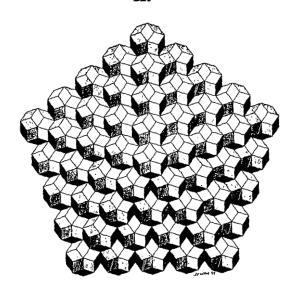# Symmetry
of
STRUCTURE

an interdisciplinary Symposium

Abstracts

II.

Edited by Gy. Darvas and D. Nagy

Buda
Pest

August 13-19, 1989

hungary

THE ASYMMETRY OF THE PROGRESS OF THOUGHT

ROBINSON, peter

Philosophy department
University of Texas at El Paso
El Paso, Texas 79968

The history of ideas shows the building of new systems of concepts from the concepts of the past. The new concepts of scientific theories may be incommensurable with the concepts of their predecessors. Both the sense and reference of some concepts may differ, if compared. But even if concepts are new they have meanings that are analogous to ideas of the past or can be understood in relationships to old familiar ideas that form their context. How particular concepts and theories in science are related to the concepts and theories that preceded them is part of the subject of the history of science, but it is the obvious directionality of both the history of science and the history of philosophy that is the subject of this paper.

The directionality of the progress of thought is an instance of an asymmetry. It is an asymmetry that results from the creativity in the production of ideas. The direction in science is produced in part by the broadening of generalizations as it was described by Baconian induction and in part from the falling of more areas of experience within the purview of proper scientific investigation, following a scheme such as the ordering of the sciences by Comte. Either principle could be used as a criterion for the measurement of progress in science, but neither captures the intrinsic development of ideas, themselves, from one to another. In the history of philosophy the mere accumulation of concepts and theories could be used to measure progress, so that just the existence of more philosophical theories and ideas would count as progress in philosophy.[1] But while this criterion also could be used to measure the direction and the amount of progress in the history of ideas, it is how new concepts develop out of old ones that best captures the asymmetrical directionality of the history of ideas and constitutes the dynamical process by which creativity produces an asymmetry of development within the asymmetry of time itself.

New theories are incommensurable with the ones they
replace because the concepts in the new theory are not
the same as the concepts in the replaced theory, but the
new concepts could not come into being without some concept-
ual ancestors, perhaps from a different intellectual
tradition or from the distant past. Einstein's theories
may be incommensurable with Newton's but neither could
have come into being without Euclid and Democritus. New
concepts develop out of old ones, such as mass from matter[2]
but while it can be intelligibly described there is no
generalizable pattern in the process and therefore nothing
regular or symmetrical with other processes of conceptual
development.

There are two dimensions of the process of concept-
ual progress that can be distinguished. They might be called
longitudinal and transverse, but both are irregular. The
emergence of new ideas in the continuum of time, All the
related new concepts in a field do not come into being
together from their predecessors nor do they come in with
any perceivable rhythmic order in time. How long a unified
train of ideas will last, how rapid changes within it will
be, how far back in time will ideas reach to be continuous
with their predecessors will vary. Conceptual development
within as well as among fields of thought appear to be
woven together from uneven strands of ideas in time. If
time is a derivative of events as the American philosopher,
C. S. Peirce conceived it to be, then his description of
time as a rope of uneven , successive twisted structure[3]
fits the progress of thought.

If the progress of thought is viewed in transverse
section, where a new idea joins its predecessors lacks any
pattern. There is no designatable place or pattern of places
where a new idea joins those past. There is nothing ana-
logous to a continuation of a family's property passing
through the eldest son or some other regular arrangement
of offspring, only that perhaps in disanalogy to the eldest
son, a perfected expression of complex ideas is often its
culmination and continuations grow out from some point
around it in a minor strand of the cultural context or by
picking up a strand of thought from farther in the past,
somewhat as new branches grow out from some apparently
random point behind the leader branch.

Although we read parts of the history of philosophy
as continuous, from Plato to Aristotle and from Kant to Hegel,
Both Aristotle and Hegel begin somewhere else than their
famous predecessors, Aristotle in Greek medicine and biology

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and Hegel from theology school and Greek tragedy. Einstein
draws on a different intellectual tradition from Newton.
Kepler and Galileo are nearly contemporaries but worlds
away from each other in thought. Visual art, once following
strict traditions, now exhibits some similarities to the
progress of ideas. It has drawn on the forms of modern
technology as well as gone back to African and near eastern
sources and some of its masters (Picasso, Chagall, Miro,
and Klee) cannot be taught or gone on from, so young
artists must find another point from which to continue.
Not only is the progress in thought an overall asymmetrical
process in time, but it,is irregular in its temporal strands
and in the conceptual location of the sources from which
it will develop.

Symmetrical forms may be broken or compounded in
ways to produce a#symetrical ones, but as C. S. Peirce
said, " But everybody can see that symmetrical forms, put
together symmetrically, will never make an unsymmetrical
form. Why not ? Because symmetry is a special kind of
equality. Now equality can be built up out of inequalities;
but is (sic) is evident that inequality can never result
from a chain of equalities, for if one thing is equal to
a second, and this second to a third, the first is equal
to the third and you are percisely where you were at the
outset." (C. S. Peirce. The New Elements of Mathematics.
821-822) If one begins with symmetry one will end with
symmetries in the history of thought. One also tends to
complete broken patterns in perception and so complete a
symmetrical form. One also searches for identities that
persist in time (E. Meyerson. Identity and Reality)
thus adding equalities to equalities and therefore not
losing the symmetries one perceives but reproducing them
through time. But if the creative process in the formation
of ideas lacks pattern, giving the history of ideas an
asymmetrical directionality and unpredictable lines of
growth, then the templates of historical understanding
ought to be , themselves, a#symmetrical. The understanding
provided by the patterns of the past will depend on how
the interpreter of the past folds the past back on to itself
to produce the pattern. Just as in a Rorschach blot, the
symmetry is produced by folding the blot on itself while
still wet. Regularities may be produced by the process
itself or if the two figures are superimposed without
interacting they might reinforce some lines to form a new
pattern. The possibilities for creativity of interpretation
arise in the idiocyncracies of superimposition and the
tolerance for asymmetrical appendages. Thus Hegel's
Phenomenology of Spirit is a sometimes intelligibly pattened
account with irregularities of detail that threaten to
overcome it.

ENDNOTES

1. Peter Robinson. " Progress in Metaphysics" paper presented at the XVIII World Congrss of Philosophy. Brighton, England August 1988.
2. Ernan McMullin " From Matter to Mass" Boston Studies in The Philosophy of Science vol. 2 ed. by R. S. Cohen and M. W. Wartofsky. N. Y.: Humanities Press 1965. pp. 25-45.
3. Bertrand P. Helm. Time and Reality in American Philosophy Amherst: University of Massachusetts Press. 1985. p25.

ADDITIONAL BIBLIOGRAPHY
Meyerson, Emile. Identity and Reality. N.Y.: Dover Pub., Inc. 1962.
Meyerson, Emile. The Relativistic Deduction. Dordrecht: D. Reidel Publishing Co. 1985.
C. S. Peirce. Mathematical Correspondence. Letter to William James (L 224) in New Elements of Mathematics by Charles S. Peirce edited by Carolyn Eisele vol. 111/2 Mathematical Miscellanea. The Hague-Paris: Mouton Publishers 1976.