

The ancients did not suspect that the matter fulfils directly with the reach of our sense, the matter making up our bodies, has itself astronomical depths.

- (a) Si les hommes aiment naturellement l'imitation, c'est en dernière instance à cause de leur nature scientifique: ils éprouvent du plaisir à voir les choses les uns des autres.
- (b) Caractère discursif de la nature: rationalité.
- (c)

Toute les choses naturelles ont vie principe ou forme d'un mouvement.

developper: devenir
nature
mouvement
infinit
être
longue

The light science has shown our nature is comparable only to a dim glow in a remote and rather uncertain spot of the thick darkness.

We should realize from the start that, in a rather fundamental way, we are not really ever going to get anywhere.

Emphasize importance of what we think as compared to what is. The scarcity of our knowledge, not reason for despair. What our mind can hold together more important than what physics do, beyond.

Study more particularly apparent indifference of inorganic nature to life. Kind of brutal blindness. Life introduces sympathetic existence, even in contrary living things.

Must insist upon and explain continuity of living things. Explain, i.e. show why it is so.

Study relations between sense and its object from kind of pragmatic point of view.

It reveals much our sense do not perceive. Why, from teleological point of view, the selection of heat, sound, etc...

Then, does the construction of organs follow, or is there an a priori coordination?

Have such objects been chosen to be adapted to by such organic structures so life could get on, it quiden such kind of life, or, are the latter prior? Many points to be discussed here.

Seems as if purely material universe naturally tended to turn out or freeze out life, and that good fortune alone has made it possible for life to arise, and to maintain itself to the extent that it has.

We must not fear a dark outlook on the universe. We must not refuse finally but we must realize that the way in which man is the end, to infinity more complicated than was originally thought. He is, we might say, added, more deep, the end than was thought. Kind of inverse proportion here.

lorsque le philosophe de la nature étale l'intelligence
humaine et se rend compte de l'immensité de l'univers, il voit
l'homme en face de lui. — L'homme est un être fini, limité,
travaille à la limite de ce que la nature peut lui offrir.
Il est lui-même, il est limité à la limite de la nature.
L'homme est un être fini, limité, travaille à la limite de la nature.
L'homme est un être fini, limité, travaille à la limite de la nature.
L'homme est un être fini, limité, travaille à la limite de la nature.

LE POINT DE VUE PHILOSOPHIQUE

133

la richesse de son unité ontologique. Il est temps que
nos philosophes, qui le plus souvent s'arrangent
le droit de tout confondre et de tout juger sans
connaissance de cause, se débarrassent de leur
conception homologue des degrés du savoir.

Le langage en lequel nous exprimons l'infusion
de l'âme spirituelle — ne disons-nous pas qu'elle
advent à la matière disposée? — donne lieu à des
images qui pourraient fausser l'idée. N'est-il pas
étrange que le terme vers lequel est tendu le cosmos
tout entier doive advenir à la matière, et que celle-ci
doive recevoir cette forme du dehors? Comme si le
Créateur appliquait à la matière une forme de
même qu'on colle un timbre sur une enveloppe
déjà adressée. Or il importe de remarquer que
Dieu n'agit pas sur les choses, mais *au-dessus*.
Procédant immédiatement du Créateur, l'innan-
nation de l'âme spirituelle est par là plus haute,
elle vient davantage du dedans que celle des formes
extrinsèques de la puissance de la matière et qui extrin-
sèquement tracent le chemin à une émanation si
profonde qu'elle doit sortir immédiatement de
la Cause Universelle. Dans cette perspective, ce
sont plutôt les formes matérielles qui adviennent
et qui sont au dehors.

12. Le Cosmos comme élan vers la vie de la pensée.

C'est dans l'intelligence de l'homme que la nature
accomplit sa première trajectoire définitive. Nous

From bound copy of Le Cosmos

To show difference between outlook on physical world & familiar world:

- { Describe directly mode "quia" as in geography, or geology, in primary stage.
- { Then show how we proceed when speaking of atoms, electrons, quanta. We can never get back to the first. We must increasingly insist on "how we know what we are talking about."

There is here an emphasis on the mode.

Introd. Cet ouvrage pas œuvre philosophique, mais introd. à l'étude de la phil. de la nature: but plutôt pratique, à encourager l'étude. Avertissement, pag. perdu le goût qui caractérise anciens. Nous devons user d'un art pour éveiller disposition qui leur était donnée par nature.

The dist. between the scientific world and the familiar world must not be an excuse for denying the latter as worthless. The scientist and the root and terror of the scientific world are outside it, and meet and mingle with the familiar.

Il faut reconnaître que le dogme ^{et autres révélations} impose des limites à la pensée dialectique, à sa liberté. P. ex. la création dans le temps, i.e. comm. au temps, la création spéciale de l'homme humain, etc. Mais, quand on entend bien les choses, quand on sait le rôle de la dialectique, la liberté s'en trouve plutôt accrue. La pensée dialectique ^{tend} en effet à se limiter, et toute limite est un affranchissement. - Mais tout cela requiert un très grand équilibre dans la personne - et c'est de cet équilibre que l'on veut s'affranchir.

Les plus grands ennemis de la phil. vivent dans le camp des phil. - Les Socratiques - ennemis de la sagesse. de sceptic. d'un B. Russell - donne impression de futilité. Et là Eddington: "something matters".

Pas chercher en les choses la m. certitude: (Met. II) ce serait là de l'anthropomorphisme.

Should we then despise life, man, because the rock beneath his feet is crumb and cold, because a pebble can bump his skull? Because his hands cannot reach the stars?

Le dedans de l'exp. extenu, et dehors, comme dedans maison.

notes en anglais

vers 1955 prob.
vos lettres incluse.

Mathématiques

Finalité

Evolution

Anthropologie

unity of Sc.

Methodologie

Lib. and ~~are~~ now living
organism

If mathematics enjoys the greatest rigour,
and if the discussion of rigour in mathematics
must be nonmathematical, that discussion can
hardly be equal to its subject, in rigour.

There ought to be some way out of these
ambiguities without trying to distinguish
the various meanings of 'to be' or 'exist'.

Further,
~~And~~ the copula 'is' might involve a discussion ^{as in} of time, and, heaven knows, perhaps one of change,
~~and so on ad infinitum~~ and we might again be
faced with the problem of universals, which, it
seems, ought to be a sort of classes. "But considering
that, absurd position." (Vanhuise 1742)

A discussion of rigour or exactness, in mathematics,
will be non-mathematical

If mathematics enjoys the greatest rigour, and
if a discussion of rigour in mathematics must
be non-mathematical, ~~then~~ ^{such} a discussion can hardly
be equal to its subject. ~~The mathematician who~~
~~may proceed with rigour~~ The calculator may
proceed with rigour; he ~~does~~ does not tell us
what rigour is. One thing appears certain, however:
contemporary writers on the nature of mathematics
~~attach its rigour~~ ascribe ^{the} rigour to the
'complete formalization of the system'. This means,
~~setting up as~~ we are told, devising a set of
marks devoid of any meaning, such that the
operations upon them will be wholly mechanical.
~~To achieve exactness~~

Needham

The reason why he has to pay
 $x+y$ is not that the sum is
3, but because he wants the
burger - sausage!

Re non sequitur:

We could take this seriously, if only
it were not so embarrassingly ~~reactionary~~
baroque and reactionary to do so.

The reason he has to pay \$2, is
not because $1+1=2$, but because
he wants ~~to get his~~ two lb of meat.
Besides $1+1=2$ not because of the
price of meat.

Reduce the meaning to sensation - 'Many meanings' translating into sense data.

Ex. : chameleon, dog, protists exam university.

indeed refused, because none known to

be - chicken magis.

We do not know the content. What is wrong??

Interpretation of a name does not require

disproof knowledge of the name.

Two ways of referring to sense experience:

~~to name a name.~~

to name the sense

to name something after ~~the~~ meaning

usually verified in sense.

Not supporting logical position - but trying

to meet one of its basic facts ---

~~that~~

Human experience : very epistemic.

Εἶδος : 1. set, perceive, detect

2. look

3. see mentally, perceive

B

Εἶδος : that which is seen : form, shape.

pattern, figure

species of number.

II form, kind, or matter.

type, sort.

III class, kind

form

formal cause, event.

Παράδειγμα (παράδειγμα : key like side

by side, make comparison, expand (cf. +

pattern) : 1. pattern, model

2. precedent, example

3. proof from example.

Freud (definition)
Why metaph. with and
disputi philosophia

} remote: the very subject -
(Sapientia and
de natura)

Metaph. in German is another sense.

metaph., definition, and the distinction between

Can we go from what we know and assume
to what we do not know and then assume.

But what is a language? This is refer.

to something.

Metaph. not mind language. Not from language
to existence, about
drawn from the
word,

of any existence.

of analog. term.

'Religion' & human only? 'Elipsoids',

Philosophy seeking true
is sophistry, i.e.
pseudo-philosophy.
Philosophy is self-formative,
actual in case of man.

Chlorophyll a , i.e. anhydrous
yellow. Mils I, 2,
98.2, 116 - Dec. 3, 55

1892
 1893
 1894
 1895
 1896
 1897
 1898
 1899
 1900
 1901
 1902
 1903
 1904
 1905
 1906
 1907
 1908
 1909
 1910
 1911
 1912
 1913
 1914
 1915
 1916
 1917
 1918
 1919
 1920
 1921
 1922
 1923
 1924
 1925
 1926
 1927
 1928
 1929
 1930
 1931
 1932
 1933
 1934
 1935
 1936
 1937
 1938
 1939
 1940
 1941
 1942
 1943
 1944
 1945
 1946
 1947
 1948
 1949
 1950
 1951
 1952
 1953
 1954
 1955
 1956
 1957
 1958
 1959
 1960
 1961
 1962
 1963
 1964
 1965
 1966
 1967
 1968
 1969
 1970
 1971
 1972
 1973
 1974
 1975
 1976
 1977
 1978
 1979
 1980
 1981
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 1991
 1992
 1993
 1994
 1995
 1996
 1997
 1998
 1999
 2000
 2001
 2002
 2003
 2004
 2005
 2006
 2007
 2008
 2009
 2010
 2011
 2012
 2013
 2014
 2015
 2016
 2017
 2018
 2019
 2020
 2021
 2022
 2023
 2024
 2025
 2026
 2027
 2028
 2029
 2030
 2031
 2032
 2033
 2034
 2035
 2036
 2037
 2038
 2039
 2040
 2041
 2042
 2043
 2044
 2045
 2046
 2047
 2048
 2049
 2050
 2051
 2052
 2053
 2054
 2055
 2056
 2057
 2058
 2059
 2060
 2061
 2062
 2063
 2064
 2065
 2066
 2067
 2068
 2069
 2070
 2071
 2072
 2073
 2074
 2075
 2076
 2077
 2078
 2079
 2080
 2081
 2082
 2083
 2084
 2085
 2086
 2087
 2088
 2089
 2090
 2091
 2092
 2093
 2094
 2095
 2096
 2097
 2098
 2099
 2100
 2101
 2102
 2103
 2104
 2105
 2106
 2107
 2108
 2109
 2110
 2111
 2112
 2113
 2114
 2115
 2116
 2117
 2118
 2119
 2120
 2121
 2122
 2123
 2124
 2125
 2126
 2127
 2128
 2129
 2130
 2131
 2132
 2133
 2134
 2135
 2136
 2137
 2138
 2139
 2140
 2141
 2142
 2143
 2144
 2145
 2146
 2147
 2148
 2149
 2150
 2151
 2152
 2153
 2154
 2155
 2156
 2157
 2158
 2159
 2160
 2161
 2162
 2163
 2164
 2165
 2166
 2167
 2168
 2169
 2170
 2171
 2172
 2173
 2174
 2175
 2176
 2177
 2178
 2179
 2180
 2181
 2182
 2183
 2184
 2185
 2186
 2187
 2188
 2189
 2190
 2191
 2192
 2193
 2194
 2195
 2196
 2197
 2198
 2199
 2200
 2201
 2202
 2203
 2204
 2205
 2206
 2207
 2208
 2209
 2210
 2211
 2212
 2213
 2214
 2215
 2216
 2217
 2218
 2219
 2220
 2221
 2222
 2223
 2224
 2225
 2226
 2227
 2228
 2229
 2230
 2231
 2232
 2233
 2234
 2235
 2236
 2237
 2238
 2239
 2240
 2241
 2242
 2243
 2244
 2245
 2246
 2247
 2248
 2249
 2250
 2251
 2252
 2253
 2254
 2255
 2256
 2257
 2258
 2259
 2260
 2261
 2262
 2263
 2264
 2265
 2266
 2267
 2268
 2269
 2270
 2271
 2272
 2273
 2274
 2275
 2276
 2277
 2278
 2279
 2280
 2281
 2282
 2283
 2284
 2285
 2286
 2287
 2288
 2289
 2290
 2291
 2292
 2293
 2294
 2295
 2296
 2297
 2298
 2299
 2300
 2301
 2302
 2303
 2304
 2305
 2306
 2307
 2308
 2309
 2310
 2311
 2312
 2313
 2314
 2315
 2316
 2317
 2318
 2319
 2320
 2321
 2322
 2323
 2324
 2325
 2326
 2327
 2328
 2329
 2330
 2331
 2332
 2333
 2334
 2335
 2336
 2337
 2338
 2339
 2340
 2341
 2342
 2343
 2344
 2345
 2346

Method

To explain things in terms of what is prior in being.
Rules out final cause - good.
This not new at all.
Take Empedocles.

Fin. &
m. & g.

Arist. observed that some results are also good. But
this is either from chance or from a per se cause.

But chance defused by a per se cause.

Finality be most. 1° in human agents. (This still
commonly accepted); 2° in other animals; 3° in
plants. 4° in inanimate, obscure - unless related to living.
All they have need do to survive.

Organismic conception of nature. Is it anthropomorphic?

The question, too, could be what is really
y. c. if we equate what knowl. of what nature is with
what can be known of it by the explicit contr. of math. phys.

Differences: essential: 'what a dog is' 'what a man is', different.

This suppos. lies at the base of the doct. of evolution.

Species do not involve *qua* essential, but individually. The
important distinction.

Empedocles' evolution impossible - because merely different
accidentally brought out of existence. Nothing really
new, except wholly a posteriori, a case.

The orthodoxy in nature. But reason goes above that.

- the pain that ^{remains} remains after the cat is gone.

- Trad. phil. has held firmly to the idea that memory, and even consciousness, have a physiological basis.

evol. (- After all, it is an old and venerable teaching, that man has been formed from the slime of the earth. What ~~too~~ more do we want?

Math. (- Even if we have superseded ancient thought, there is no harm in knowing that thought. We had a good example of its relevance. Hume's is his genuine about summer. We did not quote it to show that nothing new has been gained, but only to make clear what we are doing and to bring out the continuity of human thought regarding the basic issues of Science.

unity of Sc. (- Can we have science on the one hand and phil. on the other. An utter mistake. Counterpart: Geistes- und Naturwissenschaften. They should remain one body of knowledge. Not even Meta should be divorced from ^{study?} study of Nature. And math. sc. was until recently held to be a branch of philor. We must return to this unity ^{lost?} - for one without the other is empty.

Anthrop. (- Machinery, as such, is most intelligible to us. Hence the attempt to reduce nature to it - as the earliest philosophers had done. Cf. Beck p 49; 59
Perhaps begin by Greek analogy of artifacts { differ. between pre-Poc. & post. { Arist. & Plato.

Exp { left int. - Not to forget exper. { extern. intern.

- by no manner of means...

- I mentioned my comfort notwithstanding agitation of changes. How do I know this? How am I over and above these changes and yet identical with them? I express them in symbolic construction. They have no name - at least I do not know enough about them to give them a proper name. Certainly cannot depict them as And. did not or true. Why pretend that I can? Leads to consider internal experience.

Int.
xp.

Measurements, the raw materials of physics, are, as Edd.
- As ~~Edd.~~ pointed out, 'manufactured articles.' Nonetheless,
he added,

Beck's
reason
for
meant.

- Beck: "our senses are incapable of perceiving the phenomena
which illustrate most of the general laws. We can see falling
objects and, if we are made of the stuff of Newton, we can
suspect a natural law." p. 80. 1917.

^{experimentation}
~~Our observation~~ disturbs the observed. ~~These~~ interactions
we are producing "are thus obstacles in the quest for certainty." p. 81.
E.g. fixation, which means killing and hardening the cell with chemicals.

Androp

The important thing is 'anthropomorphism'. We already meet
with it in the question that time is the way we measure it,
that a fork is where you can buy one... But here...

Math.

But there remains the certainty that calves are usually
born with four legs and a single head. So soon as we
discover a regularity in Nature, we look for a reason.
It is a principle of research. And sometimes the exception
proves the rule. Nat. does not deliberate; neither does
craft, once perfected, as in playing the ~~XXXT~~ piano.

Beck quot of Edd. Sp. P. Gr. p. 143.

- the welter of data

Anthrop.

"[How did living organisms] learn to repair their wounds, to
resist stress, to think, feel, and reason?" Beck p. 87.

Proportion of atom $\frac{1}{1,000,000,000,000}$ of the atom's volume

- Subcellular units of life.

liv. & non-liv. { 'Non-living', could it be interpreted as something positive, though negatively named, like 'inanimate'?

evol. { But to burn down a house is not the same as to destroy 'what' a house is. To make a man out of an ape destroys no more what an ape is than the death of Beater destroys what a man is.

liv. & non-liv.: organism - We speak of organism and organization. A look at the original, clear meaning of organ may prove rewarding. It means 'tool' or 'instrument'. This is not opposed to structure, but it is something more than just structure. A triangle, too, has structure, and so has a hammer - but this will not be called a tool except with reference to some kind of work to be performed, for some purpose, by some agent. We are equipped with natural tools, such as eyes, etc...

rel. { I can see no reason why Nature should not produce life out of the non-living, and, from lower forms of life, the higher, than it is for us to build a chair out of a beam of wood. This is not like constructing 'what' a wooden chair is out of 'what' a beam of wood is. After all, what sitting is is not produced by 'sitting'.

{ If man did descend from an ape, this does not lower his dignity: if he is not less than an ape, it is difficult to see what there was real evolution.

- "the higher from the lower, mind from matter, and life from matter" p. 109

rel. & eth. { Just as we understand an organism better as we see it develop through reasonably connected stages, so with the totality of the various kinds of organization of Politics, I, i, fin. & ii p.

evol. (Having been raised on the fact I would have some difficulty understanding about it on the
- ~~it is not about the fact of evolution, but the many ^{different} which leaves ample~~
- ~~nonetheless, any particular theory, to explain it. It is, in any case, a~~
- ~~scholarly, a most natural way of looking at things.~~
- Should not discountenance the positive evidence...

final. (- To deny the fitness, or adjustment, of a adaptation is like denying
that adaptation is adaptation, i.e. what it is. But the point
is that all could be accounted for if ^{we} abstracted from the
good and tried to explain all in terms of "causae essendi".

Math. (- "Nothing has been observed empirically that forces us to believe
anything about the basic nature of life." Beck 131.

- which is today not yet understood.

univ. (That biology is reducible or irreducible to physics is not a question
of science as it appears. To the artist, biology is still physics.
The question should be phrased: can the living be explained
in sheer terms of the non-living. This is a very different question.
I would say: quantum poles ~~cannot~~ decide. Beck 138.

- flame produces numberless other flames by mere contact.
crystals reproduce and grow.

- Einstein, pp. 148-149.

- meaning and verifiability, p. 159

fin. (- "the polar bear is white because white fur enhances his
chances of survival." p. 168.

liv. & (- "the shudent contention that living and non-living matter
are necessarily fundamentally different, ..." 173.

Fin.

By using our finality, we banish
reason from nature, and all
we have left is our own reason
and a mere incidental appearance
of it in ~~the~~ nature.

Mat.
gen.

Why should the construction
of a triangle with the sun
and ^{the} two most distant ~~stars~~ ~~are~~
at its corners have its angles
equal to two right angles. Who
dragged in this 'thing', anyway?

Hegel's Science of Logic, New York: The Macmillan Company
Volume One Second Impression, 1951

Translated by W. H. Johnston, and L. G. Struthers

p. 231:

The value of the use of Number and of Arithmetic, in so far as it is supposed to be a main basis of education, is evident from the above. Number is a non-sensuous object, and an occupation with it and its combinations a non-sensuous business: thus the mind is urged to reflect in itself and to do inner and abstract work; which is of great though one-sided importance. For, on the other hand, Number being based only on external and non-conceptual differentiation, this occupation becomes thoughtless and mechanical. The effort chiefly consists in seizing units void of concept and combining them without the use of concept. The content is the empty One: that rich content of moral and spiritual life, and its individual growth, on which, as its noblest nourishment, education should rear the young mind, would here be ousted by the empty One; and (p. 232) when such exercises form the main matter and the main occupation, the effect can be in no other than to hollow and blunt the spirit in form and concept. Arithmetic being so extremely external and therefore mechanical a matter, it has been possible to construct machines which execute the arithmetical operations in the most perfect manner. If this one circumstance were known about the nature of arithmetic, it alone would contain a judgment about the value of the notion which would make arithmetic the chief instrument for educating the mind by putting it on the rack which would perfect it into a machine.

De tout ce que nous venons de dire, il est facile de se faire une idée de ce que doit être l'emploi du nombre et du calcul, en tant que procédé pédagogique. Le nombre est un objet non sensible et le travail sur les nombres et leurs combinaisons une occupation qui n'a, elle aussi, rien de sensible. L'esprit se trouve ainsi réfléchi sur soi et livré à un travail abstrait intérieur, ce qui a bien une grande importance, mais sous certains rapports seulement. Car, d'autre part, étant donné que le nombre a pour base des différences extérieures, auxquelles la pensée ne participe d'aucune façon, cette occupation devient un travail mécanique, qui s'effectue sans la participation de la pensée. Le principal effort consiste à maintenir ce qui est étranger aux concepts et à effectuer des combinaisons sans recourir à des concepts. Le contenu est formé par la vide Unité; la richesse de la vie morale et spirituelle, avec ses aspects individuels, dont les éléments précieux sont de nature à rendre de si grands services dans l'éducation des jeunes esprits, doit céder la place à l'Unité vide de tout contenu; lorsque ces exercices deviennent l'objectif principal et la principale occupation, ils ne peuvent avoir pour effet que de dépouiller l'esprit de toute forme et le vider de tout contenu. Le calcul étant un travail extérieur et mécanique, on a pu établir des machines qui exécutent les opérations arithmétiques avec une exactitude et une

perfection qui ne laissent rien à désirer. Il suffit déjà de juger le calcul d'après cette seule circonstance pour se rendre compte de la valeur de l'idée d'après laquelle le calcul devrait être le principal moyen de formation de l'esprit, ce qui équivaldrait à s'acharner à perfectionner l'esprit en le transformant en machine.

(G.W.F. Hegel, Science de la Logique, Tome I, La Quantité, Chapitre II, Le Nombre, pp. 234-35.)

- Lord Russell does not ~~exist~~ exist in the sense in which the sun does.
- Dear friend like dear crowd. Yet there is a difference.
- How Russ's events happen to hang together; how they succeed in maintaining the honor of a particular swarm of events: ---
courage? (Myth. f. Logic) Whose courage? Why? Why not put an end to it all? Why put an end to it when it has never been. What they were is a matter for the chemist. But who is he?
- Re emotional involvement. The undertone of their challenge is shamelessly emotional.
- Best condition of ripon: not to know what we are talking about nor whether what we are saying is true.
- The bomb of course is on their side.
- The reason why the customer must pay two dollars is not that $2+3=5$, but because he wants the ~~stock~~ goods to deliver the goods.

We ought to be aware of our predicament when faced with those who use words like 'count,' 'understand,' 'reason,' 'confront propositions,' 'draw conclusions,' and the like, to signify something inherent in the computers, while intending that ^{these words} ~~they~~ still mean what they do when used. Aristotle held that of ~~man~~ man, ~~to confer~~ to confer is proper to reason, and that reason is proper to man, of all animals. Now it could be pointed out that the first and least disputable meaning of ~~to confer~~ 'to confer' is 'to bring together,' or 'collect.' But surely a cat can bring together her kittens, and even the wind can gather the clouds. 'Understand' comes from 'under plus ~~stand~~ stand;' 'under,' ~~as~~ as in 'under the roof,' ~~stand~~ 'stand,' as in 'standing walls.' The Latin for 'soul,' anima, first means 'air, a current of air, a breeze, a wind.' 'To reason' implies a conferring; ~~and~~ a going from one thing to another, and coming to a step or conclusion. Presumably even a word ~~like~~ such as 'life' originally meant something that does not really set the living apart from the non-living. No modern text-book on biology, known to this writer, offers any convincing criteria of life; so that non-living is ~~just~~ no less a hypothesis than life. That all the above-mentioned words and expressions, ~~used in connection with computers~~ as well as 'feed,' 'remember,' or 'communicate,' when used in connection with computers, must reduce to some primitive meanings which ~~indeed~~ do not indeed refer to anything that sets rational apart from irrational, nor living from non-living; this can be clearly seen in ~~the~~ John von Neumann's penetrating paper on The General and Logical Theory of Automata. (1)

(1) In The World of Mathematics, pp. 2070-2090

learning
why call them
machines?

live man

Monsieur:

Je vous écris cette lettre dans le seul but de vous apprendre que je refuse de communiquer avec vous de quelque manière ~~où~~ en quelque temps que ce soit y compris cette manière-ci ~~de~~ même que le moment présent. Ce qui, vous l'avez deviné, nous engage dans un de ces paradoxes logiques à l'Epinémide et à la Russeàl.

Connaissez-vous l'antinomie du barbier qui rase tous hommes de son village qui ne se rasent pas eux-mêmes? Il ne peut donc ni se raser ni ne pas se raser. Quel prédicament. Oh! je sais que vous croyez pouvoir en sortir. Vous vient peut-etre l'idée que s'est sa femme qui le rase, mais, outre qu'il n'a peut-etre pas de femme, ce serait de toute manière contre les ~~rgt~~ règles du jeu, car c'est bien lui qui rasent ceux qui ne se rasent pas eux-Mêmes.

Eh bien! j'ai une nouvelle pour vous, monsieur. J'ai enfin trouvé la solution, péremptoire et définitive. Cela fait assez longtemps que ce barbier est au large. Non, monsieur, la solution ne consiste pas à introduire un barbier-voyageur (il peut en effet y avoir des barbiers-voyageurs comme il y a des commis-voyageurs et des dentistes voyageurs--comme à Thourout, par exemple, où un dentiste étranger vient siéger une fois par semaine, le mercredi, jour du marcher). Non, il faut s'en tenir aux seules personnes du même village.

Alors? Mais c'est très simple. Nous n'avons qu'à décapiter le barbier. Action d'autant

July 13, 1955

Dear Dr. De Koninck,

I have an appointment to see you this afternoon. I wanted to ask you about a text in the De Caelo et Mundo. I thought that giving you the text and questions before would facilitate your discussion of it.

In Bk. I, in the 26th lectio, St. Thomas is showing that any thing that exists for an infinite time is incorruptible. In §258, he answers an objection, purporting to show that even though a person did one thing through a whole day, such as staying in his home, it was possible at any moment of that day that he could have come out. Then, St. Thomas says:

Sed dicendum est quod non est eadem ratio utrobique. Nam illud quod semper est, scilicet per infinitum tempus, habet potentiam ut sit in infinito tempore; potentia autem existendi non est ad utrumque respectu temporis in quo quis potest esse; omnia enim appetunt esse, et unumquodque tantum est quantum potest esse. Et hoc praecipue patet in his quae sunt a natura, quia natura est determinata ad unum. Et sic quidquid semper est, non contingenter semper est, sed ex necessitate.

The same notion is repeated in Lectio 29, § 280, 2nd paragraph:

Id autem quod naturaliter est per tempus infinitum, necesse est esse; quia necesse est quod unumquodque tantum sit quantum natura rerum habet; non enim aliquid deficit

esse nisi quando iam non potest esse,
eo quod omnia appetunt esse.

What puzzles me is the following:

*i.e. they have no "potentia
simul contradictionis".*

1. is "potentia existendi non est ad utrumque respectu temporis in quo quis potest esse;" a principle that also includes beings that can exist for a finite time. If it is - then in respect to the time in which they can exist, they have no potency to non-being. But then how is chance safeguarded? It would seem from this that no chance force or agent could destroy them during this time, that it is necessary for them to be during this period of time covered by their potency.

If above is true is the potency in respect to a particular period of time, or in respect to a particular degree of efficacy of their principle of existence?

2. If the above principle only refers to beings that can exist for an infinite period of time is this because a potency to exist for an infinite period of time includes the potency to resist all possible exterior destructive forces? *Yes.*

which have potentia simul contr.
Then for beings capable of existing for a finite time - when that determined limit of their potency occurs, they are necessary not to be. But up to that time, they can be but are not necessary to be - so that a chance occurrence might be disastrous to them and cause them not to exist before their potency was exhausted. *Yes.*

If this is true, such beings are contingent with respect to being up to the determined limit of their potency, and from that point are not contingent, but necessarily must not be, since they have only the subjective potency to non being.

Thank you very much for what ever consideration you can give this question.

Sincerely yours,

*e/ P. O'Neil, III, c. 86, "Hoc autem
possibile non est necesse dependere"*

Fr. J. O'Halloran C.S.C.

Ulterius notandum est, quod sunt quaedam rationes mysteriorum gratiae totam creaturam excedentes, et hujusmodi rationes non sunt inditae mentibus Angelorum, sed in solo Deo sunt occultae. Et ideo Angeli non cognoscunt eas in seipsis, nec etiam in Deo, sed cognoscunt eas secundum quod in effectibus explicantur. Cum igitur rationes pertinentes ad multiforrem sapientiam Dei, sint hujusmodi, sc. in solo Deo Absconditae, et postmodum in istis forinsecis effectibus explicatae, manifestum est, quod Angeli eas, nec in seipsis, nec in ipso Verbo, nec etiam ab Apostolis, nec a viatoribus aliis cognoverunt; sed in ipsis Apostolis explicatas, prius in mente divina latentes cognoverunt, sicut domus quae est in mente artificis, vel conceptu de domo facienda, nullus scire potest quamdiu latet in mente, nisi solum ille qui solus illabitur animabus, scil. Deus; sed postquam conceptus est jam in effectu extrinseco explicatus, quia domus jam facta est; sic aliquis de domo jam facta, quae prius latebat in mente artificis, edocetur, non autem edocetur per domum, sed in domo. Unde jam restat ut aliter exponatur hoc quod dicit: Ut innotescat Principatibus, etc., ut illa conjunctio, ut, accipiatur non causaliter, sed quodammodo consecutive, et legatur sic: Illuminare quae sit dispensatio sacramenti absconditi a saeculis in Deo, qui omnia creavit, ita tamen absconditi, ut innotescat Principatibus, etc., id est, istud sacramentum ita fuit absconditum in Deo, quod inde innotuit Principatibus et Potestatibus non ab aeterno, sed a saeculo, quia omnis creatura principium habet. Et hoc non per ecclesiam terrenam, sed caelestem, quia ibi est vera ecclesia, quae est mater nostra, et ad quam tendimus, et a qua nostra ecclesia militans est exemplata. Et sic ly per, designat ordinem naturae tantum, ut dicatur per ecclesiam caelestem, id est, de uno in aliud; sicut dicitur: illud factum est notum per totum regnum vel civitatem, quia nova currunt ab uno in alium, secundum quod verba currunt; sicut dicitur Act. c. IX de suscitatione Thabithae beghinae sancti Petri: Notum autem factum est per universam Joppen, et crediderunt multi, etc.

Magister tamen aliter recitat lecturam Augustini, hoc modo: Illuminare quae sit dispensatio, etc., et hoc per ecclesiam, id est, omnes qui sunt in ecclesia terrena, sed hoc non est secundum intentionem Augustini. Hic posset quaeri, utrum Angeli a principio mundi cognoverint mysterium incarnationis. Respondet Magister dicens, quod Angelis majoribus notum fuit, sed non minoribus. Unde ipsi, sc. Angeli minores, interrogant [Isa. lxiil]: Quis est iste qui venit de Edom tinctis vestibus de Bosra? Sed opinio haec est contra beatum Dionysium. Dionysius enim duas interrogationes Angelorum de Christo factas ex sacra scriptura accipit. Unam ex Psal. [Psal. xxliil]:

Quis est iste rex gloriae? Item accipit aliam ex Is. [Isa. lxiij]: Quis est iste, qui venit de Edom? etc. Prima autem interrogatio secundum eum est inferiorum Angelorum, secunda supremorum; quod patet, quia primae non Deus respondet, sed alius. Unde dicit: Dominus virtutum ipse est rex gloriae; secundae vero respondet ipse Deus immediate; unde dicit: Ego qui loquor justitiam, et propugnator sum ad salvandum. Vult ergo Dionysius, quod utrique aliquid ignoraverunt, et aliquid sciverunt, quia a principio omnes sciverunt mysterium incarnationis in generali; sed rationes in speciali didicerunt tempore procedente seu processu temporis, secundum quod in effectibus extrinsecis explicabantur. S. Thomas, In ad Ephesios, c. 3, lect. 3.

Phil. de l'hist.: sur écriture extension: Perik. I L. 2, n. 2.

Notre cosmos n'est qu'une poussière d'univers - l'univers véritable se résume
cependant peu à peu dans l'intelligence humaine.
En compar. de l'ordre surmonté, notre cosmos comme une ride dans le vide, le non-é.
A wrinkle in ~~the~~ the void.

Finalité: le finalisme outré tel qu'on l'entend en biol. et la négation de la finalité telle que nous l'entendons: - ca indéterminé.

Et puis, la finalité dans la nature ne peut pas être tirée directement sur le plan de la finalité dans les choses proprement humaines - danger d'anthrop. - Mais il y a un autre danger anthrop., c'est celui de croire que, par nous passons, dans une sphère close de la pensée (non abstr. mais existant art), nous passons de la finalité, nous pouvons passer à la nature.

Cas: la position de la terre est-elle finaliste? i.e., si plus près du soleil, si... si...
La position elle-même n'est elle pas semblable, pour nous servir, à une bonne hypothèse qui a réussi, mais qui n'en a pas d'autre.

C'est désormais la partie secondaire (abstraitement) de la phil. de la nat. d'arriver qui est devenue prédominante: le monde des choses con.; mais de là aussi la prédominance de la finalité dans cette phil. de la nat.

The biologist's suspicions about finality are well-founded. To assign an end is to make an explanation final, and no scientist will admit this procedure. But, finality remains necessary as a working hypothesis. (See Woodger)
It is certainly impossible to get any information on this or that finality from the philosopher. The philosopher may say that hands are for such and such a purpose. The scientist can statish that they can be used for such and such a purpose. But this cannot serve as an excuse from further arguing.

unde, si quis respondet quare ligamentum calyficum sit: quia deus voluit.

(cf. III, 97/338b)

THE ONE.

— — —

Underlying ^{from} all forms and manifestations, there must be a One Reality form which all things flow.

All Nature seems to be but varying degrees of manifestation, emanation or expression.

The One is a Being whose Life constitutes the Life of all living forms. All apparent material forms, forces, energies and principles must be emanations from that One. The Universe must have proceeded from that One, and can only live, and move and act, and think, by virtue of His Essence permeating it.

Energy, which seems to be unthinkable except as operating through matter, or, as per the latest scientific discoveries, which may be the one and only constituent of matter, always seems to be operating under the action of Laws, - and Laws without a Law Giver, and a Law-Giver without mind or something higher than mind, is unthinkable.

Mind as we know it, as well as matter and energy must be a manifestation and a relativity of something far more fundamental and enduring, "Spirit".

It is high impossible to describe "Spirit". We can think of it as meaning the "essence" of Life and Being, underlying universal Life.

The "One" may be called the "Absolute".

Of the real nature of the Absolute, we can know practically nothing, because it transcends all human experience, and Man has nothing with which he can measure the Absolute. The Absolute cannot be described in terms of the Relative. It can hardly be said to have the qualities of any of its apparently separate parts, for it is the ALL. It is all that really IS. It is beyond Matter, Force or Mind as we know them, and yet, these things emanate from it, and must be within its nature.

We must think of the Absolute in the concepts and terms of its highest manifestation, so we are justified in using the terms of Mind in speaking of it. We must try to think of an Absolute Mind, whose powers and capacities exist at an absolute degree.

The Absolute must have existed forever and must continue to exist forever. There is no other cause outside of itself, from which it can have sprung, there is no other cause outside of itself, which can terminate its being. So the Absolute must be Eternal.

Cause and Effect, Space and Time are merely phenomena or appearances of the Relative world, and have no place in the Absolute and Real.

Time is a form of perception by which we express our consciousness of the change in things. It is an infinite capacity for extending changes in objects.

The Absolute cannot be limited, for there is nothing ~~xxx~~ outside of itself to limit it. There is no such place as Nowhere. Space, like Time, has no real existence outside of our perception of consciousness of the relative position of Things - material objects. Without material objects, Space is unthinkable. It is an infinite capacity for extending objects.

The Absolute must contain within itself all the Power or Energy there is, because there can be no other source or reservoir of Power, and there can be no Power outside of the ALL-POWER. Every manifestation of Energy, Force or Power, perceived or evident in Nature must be a part of the Power emanated from the Absolute, working along lines laid down by Itself.

The Absolute contains within Itself all possible knowledge or wisdom, because there can be no Knowledge or Wisdom outside of It, and therefore all the Knowledge and Wisdom possible must be within It. We see Mind, Wisdom and Knowledge manifested by relative forms of Life, and such must emanate from the Absolute in accordance with certain laws laid down by It, for otherwise there would be no such wisdom, etc, for there is nowhere outside of the ALL, from whence it could come. ALL KNOWLEDGE that IS, Has Been, or Can Be, must be NOW vested in the One - the Absolute.

The Absolute does not "think". The Absolute must know, without Thinking. It does not have to gather knowledge by the process of thinking, as does Man, for from whence could the knowledge come, outside of Itself? When Man thinks, he draws to himself, knowledge from the Universal source by the action of his Mind.

Life is but One, - the Universe is a living unity, pulsating with the Will-to-Live of the Absolute. All individual lives are but centers of consciousness of the One Life underlying, depending on the Absolute for manifestation.

The Absolute does not consist in the combined forces and laws manifested in the existing Universe, nor is it the Universe taken as a whole. These are only manifestations of the Absolute, who is superior to all forms of manifestations, as Cause is superior to Effect.

The ABSOLUTE is the ONE THAT IS.

The Universal Life is not the One, but is in itself a manifestation of, an emanation from, the One.

Mind, Energy and Matter comprise a threefold emanation of the Absolute. Mind is the Parent-Emanation - the Universal Mind; Universal-Energy is the Second-Emanation (proceeding from

Mind); and Universal-Matter is the Third Emanation (proceeding from Energy). Above Matter, Energy, and Mind is the Essence of the Absolute, its Substance, which is called "Spirit".

All Life, -all the Universe - Everything except the Absolute itself - must be held in the Mind of the Absolute. ALL MANIFESTATIONS AND EMANATIONS OF THE ABSOLUTE ARE MENTAL CREATIONS OF THE ABSOLUTE - THOUGHT-FORMS HELD IN ITS MIND - THE INFINITE SPIRIT IN THEM AND THEY IN THE INFINITE SPIRIT.

We cannot know the "why" of the Manifestation of the Absolute, but can know the "how". The "why" of the Infinite Manifestation must of necessity, rest with the Absolute alone. The Final Answer is wrapped up in the Essence of the Absolute itself.

If we consider this Final Question, we find that it arises out of the following condition: - Human Reason is compelled to admit that there is an Infinite, Eternal, Causeless Reality underlying all forms of manifestations in the phenomenal world. All forms of manifestations must arise from the One Reality and be in the Being of the One Reality. Therefore all things emanate from or are contained in the One Reality. Then we come to the... unanswerable (?) question: "Why has the Absolute manifested and emanated Finite forms of Being?"

The Absolute cannot have Desire, for that is a Finite quality; It cannot lack anything, for that would take away from Its Infinity; and if IT did lack anything, from whence could It expect to acquire it; for there is nothing outside of itself. Desire would be, of course, a wanting for something it lacked.

If we regard the Absolute Reality as Perfect, we must ~~dr~~ drop all ideas of It Desiring or Lacking - and of It Growing, or Improving - or of It acquiring more Knowledge or Powers.

Why should the Absolute Reality, which possesses all that may be possessed, and which in itself is the only Source of Things, - why should It desire to manifest a Universe from and within Itself?

The Absolute cannot be bound by any Divine Necessity to manifest Itself as Many, because if it can be bound, it is not the Absolute but would be relative. Some thinkers say the Absolute wished to Express Itself in the phenomenal world. What would be accomplished or gained? The Absolute cannot become anything more than It already was, so why the wish for expression?

But we can say that since the phenomenal world is manifested, it is at least part of the Essence of the Absolute to be manifested that way, since we cannot take away anything from the Absolute, we cannot conceive the phenomenal world as being withdrawn from manifestation.

In the same way, if the Absolute could be without a phenomenal manifestation, there would be no chance of it ever existing, as we cannot see anything added to the Absolute. If therefore the Absolute cannot be without some form of manifestation, we are compelled to say that it is a part of the Essence of the Absolute, if not, The Essence of the Absolute, to be manifested.

We may get at this same conclusion from another angle. The Absolute Exists and cannot not Exist. No limitation can be inherent to the Absolute Being, since His Essence is to Exist and that existence in itself, even according to Thomas Aquinas, implies no negation, no admixture of non-being. How could we then say that He could exist without manifestation? Wouldn't that be limiting or denying something to the Absolute Existence?

The Absolute is onto Itself the Reason of Its manifestation. The question: Why does the Absolute manifest Itself? can only be answered by saying: It is within the Essence of the Absolute that It should manifest.

If the phenomenal world did not exist, we would have to admit that it could exist, since it does. It would then be as a potentiality in the Mind of the Absolute. But, there can be no potentialities in the Mind of the Absolute, even again according to Thomas Aquinas. The Absolute being the Pure Act, has nothing, never had anything, and never will have anything as a potentiality within Itself, otherwise, it would not be perfect, it would not be the Absolute. Potentiality means the possibility of a change. How can there be any change in the Absolute?

All Things are but thought-forms in the Mind of the Absolute Being. That which is held in the Absolute Mind as a Thought-Form IS, and is all there IS, except the Absolute Itself. The Absolute cannot "think of" or "know" anything, without putting Itself in that thing, as its Essence. Does not the "finite" thinking of Man manifest itself in physical and material changes of form and shape? Could we deny the Absolute even the power we possess ourselves?

While all the forms, shapes and phenomena of the Universe are but parts of a great show-world, still, the essence of all must be Reality, itself, else there would not even be "the appearance" of a Universe. Before a thing can be a mental image, there must be a Mind to hold that Mental Image, and a Being to possess that Mind. And, the very essence of that Being must pervade and be immanent in every Image in that Mind.

We are because the Absolute IS.

If we can conceive one world, one Universe (this world or this Universe of ours), we could conceive the possibility or the fact of the neighbouring one and of one more, and this to a mathematical infinity of Universes or worlds similar to ours. Whether they are or not, does not enter into

this argument....they could be; and this is sufficient. Considering this possibility or this fact, we can say that: this phenomenal world of ours is or could be infinite in its size, and yet can always be added to or subtracted from or divided and its parts numbered or some of them numbered, and that no matter what size it is, it is always finite. Therefore, we have this fact, that a finite world is manifesting the Absolute. It is consequently impossible that it should wholly manifest the Absolute; it is only a partial manifestation of the Absolute, and we must acknowledge that an absolute or complete manifestation of the Absolute, forcibly existing, it is only partly knowable to us. ~~xxxxxxixsxxxiightxxxy, xxxxxixsxxxfskhsxxmxxfxxbixsxxxfskhsxxbxxelater~~

The Absolute being One and undividable by definition, cannot have any number of defined or limited manifestations. It must have only one Essence-manifestation.

The Absolute must produce the phenomenal world out of its own Substance. There is nothing else inside or outside of it to produce it from. This Substance cannot be described adequately: we are compelled to think of it as Mind-Matter of the Absolute or as Spirit, for our finite minds can hold no other conceptions. We cannot think of the Absolute as dividing itself up into portions. But we can say that the phenomenal world is a Mental/Image or Thought-Form in the Mind of the Absolute itself. This Universe is in and of the Absolute Mind., and this is the only way it can be and is.

Spirit may also be called "Mind-Materia" or world of matterless forms, or Thought-Forms of the Absolute.

In turn, the manifestation of Spirit is the threefold emanation: Mind, Energy and Matter. Mind is the Parent Emanation, Energy proceeds from Mind as the Second Emanation, and Matter proceeding from Energy is the Third Emanation.

Science has already proven that Matter proceeds from Energy (Quantum Theory); it suspects Energy of proceeding from Mind.

It should be noted that it is in apprehending this threefold emanation of Spirit that we obtain the origin of the concepts of Time and Space and Finiteness. Above that, they are lost in the Absolute Spirit Manifestation.

[La philosophie et les sciences.]

Chonisme un système vivant, la philosophie
pérenne. Cela ne veut pas dire, pérenné.
Cela ne veut pas dire non plus, qu'elle
s'adapte aux circonstances. Car il y a
une conception de la philosophie comme
étant un corps de généralisations des lois
et des théories scientifiques. Ça ça il faut
dire, c'est la philosophie est permanente
à la science. Ce qu'il faut dire, c'est que
l'évolution des sciences peut contribuer à
poser des problèmes philosophiques. Ainsi
la théorie de la relativité a posé un problème
philosophique, et aujourd'hui, c'est la
théorie des quanta. Et cela ne veut pas
dire que ^{la valeur de} la solution du problème philosophique
est en quelque mesure dépendante de la valeur
des principes physiques. Ainsi, le principe
de la relativité restreinte a été mis en question
tout récemment. Cela ne change en rien le fait
que les grandeurs physiques se définissent
par la description de leur vitesse de mesure.
Donc, si le principe physique
d'Einstein était faux, sa critique d'aujourd'hui