: neither more nor less."
Heclogia Germanica, 1.
E.U. 141

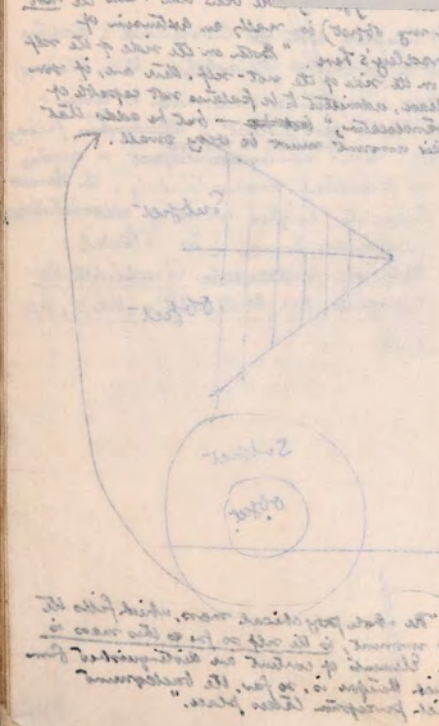
Bradley asks the question: "What are we to say when we become of that remainder of the not-self which clearly has not, even for the time, passed wholly from my mind?" His answer is that the feelings which belong to the level of objects pass into a general background of feeling, & become a part of the self, (Appearance & Reality, pp. 90-4) of my 'undistinguished core'. & The ~~view~~ ^{view} I am suggesting (the view that I am the not of my object) is really an extension of Bradley's here. "Both on the side of the self & on the side of the not-self, there are, if you please, admitted to be feelings not capable of translocation," ~~but~~ ^{but} he adds that this amount must be very small.



"The whole psychical mass, which fills the soul at any moment, is the self so far as this mass is only felt. Elements of content are distinguished from the mass, which therefore is, so far, the background against which perception takes place."

4. Considers that method of growth, called artificial, whereby man adds
 extra organs to his body & so gains other levels of his nature.
 This growth is of two kinds — inwards, towards the increasing fineness
 & precision of his lower levels, & outwards, towards the increasing power
 & scope of his higher levels; — and these two keep pace. The
 scientist's equipment is bifurcated: it ^{meets} ~~takes~~ him up to the status
 of the superior member, & induces him to the status of the inferior
 member, of his chosen Symmetrical Pair. De Fonbrune's pneumatic
 micro-manipulator ~~is at once~~ (which ^{actually} scales his movements down from
 man-level to cell-level) is a part of that extra-corporeal equipment
 which is at once a growth to LIFE & an ungrowth to the cell.
 It is by the supreme adjustment of the Fraunhofer micrometer that the
 astronomer measures ^{his} vast distances. But it is unnecessary to multiply
 instances when the principle — the principle of symmetrical growth,
 inwards & outwards — is so ~~abundantly~~ ^{evident}.

Also gynoscope



4
CELL

5.
CHIFFRE

6
EXT.

8

12

83 Christchurch East

powice
ichety

Dear Miss Tappinfield.

Thanks so much for your letter.
This is ~~to~~ wish you all success with the
new studies & life in London generally.
Yrs.

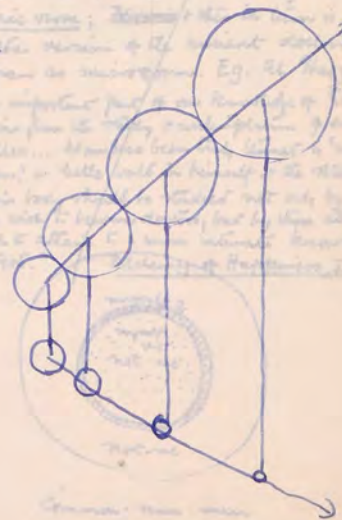
election. Again, the mystic's report of his experience bears me out. It is not only the self or subject which has to be brought to naught, but the self's object also. This is the mystic's Negative Path, which involves the progressive stilling of the mind, & the passing down of his object till ~~it is~~ ^{in some sense} it is entirely featureless. That his object may be the whole, it must be Nothing; ~~else association must balance denial.~~

Or, if these ~~admittedly~~ paradoxical & rare experiences are not admitted in evidence (the unanimity of the witnesses should, however, ~~be~~ ^{recommend them} ~~be~~ ^{well-worn saying} ~~be~~ ^{incontestable fact} (of which the ~~mere~~ full significance has not, so far as I know, ~~been~~ ^{been} noticed) that Scientific men is in many respects 'higher' than political men. ~~Moreover~~ ^{I would add that} the biological scientist is 'higher' than the anthropological (in so far as the latter can be called a scientist at all), & the physical scientist is 'higher' than the biological. And by 'higher' I mean, first, possessing knowledge that is more accurate, exact, more extensive, & more thorough, second, exercising a more complete control over the material, & third, ~~in all disputes~~ taking a more objective & detached view of it, fourth in relation with fellow-scientists & their conflicting theories, ^{leading to} ~~providing~~ a more tolerant & dispassionate attitude. The tragic-comedy of man is the gulf between what he is at the merely human level, & what he is at other levels. He is divided against himself level against level. A morrow ^{in us} picks the brains of ^{the} intellectual giants, & threatens to destroy himself with his ill-gotten — or rather, ill-applied — knowledge. It is ~~historically~~ true that, as a student of the molecule, of the atom, of the electron, I am superhuman, & I put the fruits of my superhuman knowledge at the disposal of ^{the gorilla in me} ~~a calculating, egotistical, prejudiced, contradictory part of myself~~. The consequences are not for discussion here: all I want to make clear is that, in many ~~not~~ ^{wrong} respects, the scientist grows ^{while} as the units he studies shrink, just as much as he shrinks while the units he studies grow. The explanation is that, when ^{his} ~~my~~ object is ^{the SON,} ~~an atom,~~ he is himself at ~~the SON level,~~ ^{the SON level;} & when his object is ~~the SON~~ ^{the SON} he is ~~at the SON level,~~ ^{at the SON level;} when his object is the GALAXY he is ~~at the GALAXY level,~~ ^{at the GALAXY level;} & when his object is an electron he is the GALAXY ~~at the electron level,~~ ^{at the electron level.} all this without prejudice to the fact that he is at the same time always the equal of what he is studying. And without prejudice, also, to the fact that it takes the whole hierarchy to maintain any part of it; & the scientist can only function at his chosen level because he is also functioning simultaneously at all other levels of himself. ~~all his~~ ^{his} ~~whole~~ ^{whole} being is involved in the working of every fragment of it.

Subject & object, ^{then,} are inversely proportional. What is this but a crude way of putting the familiar truth that the more advanced individual exercises the nicer discrimination? The lower animal ~~reacts to its whole world~~ cannot afford to be fastidious, neither has it the necessary equipment; the higher animal selects classes of objects, & may come to recognize individuals; man narrows down his field still further: — in respect of his fighting & eating & sex, & every other propensity, the object, the occasion, & the manner, are all very strictly limited. His tolerance is measured by his ability to exclude ^{the irrelevant,} ~~to~~ ^{to} fasten upon the significant detail & treat all else as though it were not.

+ The negative theology teaches that we ascend to the One by discarding ~~one after another~~ ^{our} ~~our~~ ^{our} notions about It. This doctrine reaches its extreme form in Eckhart: "Thou must love God as not-God, not-Spirit, not-person, not-image, but as He is, a threat, pure absolute One, sudden from all two-ness, & in whom we must eternally sink from nothingness to nothingness." Proclus goes further, & says that the One can only be called 'One' figuratively.

* Thus at the one extreme there are the schools of psychology, a number of which would deny to the others even the name of psychology. ~~At the other~~ ^{Compare this with the vast} mass of knowledge upon which the chemists or physicists are agreed. ~~At the other~~ ^{midway, among biologists,} while the neo-Hamarkians & neo-Darwinians, the vitalists & the mechanists, are unlikely to reach any final agreement, there is still a great deal of ground that is common to all schools.



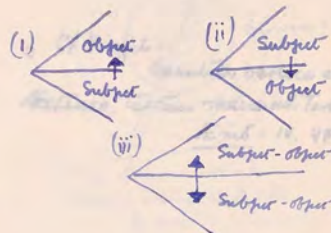
Let me summarise this Section & the previous one by saying, first, the superior member of a Symmetrical Pair is the object of the inferior member; second, the inferior member is the object of the superior member; ^{these are abstractions:} ~~third~~, the concrete fact is that the Symmetrical Pair is its own object — it is self-conscious. In becoming aware of itself the pair splits into minimal & maximal aspects, each of which is object to the other. My awareness, whether directed upwards or downwards, is without exception, a part of this larger awareness.

2. Symmetrical Pairs: the internal and the external.

I am the equal of what I observe — so long as I do not claim equality, so long as I leave it to my observer to note my status. Self-conceit is self-defeating. The nature of things is such that I can look upon myself, so long as ^{what I see} I wear the disguise of the not-self. ^{My own is another's} ~~what I am disappears directly~~ I label it mine. ^{being} That is why, when I claim to be the whole, I am Nothing, & A. When I ~~claim~~ make no claim to be anything at all (because then ^{anything} ~~there is~~ nothing left over from my object — the whole — to keep for myself) then in reality I am the whole. ^{He looks a man} So the man ~~who~~ proclaims his own virtue the less virtue he has to proclaim, & ^{by the same token,} in the same sense, my announcement of my Stashood is its own disproof.

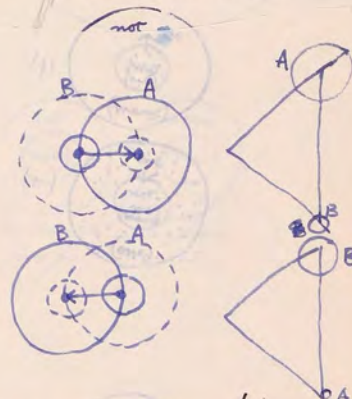
But common sense's triumph is short-lived. When I perceive Star A I am, to that Star, Star B, but to myself ^{I am} at atom-level. And Star A is to himself an atom. ^{So far as I am concerned,} There is only room (so to say) in a Symmetrical Pair for one superior & one inferior member at a time. If I look upon myself as Star B I have already left this place & gone over to Star A, ^{that is:} to the place where Star B is a Star and Star A is an atom. However fast I dart backwards & forwards between A & B, I can never make two Stars of them at one moment, or two atoms; there is always one of each. The Symmetrical Pairs are so constituted. ~~Each~~ This constant switching from one member to the other is characteristic. ~~of me.~~ I am for ever turning myself inside-out, for ever rushing away from myself to take a look at myself — without ^{any} never get elsewhere, & that what was subject is now object. ~~Noticing that what I see I am now elsewhere, having turned my object into subject.~~ One member of a Symmetrical Pair is always becoming the other. ^{all the while,} A game of hunt-the-slipper is always going on between them, & the slipper is always somewhere else.

For me the game starts at the common-sense end of the horizontal axis, & works through the Symmetrical Pairs to the vertical axis, maintaining symmetry all along. The horizontal axis remains my base-line. When I am functioning at the level of common sense I never get to the point of recognising that I have inferior or superior levels. I am a hollow creature living in a vacuum.

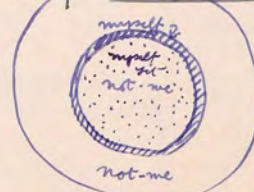


We naturally believe ourselves far more capable of reaching the centre of things than of embracing the circumference.... And yet we need no less capacity for attaining the Nothing than the All.... These extremes meet & reunite by force of distance, & find each other in God, & in God alone.

Pascal: Pensées, 72.



X This is only another way of saying that the internal or contained series always refers to the external or containing series, & vice versa; ~~this~~ & this in turn is only another version of the ancient doctrine of man as microcosm. Eg. Al Ghazali: "An important part of our knowledge of God arises from the study & contemplation of our own bodies.... Man has been truly termed a 'microcosm'; or little world in himself, & the structure of his body should be studied not only by those who wish to become doctors, but by those who wish to attain to a more intimate knowledge of God."



Common-sense man

Thoughtful recognition an undifferentiated exterior to be known mind.

I no more lay claim to my kidneys than to the Barysphere, & my cell population is as remote & as unconsidered as the population of Babel. Common-sense man is a shell, a façade. And this is not a defect in him, an unfortunate limitation or unpardonable narrowness of mind - it is the condition of his existence. To be at this level - & who can afford not to be? - is to be this kind of creature.

All development from this position ^{should be, to some degree} is, a thickening of my shell by the simultaneous & symmetrical addition of layers above & below the horizontal axis. I cannot appropriate my contents without appropriating my exterior aspect. My grasp of the superior & the inferior series keep pace till, in the end, my awareness of what I am down to sub-selection level involves awareness of what I am up to the level of the whole. But my realisation of the one series is quite different from my realisation of the other. At the common-man stage, all the lower levels are, vaguely, myself; I take them for granted as a sort of undifferentiated mass which is me - here. On the other hand, all the higher levels are ^{observed as more or less differentiated objects which are} felt as vaguely, other, not-myself, over against me. Now I develop outwards from this original position by becoming conscious of my lower levels, making finding in them objects to externalise. This I can only do by ceasing to regard the higher levels as external, & by identifying myself with each in turn. The result is that what was my multiple external object has become the subject, unitary & unexternalised. I have turned myself inside-out, & outside-in. In becoming aware of what I am (the inferior series) I cease to be that series, & become instead the superior series. But as soon as I realise this fact, & contemplate myself as the superior series, I revert again to the inferior.

^{in some fashion} Yet, it is possible to hold the two series together, as I am now doing, & ^{not indeed} realise that I am both series at once, ^{a given moment,} but that I realise at a given moment that I am both series. When I do this, the hollow man is completely filled, ^{while at the same time the shell has thickened & in a sense no longer exists.} & completely fills the world. ^{the layers} The ^{has} thickened till there is no more room for further layers, ^{it has shrunk to nothing.} I have realised what I am.

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the intermediate stages of inclusiveness & exclusiveness are mere. I am one, & many, & all the various combinations of both. I claim nothing in the world, yet there is nothing in the world I can safely omit to claim for myself. ~~I am~~ ~~both, then, everywhere, nowhere.~~ ~~I turn myself inside-out regularly.~~ This is the sort of creature I am. Better put, these are some of the features of the

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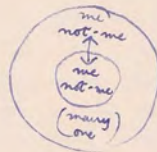
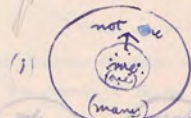
o Cf Virgil:

Quantum vertice ad auras
Aetherae, tentum radice ad Tartara tendit.
Æneid: IV. 445-6.



We naturally believe ourselves far more capable of reaching the centre of things than of embracing the circumference.... And yet we need no less capacity for attaining the Nothing than the All.... These extremes meet & reunite by force of distance, & find each other in God, & in God alone.

Pascal: Pensées, 72.



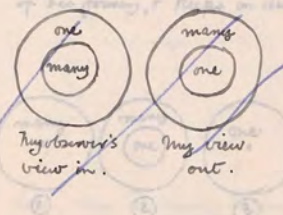
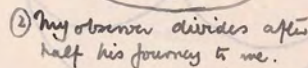
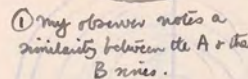
(What does the foregoing mean in terms of my travelling observer?

Now ~~supposing~~ ^{suppose} my ^{my} approaching observer infer from this symmetry that, ~~in some fashion,~~ ^{in some} he is, from my human regions onwards, ^{somehow} going back on his tracks. He would have some reason to conclude that here, ^{at the origin,} in the shape of the everyday human version of me, is his real object. And, having argued this far, he might well resolve to let none of this his real object out of sight, however close his inspection of it. How could he abide by this resolve? Only by dividing as I his object divide, one subsidiary observer for each subsidiary unit, right down to sub-atomic level. Then his total picture of what I am would fall into two parts, the ^{outer} ~~superior~~ in which I am one unit at each level, & the ^{inner} ~~inferior~~ in which I am increasingly numerous. For him one of the most notable distinctions between the members of a Symmetrical Pair would be the unity of the superior, & the plurality of the inferior member. Unity is my 'external' characteristic, plurality my 'internal'.

My own story is the opposite of his. What is infinite to me is one; what is infinite, many. Whereas to him I am ^{one} a single Galaxy, a ^{one} single star, a ^{one} single Planet, a ^{one} single Geophyte, & a ^{one} single Species, & one man, I contemplate & know myself in terms of many such. And whereas I am to him many cells, molecules, atoms, electrons, & sub-electrons, ^{my contacts} where ^{are} all one & undifferentiated to me: My body is that volume of space which I have so far unified, instead of estimating, & in fact, renders non-spatial. 9

It is therefore ~~not~~ ^{only} true that unity is the matter of the superior series, & plurality of the inferior. The reason is equally true. All depends, ^{in the first place,} upon whether the view out or the view in is being described; or, in the second place, upon when the dividing line

the intermediate stages of inclusiveness & exclusiveness are mine. I am one, & many, & all the various combinations of both. I claim nothing in the world, yet there is nothing in the world I can safely omit to claim for myself. ~~I am~~
~~here, there, everywhere, nowhere.~~ I turn myself inside-out regularly.
This is the sort of creature I am. Better put, these are some of the features of the



between external & internal is drawn. Where is my real boundary?

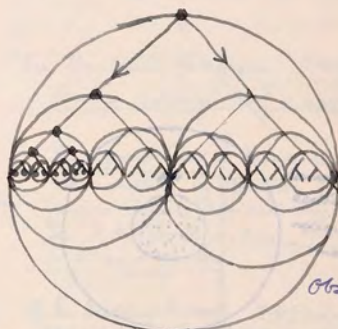
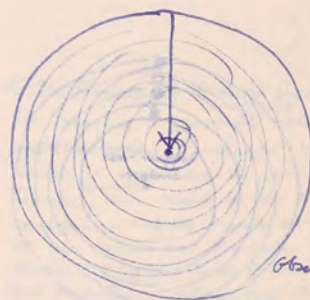
To my original observer of Chapter I there was no question of internal & external, & no boundary: it was enough that he noted the contents of his field. What he found was one unit at each level - alternating, it is true, with ^{more than one} ~~plurality~~. The reason for this ^{units} was that, in effect, I was totally ~~isolated~~ ^{isolated}. The real I lay confined at the Centre, where ^{the self is} ~~I am~~ without content, & all ^{travel} ~~travel~~ in my regions was travel in the space over which the Centre cast its spell but ^{which the Centre} ~~did~~ not claim as its own. To my second observer, (whose experience I ^{was} ~~have~~ described in the previous paragraph) the real I was the common-sense human self, whose inferior units were all plural. Now there is a third observer who, instead of drawing my boundary line at the Centre, or mid-way between Centre & Circumference, draws it at the Circumference. Starting off from the region where I am the whole, he realises that right from the ~~start~~ ^{all} beginning he must keep ~~the whole~~ of me in view, & he is obliged to divide every time I divide. The result is that at every level since the first I am many. I am, in fact, the entire pyramid.

Answering to these three ways of looking inwards at me, are three ways of looking outwards at others. First, I may ^{take} ~~see~~ all things ^{to be} ~~as~~ outside myself, in which event every level except the whole is plural. Second, I may ^{take} ~~see~~ the inferior series ^{to be} ~~as~~ internal to me & the superior series ^{to be} ~~as~~ external, in which event the former is ^{single} ~~singular~~ & the latter is plural at every level. Third, I may ^{take} ~~see~~ all ^{to be} ~~as~~ internal, in which event there is only unity. In all these instances, where I ^{experience} ~~see~~ plurality my observer ^{experiences} ~~sees~~ unity, & vice versa.

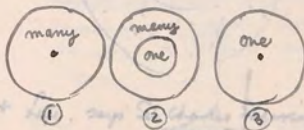
Which of these six ^{view} ~~is~~ or rather four, since two are duplicated - is the truest? Are they all equally true?

All have their place in the true picture, but none of the ^{four} ~~is~~ is true by itself. The complete picture is all four at work - a motion-picture in which all verities

of myself are always in the making & in the unmaking. I include the hierarchy, I exclude the hierarchy, I include one half of it & exclude the other, & ~~for~~ all the intermediate stages of inclusiveness & exclusiveness are mine. I am one, & many, & all the various combinations of both. I claim nothing in the world, yet there is nothing in the world I can safely omit to claim for myself. ~~I am, then, everywhere, nowhere. I turn myself inside-out regularly. This is the sort of machine I am. Better put, these are some of the features of the~~



③ My observer divides at the start of his journey, & keeps on dividing.



① says "I am one", ② says "I am many", ③ says "I am one". It is a restatement of the same thing in different words. It is a restatement of the same thing in different words. It is a restatement of the same thing in different words.

to the philosopher's look should

The trees & houses & men are known
are melting & shrinking most unconsciously
all the time.

* Religion of Man, p. 119.

77 (what might be called the 'inter facies et urinas nascimur' attitude)

'scientific' dogma is ~~the~~ Riddle of the Universe.

~~Other similarly.~~ Demogorgon thus addresses the 'great Republic' above: -

and the counterpoint, the neither world:-

To the shell with some sea-worm batteries on." +

We know in our bones that they have never left the heavens where they belong.

Ans: ~~this~~ ^{long growth long} symmetrical expansion about ~~the~~ ^{the}

Emphatically we do not meet ~~half~~ each other half way, in ~~some~~ common

Communities is neither side exclusively. They will, if they are true to their vocations, put the world together again.

Thoreau: Walden, Solitude.

the level of ~~lower~~ human experience,
but at or near the lowest level.

(Thinker's Library No 67)

they demand. There are, I

(i).

- According to Jung, the fall of the angels

up with heart, conscious with unconscious.

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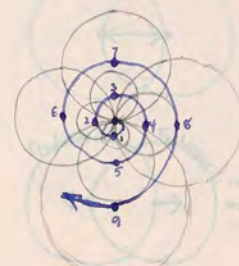
✓ Cf. Fichtner: Tages-Ansicht, p. 19

ground somewhere between us. Instead, he comes ~~here~~ to the place where I am, to the spot which in Chapter I I called the Centre of my regions; & only here is he a man, or ^{indeed} anything at all, for me. Likewise I am Nothing to him till I have got to his Centre, where he is Nothing. To contact him I am obliged to push back his frontiers, reducing him first to cell-level, then to the level of molecule, atom, & electron, & finally to sub-electron-level. To get back at me, he is, in turn, obliged to reduce me from man where he is to nothing where I am. The only way anything at all can make itself known to me is by becoming part of what I am the view outwards from my Centre, by contributing to what I am to myself, & that can only be done by coming to the ^{one} place where I am something to myself. Truly speaking, I live here at the Centre & here alone: ^{my friend, &} everything that exists for me, exists in the first place here — all the Symmetrical Pairs, ^{even} the entire hierarchy, belong where I am Nothing. But I despatch ^{him &} all things from the Centre to their ^{stations} proper places in my ^{space}: falling into their proper places, they constitute the whole. The whole ^{is an emanation of} ~~is an emanation of~~ the Centre.

How the process whereby my friend, in making himself known to me, reduces me to Nothing, may equally well be described as a process of enlarging me to the whole. ~~growth of my friend from man-level to the level of the whole.~~ While pushing inwards to my Centre he is also pushing outwards from my Centre) to my circumference, & his attainment of the ^{inner goal means} ~~one~~ ^{the really real &} ~~attainment~~ of the other. In other words, he can only get at me by simultaneous ultimate me; superficial relationships are an illusion. ^{by including me in nothing & enlarging me to the whole;} His achievement of human status in my eyes is his entry into these two extreme regions of mine. * Likewise, of course, my manhood is for him ^{an affair of the Centre} ~~a question of making~~ ^{of the circumference.} ~~bringing & nothing of me at the same time.~~ Our perception of each other is really the whole perceiving itself; or rather it is the self-consciousness of the whole-centre. Nothing short of this works. Nothing really happens until both aspects of the vertical axis are involved.

This is a conclusion of the greatest significance. And indeed, ^{the idea} though put into different language, the ~~idea~~ is not a strange one. To see my friend truly the requirements are twofold: — first, I must abolish my own prejudices, ridding myself of the 'subjective element' in order to mirror him with perfect objectivity; second, I must see him as in the whole, as a particular manifestation of all that is — to leave out anything what-^{ever} is to see a fragment of him. ^{as a matter of fact,} To see him perfectly I must do more than obey these two conditions: I must realise that I am doing so.

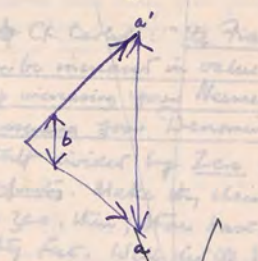
* Then an, literally, two sides to him: on the near-side regions that for us both comprise the inferior series, on the ^{far} ~~near~~ side regions which are for him inferior & for me superior. ^{their} ~~their~~ As some would say: it is in knowing & loving my fellow man as ^{having in him an element of the divine,} ~~manifestations of God~~ that I myself become a partaker of the divine nature.



Progressive projection of the contents of the Centre.



The Superior Series for me, & the Inferior Series for my observer.



© The doctrine I am putting forward here is related to the teaching of Fechenex & Malebranche that interaction between mind & body is really the occasion of action by God. In effect, the Occasionalists believe that such interaction was accomplished through the ultimate Symmetrical Pairs.

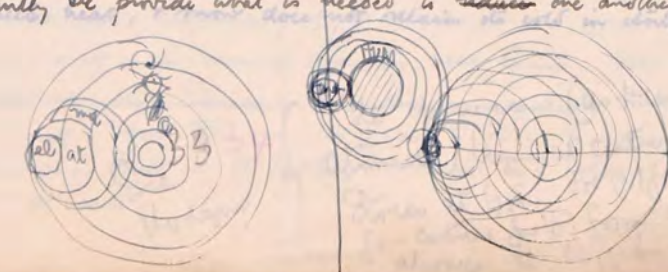
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But, ^{in some sense} ~~relation or no relation~~, the fact remains that to experience my friend at all is ^{to} experience him ^{thoroughly}. ^{To put the matter in another idiom, "essentially it is the relationship that makes a man a man."} Kierkegaard: *Uncertainty of Existence* p. 219. The indispensable basis for all partial knowledge is complete knowledge. ~~It is only centre & at any circumference that~~ ~~as no error of omission or commission, & all my mistakes are~~ ~~exactly failures in expression.~~ ^{then} ~~the mistakes themselves~~ ^{then} ~~denier their reality (the functional value) from the ultimate view,~~ ^{one not more} for all experience, which is to say all existence, is contained in the ultimate Pair.

Suppose, instead of choosing for object a man, I had chosen, say, a Galaxy: would the foregoing apply? Certainly it would. Again ~~we~~ ^{do not} come out to meet ~~each other~~ on neutral territory, but invade each other's inmost citadels, throwing out the occupant. ^{But} ~~this movement towards~~ ^{mutual} ~~invasion~~ ^{retirement.} is not the whole truth: it has for counterpart a mutual ~~retreat~~. To start with, we are ^{already} in each other's Galaxy regions, & our retreat ^{is} ~~as much as~~ ^{brings each of us to} ~~is necessary to~~ ^{gain} the region where the other is the whole. If withdrawal may be looked upon as a sign of defeat, then the moment of absolute victory is the moment of absolute overthrow. I have already made the point that when I contemplate a Galaxy I am myself at election level, & now the reason becomes plain. I need to be just this much to myself if I am to complete my ~~observer's estimate of me, & attain to~~ ^{wholeness}. In other words, my ~~notion~~ ^{it is not explicit, of course} ~~of myself as election estimate of my~~ ^{object, & bring it to wholeness.} I can only deal with the whole, & I have to make up in person for the shortcomings of my object. Similarly, I can only be dealt with as the whole, & my observer is obliged to ~~supply what I lack~~ ^{bring me up to this standard.} It would be more correct to say that, outside of ^{our} ~~my~~ 'social' relations, ^{nothing of us} ~~falls short~~ ^{each} of the whole; my observer & I are ~~real~~ ^{real} together & jointly, & we are ~~real~~ ^{real} because, between us, we compass the whole. The less I ~~make~~ ^{make} of myself the more my observer ~~makes~~ ^{makes} of me, & the more I make of myself the less he makes of me. Only at the horizontal axis ~~as we agree~~ ^{do our estimates agree}: hence the peculiar power & validity of the common-sense view — here & here alone do ~~we~~ I concur in my observer's opinion of me. I regard myself as a man & am regarded as such. But note that here also both views are needful: ~~not~~ ^{my opinion alone or my observer's alone is only} ^{(not my) half way towards being real.} It takes at least two men to be one man. We round one another off, attaining wholeness by virtue of our social interchanges, & attaining social interchange by virtue of our wholeness. And this attainment of wholeness is, ipso facto, the attainment of Nothingness. Jointly we provide what is needed to ^{push} ~~reduce~~ ^{back} one another to the

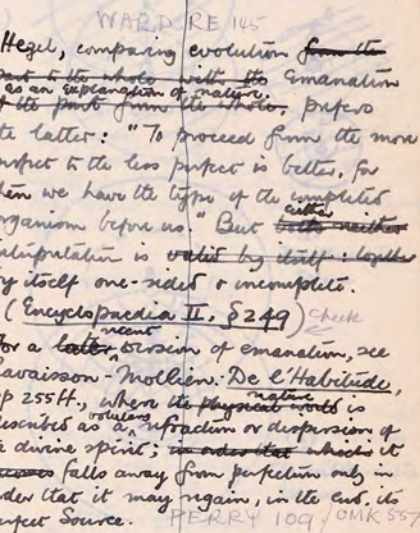


† Cf. Carlyle: "The Fraction of Life can be increased in value not so much by increasing your Numerator as by lessening your Denominator... Unit itself divided by Zero will give Infinity. Make thy claim thy wages a Zero, then; thou hast the world under thy feet. Well did the wisest of our time write: "It is only with Renunciation (Entsagen) that Life, properly speaking, can be said to begin." (Sartre's *Resistance* ii, 2) p. 132



at the centre, building up to the whole at the circumference. Then there is the same pattern with the whole ^{or head of the hierarchy} at the centre - ~~and there~~ ^{the source} which throws off a series of rings ~~emanations~~ ^{that} which become feebler or more degraded as they recede from their source, until, in the end, the outermost ring fades into nothingness. These two contrasting versions of the regional scheme are equally correct ways of reading the facts: - the here or Centre (as I have many times noted) is equally Nothing & all things, & it is Nothing because it is all things; So also every other level is its minimal aspect because it is its maximal aspect. And indeed this second version is not only legitimate: without it, the first version is no better than a misleading half-truth. According to the latter, rudimentary & incomplete individuals, by progressive integrations, work up towards the one true Individual who is their goal; It may be said that the Heavens & the Earth create God as their end-product. But in the second version all this is changed: the goal becomes the source, the Omega becomes the Alpha, the circumference becomes the centre. About this new Centre all things revolve, & from ^{him} they all derive their being. He is the Transcendent One, who is immeasurably above & beyond all that flows from him. Lesser existences are not so much contained in him as professed from him, by a progressive diminution of his perfect nature. They proceed from their source like ripples from the spot where a stone strikes the water, or as light radiates from the Sun. And just as the light relies upon the Sun in a way that the Sun does not rely upon its light, so the Centre ^{in the same way} is independent of its emanations, self-contained, & perfect in itself.

The specimens (as determined by the
 chemists) begin at center & the
 stores at 90. For (a) from center
 for center, for (b) from circumference
 always at 100.



x Hegel, comparing evolution from the part to the whole with the emanation as an expansion of nature, of the part from the whole, prefers the latter: "To proceed from the more perfect to the less perfect is better, for then we have the type of the completed organism before us." But ~~with~~ ^{neither} interpretation is valid by itself: together by itself one-sided & incomplete.
(Encyclopaedia II, §249) ^{recent} check
For a ~~later~~ ^{recent} version of emanation, see Ravaisson-Mollien: De l'Habitude, pp 255ff., where the physical world is described as a ^{voluntary} ^{nature} infraction or dispersion of the divine spirit; ~~in order that which it~~ ^{in order that it} falls away from perfection only in order that it may regain, in the end, its perfect Source. PERRY 109, JMK 557

* The order of this descent is: the One, the Pure Intelligence whose object is the intelligible world, the World-Soul - a Trinity of subordination; the World-soul, produces the material world, in which there is a descending scale of life, descending to the level of plants, & finally inorganic things, the realm of formless matter. Yet in man all these grades of nature are represented

* Enneads V_2, I
 V_2, II Christ EOT 255

o The same comments apply to the system of Proclus, for whom all things emanate from the One, but in a more complicated fashion than for Plotinus: emanations form a descending series of triads.

60 11/48.

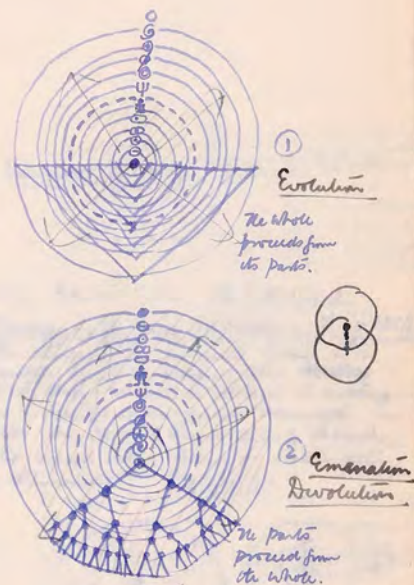
16 Symmetrical Pairs & the reversible regions

One important result of the doctrine of Symmetrical Pairs is that I can turn the world inside-out like a reversible raincoat - or rather I must turn the world inside-out, & back again, if I wish to get an adequate idea of it.

There is, first of all, the familiar scheme of regions with the sub-election at the centre, building up to the whole at the circumference. Then there is the same pattern with the whole at the centre - ^{or head of the hierarchy} ~~as a whole~~ ^{the source} which throws off a series of rings ~~or emanations~~ ^{that} which become feebler or more degraded as they recede from their source, until, in the end, the outermost ring fades into nothingness. These two contrasting versions of the regional scheme are equally correct ways of reading the facts: - the here or Centre (as I have many times noted) is equally Nothing & all things, & it is Nothing because it is all things; So also every other level is its minimal aspect because it is its maximal aspect. And indeed this second version is not only legitimate: without it, the first version is no better than a misleading half-truth. According to the latter, rudimentary & incomplete individuals, by progressive integrations, work up towards the one true Individual who is their goal; It may be said that the Heavens & the Earth create God as their end-product. But in the second version all this is changed: the goal becomes the source, the Omega becomes the Alpha, the circumference becomes the centre. About this new Centre all things revolve, & from ^{him} they all derive their being. He is the Transcendent One, who is immeasurably above & beyond all that flows from him. Lesser existences are not so much contained in him as projected from him, by a progressive diminution of his perfect nature. They proceed from their source like ripples from the spot where a stone strikes the water, or as light radiates from the Sun. And just as the light relies upon the Sun in a way that the Sun does not rely upon its light, so the Centre is ^{in the same way} independent of its emanations, self-contained, & perfect in itself.

In principle, though not in detail, this is the doctrine of Plotinus, whose infinite One, though in himself complete, gives & forth, by a kind of effortless & inevitable overflowing, series of existences that are less real the further they are removed from their source & Centre. "The Good or the One," he says "as it were overflows, owing to its excessive fulness of reality, and so produces another than itself." His scheme of thought is essentially regional. "Thus fire produces heat, & snow does not retain its cold in itself. And

See EU 103
on Emanations/Immanence



WARD RE 145
x Hegel, comparing evolution from the part to the whole with the emanation as an extension of nature. of the part from the whole, prefers the latter: "To proceed from the more perfect to the less perfect is better, for then we have the type of the completed organism before us." But ~~the latter~~ ^{the former} interpretation is ~~valid by itself~~ ^{valid by itself} together by itself one-sided & incomplete. (Encyclopaedia II, §249) ^{check}
For a better version of emanation, see Ravaisson-Mollien: De l'Habitude, pp 255ff., where the physical world is described as an ^{natural} infraction or dispersion of the divine spirit; ~~in order that~~ ^{in order that} which it ~~falls away from perfection only in~~ ^{falls away from perfection only in} order that it may again, in the end, its perfect source. PERRY 109, ONK 557

* The order of this descent is: the One, the Pure Intelligence, whose object is the intelligible world, & the World-Soul & - a Trinity of ^{in the} subordination; the World-Soul produces the material world, in which there is a descending scale of life ^{descending} ~~ascending~~ ^{from the} to the level of plants, & finally inorganic things, the realm of formless matter. Yet in ^{all} ~~all~~ these grades of making an ^{emanation} ~~representation~~

+ Enneads ^{V, 2, 1} ~~V, 2, 1~~ ^{Chad EOT 255}

* The same comments apply to the system of Proclus, for whom all things emanate from the One, but in a more complicated fashion than for Plotinus: Emanations form a descending series of triads.

See Rodgans 34 { The ^{Platonic} ~~Platonic~~ (as Descartes) begins at centre & the atoms) ^{for (a) freedom} ~~for (a) freedom~~ ^{then 2} ~~then 2~~ ^{for (b) from circumference} ~~for (b) from circumference~~ ^{always at circumference} ~~always at circumference ^{get this at} ~~get this at ^{complementaries} ~~complementaries 68 11/48.~~~~~~

above all, things that are sweet-smelling are an evidence of this; for, as long as they exist, they send forth a scent into the surrounding air which is unforced by all beings that are in the neighbourhood. Everything in its perfection generates another, & that which is eternally perfect has an eternal generation, producing ever something lower than itself."

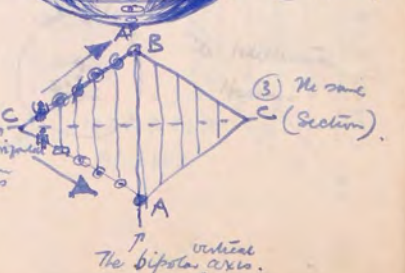
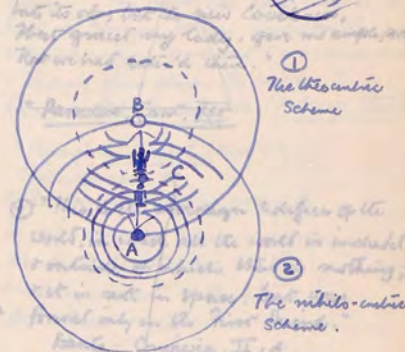
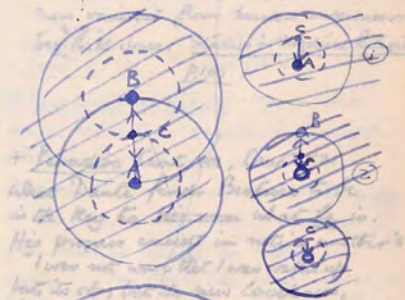
• Enneads V, 1, 6. E. Carol. E. S. T. 1856

Plotinus, it has often been said, goes much too far in his insistence upon the transcendent otherness of the One⁺, & his distinction between what a thing is & what it does is artificial. Not even the One, it is pointed out, exists save as he expresses or manifests himself. I think, however, that the real solution of these difficulties is not to water down this theocentric scheme, ~~of Plotinus~~, but to take it in its undiluted state as ^{one} inseparable half of the truth, of which the other half is, not indeed an anthropocentric scheme, but what may be called the nihil-centric scheme of this book. So far as man is concerned, he seems to be in much the same position — ^{namely} a half-way point — in either scheme. Actually, the difference for him is radical. In the ^{first}, he is based upon a centre ^A lying wholly within himself; in the ^{second} he is based upon a wholly external centre ^B. In the ^{first}, the centre is 'nearer than hands or feet', in the ^{second} it is infinitely remote; ^{in the one, this centre is Nothing, in the other it is All.} And the paradox is that, ^(as Plotinus fully realises) not only are these opposed positions equally true, but they are only true as they ~~are~~ involve one another: ^{A + B are correlative.} Neither makes sense alone, but they make sense jointly, not by coming to a compromise (there is no half-way-house between the Ptolemaic & the Copernican cosmography) but by functioning as polar opposites in a single process.

Of this process I will have more to say in the proper place. Meantime, I note that there is a third scheme, already implicit in the earlier sections of this chapter, which combines the two described above — the scheme in which man lies at the circumference, in which every ring between him and the Centre has both a maximal & minimal aspect, & the Centre itself is both All & Nothing.

This third version represents a view of man in the universe which is nowadays much stressed, & rightly so. 'Only man is vile.' History, particularly recent history, as well as a candid inspection of my own nature, drives me to the conclusion that man is the least satisfactory existence in the known world, & there is every reason for making him as it were the ^{worst} ~~least~~ which the cosmic centrifuge has driven to its outermost rim. The misanthropist, despairing of man as man, is right also. There is a remedy, & it is for man to find his real Centre. That Centre is twofold — it is ~~external, other, transcendent~~, & it is unimaginably remote, & it is more myself than myself. ~~There are two paths to it:~~ there are two paths to it: the upward path to the All, & the downward path to the Nothing, & ~~it is~~ as I hope to show, both must be travelled at once.

+ E.g. Edward Caird: The Evolution of Theology in Greek Philosophy, II, p. 255ff. This statement, in one sense total, is in another sense an illusion. Thus Plotinus 'God,' says Plotinus, is related to nothing & to no one, but is present even with those who do not know him; though they escape out of him, or rather out of themselves... (VI, 9, 7)



- Paradiso
+ Cant. XXVIII • Cant. XXIII
- ② Purgatorio, Cant. XXX, 109-123, in which Dante refers to the 'operation of the mighty others, that make each need to some predesigned aim,' as well as the 'language of heavenly grace, which rains down from such a height' as mocks our vision.' In ~~the~~ Hell also there is a hint of progress between levels: ~~the~~ the infernal rivers, produced by human sin & tears, flow down the circles to Lucifer at the Earth's core (Inferno, XXV).
- Paradiso, Cant. I (last 7 lines)
Rapportimo, 100.
- * The similarity of the vision of the nine angelic orders, circulating round the Point, ~~then~~ to the modern vision of the atonement has often been noted.

• Paradin, Camb. XXX

