

What is meant by "science"?

1. Question arises from problem of integration.

a Not any answer will do: the answer must

- a) account for the Ar concept of science
- b) account for its transformation into a modern concept of science
- c) provide a norm that will make possible a critique both of the ancient and the modern concepts
- d) provide a key for the problem of integration

b no use consulting authorities

- a) anonymous authority of English usage: obviously unequal to the sk
- b) genuine authorities, with names and reasons for what they say: La crise de la raison dans la philosophie contemporaine, Desclee 1960, E Barbotin J Trouillard R Verneaux D Durbarle S Breton
- c) in any case we should need reasons for accepting or rejecting what authorities say; best find out what reasons are.

2. Procedure | Anonymous

- a) experience: what happens when one learns science, makes discoveries = (1) learn something (2) attend not only to what is learnt but to the learning process, the decisive event in learning
- b) formulate the experience (1) descriptively (2) theoretically
- c) objective theoretical context: logic method metaphysics met-psy
- d) subjective theoretical context: subject, acts, structures of action

3. Experience

- a) why is this plane curve perfectly round
- b) Euclidean scandal: not non-Euclidean geom but defective proofs
first problem: equilateral triangle
theorem: external angle greater than interior opposite
- c) why mathematical, symbolic logic
- d) Gödel and parallel theorems: unless trivial, either incomplete or incoherent. J. Ladrière, Les limitations internes des formalismes, Louvain about 1957.

4. Aristotelian-Thomist formulation of experience

a) Appeal to experience exists

Sum theol I 84 7. quilibet in se met ipso experiri potest...

Sum theol I 88 1: secundum Aristotelis sententiam quam
magis experimur .. secundum modum cognitionis
nobis expertum

C Gent II 76 §17: homo enim abstrahit a phantasmatis et
recipit in mente intelligibilia in actu;
non enim aliter in notitiam harum operationum
venissemus nisi eas in nobis experiremur

b) Hence not analogous but proper knowledge; not as blind man's
knowledge of seeing and colour; human knowledge of angelic
intellect; we know our own intellects, intellectual souls,
by their acts.

Sum theol I 88 ² 3m: anima humana intelligit se ipsam per
suum intelligere, quod est actus proprius eius, perfecte
demonstrans virtutem eius et naturam

In III de Anima, lect 9, § 724: Unde et supra Philosophus
per ipsum intelligere et id quod intelligitur scrutatus est
naturam intellectus possibilis

c) Technique formulated for introspective study

In II de Anima, lect 6, §§305-308 (lect 1 ss, definition of
soul; now definition of specifically different souls)

A. Objects. B. Acts. C. Potencies. D. Essence of soul.

Regularly employed by Aquinas: ST I 87; De Ver 10 8; C Gent
II 75 III 46 -- TS VIII(1947), 61-73

d) Object defined (1) logically (2) metaphysically

Logically: Post Anal II, 1 ss: 4 qq. ti&dia ti; syllogism
equivalence: what is eclipse; why is sun darkened in this manner

Metaphys Z 17: what is a man, house: dia ti ti estiv. ousia.
physis. protov aitiou tou eivai.

Difference between knowledge of material and immaterial
Z 17: announced 1041a 7ss; given 1041 b 9s.

Proper object: quidditas sive natura in mat corp existens I 84
Only analogous knowledge of angels, God: Sum theol I 88
Solution to ontological argument I 2 1: we don't know quid sit

e) Aristotelian and Thomist Logic Metaphys Rat-Psych are conceived
in functional relation with experience of insight, knowing cause

Ar physics (a) brilliant (b) agst Ar's own principles.

Transform the mode of expression

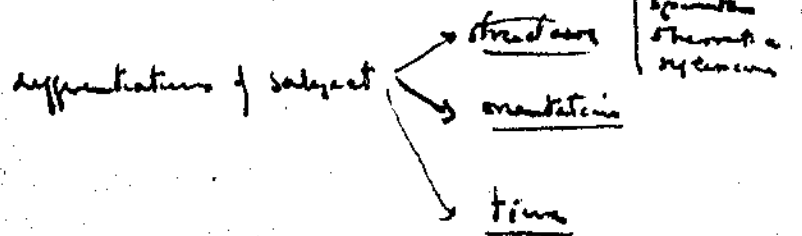
① Undemonstrable first principles

self-knowledge is not demonstrable
 but its evidence can be overwhelming
 so it equally fulfils function of first principles

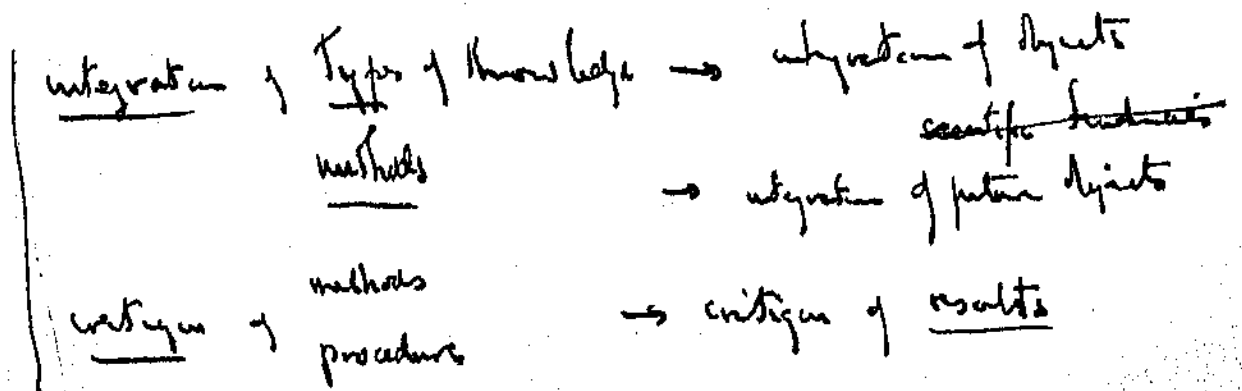
② Self-knowledge is knowledge not of substances
 but of subject

in terms not of objects but of acts

not of abstract notions but of concrete structures



③ Knowledge of Knowledge = Knowledge of Limits of Knowledge



5. The Contemporary Problem

Nothing wrong with Proc. Thom approach, analysis

but ① its empirical basis has to be enlarged

② its mode of expression has to be transformed
object to method,
claim to be a river
abstract to dynamic structures. | subject

Enlargement of basis

from an anticipatory ideal of science formulated metaphysically

to ① expressing the insights of mathematicians
about objects - production - group

② expressing the insights of natural science

③ accounting for the intelligence + some judgment of CS
+ of its observations 1958 → primitive Egypt
→ modern state

④ becoming familiar to "subject" "introspective insight"
formulated in terms of data structures of consciousness

⑤ becoming aware of problems of empirical human science

psych - econ - sociology - political theory
|
| history of civl - cult - religions

what sense "scientific" = prediction
consultant for central bureau

Methodological agent

Criteria ① Spont.

is not correct
in so far as it is

Primitive vs Ancient High Civilization

Epistemi

② Phonetic

Parmenides,

Stoic Moral Code

Plato δεικνυσκον Aristotle Logic

Scientist Method

③ Sp

Symptom

Critical Inquiry

Knowledge of Knowledge = Knowledge of Knowledge of objects

cross way : focus, center

Sp & know - with learn

2 languages

2 societies

Sp one's own
know how people
ethical
economics
sociology

ultimate criteria

Crit learns nature of learning

Crit transcultural

Crit historical

it leads his own account
through theory & data
to past series

I understand myself
in series

Crit | Question public
| solution private

Subject

- Spontaneous - all of act from single independent whole
- Theoretic - copulation activities from structure - deal to objects only
practical course inevitability of copulation structure
- Critical - reflective presence to self → knowledge of self
 | common - case
 | theory
 | exp-knowledge

World 2 approximations

Sp - particular concrete realities Eddington
 Theor - through mediation of theory Zoo

Learning

Sp - nucleus - few better insights + deal to process | in ^{any} social situation
 handle things

lets not abstract from feelings
 from practical concerns
 from particular, here, now
 must mean concretely oriented in concrete situation

That
abstracts
returns

Language

Theoretic develops general technical language
 transforms ordinary language —
 "know" "learn" teach
 of Biblical trained
 \$/ks ^{1/12} ²
 aspic

Speech

C.S. function of one's domestic family, town, district, country
occupation hobby
 + aliveness social situation
 determined by

Theory sets aside feeling, funds, practical interests
 based on social classes, political positions
 transpires

COSMOPOLIS

coquit
↑
activities
↑
that

Subject	Object
presence	in to subject any
consciousness	empirical intellectual external responsible

subject - substance, human
consciousness

presence to self - not knowledge of self

①
ψ fallacy
interpretation process

easy - seeing + colour	not analysis
insight + guidelines nature	but proper

② ~~is~~ no field of theoretical knowledge is artistic

within hypothetical	
theory vs data	
theory vs theorem	

subject that experiences is	subject that is
<u>understands</u>	<u>experienced</u>
<u>of</u>	<u>intellectual</u>
<u>of</u>	<u>of</u>

spontaneous
subject
theoretical
world
mode of learning
language
society
culture

2° Communication up to a point: bio physics, biochemistry, physical chemistry
TW/T Baltmann

3° Thesis: Krisis 1932 - More specific - More conventional

The Integration of the Sciences

4° Universal phenomenon - endless courses - admin - cult
1° Kontrik phys - cult
students - up to them

1. Integration

E. g. Thomist synthesis, perhaps the last illustration

- a Aristotelian philosophy and Ar science presented united front, made of a piece
- b There was no science seriously competing with Ar science
- c Aquinas worked out a systematic theology on analogy of Ar philosophy and science (some notable adjustments)

2. That integration has been dissolved

- a basically, by the emergence of new notions of science
- b consequently, by change in content of old sciences by addition of quite new fields
- c just which of new fields are science in proper sense of the term according to good English usage (anonymous authority) according to eminent authorities according to theoretical ideal of human knowledge
- d natural sciences: physics, chemistry, biology
human sciences: psychology, economics, sociology, political the
historical sciences: history of nations, civilizations, cultures, religions

3. The lack of integration may be met by drifting

- a drifting
- b retiring into ivory tower
easier for Catholic philosophy than for Catholic theologian
cultrual and religious history invades bible, Fathers, councils, theological opinions, views of heretics : new methods, new conclus
psychology invades spiritual life, act of faith
economics and politics * - Church part of that game
moral theology: what man is to do
human science: what man will do
- c working towards a new integration
either the new idea of science is to accepted or rejected
if rejected, ivory tower
if accepted, then integration based on old idea does not hold

4. The contrast between old and new ideas of science.

a certa rerum per causas cognitio

The man ~~amxixx~~ in the street and the scientist both know both are certain but only the scientist knows why.

MSc is not certain but only probable: it can exclude mistaken views with certitude (phlogiston, spontaneous generation, bodies fall according to their weight); but the views it propounds are not certain but probable, subject to revision, (commonly said subject to indefinite revision; 3×10^6)

MSc talks about causes, but "cause" is a universal category of the human mind, means quite different things ~~+~~ at different cultural levels.

(metamorphosis)
primitive: cause = visible process of change, growth
= efficacious sign, baby cries, magic
Aristotle: matter form agent end
chemistry: analysis and synthesis
physics: determinate antecedent, caeteris paribus determ cons
xif universe in situation A, and situation B
follows; then should A recur, B would recur.
field theory
statistical theory

MSc says knowledge: Lindsay and Margenau, Foundations of Physics, 1936 ss. last Dover 1957. In ultimate analysis criterion of physical theory is esthetic, simplest that fits data.

b scientia est de universalibus, necessariis, immobilibus

MSc concerned with not necessary but de facto intelligibility; it is not necessary but empirical science
law of falling bodies could be different and still intellig

theologian: grace is gratuitous, not due to man, could be not given; but present order intelligible, "convenientia"
all understanding of mystery, analogous, conven

MSc finds intelligibility in motion itself: Calculus, genetic ^{evolution, antiquity} studies -- not motus intelligitur ex termino

MSc seeks universal, but not content with abstract universal, reverts to genesis -- cosmology in modern sense, genesis of material universe (initial explosion, continuous creation), evolution, evolutionary views of culture civilization religion science itself

What is a person? Augustine Boethius Richard S Vict Aq Sco Capreolus Cajetan Tiphanius Suarez, psychological theories

c nulla scientia ea considerat quae sunt per accidens

MSc: law, probability, random

Ar: necessary law in heavens; ut in pluribus, on earth

d sciente is speculative, Theoria, individualistic, absolute valu

MSc has speculative moment (basic research) but it is only a moment; it is more practical than anything else; it transforms the technology, economic and political conditions, of everyday living; it offers an instrument of social engineering, (motivation research)

MSc not even mathematics can be mastered in entirety by single man; essentially ~~xxx~~ science is collective enterprise.

MSX

Is Western man merely an anthropological type, and his science a characteristic of that type of man

Or does Western man aim at being the exemplar of mankind, what man is to be, the realization of human potentiality, and science the proper instrument of that realization?

If science of certain, immutable, necessary - Yes

If man is defined as animal symbolicum, if animal rationale is just an abstract ideal thought up by philosophers, if de facto the ultimate theoretical science is not philosophy, methodology, theo but "sociology of knowledge"

bibl pp. 281-30⁴

Karl Mannheim, Ideology and Utopia, London Routledge 1936 1954

W Stark, Sociology of Knowledge, since about 1958

R. Merton, chapter with biblio

e Are there two apprehensions of the world or ~~is~~ there just one

Aristotle spoke from viewpoint of beginnings of science: there already is knowledge of concrete and particular realities; science improves that knowledge; it adds knowledge of causes, of relations, of necessity and contingency

Eddington's two tables

Average man and biologist visit zoo

All along the line

There is common sense view of world as of things in their relations to us, and we change

There is scientific view mediated by theory, by systematic conceptualization, relations of things to one another

Cf theologian: NT - theology of trinity, Hypostatic union, grace, sacraments, church.

5 The problem of integration

a Not outright acceptance and not outright rejection

b Any other procedure means working out at least to our own satisfaction, is coherently with our philosophy and our religion

What science is
What are the relations between the sciences
What is the relation between the sciences and philosophy
What is the relation between theology, natural sciences, human sciences, philosophy of per se, existential philosophy
Is there a Christian philosophy

c Solution cannot be on old basis

as if science certain knowledge of things by their causes - sciences are not fixed
de necessitate universalibus immutabilibus concept of sc "

lot of per accidens - many of per se

Spinozism - idealistic - absolute value (acknowledged)

only one apprehension of real world

as if philosophy was science in that sense

analysis

" "

As dehybridized polytheism

d Historically sc plus the | a single block

→ differentiality (plus per the) / (minus per the) / assumption by other fields

e In terms of method, (various) structure, subject

Problem A
 Original → NT ← Nicene, Cappadocian hermits

4
 * Savak X'dian ← sun lantis
 sun uluval tom 7 Spät judentum

β Christian Sinitis , Marcionites Manicheans

γ
 ↳ Adoptianists : many a man
 ↳ Universalists :

δ Unius substantiam Son for creation, creation
 in time
 postea inventio istius

ε Unius personae unitatis

ζ Arians ↔ Arianism

Eusebians , Athanasians , Homoeans

Homoei ou omis Baris theoria George basileus

η
Homoeoson → Phil → same words
 → hell → same particles
 → hell → finite : specifically same
 → hell → infinite : numerically same

Problem B

Monothelists

1. Rana leri analogi mit Antinomians → difficultas

Archonts

→ Protestants - Pope, NT - in dogma
 → heretics - Vatican 1, X'tianity mit dogma

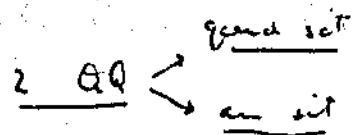
Monothelists

|| Symbolic expression of Rely Expression
 Controversy
 Transcendental & ontological, Dogma

Theory - Understanding

1)

Theo - logos : Devi's logos



2)

Quand sit to get it out of way

In this life we do not know

Quand sit Devi I, 2, 1

Mar 2, 17

Man house

πρῶτον δεῖον τῶν σῶσιν

simplex substantia

οὐδὲ ἴσχυον οὐδὲ δίδασκ'

Not that as epistola

Doze that as relativis

no understanding? DB 1776

irrationalis - inverse insight

Quand - Blame spot

But in relation to End -

3

Understanding

process from NT to Doze to Doze that

Two kinds ①

part texts, authors, etc of authors but speak in
essentially in same fashion

Latin poems

understanding of data

cuts down
deliberate words

②

dialectical process - two movements

over axis of different sets of authors

- ① original

- ② interpretations, commentaries

5

Word of God

- ① Torah
- ② Prophets - oracula Tablets
 - Egyptian books
- ③ Kerygma
- ④ Letter to the Romans
- ⑤ Tradition of the Church
 - 1. ecclesiastical → dogmatics
 - 2. ~~historical~~ magisterium of present generation
 - 3. canon books
 - 4. Apostles Letters
 - 5. Magnificat
 - 6. Apostles Creed
- ⑥ Si quis dixerit --- anathema est

6

Word - not image or
not experience
not sentiment
 Truth

Theory historical solution for heresy + myth
Critical " " " division of Christ

also SPNT WORD of GOD to M. Gorce
E. Gilson

Torah

Thou shalt be loved

Worship

Kerygma

Espe

di' geus dixit - - -

REALIST

propositional truth

Announcement
Promise
Threat
Command
Exhortation

① Quid enim de tua gloria - Person Nature Property Opport Will

② Quantia

DISCURSIVE REALISM

Verbs formal - also realities

Verbs as adjectives - intended as

for every the proposition - corresponding part of reality
of form - otherwise reality

Epistemic Mythic Realist

Image Dark or Light held up hand

Met of being

Meaning Transcendence

Value Revelation

Mythic Identification

of like seeing then knowing

of not like

Set

insight
personal doubt

intention personal action

Existential aspect

What am I to do?

§

Thur

Cont

d beyond horizon
relevance but not beyond formal, paper aspect

b Answers not concerning being but DEVELOPMENT

y DECAIDENCE | REPEAT formalism
Meaning beyond horizon

8 TIME critical subjects before this time By opposed to experience
Spontaneous subjects concept take as a limit

3 What is critical problem?

In sense in which K's critical processes pre-critical

It is to understand a critical subject

Respect with the existential "equilibrium" validas

ad existentiam theoriae exactae plura colata

reductionem omnis conceptualizationem
ad fundamentum

applicatam transculturalem
historicam

historia vs historia

↳ = homo habitus talibus instructus in tali situatione

ubi "habitus" et "situatio" ex stipulatione praevia & judicio
bono liberato

Horizon in Theology

- ① VT + NT Subiecti spontanei
- ② Concilia notae elementa principalia notae act
theoriam
homo unicus - unus idemque - una persona
sua natura purprietatis spontanea voluntatis
- ③ Theologia scholastica
versus theoriam completam
- ④ Theologia contemporanea
discursus transculturali
historica

Subiecta spontanea entre cumen theoriam
"Theologia biblica" quia VT + NT spont.
valent considerari $\frac{\text{Theoriam}}{\text{Concilia}}$

Subiecta theoretica variosa communica
aut. mediocretas
communitas ser quodam aliquid
theoriam
valent considerari $\left\{ \begin{array}{l} \text{spontanea} \rightarrow \begin{array}{l} \text{antig} \\ \text{contemp.$

#1 Horizon

upward unless light years
on the level horizon

formal object

proper object

horizon - 1^o only concrete part reality - decide meaning
2^o any objects $\left\{ \begin{array}{l} \text{universe} \\ \text{science} \end{array} \right.$

2 Things meaningless for spontaneous subject

1^o wants to project by occasion

2^o use ordinary language

3^o omit details - give me broad idea

4^o if he understands something, tries to fit it in CS vs
objects - very stupid - but wants to be just
cannot

5^o any explanation - some difficulties occur

3 Critical of various meanings for scientific subject

An account one can verify in one's own intellectual experience
Beyond horizon | just a theory with $\left\{ \begin{array}{l} \text{no basis} \\ \text{no demonstration} \\ \text{no real argument} \end{array} \right.$

Lesson of logic

Does "Knowledge" exist
Is there some new metaphysical science
some new CS

Cannot follow idea

What is knowledge primary in terms of knowing
What are nature of CS how Interpretation
How can we see all these independently
let comparisons

Intellectual historical